TEACHERS' PERCEPTIONS OF THE RELATIONSHIP BETWEEN PRINCIPALS' INSTRUCTIONAL LEADERSHIP, SCHOOL CULTURE AND SCHOOL EFFECTIVENESS IN SECONDARY SCHOOLS IN PAKISTAN

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ORIGENAL LITERARY WORK DECLARATION

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Field of Study: Education, Instructional leadership, School culture, and School effectiveness

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ABSTRACT

This study is aimed at investigating the relationship of school principals' Instructional Leadership (IL) on School Effectiveness (SE) and to question whether this relationship is direct or indirect, through the mediation of School Culture (SC). This study is basically a co-relational study, with the main focus revolving around the relationship between the IL, SE, and SC in secondary schools in Pakistan. The research design is a non-experimental design with a survey study. A survey instrument (questionnaire) comprising of 62 items was used to collect data for IL, SC, and SE. The questionnaire was distributed among 367 teachers of secondary schools in Mardan district of Khyber Pukhtunkhwa province of Pakistan. The data collected was analysed with the help of statistical tools, the SPSS and AMOS. The demography of respondents was 235 (64%) male and 132 (36%) female from 84 (81.55%) rural schools and 19 (18.44%) urban schools. With respect to the urban and rural school division, the total number of the respondents (male and female) from rural secondary schools was 270 (73.6%) and from urban secondary schools was 97 (26.4%). The respondents have different ages, experience and qualifications, and the majority (52.9%) have a rich service experience[1]. Results of this study show that the instructional leadership in these schools is at present, at a low level. Similarly, the school culture was found to be developing, but in contrast the level of school effectiveness was found to be moderate. This study has revealed that even where there is a low level of IL and SC, school effectiveness is still possible. It is proposed therefore that if the instructional leadership and school culture are increased to a high level, the level of school effectiveness will increase considerably. The results show that school culture can contribute to enhanced school effectiveness of the stated secondary schools. Correlation among the three variables and the

[1] 10-15 years of service experience

related dimensions provides important information that the IL skills are required to improve SC and SE in the stated secondary schools. Although, the correlation among all the three variables (IL, SC, & SE) is high, the correlation between IL and SC is the highest. The conceptual model used is the integration of principal's instructional leadership, school culture, and school effectiveness. Age of the respondents has proven to be the moderator for the stated relationship. This study offers a significant contribution to the leadership literature in a developing country like Pakistan. The study provides a road map for self-development of the education system in secondary schools in Pakistan. The findings of this study would suggested that principals should develop a positive school culture for effectiveness; the ultimate goal of a school.

Persepsi Guru Tentang Hubungan Antara Kepimpinan Pengajaran Pengetua, Kebudayaan Sekolah Dan Keberkesanan Sekolah Menengah Di Pakistan

ABSTRAK

Kajian ini bertujuan menyelidik pengaruh Kepimpinan Pengajaran Pengetua Sekolah (KP) terhadapKeberkesanan Sekolah (KS) di samping mengenal pasti sama ada pengaruh tersebut adalah secara langsung ataumelalui pengantaraan Budaya Sekolah (BS). Kajian ini merupakan kajian hubungan dan fokus utamanya adalah berkait dengan perhubungan antara KP, KS dan BS dalam sekolah-sekolah menengah di Pakistan. Kajian tinjauan ini menggunakan reka bentuk bukan eksperimen. Instrumen kajian (soal selidik) terdiri daripada 62 item yang digunakan untuk mengukur pembolehubah KP, KS dan BS. Soal selidik diedarkan kepada 367 guru sekolah menengah di daerah Mardan, wilayah Khyber Pukhtunkhwa di Pakistan. Data yang diperoleh dianalisis menggunakan perisian statistik iaitu SPSS dan AMOS. Dari aspek demografi, seramai 235 responden lelaki (64%) dan 132 responden perempuan (36%) yang mengambil bahagian dalam kajian ini adalah berasal daripada 84 (81.55%) sekolah di luar bandar dan 19 (18.44%) sekolah di bandar. Mereka terdiri daripada pelbagai kategori umur, pengalaman,serta kelayakan, dan kebanyakan (52.9%) daripada mereka memiliki pengalaman[2] perkhidmatan yang tinggi. Dapatan kajian menunjukkan kepimpinan pengajaran dan budaya sekolah di sekolah-sekolah tersebut adalah pada tahap yang rendah. Namun keberkesanan sekolah berada pada tahap yang sederhana. Perkara ini menunjukkan bahawa tahap KP dan BS yang rendah secara kolektif menyumbang kepada tahap KS. Ia menunjukkan bahawa kepimpinan pengajaran dan

[2] 10-15 tahun pengalaman perkhidmatan

budaya sekolah boleh dipertingkatkan lagi ke tahap yang lebih tinggi dan ia dapat menyumbang kepada pencapaian tahap KS yang lebih tinggi. Dapatan kajian ini menunjukkan bahawa budaya sekolah menyumbang kepada peningkatan keberkesanan sekolah-sekolah tersebut. Korelasi antara ketiga-tiga pembolehubah dan dimensi-dimensi mereka menunjukkan bahawa kemahiran KP diperlukan untuk meningkatkan tahap BS dan KS di sekolah-sekolah tersebut. Hasil kajian juga menunjukkan bahawa korelasi antara ketiga-tiga pembolehubah tersebut adalah tinggi, dan korelasi antara KP dan BS mencapai pekali korelasi yang paling tinggi. Model konsep yang dicadangkan adalah berintegrasikan kepimpinan pengajaran pengetua, budaya sekolah dan keberkesanan sekolah. Umur responden merupakan moderator untuk hubungan antara kepimpinan pengajaran dan keberkesanan sekolah. Kajian ini memberikan sumbangan literatur kepada bidang kepimpinan pendidikan di negara membangun seperti Pakistan. Kajian ini turut menyediakan hala tuju pembangunan bagi sistem pendidikan di sekolah-sekolah menengah di Pakistan. Kajian ini mencadangkan bahawa para pengetua perlu membangunkan budaya sekolah yang positif untuk mencapai matlamat utama sekolah ke arah keberkesanan sekolah.

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parents wanted me to be and although, now I have reached my destination but unfortunately they are not here to share with me my success. However, I can sense that they are looking to me and are happy with my success. I am proud of my first institution “the lap of my mother”. My father gave me everything I needed even though he did not have much. May ALLAH bless their souls and keep them in JANNAH (Aamin). I have no courage to express more. I dedicate this research work to my honourable parents and beloved wife.

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LIST OF SYMBOLS AND ABBREVIATIONS

A	AMOS	Analysis of Moment Structure
	AEPAM	Academy of Educational Planning & Management
B	BISE	Board of Intermediate and Secondary Education Mardan
	B.Ed	Bachelor of Education
D	DEPM	District Education Plan Mardan
	DV	Dependent Variable
	DEO	District Education Officer
E	EMIS	Education Management Information System
	EER	Education Effectiveness Reviews
F	FIG	Figure
G	GER	Grass Enrollment Rate
	GoP	Government of Pakistan
I	IL	Instructional Leadership
	I-SAPS	Institute of Social and Policy Sciences
	IV	Independent Variable
	IDPs	Internally Displaced Persons
K	KP	Khyber Pukhtunkhwa (province of Pakistan)
L	LMX	Leader Member Exchange
M	MED	Mediator
	M.Ed	Master of Education
	M.A	Master of Arts
	MOD	Moderator
N	NEP	National Education Policy of Pakistan
	NEMIS	National Education Management Information System

P	PIMRS	Principal Instructional Management Rating Scale
S	SC	School Culture
	SE	School Effectiveness
	SCEQ	School Culture Element Questionnaire
	SSC	Secondary School Certificate
	SEM	Structural Equation Modeling
U	UNESCO	United Nations Educational, Scientific and Cultural Organization
	USA	United States of America
W	WEF	World Economic Forum

LIST OF APPENDICES

CHAPTER 1: INTRODUCTION

1.1 Introduction

Pakistan is a developing country having four provinces namely Khyber Pukhtunkhwa, Punjab, Sind, and Baluchistan. Some area of the country is administered federally known as FATA (Federally Administered Tribal Area). Though, all the provinces of Pakistan have different local languages, but the national language is Urdu. Similarly, all of the four provinces and FATA, Gilgit Baltistan, and Azad Kashmir have different cultures and history. The provinces have their own education system under provincial education ministry. Furthermore, each province is divided into different districts, where District Education Officers (male & female) are responsible to run the education system in their concerned districts. It is evident that, the capital of Pakistan (Islamabad) has the highest education scores, while province of Khber Pukhtunkhwa is at the middle position of the ranking for quality education (e.g. Alif Ailan, 2015).

Khyber Pukhtunkhwa is the province affected mostly by the terrorism in Pakistan, which in turn affected the education system in the province. It was found that, among the fifth class students (next will be going into the secondary schools) 51% cannot read a story in Urdu, 50% cannot read just a single sentence in English, and 51% cannot do a two-digits division. This poor performance by the students affects the the Net Enrolment Rate (NET) at secondary level, which was noted as 31% for boys, 18% for girls, and 25% as for both the genders (Alif Ailan, 2015). There are total 3029 government secondary schools in the Khyber Pukhtunkhwa having 24529 working teachers.

In present era, education is the backbone for the advancement of a country. Education has proven as a key to the achievement of high standards and success of a nation. With regard to the aims and objectives, education has a different meaning for different

nations but, it is unanimously agreed that it can only be achieved through effective institutions. While talking about school effectiveness (SE) different schools of thoughts were studied from related literature. Some researchers believed that external factors are involved in school effectiveness, while others believed that internal factors were the caus to effectiveness of school. Similarly, some researchers related school effectiveness to "inputs and outputs" or "process" while some combined different factors to study school effectiveness. For example Coleman et al. (1966) believed that the factor of socioeconomic status of students makes the difference rather than the internal factors of the school and viewed that "schools make no difference".

Later, the study by Ostroff and Schmitt (1993) agreed that different factors like leadership behaviours, school culture and climate, administrative functioning, students' achievement, mastery of basic skills, community support, parents' involvement, teachers' commitment and efficacy, teachers' loyalty and satisfaction are involved in school effectiveness. Other researchers (e.g. Aggarwal-Gupta & Vohra, 2010; Bredeson, 1985; Reynolds & Teddlie, 2000) also related school effectiveness to internal factors. Similarly, the research study by Scheerens and Creemers (1989) has explained school effectiveness in terms of inputs and outputs. Some other research studies (e.g. Brookover, Beady, & Flood, 1979; Edmonds, 1979; Rutter et al., 1979) have related school effectiveness to the "process" rather than "inputs and outputs".

To check school effectiveness the three factors such as input, process, and output should be considered. But, according to Ostroff and Schmitt (1993) measuring all these are very difficult to find institutional effectiveness.

Among the prevailing institutions in Pakistan, secondary schools have a vital role, because the linking of secondary stage to the other tiers of education is important and vertical (Ministry of Education, NEP-1998-2010). On the completion of secondary

school stage the students must have enough skills and knowledge to make a suitable selection for their practical and professional life in future. Among these secondary schools, as Andrabi, Das, and Khwaja (2008) believed that in Pakistan, quality education is delivered only by private schools. The reason behind the success of private schools was a quality instructional programmeme and effective monitoring system (Iqbal, 2012). Regarding quality education, Khan (2013b) also conducted a study aimed at finding the instructional contribution of government and community schools who suggested that, in the hierarchy of every institution the heads were responsible to achieve quality education by making their concerned institutions effective. Peleg (2012) confirmed that a successful education system is undergoing high quality of leadership. The skills like, creating social interaction, sovereignty and development of effective organisation routines are possessed by leaders. Neglecting such skills, the leaders will not be accepted in any circumstances by any group of people (Silva, 2014).

Similarly, Hallinger (2010) has found that, the instructional leaders must have skills to manage instructional programmemes, to create a school learning climate, and to define the school's mission. The instructional leaders get school effectiveness through these described skills. Discussing the role of instructional leaders Yesil and Kaya (2012) found that the empirical research studies constantly stressed upon the leadership role in the school context for the effectiveness and improvement of the school. But among these studies instructional leadership (IL) has become influential in certain approaches to leadership in recent years (Rizvi, 2010). The role of instructional leader is vital in school effectiveness because the "behaviour of the school principal is the single most important factor supporting high quality educational programmes…..while schools make a difference in what students learn, principals make a difference in schools" (Bredeson, 1985, p. 31). But this relationship of instructional leader to school effectiveness is indirect; while discussing this indirect role Hallinger (2005) believed

that leaders cannot lead by themselves, the collaboration of teachers is also needed for school effectiveness.

Accordingly, David Dwyer (1984) conducted a research on instructional leadership in rural and urban context and found that, principals were dependent on their beliefs, desired goals and vision to create a school culture to make school organisations provide better outcome. The statement of Dwyer (1984) such as 'instructional leader's role is not a solo fight' confirms the importance of the medium to reach the goals by a leader. Therefore, instructional leaders create the school culture as a medium to achieve school effectiveness, for example the revised Model-B of Hallinger and Heck (1998, p. 162) adopted from Pitner (1988, pp. 105-108) which supports this indirect relation. This revised Model-B was explained as principals are not involved directly in the effectiveness of the school, but through school culture and climate.

School culture (SC) is the aspect that makes the task of instructional leaders easier. In fact, as explained by Deal and Peterson (1999) the school culture unfolds everything such as behaviour, actions, expectations, beliefs, relationships, values, assumptions, and collaboration. Instructional leadership is the main role in setting goals and high expectations to achieve school effectiveness through this interaction system. This interaction system develops the school culture as a key to school achievement and student learning. Tatlah et al. (2011) supported that instructional leaders initiate in a group to create school culture purposing school effectiveness. Considering school culture as the main function of instructional leadership in schools, DuPont (2009) has suggested that leaders should focus on instructional programmes on one hand, and understanding of school culture on the other. Therefore, instructional leaders by practicing their interventional role in schools are responsible for the development of school culture aimed at school effectiveness. Bodla and Nawaz (2010) believed in the influential role of instructional leadership in creating school culture, as they argued,

leadership is a “Process of influencing a group forwards the achievement of goals” (p. 208). This influential role within the school helps to shape the school culture that bridges instructional leadership and the school effectiveness concluded from the Model-B of Hallinger and Heck developed in 1998.

While discussing IL and SE, the scenario in Pakistan is quite different as compared to other developing countries. Because, a number of problems were experienced in the way of school effectiveness in Pakistan, such as bureaucracy and unavailability of trained and qualified instructional leaders to run educational programmes (Rizvi, 2010). In Pakistan the problems like: less autonomy of educational leaders, limited professional training in a context, encouraging dependency, and autocratic leadership style caused to ineffectiveness of the schools (Rizvi, 2010). Therefore, to solve these problems and to achieve school effectiveness, the main theme of the national education policies of Pakistan has stressed to provide schools with strong educational leadership (Ministry of Education, NEP-1998-2010; Ministry of Education, NEP- 2009). The improvement and achievement of educational goals are only possible through skills and knowledge of the instructional leader.

Looking into the situation, until now there were no concrete steps taken by the public-sector, which aim to solve the effectiveness related problems. The study by Khaki (2005) found that no proper contribution was sighted from the central management to update and upgrade the skills of principals required for the quality of schools. On other hand, the instructional leaders in Pakistan are kept involved only in file-works to satisfy the district management. The reason behind this is that, most of the principals in Pakistani schools are unaware of the quality and role of instructional leader. Memon (2003) argued that in Pakistan, principals only focus on administrative jobs rather than be engaged in curriculum designing and instructional practices of the schools. In fact, without having leadership training, teachers were promoted as leaders (Alam, 2012).

Research studies in Pakistan, regarding instructional leadership and school effectiveness seem to have failed to turn the attention of related authorities, due to its limited number. Hallinger and Bryant (2013) have found that, until now, Pakistan has produced only ten research papers on instructional leadership; among which only three papers were published in the last 12 years by the research institutions. Therefore, in Pakistani context, research study based on empirical data should be developed exploring school effectiveness, instructional leadership, and school culture. It will enable Pakistan to meet the national goals of quality education and EFA.

1.2 Problem statement

It is the responsibility of the state to educate the people. Therefore, the constitution of Pakistan 1973 (Article 25-A) has given the right of free education to every child. While, Article 37-B has clarified, the "state [Pakistan] should be responsible for the eradication of illiteracy and provision of free and compulsory education up to secondary level, within the minimum possible time" (Ministry of Education, NEMIS-2015, p. 3). Although, the government schools have high enrolment rate as compared to private schools for some reasons such as: low fee, access to school, and parents' poverty etc., but quality wise, private schools take the lead in government schools in Pakistan (Andrabi, Das, & Khwaja, 2008). Pakistan Education Statistics 2013-14 has reported that there are a total of 69% government schools and 31% private schools, enrolling 63% and 37% students respectively in Pakistan (Ministry of Education, NEMIS-2015). But, still the condition and quality of education in Pakistan is poor due to the ineffectiveness of government schools. There are some factors acting behind the ineffectiveness of government schools, for example, unsatisfied job performance of emerging graduates (Saleem et al., 2012). Qayyum Mohsin, Aslam, & Bashir (2004) have discussed the gigantic problems in the way of enrolment in government secondary schools of Pakistan, such as human resource development, low literacy and participation

rate, educational weakness of the students from primary level, non adequate teaching facilities and lack of refresher courses, insufficient school resources, and lake of vision. On the other hand, although, the private schools have several problems but, nevertheless, are still providing quality education due to the factors such as effective monitoring system and quality of instruction (Iqbal, 2012). There is an emerging need to develop a research study in Pakistan to confirm the factors of school effectiveness. The reason is that "….nearly six decades of research have not produced a single recipe that has been found for making a school effective" in Pakistani context (Saleem et al., 2012, p. 249). Therefore, Saleem et al. (2012) invited the researchers to study school the effectiveness model, comparing male and female, urban and rural, and public and private schools in Pakistani context withi the perceptions of stakeholders.

Among the key stakeholders, the role played by the principal in school effectiveness is vital because, "I have never seen a good school with a poor principal, or a poor school with a good principal. I have seen unsuccessful schools turned around into successful ones, and regrettably outstanding schools slide into decline" (Heachinger as cited in Masuku, 2011, p.4). To get school effectiveness, the principal plays his/her role as an instructional leader. Murphy et al. (2007) have claimed that "instructionally focused leadership" or "leadership for school improvement" is visible in highly productive schools. Instructional leadership is discussed as the most important factor in developing education system necessary for quality education (Ministry of Education, NEP-2009, p. 142). Peleg (2012) stressed that high quality of teaching and leadership is a primary requirement for a successful education system.

In Pakistan, there are some leadership problems like; less autonomy of educational leaders, limited professional training, encouraging dependency and autocratic leadership style, and the programmes like Bachelor of Arts (B.A) and Master of Arts (M.A) having

no capacity to produce leadership skills (Rizvi, 2010). Generally, these problems affect the process of school effectiveness at secondary level in Pakistan.

Similarly, although the principals have their M.Ed (Master of Education) or B.Ed (Bachelor of Education), but none of these programmes have enough capacity to develop leadership qualities. The reason is that, the stated professional programmes have no practical application in the school context in Pakistan (Ministry of Education, NEP-1998-2010). In fact, there is no pre-service professional programme for principals regarding leadership in Pakistan. The teachers are promoted to the post of principals without having adequate leadership skills or prior leadership training (Alam, 2012). Although, a limited number of principals in Pakistan are given in-service training through foreign funds but, its contribution is negligible (Khan, 2013a). As a result, majority of Pakistani schools don't have sufficient qualified and trained leaders required to run these schools (Rizvi, 2010).

As evident from the literature review, the situation in Pakistani schools can be stated as desperate, needing empirical research studies. In Pakistan, a little research work is found on educational leadership (e.g Rizvi, 2010; Simkins, Sisum & Memon, 2003), and has produced only ten research papers on instructional leadership, in which only three papers were published in the last twelve years (Hallinger & Bryant, 2013). Similarly, Faisal et al. (2012) agreed that a "little research work has been done to study the impact of education leadership behaviour on institutional performance" in Pakistan (p. 60).

It is also obvious from the literature review that leadership uses a medium to achieve school effectiveness. Salfi, Hussain, and Verk (2014) studied that "effective leaders employ an indirect but powerful influence on the effectiveness of school and on the achievement of students" (p. 205). Hallinger and Heck (1998, p. 162) revised an indirect

model named as Model-B. The stated model explains the principal's role as instructional leader in the achievement of student through environment of school. Similarly, Mees (2008) studied the relationship between the principal leadership, school culture and student achievement. These studies have confirmed the Path-Goal theory of leadership. The similarity to Path-Goal theory is that, in these studies leadership is used as a path to reach their goals. On the basis of this literature, the study considered school culture as a medium or path to the school effectiveness.

If there is a school culture, social interaction between individuals and knowledge building through learning and teaching exists in a school, then it should be a good place to bring change (Busher, 2006). Maxwell and Thomas (1991) were of the opinion that, school culture is the system of behaviours which is composed of ideas, beliefs and values. The different conflicts in school are resolved by the principal by applying their personal values. These values reflect in a specific situation named as school culture, impacting the life of others, strongly justified by educational leadership (Baig, 2010). The responsibility to develop school culture falls on the shoulders of the school leaders (Turan & Bektas, 2013). Kuen (2009) has given different citations which confirmed that the importance of school culture such as: better productivity, adaptability and flexibility of schools are the result of the strong culture of the school (Cheng, 1993), the teachers wellbeing is related to school culture (Aelterman Engels, Petegem, & Verhaeghe, 2007), school culture causes to increase pupil outcome (Brady, 2005), school culture increases job attitudes and organisational commitment of teachers (Cheng, 1989).

The role of secondary schools is very important in the socialisation process of students, preparing them for practical life and giving them future direction for further studies. Like other countries, in Pakistan the stage of secondary schools is a minimum period of five years that starts after successful completion of five years primary schooling. According to the District Education Plan, Mardan 2015-2020, the gross enrolment rate

at primary level is 72%, which is decreased to 42% only at secondary level, placing Pakistan at second position for out-of-school children in the world ranking (I-SAPS, 2015). In these out-of-school children, the girls outnumber the boys. Similarly, district education plan Mardan 2015-2020 has also indicated that rural area leads in out-of-school children. The National Education Policy of Pakistan has also mentioned that urban and rural division is worse (e.g. Ministary of Education, NEP-2009). Therefore, the data will be collected for this research study from the strata of rural and urban, both for girls' and boys' secondary schools in Mardan district of Khyber Pukhtunkhwa (KP) purposing their equal participation. The secondary schools of Mardan district were selected for this study because, these schools suffered because of recent terrorism attacks and by keeping these schools as shelters (camps) for internally displaced persons (IDPs) from the area of "Swat" and "Buner" in the KP province.

The literature review showed that the researchers (Saleem et al., 2012; Salfi et al., 2014; Niqab, 2015) have studied demographic variables in the Pakistani context. Therefore, "Age" (demography) of the respondents is considered as moderator.

The above discussion has revealed that school effectiveness is related to instructional leadership and school culture. Although, it is evident that Mees (2008) has developed a doctoral study that linked transformational leadership and student achievement through school culture. Alig-Mielcarek (2003) has also linked the instructional leadership of the principal and student achievement through academic press. But most of the studies in the existing literature in Pakistani context have focused, either the relationship between; instructional leadership and school effectiveness, instructional leadership and school culture, and school culture and school effectiveness.

There is currently negligible evidence to support the relationship between the three variables such as instructional leadership, school culture, and school effectiveness in a

Pakistani context. With this background, this study analyses the relationships among instructional leadership, school culture and school effectiveness in the secondary schools of Mardan district in Khyber Pukhtunkhwa (KP) province (Pakistan). On the basis of the facts stated above, the secondary schools of Mardan (Pakistan) can be stated as high-need schools. Therefore, it can be stated that these schools need their problems to be highlighted and solved in the light of research study.

1.3 Research objectives

This study is aimed to achieve the following set of objectives.

1. To assess levels of school effectiveness, principal instructional leadership and school culture in secondary schools in Mardan District, of Khyber Pukhtunkhwa, Pakistan.
2. To analyse the influence of instructional leadership on school effectiveness in the secondary schools.
3. To assess whether school culture mediates the relationship between instructional leadership of the principal and school effectiveness in the secondary schools.
4. To test whether the demographic variable (age) of teachers moderates the relationship between principal instructional leadership and school effectiveness in the secondary schools.
5. To test whether the model that links the principal instructional leadership with school effectiveness through school culture as mediator fits the Pakistan's secondary schools data.

1.4 Research questions

The following research questions are formulated to meet the objectives stated above.

1) What are the levels of school effectiveness in the secondary schools of Mardan district in Khyber Pukhtunkhwa, Pakistan?

2) What are the levels of the principal's instructional leadership in the secondary schools?

3) What are the levels of the school culture in the secondary schools?

4) Is there a significant relationship between the principal's instructional leadership and school effectiveness of the secondary schools?

5) Is there a significant relationship between the principal's instructional leadership and school culture of the secondary schools?

6) Is there a significant relationship between school culture and school effectiveness of the secondary schools?

7) Is school culture a mediator for the relationship between the principal instructional leadership and school effectiveness of the secondary schools?

8) Is age a moderator for the relationship between the principal's instructional leadership and school effectiveness of the secondary schools?

9) Does the proposed model that links the principal's instructional leadership with the school effectiveness through school culture as mediator fit the data collected from the secondary schools?

1.5 Research hypotheses

The null hypotheses for the research question 4 to 9 are listed below:

1) There is no significant relationship between the principal's instructional leadership and school effectiveness of the secondary schools.

2) There is no significant relationship between the principal's instructional leadership and school culture of the secondary schools.

3) There is no significant relationship between school culture and school effectiveness of the secondary schools.

4) School culture is not a significant mediator for the relationship between the principal instructional leadership and school effectiveness of the secondary schools.

5) Age is not a significant moderator for the relationship between the principal's instructional leadership and school effectiveness of the secondary schools.

6) The proposed model that links the principal's instructional leadership with the school effectiveness through school culture as mediator does not fit the data collected from the secondary schools.

1.6 Theoretical framework

The adopted models of Hallinger and Heck (1998, p. 162) showed the relationship of instructional leadership and students achievement. These models were named as "Model-A" (as direct effect model) and "Model-B" (as indirect effect model), the later model involves an intervening variable. While discussing the revised Model-B Hallinger and Heck (1998) believed that "instructional leadership has indirect effects on student's achievements by involving intervening [mediating] variables" (p. 162). Similarly, Hallinger (2008) reviewed the research study of Hallinger and Heck (1996) and found that "the effects of principal instructional leadership are indirect, not direct. It requires a more sophisticated model of the paths through which principals create more effective schools in order to reveal these types of effects" (p. 30). This statement of Hallinger (2008) indicated towards a path that intermediates instructional leadership and school effectiveness, strongly justified by Path-Goal Theory of House in 1971. Because, the Path-Goal Theory has described that leaders reach to their goals not directly but, through a path (mediating variable). Among the different variables that instructional leaders used as a path to school effectiveness, the school culture variable is most important because, school culture is contributing to change process, innovation and reforms in school (Jurasaite-Harbison & Rex, 2010). Taj and Iqbal (2012) also viewed

that leaders created a motivation through the school culture aimed to get school effectiveness. While according to Murphy et al. (2007) school culture is one of the most important factors in school effectiveness, which is created by school leaders. Moreover, the researchers (e.g. Ali et al., 2016; James, 2015: Hallingar & Murphy, 1987; Murphy, 1990) have claimed the school culture as one of the essential dimensions in the effectiveness of school.

The Path-Goal theory described by House and Mitchell (1974) indicated towards the specification of a style or behaviour (as a path) by a leader, that best suits the employee and work environment to achieve goals. Instructional leaders develop a suitable interaction system that involves behaviours in a given school environment resulting in school culture necessary for school effectiveness. Similarly, Northouse (2013) supported the above statement that the Path-Goal theory is a process in which a leader selects a specific behaviour. This stated behaviour is best suited for the employees in a specific environment to achieve goals by them. Basically, Path-Goal theory is based on Vroom's (1964) expectancy theory, which was first introduced by Evans (1970) and developed further by House in 1971.

Figure 1.1 Path-Goal Theory

In the light of the above reviews, this study is developed to analyse school effectiveness (goals) by instructional leadership of principal (leadership) through school culture (path) using the revised Model-B of Hallinger and Heck (1998) OR "Path-Goal Theory" of House (1971) based on Evans' study in 1970. "As a consequence, most of the studies on educational effectiveness are a-theoretical and are concerned with the establishment of statistical relationships between variables rather than with the generation and testing

of theories which could explain those relationships and contribute to the establishment of strategies for improving educational effectiveness" (Creemers, 2002, p. 4).

1.7 Conceptual framework

In line with these premises, the following conceptual framework seems suitable for this study as shown in Figure1.2 below.

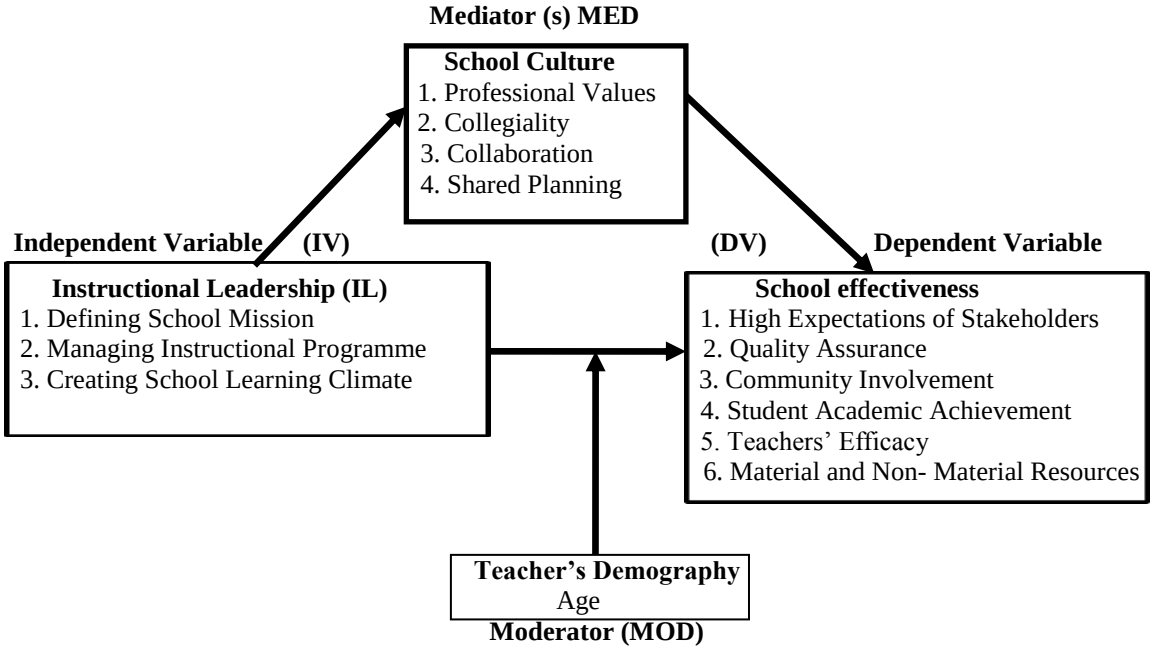

Figure 1.2 Conceptual framework of the study

In secondary schools principals play their role as instructional leader. Instructional leadership role involves the engagement of principals in classrooms interaction. Instructional leadership is making sure the participation of staff members in school activities, devotion to solve students' and teachers' instructional issues, providing feedback, monitoring, and to use skills and knowledge to plan and to run schools' educational programmes for school effectiveness, as mentioned in their school vision (e.g. Hallinger & Heck, 1998; Hallinger & Brynant, 2013). The instructional leadership is not a solo fight therefore, to perform all these functions instructional leaders must involve staff members to develop and define the school mission by managing

instructional programmes aimed at creating school learning climate (e.g. Niqab, 2015). This attempt by instructional leader creates a positive and collaborative school culture that helps in school effectiveness (e.g. Cavamaugh & Dellar, 1996, 1997a, 1997b, 1998).

School culture is explained as "the basic assumptions, norms and values, and cultural artifacts that are shared by school members, which influence their functioning at school" (Maslowski, 1997, p. 5). School culture involves professional values: the belief of teachers in such principles which effect pedagogical processes and changes to improve student achievement. For example, every child can learn and no diversification is made to affect student learning, Collegiality: the interpersonal relationship to help each other when a problem is faced (Maslowski, 2001). Gruenert (1998) and Mees (2008) have explained collegiality as the degree to which teachers work together effectively, and collaboration as the system of interaction among individuals for the sake of institution such as having debate in school meetings. These constructive dialogues further the educational vision of the school. Shared Planning indicates the teachers' involvement in development, acceptance, and implementation of future direction (Gruenert, 1998; Mees, 2008). Commonly, it takes place when a response is needed by the institution or programme. This type of school culture is created by the instructional leader and teachers, for the purpose of school effectiveness. The instructional leaders use this school culture as a path to school effectiveness.

The concept of school effectiveness is not agreed upon by all the researchers. School effectiveness is narrated by Scheerens, Glas, and Thomas (2003) as "the extent to which the desired level of output is achieved" (p. 223). Furthermore, they argued that organisational effectiveness is "the degree to which an organisation . . . manages to control internal organisational and environmental conditions, in order to provide . . . the outputs expected by external constituencies" (Scheerens, Glas, & Thomas, 2003, p. 94).

In fact, this model of school effectiveness has similarity to the comprehensive model of school effectiveness developed by Creemers in 2002.

This model involves the dimensions such as High expectations of the stakeholders which means to drive for improvement. This dimension stresses on the restlessness for valued achievements. Slavin (1996) has described this dimension as "success for all" while, Anderson and Pellicer (1998) considered as "zero tolerance to failure". The next dimension Quality Assurance dimension is the characteristic of the school to have a strong leadership that can improve teaching-learning capabilities and produce students with competitive skills and knowledge by keeping concentration on school process and output rather than inputs. The dimension of Community Involvement indicates the involvement of the community. Community is an important stakeholder for the utilisation of their efforts as inputs for school effectiveness (Ministy of Education, NEP-2009; Ministy of Education, 2005; Patrinos, Osorio, & Guáqueta, 2009). The dimension Student Academic Achievement is the student's achieved score in the annual examination to award secondary school certificate (SSC) by the Board of Intermediate and Secondary Education (B.I.S.E) Mardan. The principal as an instructional leader possesses leadership styles that can contribute to better academic achievement (Parwazalam, 2000). The dimension Teachers' Efficacy refers to the skills and knowledge of the teachers, essential for students' development and school effectiveness. It may be called as "Capabilities" or "Potentials" of the teachers to improve the organisation. The dimension Material and non-material resources refers to the material resources such as; boundary walls, electricity, water, furniture, playground, teaching materials, and school funds etc and non material resources such as; workshops for staff development, in-service trainings and refresher courses or like activities, capabilities of advanced teaching methods and techniques.

Demographic variable of the respondents in the study is Age. This factor can also moderate school effectiveness. This comprehensive framework based on theories will prove helpful to achieve school effectiveness.

1.8 Significance of the study

To improve the human capital index of a developing country like Pakistan depends on education which is aimed to compete regionally and globally. The poor performance in education has placed Pakistan at 113 out of 124 countries in the human capital index (Ahmad, 2015).

Development of education is one of the major objectives in Pakistan (Ali, 2014; Ministry of Finance, Economic survey of Pakistan-2010). The Government sector schools in Pakistan show a low performance. The reason is that Pakistan is spending only 2.6% of GDP on education (Ministry of Education, NEMIS-2015). This minimum educational budget is caused to create problems regarding school management. The report of Alif Ailaan (2015) entitled "Pakistan District Education Ranking" has disclosed that the net enrolment rate (NER) at secondary level in Pakistan is 28% for boys and 23% only for girls, while for both the genders it is 26%. The report showed that the NER for both the genders in KP province (Pakistan) is 25% only. The report further stated that, this situation ranked Pakistan at No. 106 against a total of 113 countries for EFA development index (EDI). In like situation, Rahman (2014) has suggested to develop a system call self-development of education system in Pakistan. Onerous to the statement this study developed a conceptual model which might be helpful in the self-development of education system. This conceptual framework links the instructional leadership of principal to school effectiveness through school culture. The results of the study will be helpful for policy makers, instructional leaders, teachers,

investors, and researcher in Pakistan, to develop a theory causing to add something new to the body of knowledge.

(1) Policy makers

Different education policies of Pakistan developed from time to time were aimed to strengthen quality of education in the country (Pakistan). The recent education policy of 2009 in Pakistan has declared that Pakistan failed to achieve its educational goals as highlighted in the previous education policies. The national education policy of 2009 was developed by the Government of Pakistan which aimed to improve the quality of education (Ministry of Finance Pakistan, Vision-2010). The improvement in the quality of leadership and teaching were the highlighted aims of this policy to strengthen education's quality in public sector.

On the basis of the stated background, the policy makers are struggling to get solid suggestions based on empirical data, to be included in the education policy. The aim is to achieve the objectives developed for quality of education in Pakistan. This study will provide facts and findings to the policy makers on instructional leadership, school effectiveness, as well as on innovative concept of the school culture.

School culture is a new concept in the school organisation to achieve school effectiveness by the instructional leaders in Pakistan. Busher (2006) clarified the role of school culture by stating that if there is a school culture, social interaction between individuals and knowledge building through learning and teaching exists in a school, then it should be a good place to bring change.

The conceptual framework gives suggestions for policy makers to improve the instructional leadership of principal and school culture to achieve school effectiveness.

Thus the quality of education will be improved, which is one of the most essential goals of the current National Education Policy 2009 of Pakistan.

(2) Instructional leaders

This study will also provide a guideline map for instructional leaders. Following these guidelines instructional leaders can develop school culture to get school effectiveness. School culture is a path to reach school effectiveness. Therefore, school culture development, through personal interaction and behaviour of the instructional leader in a given school context, will definitely result in teamwork spirit. Using this conceptual framework, instructional leader can improve the school's output in the shape of quality education. The role of the principal was considered as most important by Bodla and Nawaz (2010) as it is a "Process of influencing a group forwards the achievement of goals" (p. 208).

This study helps principals to use their instructional leadership to achieve school effectiveness, and suggest applying different school's culture dimensions shown in the conceptual framework of this study.

(3) Teachers

The teachers' role in school is very important, as they have a greater influence on the academic achievement of students. In other words, teachers are the role model for their students. Therefore, school improvement and quality of education is related to the teachers of that school. In the conceptual model of this study school culture helps the teachers to improve their skills by making interaction with their colleagues and principal. In the secondary schools of Pakistan, the programmes like in-service training and refresher courses are very few. Therefore, by developing school culture they can share their previous experiences and problems relating to schools and students. Through

school culture they may help each other to accept new assignment from the principal or encouraging each other. School culture is a system of social interaction, so if school culture is developed positively, it will result in job satisfaction in the school context. The development of school culture by the teachers will lead them to school effectiveness thus confirming the quality of education in Pakistan.

(4) Investors

The Government education sector in Pakistan is not effective in achieving its educational goals. Due to rapid increase in population and allocation of very small budget for the sector, Pakistan is failing to provide quality education. According to the report of Alif Ailaan (2015) 29% of the government schools have no electricity, while 28% have no boundary walls and 21% have no drinking water. According to the report; as compared to Government schools, private schools are providing more facilities. Therefore, this situation invites the investors to have investment in the private sector of education. In fact, the teachers and principals of private schools are not much qualified as compared to Government schools. Therefore, the conceptual frame work will give guidelines to develop a collegial and collaborative school culture to achieve school effectiveness using the available resources.

(5) Contribution to the body of knowledge

This study will contribute to the body of knowledge due to its unique conceptual model. The book entitled as "The Dynamics of Educational Effectiveness" published in 2008, by Creemers and Kyriakides has revealed that "there is a shortage of well-developed theoretical models from which researchers in the area of effectiveness can build theory" (p. 5). The conceptual model discusses three most important factors contributing to the quality of education aimed at education policies of Pakistan. The conceptual framework has integrated instructional leadership, school culture and school effectiveness. Till now

such integration of the stated variables is not evident in Pakistani context. This conceptual model explains how the instructional leaders develop school culture to find school effectiveness. Also, it assesses the present instructional leadership, school culture and school effectiveness in the secondary school of Mardan district in KP province of Pakistan. This study will answer the given research questions, and its findings will create more questions to be answered. Therefore, its contribution to the body of knowledge is high and will prove as a foundation for new theory of school effectiveness.

(6) Contribution to theorising school effectiveness

Scheerens (2015) discussed the formation-phases of educational effectiveness theory, discussed previously by Snow (1973). Among these phases, the first one is "formative hypotheses" based on both, research and practical background; the second phase is "elementism" that concerns the development of instruments and key concepts for the field of study; the third phase is "Descriptive theories and taxonomies" that integrated the multilevel models of school effectiveness; the fourth phase is "Conceptual theories and constructs" that's correlating operational variables on a higher level of abstraction; the fifth phase is "broken axiomatic theories" that concerns eclecticism which means the application of educational effectiveness researches. So far, that enables the empirical review of the theory to be used in school effectiveness; and the sixth phase is "axiomatic theory" that contains: (1) - meta-theories concerned with policy development, investigation and description and (2) - paradigm concerned with analysis and evaluation of theories after construction (Scheerens, 2015).

By following these phases, this study will definitely help in theorising educational effectiveness.

1.9 Limitations

This research study has some limitations given below.

This research study was conducted in 138 government secondary schools of Mardan district in KP province (Pakistan) and 103 schools were visited as per sample size to study 367 sample teachers. The researcher tried to target private schools, semi-government schools and army schools of Mardan district as well, but the District Education Officer (DEO) gave permission only to visit Government secondary schools of Mardan district (see Appendix-E).

Secondly, a closed ended questionnaire was used to collect data from secondary schools for this study, and the researcher was unable to conduct interviews from teachers and principals due to threatened situation in the country. The DEO of Mardan allowed for the distribution of survey instrument among teachers only. Taking interviews during data collection were not allowed by DEO of Mardan (see Appendix-E). Therefore, qualitative aspects were not considered for this study. The reasonon behind the terms and conditions given by DEO of Mardan was uncertain conditions in the province after terrorist attacks on schools, such as a massacre of APS on December 16, 2014, and Bacha Khan University on Jan 20, 2016.

1.10 Operational definitions

The following operational definitions are made for clarity purposes:-

1.10.1 School effectiveness

Although, the term ‘school effectiveness’ is defined by different researchers, but no harmony is found out among the researchers for its definition. The term school effectiveness was explained by Scheerens, Glas, and Thomas (2003) as “the extent to which the desired level of output is achieved” (p. 223). According to Van Kesteren

(1996) (as cited in Scheerens et al., 2003) organisational effectiveness is "the degree to which an organisation . . . manages to control internal organisational and environmental conditions, in order to provide . . . the outputs expected by external constituencies" (p. 94). To select the dimension for school effectiveness the four levels of comprehensive model of EER by Creemers (2002) were also considered. In fact, the stated comprehensive model is based on Carroll's (1963) model of school learning, and combines different effectiveness models as well. After selection of the dimensions for this study, face validity was examined by two experts in the area.

The dimensions for school effectiveness are explained below:-

(1) High expectations of the stakeholders

The meaning of high expectations is to drive for improvement. This dimension emphasises on restlessness for valued achievements. Slavin (1996) described this dimension as "success for all" while Anderson and Pellicer (1998) considered it as "zero tolerance to failure". This trait stresses on the identified factors of effective schooling. High expectations of stakeholders are personal characteristics that have an impact on school effectiveness. This dimension was assessed with the help of five items (40-44) with the perception of teachers in secondary schools of Mardan district, with a Likert type scale ranged from "Never" to "Always".

(2) Quality Assurance

In this study, the quality assurance indicated towards the characteristics of the school having a strong leadership improving teaching-learning capabilities, which in turn develop students with competitive skills and knowledge. Quality assurance means to keep concentration on school process and output rather than inputs. The quality of education relies on the method to which the schools are managed instead the available

resources. While, teaching and learning process relies on the principal's leadership (De Grauwe, 2000).

The principal's behaviour is most important in school as it makes a difference in school; "while schools make a difference in what the students learn" (Bredeson, 1985, p. 31). Assuring quality the available resources are used in effective ways. To check quality assurance with the perceptions of teachers five items (58-62) were developed in the tool.

(3) Community involvement

This dimension indicates towards the involvement of community being an important stakeholder for the utilisation of their efforts as inputs for school effectiveness (Ministry of Education, 2009; Ministry of Education, 2005). This dimension also appreciates the school's efforts towards its goals. To assess whether the community have an involvement to play their role in school effectiveness as perceived by the teachers, four items (48-51) were developed.

(4) Student academic achievement

The term student academic achievement refers to student's achieved score in the annual SSC examination held by B.I.S.E Mardan, for awarding certificates. The principal as instructional leader possesses leadership styles that can contribute to a better academic achievement (Parwazalam, 2000). With respect to the factor of academic achievement, there was massive consensus related closely to high expectations (Scheerens, 2004). Three items (52-54) were aimed to assess the students' academic achievement.

(5) Teachers' efficacy

The skills and knowledge of the teachers refer to the teacher's efficacy. This dimension is essential for students' development and school effectiveness. It may be called as "Capabilities" or "Potentials" of the teachers to improve the organisation. The teachers

with this quality "… are capable of improving student achievement through their deeds" (Chapman & Burchfield, 1994, p. 406). The three items (55-57) were aimed to assess teachers' efficacy.

(6) Material and non-material resources

Material resources refer to boundary walls, electricity, running water, furniture, playground, teaching materials, and school funds etc. While, non-material resources refers to the resources like workshops for staff development, in-service trainings and refresher courses and/or like activities, capabilities of advanced teaching methods and techniques etc.

Reynolds et al. (1996) stated that school effectiveness depends on available resources and people. Alif Ailan (2015) disclosed that 48% of government schools in Pakistan are in a dangerous or dilapidated condition, lacking basic facilities such as furniture, bathrooms, boundary walls, electricity and running water. Further, the report added that on one side the budget allocation for education is insufficient, while on the other side the available funds are not spent effectively in the stated schools. To assess the available resources (material & non-material) and its effective consumption three items (45-47) were developed in the tool for this study.

1.10.2 Principal's instructional leadership

The role of the principal is to be involved in classroom interaction, getting the staff members involved the in school activities, solving the instructional issues of students and teachers, monitoring, and providing feedback is instructional leadership. Instructional leaders use their skills and knowledge to run the educational programme effectively through planning and in accordance with the school's vision. Also, to develop a positive school culture that best suit instructional environment, focuses on pedagogical process, and holistic development of students. The following dimensions of

instructional leadership are given by Hallinger (2003, 2009, & 2013) in PIMRS (Principal Instructional Management Rating Scale) teacher short form. The instructional leaders were viewed as culture builders and goal oriented (Hallinger, 2009).

(1) Defining school mission

Hallinger (2009) stated that this dimension is concerned with the principal's role to determine the main purpose of the school. While working with subordinates, the role of the principal is to make sure that, the school has clear, time based and measurable goals. These goals are focused on students' academic achievement. These goals are also communicated by the principal to the community for the purpose of making sure that these are widely accepted. To assess this role of instructional leader, five items (1-5) were specified by the developer (Hallinger, 2013).

(2) Managing instructional programme

Hallinger (2009) stressed that the control of curriculum, instruction, and coordination is focused in this second dimension named as managing instructional programme. This dimension may also be termed as management, which incorporates three leadership functions viz; monitoring student progress, coordinating the curriculum, supervising and evaluating instruction. The principal's primary engagement is noted in supervising, monitoring teaching and learning, and stimulating, in the school within this model of instructional leadership. These functions require principal commitment to the improvement of school and expertise in teaching and learning. This dimension also requires the principal to become "hip-deep" in the instructional programmes of the school (e.g. Bossert, Dwyer, Rowan, & Lee, 1982; Cuban, 1984; Dwyer, 1985; Edmonds, 1979; Marshall, 1996). Eight items (6-13) were aimed to assess this function of instructional leader with the perception of teachers.

(3) Creating school learning climate

It is the third dimension of instructional leadership. As it is explained (Hallinger, 2009) this dimension includes different functions such as; promoting professional development, protecting instructional time, providing incentives for teachers, maintaining high visibility. Furthermore, he added that, as compared to the other two dimensions (managing instructional programmes and defining school mission) it has broader scope and purpose. Through, the development of high expectations and standards for teachers and student, the notion "academic press" is created by effective schools is confirmed (e.g. Bossert et al., 1982; Purkey & Smith, 1983). Nine items (14-22) were specified to assess this dimension of instructional leadership.

1.10.3 School Culture

Cavanaugh and Dellar (1996, 1997a, 1998) developed the School Cultural Elements Questionnaire (SCEQ) to measure the school culture. The SCEQ has two forms: (1)- the actual form in which the teaching staffs' perceptions are profiled about the prevailing school culture and (2)- the preferred form that expresses the desired school culture by the teachers. Each form has 42 items and six dimensions of school culture as: collegiality, emphasis on learning, collaboration, professional values, transformational leadership, and shared planning. Two dimensions (emphasis on learning, transformational leadership) were excluded in the face validity stage of this study, because these dimensions showed similarities to the dimension indicated in the instructional leadership variable.

School culture is explained as "the basic assumptions, norms and values, and cultural artifacts that are shared by school members, which influence their functioning at school" (Maslowski, 1997, p. 5).

School culture dimensions are explained as:

(1) Professional values

It is the belief of teachers' in such principles that effect pedagogical processes and changes that effect students. For example, every child can learn and no diversification is made to affect student learning (Maslowski, 2001). These values depend on colleagues, seminars, organisations, and other professionals to sources for current knowledge especially about instructional practices (Mees, 2008). To assess up, to what extent this dimension was followed in secondary schools of Mardan district, four items (23-26) were placed in the tool for this study.

(2) Collegiality

It means interpersonal relationship, for example, to help each other when a problem is faced. According to Gruenert (1998) collegiality can be explained as "the degree to which teachers work together effectively" (Mees, 2008, p. 10). In collegiality, each other's ideas are valued by teachers, mutual assistance is found in accomplishing the school-functions, and trust is found in each other. To assess this dimension 5 items (27-31) were specified.

(3) Collaboration

It means interaction among individuals for the sake of institution, for example having debate in school meetings. In fact, collaboration is explained as the extent to which teachers remain busy in (constructive) dialogue that advances the school's vision. According to Gruenert (1998) "teachers across the school plan together, observe and discuss teaching practices, evaluate programmes, and develop an awareness of the practices and programmes of other teachers" (Mees, 2008, p.11). Four items (32-36) were aimed to assess this dimension of school culture.

(4) Shared planning

It is called shared planning if the teachers are involved in development, acceptation, and implementation of future direction. Commonly, it takes place when a response is needed by the institution or programme. The stakeholders collectively struggle with shared planning to get school effectiveness. To assess this dimension of school culture four items (36-39) were placed in the tool for this study.

1.10.4 Demographic variable

The only demographic variable in this study is the Age of the respondents. Due to limited time and resources by the host university only age was considered as the demography of the study.

Summary

This chapter provides an insight into the instructional role of the principal in school effectiveness through school culture. The study explains the problem with the help of heavy literature review and also reveals the importance of the study in Pakistani context, describing the significance of the study. Providing objectives and research questions this study highlighted its direction. The study also described its delimitations. Different dimensions of instructional leadership and school culture impacting school effectiveness were described in the study. The conceptual framework provided will help future studies and will lend itself to policy makers and school leaders to make schools effective in Pakistan. Also, the conceptual framework has described different variables, helping in the development of new knowledge.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The literature review is the collection of the results or findings of different studies developed in relation to this problem. The main theme, research objectives, and research questions were supported strongly by literature review. The literature review helped to clarify the strength and weaknesses of this study, and also provided a strong theoretical base for it. The identification of some issues as provided in the literature review, either links the current theory, or evolves a new theory to link it with the findings (Baumeister, 2013).

This review is developed in seven parts. The first part comprises school effectiveness; the second part discusses leadership, instructional leadership (in general), and instructional leadership in a Pakistani context; the third part explores culture and school culture; the fourth part highlights the relationship between school effectiveness, instructional leadership and school culture; the fifth part explains the demographic variable; the sixth part discusses secondary schools in the district of Mardan, KP province of Pakistan; and the seventh part is entitled to overlook on the bigger model.

2.2 School effectiveness

According to Creemers (2002) the root cause for development of educational effectiveness comes from reactions to the work undertaken by James Coleman and his colleagues (e.g. Coleman et al., 1966) on equality of opportunity, and (Jencks et al., 1972). Further, it was argued that two different backgrounds like sociological and psychological were served behind these studies, and their variance can be explained through educational factors. Similarly, Scheerens and Creemers (1989) stated that "School effectiveness research has its roots in quantitative sociological input-output

studies and economic research on educational production functions" (p. 691). The resource input of school is concentrated by the production function approach of school effectiveness research (Scheerens, 2013). The inputs are consistent with tangible and intangible resource.

Tangible inputs/resources were discussed by Glewwe, Hanushek, Humpage and Ravina (2011) and Iqbal (2012), while, both tangible and intangible inputs were discussed by other researchers (e.g. Awan & Saeed, 2014; Kazemi et al., 2012; Khan, 2013a; Khan, 2004). But the second (psychological) approach concentrates on *'process'* rather than tangible *'input'*, and correlates it with school output (e.g. Brookover, Beady, & Flood, 1979; Edmonds, 1979; Rutter et al., 1979; Scheerens & Creemers, 1989). For example, Kristic (2012) discussed the authors contributing to the situational contingency theories such as: House (1971) and House and Mitchell (1974) with respect to the Path Goal Theory; Vroom and Yetton (1973) with Decision Process Theory; Hersey and Blanchard with the Life Cycle Theory in 1969; and Fiedler and Garcia with Cognitive Resource Theory in 1987; which focused process for the sake of output.

In fact, conditions that enhance the effectiveness at school level is called school effectiveness (Scheerens, 2004, 2013). It contains all the contextual variables related with schools such as administration, community involvement, teaching, learning, and students' motivation etc. (Saleem et al., 2012).

The contemporary programmes like "Headstart" in USA and comparable programmes in other countries were also the cause to develop school effectiveness research (Creemers, 2002; MacDonald, 1991; Schon, 1971). Regarding school effectiveness, further studies (e.g. Edmonds, 1979; Brookover et al. 1979) have addressed school effectiveness in the period of "correlative studies". In this period, the above studies tried to explore why some schools were different from others regarding students

achievement. But criticism on these studies gave way for "reorientation" of school effectiveness studies after 1985 (Creemers, 2002; Murphy, 2013; Ralph & Fennessey, 1983). Reynolds also continued his studies regarding school effectiveness from 1970s to 1980s (Creemers, 2002). In the period of reorientation, the researchers (e.g. Murphy, 2013; Scheerens, 2013; Teddlie & Reynolds, 2000; Townsend, Clarke, & Ainscow, 1999; Wrigley, 2013) also addressed school effectiveness.

Initially, the school effectiveness research was started in the United Kingdom and United States, addressing to the effectiveness of teachers, and later further countries like Germany and Australia also took part in this movement (Creemers, 1983; Creemers, 2002; Creemers & Schaveling, 1985). Different studies and their dimensions caused the development of the effectiveness-model of Carroll (1963) and the five-factors-model of Edmonds in 1979. Further, research work on school effectiveness caused to explore different models and approaches which in turn resulted to new theories.

2.2.1 School effectiveness from approaches and models to theories

Among the one hundred and nine research studies about school effectiveness, only six can be found to be theory driven (Scheerens, 2015). Furthermore, Scheerens (2015) also discussed different theories and models of school effectiveness such as: Micro-economic theory, Quinn and Rohrbaugh model, Coleman's functional community theory, Parson's social systems' theory, Dynamic model, Creemers comprehensive model, Carroll model, and Schools as high reliability organisations model. But, the literature review showed that in educational effectiveness, Carroll's model for learning was a favorite model for learning in schools (Carroll, 1963). The reason for its popularity was its ability to relate the characteristics of education that are important as instructions to individual student's characteristics that are important for learning

(Creemers, 2002). For in-school learning the concepts of quality instruction, quantity of instruction, and time were considered as important concepts.

Similarly, Edmonds (1979) in USA developed a five-factor model starting with leadership and students' progress assessment. These factors were described as: high expectations of student's achievement, strong educational leadership; safe and orderly climate; frequent evaluation of pupil's progress; an emphasis on basic skills (Creemers, 2002).

Later, Mortimore et al. (1988) conducted a research to find the effective primary schools in London and found that those schools were effective with the following characteristics as: 1- deputy head's involvement, 2- leadership with purpose, 3- consistency among teachers, 4- teachers' involvement, 5- intellectually challenging teaching, 6- a planned day, 7- a limited focus within sessions, 8- an environment with focus on work, 9- maximized communication, 10- involvement of parents, 11- a positive climate, and 12- record-keeping (Creemers, 2002). On the basis of Carroll's (1963) model of effectiveness, Creemers (2002) developed a comprehensive model. This model has four levels described as: the classroom level, student level, the context level, and the school level (Creemers, 2002). The model of this study rely on Creemers (2002) model among all the above mentioned models. Because each of the six dimensions of school effectiveness given in the conceptual framework is related to each of the four levels of Creemers' (2002) model. The aim of relating the study to a theory is to confirm generalisability because, "Without an evidence-based theory of educational processes and mechanisms, pragmatic evidence of effectiveness may not be generalisable to new settings or different populations" (Scheerens, 2015, p. 10).

Though, there are different models and theories of school effectiveness, but the problem of consensus still exists. For example, Reid, Hopkins and Holly (1987) have narrated

that "…all reviews assumed that effective schools can be differentiated from ineffective ones there is no consensus yet on just what constitutes an effective school" (p. 22), the reason is that “there is very little theory on school effectiveness” (Scheerens & Cremers, 1989, p. 692). In fact, the variation and/or insufficiency of school effectiveness theories resulted in a consensus problem.

Adding to the school effectiveness Scheerens (2015) described the process of theory formation, and agreed that multi-level frameworks came under effectiveness e.g. integration of system, teaching, and school effectiveness which focused on the organisation and school level theories.

Basically school effectiveness is the extent or degree from which a school’s educational goals are achieved. Literature review is witnessed for different perceptions by researchers, for example: linking school effectiveness to input, output, process, internal factors, external factors, socioeconomic status of students and teachers or a combination of two or more of these. In a situation described above, a question arises that, what are the determinants for school effectiveness (Saleem et al., 2012). To answer the question, the literature review shows that there are two main conceptions about the factors or determinants of school effectiveness.

Firstly, school effectiveness is caused by external factors and secondly, it is caused by internal factors. The study of Coleman et al. (1966) agreed that external factors like, socioeconomic-status of students make a difference rather than internal factors of the school, because “schools make no difference”. In school effectiveness studies the role of Coleman et al. (1966) was considered as the settler. They viewed that characteristics regarding background of students were most suitable in determining the achievement of students. And there can be made no comparison with this factor.

But meanwhile, agreeing to the second perception (internal factors) the studies of (Brookover et al., 1979; Edmonds, 1979; Rutter et al., 1979) claimed that an effective school is culture oriented, expressed in terms of high expectations from stakeholders and standards, emphasises on basic skills, professionalism, shared decision making, clear policies, cohesiveness, and behaviours etc. Also the relationship of stakeholders is an important factor in institutional effectiveness (e.g. Ahmad & Bin Said, 2013; Chung, Chen, & Reid, 2009; Stelmach & Preston, 2008; Van Velsor & Orozco, 2006). The findings of different research studies have shown that "Schools can make a difference" (e.g. Brookover, 1979; Brookover, Beady, Flood, & Scweithzer, 1979; Khan, 2013b; Maki et al., 2015; Saleem et al., 2012) and "Schools matter" (e.g. Ayeni & Adelabu, 2011; Day et al., 2010; Hallinger, 2003, 2010; Leithwood, Wahlstrom et al., 2010; Leithwood et al., 2008; MacBeath & Cheng, 2008; Mortimore et al., 1988; Saleem et al., 2012).

Accordingly, the study of Reynolds and Teddlie (2000) included the processes of effective teaching, a positive school culture and a pervasive focus on effective leadership, learning, staff development, and high expectations of students and staff to make school effective. Leithwood, Sarah Patten, and Doris Jantzi (2010) have also claimed that, the school climate and school culture are the essential factors in school effectiveness. In addition, Aggarwal-Gupta and Vohra (2010) advocated that school effectiveness underlined the powers, values and preferences of stakeholders in different school contexts. Therefore, if the stakeholders change their context, these variables will also be changed, which will result in affecting the change process in school. The *Five Factors Model* of Edmonds (1979) is also related to the lateral conception of internal factors, which is based on: the high expectations of student achievement, strong educational leadership, safe and orderly climate, an emphasis on basic skills, and frequent evaluation of student progress (Creemers, 2002).

Besides, the above two major conceptions of school effectiveness, another conception emerged which combined both the conceptions. For example, findings of the earlier research of Edmonds (1982) has described seven variables including both external (as home school relation) and internal variables such as: (1) instructional leadership: based on the principal's role to maintain and assess continuously instructional programmes and involving teachers in academic decisions, (2) clear vision and mission: underlines a consensus to develop school vision and mission, and to communicate with teachers effectively to achieve the prescribed goals, (3) safe and orderly environment: that makes collaboration and collegiality possible for better achievement, (4) high expectations: for students achievement, that develops minds for zero tolerance to failure, (5) continuous assessment of student achievement: relating assessment on regular basis to increase academic achievements which is a visible indicator in school effectiveness, (6) opportunity and time on task: recommended as necessary to use opportunities including time in an affective way, and (7) positive home-school relations: required to involve parents and community in school matters because schools are social institutions.

By adding more, Eddmonds (1982), and Ostroff and Schmitt (1993) have also tied two external-factors such as community support and parents involvement to some internal-factors (e.g. leadership behaviours, school culture and climate, administrative functioning, students achievement mastery basic skills, teachers' commitment and efficacy, teachers' loyalty and satisfaction) to develop a comprehensive model of school effectiveness. Although, the above discussed factors are important in school effectiveness, but the question may arise about how to assess all these factors. Therefore, let consider the important ones, that suit better in the context, because, measuring all these factors is very difficult (Ostroff & Schmitt, 1993). For this study, the dimensions of school effectiveness were selected in the light of literature review,

and were validated through expert opinion in the given context. Also, the levels of school effectiveness were found with the perceptions of stakeholders.

Different stakeholders' interest and attachment indicate towards different theories for example Gaziel (1996) (as cited in Saleem et al., 2012) stated that, the key stakeholders were involved to find school effectiveness in relation to different theories such as: students give greater importance to teaching skills which support the "system resource model". While parents have given greater value to school outputs, as compared to the other stakeholders, and so "goal model" is supported. Similarly, the diffusion of values among students by the teachers indicates towards school effectiveness, which supports "process model". The principal seeks school effectiveness in terms of inputs, processes, and success; therefore, "system resource model" is supported.

Similarly, the "School Effectiveness Research" (SER) of Teddlie and Reynolds (2000) mentioned three main categories of research studies for more comprehension of the phenomenon as: (i) School Effects Research which seeks the scientific aspects of school effectiveness such as stability, consistency, magnitude etc., (ii) Effective School Research which has focused on the process of school for effectiveness, such as school culture process, instructional leadership process, and (iii) School Improvement Research which checks the extent of school processes for improvement. This seems a continuation to the study of Uline, Miller and Tschannen-Moran (1998) who divided school effectiveness in two categories as: (1) instrumental activities that include the measures of reading, writing and arithmetic. (2) Expressive activities or instructional activities that include principal and school health and teachers' trust in colleagues.

Beside the above categorisation of school effectiveness research, Goddard, Sweetland and Hoy (2000) agreed that the factors like: "strong principal leadership, high teacher, expectations for student achievement, an emphasis on basic skills, an orderly

environment and frequent systematic evaluation of students" are involved in school effectiveness (p. 685). The above statement was supported by the different researchers (e.g. Ayik & Atas, 2014; DuPont, 2009; Le Clear, 2005; Ohlson, 2009). Lingard, Ladwig, and Luke (1998) have assumed that school outcomes can be measured in conventional terms of knowledge and competences, skills, and behaviour. Making a difference between effective and ineffective schools Mortimore (1991) was of the view that effective school is one in which student's progress is reported more than its consideration on an intake basis. But "by contrast, in an ineffective school students make less progress than expected given their characteristics at intake" (Sammons, Hillman & Mortimore, 1995, p. 7)

In conclusion, the literature review shows that to see school effectiveness at a glance is very difficult. Uline, Miller and Tschannen-Moran (1998) have narrated that "school effectiveness has been difficult to conceptualise because, it is a complicated construct. It is multifaceted; it is not one thing……recognising the complexities of assessing effectiveness as a multifaceted phenomenon and accepting the inherent difficulties in studying it, we are challenged to find more practical ways to manage the endeavour. This is not to suggest we should over simplify the task. Yet if we are to consider a number" (p. 462). The study by Howard (2010) also supported the above statement.

On one hand the above literature review shows that there is consensus problem regarding factors of school effectiveness. But on the other hand, the application of a suitable statistical technique also remained a problem. The fact is that, the research into educational effectiveness improved considerably during the last 25 years, but mostly criticised for research design, the sampling, and statistical techniques (Creemers, 2002). But now, to analyse multilevel data of research studies, advancement in methodologies, and the availability of particular software resulted in estimates may be called as more efficient (Goldstein, 2003; Snijders, 2011).

The researchers who worked on school effectiveness can be divided into three distinct groups: scientists, pragmatists and humanists. Although, humanists and scientists had nothing in common, but pragmatists had something in common with both, scientists and humanists; simply this concept tells us that it is difficult to collect all the people within the field with consensus. Therefore, it is suggested "let alone others outside of the field altogether" (Townsend, 2001, p.126).

Although, the researchers of school effectiveness studies advocate to consider both, outside and inside factors of the school, but the theories regarding school effectiveness may not be ignored (Townsend, 2001). The Three waves approach has discussed the inside and outside factors of school effectiveness in detail.

2.2.2 Three Waves approach to school effectiveness

Since the 1970s, the worldwide reforms are experienced by the three waves approach. This approach is revolving around the different theories of education effectiveness and patterns which gives way to employ different strategies (Cheng, 2001a; 2002a; 2003). Generally, the first wave pursues on the emphasis of "internal-effectiveness" by involving process-improvement through input approach or external intervention(e.g. Ayeni & Adelabu, 2011; Brookover, 1979; Brookover, Beady, Flood, & Scweithzer, 1979; Day et al., 2010; Hallinger, 2003, 2010; Khan, 2013b; Leithwood et al., 2010; Leithwood et al., 2006; MacBeath and Cheng, 2008; Mortimore et al., 1988; Saleem et al., 2012). The second wave emphasised on the "interface-effectiveness" in term of quality assurance, accountability, school-based management, and satisfaction of stakeholders (e.g. Khan, 2013a; Niqab, 2015; Shahnaz & Burki, 2013). The third wave was focused on the pursuance of "future-effectiveness" (Cheng, 2003; Scheerens, 2015).

In the first wave, a top-down approach is applied with the belief that policy makers have clear goals for education with optimal solutions for experiencing problems. To understand education effectiveness Cheng (1996, 2002c, d) used eight models to highlight the role of the principal who responds to different waves. In which "the goal and specification model, the process model and the absence of problem model are concerned with the first wave reform focusing on internal goal achievement, internal process improvement, and internal problem avoidance" (Cheng, 2003, p.3).

According to Cheng and Townsend (2000) the first wave approach was used by different countries to pursue internal school effectiveness, but unfortunately, they failed to identify the increasing needs and expectations of the public.

In such a situation, the principalship turned to the term "quality" and is known as "interface effectiveness" focusing on quality indicators and benchmarks, community and parental involvement in governance, survey of key stakeholders' satisfaction, planning about institutional development, charter of school, funding based on performance, and accountability of reporting to the community (Cheng, 2003). According to (Cheng, 1996; Cheng, 2002c,d) the interface leadership wave of principalship contributes to the total quality management model for school effectiveness, the satisfaction model, the resource-input model, the organisational learning model, and the legitimacy model (Cheng, 2003).

At the turn of the millennium and in order to answer the question like: whether the challenges in a new era of globalisation can be answered effectively by the second wave of education reforms (e.g. Cheng, 2003), shifted the paradigm of education, including learning and teaching, content, reforming the aims, practice, and management of education to ensure future effectiveness (e.g. Burbules & Torres, 2000; Cheng, 2000a, b; Cheng, 2003; Daun, 2002). This paradigm resulted in future effectiveness wave

approach that focused individualised, localised and globalised schooling (Cheng, 2003). The future effectiveness wave combines both, internal effectiveness and interface effectiveness.

2.2.3 Summary of school effectiveness studies in Pakistan

The constitution's Article 38 (d) gradually explains about the achievement of moral values and education for all, irrespective of gender, caste, creed, or race; whereas Article 37(b) says that Pakistan shall endeavour "to remove illiteracy and provide free and compulsory secondary education within the minimum possible period" (Ministry of Education, NEP-2009, p. 16). Similarly, Article 34 talk about women participation in all spheres of national life (Ministry of Education, NEP-2009), but in contrast the education system has a little commitment to achieve these goals because access, equity and equality in education is disturbed by the parallel (public & private) systems of education, gender disparity and the urban rural division of schools (Ministry of education, NEP-2009). In a Pakistani context, very little consideration is given to develop research studies on school effectiveness to meet all these challenges of education system.

The previous National Education Policy of 1998-2010 (Pakistan) has stressed to conduct school research enhancing school effectiveness. Therefore, to conduct such studies, there is always a need of some standards or dimensions of school effectiveness that has remained a problem among the researchers. The current National Education Policy of 2009 (Pakistan) has mentioned that clearly articulated standards for educational inventories is a key deficit, due to which a clear picture of organisational effectiveness cannot be drawn. It is also articulated that there is no measurement programme to check standards for educational institutions, somehow the National Education Management Information System (NEMIS) has started a struggle to develop

computing indicators for school effectiveness but, the problem is that, most of them are borrowed from UNESCO (Ministry of Education, NEP-2009, p. 12).

Regarding the dimensions of school effectiveness Saleem et al. (2012) conducted a study in different districts of the Punjab province of Pakistan, and recommended the dimensions like: School goals, Instructions, Curriculum, Class room management, Assessment and evaluation, Safe and Orderly environment, Community Involvement , Professionalism, Leadership, Student motivation, High Expectations, Home Environment, Professional Development, Quality Assurance, Social Skill, and Coordination between the head teacher and the staff to study school effectiveess. First, the context of the conceptual model developed by Saleem et al. (2012) is not similar to the context of this study and secondly, in contrast to this study the model is mono-variate. From the study by Saleem et al. (2012) only four factors (Community Involvement, Professionalism as teacher efficacy, Quality Assurance and High Expectations of stakeholders) were included in this study aimed at avoid overlapping among the factors. The others were found similar to the dimensions of instructional leadership and school culture. Therefore, they were not considered for the current research. The lake of research studies regarding school effectiveness in the context of Pakistan resulted in failure to highlight its problems. According to Saleem et al. (2012) although Pakistan is considered as the second largest Islamic country in the world, but its literacy rate is the lowest as compared to other countries. The reason is that government schools are run by emerging graduates resulting to the poor quality of education (Saleem et al., 2012).

Similarly, Salfi et al. (2014) also conducted a study on school effectiveness in the Pakistani context and used two types of indicators:

(1) The process and environment indicators that include clear goals and consensus about goals, maximised learning time, high academic standards and recognition of academic success, staff development and stability, order and discipline, evaluation process, and cooperative and friendly atmosphere.

(2) Product indicators that show indicators like secondary school certificate examination result. This second dimension is included in the tool for this study aimed to assess school effectiveness. The others were found to be common to the remaining dimensions of Principal Instructional Management Rating Scale (PIMRS) and School Culture Element Questionnaire (SCEQ) used in this study, therefore they were not included.

The practice of a successful school's leadership at secondary level in Pakistan was related to the school effectiveness in this study. Salfi (2011) analysed the leadership practices in a Pakistani context, and discussed it in detail. Similarly, Iqbal (2012) also conducted a study to make a qualitative comparison between public and private schools for effectiveness, and found that the private schools in Pakistan were more effective than public schools. The reason was the difference in their practices they had in their schools. Ahmad and Bin Saaid (2013) also studied home school relation in a Pakistani context, proposing school effectiveness, and found out the lack of communication between them. Similarly, Saleem and Naseem (2013) conducted school effectiveness research in a Pakistani context on gender disparities with the perception of male and female teachers, administrators and curriculum experts. They studied the dimensions such as: professionalism, coordination, safe environment, professional development of teachers, community involvement, high expectations, orderly environment, quality assurance, students' motivation, social skills, evaluation, leadership, school goals, classroom management, home environment, instruction and curriculum were selected by them (Saleem & Naseem, 2013). In contrast, the indicators for ineffectiveness of

schools such as problems in the: system, curriculum, textbooks, assessment, teachers' efficacy, learning environment, and irrelevancy of education with practical life were evident (e.g. Ministry of education, NEP-2009, p.42).

Although the above stated studies were conducted in a Pakistani context, but the reality is that "….since nearly six decades of research have not produced a single recipe that has been found for making a school effective" (Saleem et al., 2012, p. 249). To fill the gap, they invited researchers to investigate into the school effectiveness model, by making a comparison between: (1) male and female, (2) urban and rural, and (3) public and private schools in Pakistani context with the perception of stakeholders (Saleem et al., 2012).

Among the important stakeholders, the role of the principal is crucial. The research studies during the 1980s on effective schools were successful in drawing the attention of policy makers and scholars towards the concept that the "instructional leadership role of the principal was crucial to school effectiveness" (Hallinger, 2009; p. 2). The role of instructional leadership must be studied at micro and macro levels in different contexts (Shina, 2013; Hallinger & Huber, 2012; Cuxart & Flecha, 2014). Avolio, Sosik, Kahai, and Baker (2014) have studied instructional leadership with social and technical aspects. The role of the principal as instructional leader must be studied with the perception of other stakeholders, as self examination is difficult.

2.3 Leadership

To discuss instructional leadership in detail, it is necessary to conceptualise its realities. Firstly, leadership as an important factor in organisational effectiveness was considered as the most examined phenomenon in social sciences. Secondly, with a broad belief that leadership is pivotal in organisational effectiveness and social functioning, is apparent throughout classical Western and Eastern writings (David V. Day & John Antonakis,

2012; Ciulla, 2012). In fact, leadership is a universal activity evident in animal species and human kinds. Therefore, "In industrial, educational, and military settings, and in social movements, leadership plays a critical, if not the most critical, role, and is therefore an important subject for study and research" (Bass, 2008, p. 25).

As a reality, leadership is a process possessing the ability to influence others, individually or in groups (James, 2015; Vroom & Jago, 2007). These influential factors of leaders are characterised by Haq (2011) in terms of motivation, inspiration, and guidance by the leaders. In defining leadership, most of the scholars agree that leadership can be defined in two terms: (1) leadership is an influencing process between leaders and followers for reluctant outcomes, and (2) how the leaders explain and communicate this influencing process, depends upon the dispositional characteristics, behaviours, and attribution of the leader and—perceptions of followers, and context in which this influencing process occurs (Day & Antonakis, 2012). This split definition of leadership by Day & Antonakis (2012) confirmed the conceptual model of this study such as: the first part indicating towards the creation of school culture through influencing others, and the second indicating towards the skills and abilities of principal to communicate the school goals in a given context aiming at school effectiveness. In fact, leadership is a process of influence over a group of people for a common goal (e.g. James, 2015; Northouse, 2013; Stewart & Shamdasani, 2014). But it would not be wise to say that leadership is only a process, as it may also be considered as a role. The leaders always remain busy in the motivation of the staff, encouraging guidance, listening to others, enthusiastic, and robust, and always try to be flexible, and demonstrate responsiveness to, rather than be dictated by the contexts in which they work (Kenneth Leithwood, Alma Harris, & David Hopkins, 2008). As a result, a leader can impact the life of students ranging from hundreds to thousands (Schmidt-Davis & Bottoms, 2011). But unfortunately, the principals in Pakistani schools only focus on

administrative jobs rather than to be engaged in curriculum designing and instructional practices of the schools (Memon, 2003). Due to this attitude the principals in Pakistan no longer remained leaders, because of the difference in management and leadership (Algahtani, 2014).

"Leaders do the right thing; managers do the things right" (Warren Bennis, 1989, p.2). The attitude of "pushing" instead of "pulling" one, kept the principals away from the category of leadership in a Pakistani context. The studies with strong theoretical framework always succeed to develop a new model, resulting to a new theory.

(i) Leadership vs. power, and management

It is a common statement that "leaders do the thing right while managers do the right thing" (Algahtani, 2014: p.12). It is important to differentiate conceptually leadership from power, and management by setting forth the definitions of leadership because; leadership is often confused by these concepts (Day & Antonakis, 2012). Power indicates towards the means of leaders have potential to influence others, as referent power, expertise, the ability to reward or punishment, and formal power (legitimately based on one's role) (Day & Antonakis, 2012; Etzioni, 1964; French & Raven, 1968). Power is required to lead others. While making distinction from the "New" perspectives, leadership is purpose-driven action that makes change or transformation based on ideas, values, visions, emotional change, and symbols (Bryman, 1992; Day & Antonakis, 2012). Management is objectives oriented, making stability in ground rationality, the fulfillment of contractual obligations, bureaucratic means (i.e. transactions) (Day & Antonakis, 2012). Managers and leaders by some people are thought as different sort of individuals (Zaleznik, 1992). Although good leaders might not be good managers and good managers might not be good leaders (Algahtani, 2014). But the role of both is influential for individuals and team in achieving goals (Algahtani,

2014). Others believed that successful management is needed by successful leadership (showing its complementary relationship), but in fact leadership is necessary for outcomes that exceeding expectation, so one can say that leadership goes beyond to expectations (Bass, 1985, 1998; Bass & Riggio, 2006).

To complement organizational systems leadership is required to integrate individual styles and personalities in a group, to establish and recognize group goals and values, to help resolve problems and conflicts in a group, to recognize individual styles and responsibilities and to maximize the use abilities of group members (Katz & Kahn, 1978; Day & Antonakis, 2012). Thus, to direct and guide the organizational and human resources, leadership is required which ensures organizational functions are aligned with external environment (Day & Antonakis, 2012; Zaccaro, 2001). But, all the leaderships practices are not equal (Murphy et al. 2007) therefore; leaders have different leadership-styles concerning different leadership theories.

2.3.1 Leadership's theories

Leadership comes in different styles having its own strength and weaknesses. The several styles of leadership as discussed by Dahar et al. (2010) and Rad (2003) were situational, autocratic, democratic, transactional, transformational and laissez-faire. These leadership styles relating to different theories existed in the present literature of leadership. Some of the most prominent theories as found in the literature are given as: Trait theory, Behavioural theory, Situational and Contingency theory, Transformational theory, Transactional theory, and LMX theory of leadership (Kristic, 2012). The following Figure 2.1 conceptualises the important theories.

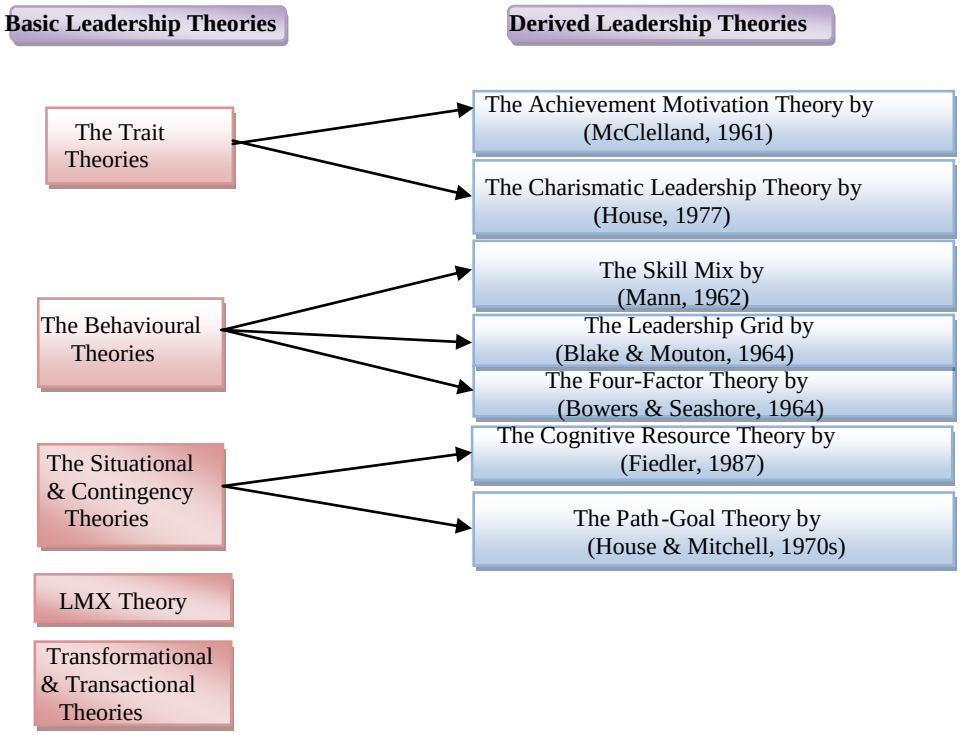

Figure 2.1 Leadership Theories
Source: (Kristic, 2012; Lunenburg, 2010)

2.3.1.1 Trait theory of leadership

The development of the trait theory is based on the "Great Man Theory" in the 18th century. The perspective for the Great Man-Theory was the book of Carlyle published in 1846 (Kristic, 2012). The book discussed the traits of great men from history. In other words the theme was that the great men have performed some great jobs. Later, this history of great men was converted to trait theory. The famous scholar like Professor Ralph M. Stogdill rose as one of the most influential trait theorists (Kristic, 2012). The individual characteristics like personal traits, social traits, and physical characteristics of leaders were studied by scholars under the trait theory of leadership (Barrow, 1977). Listed in his publication "Handbook of leadership" in 1974, a number of traits was identified by Stogdill as: responsibility, sociability, and self-confidence (Northouse, 2004). This trait theory focused on traits but, left behind the behaviours and situational circumstances. The following theories are the kinds of trait theory.

i) Achievement-Motivational theory

Achievement-Motivational theory was developed by McClelland in 1961 (Kristic, 2012). This theory originated in the 1940s claiming that individuals unconsciously have the concern to reach their high targets set by them. This theory believed in high targets of individuals, and their efforts to achieve those targets for high results. The main theme is the struggling for high achievement caused motivation. This theory showed a relation of achievement and related motivation. To check its relevance, "Achievement-Motivational" theory was empirically tested, and found the support of 1,000 studies (House & Aditya, 1997). A high degree of self-regulatory is supposed to have the person under "Achievement-Motivational" theory.

ii) Charismatic leadership theory

House (1977) introduced the "Charismatic Leadership" theory stressing on personal traits such as: exercise influence, a high degree of self-confidence, and moral correctness of beliefs (Kristic, 2012). To describe the leader's charismatic personality these trait are the best. The leaders under this theory have the ability to motivate and inspire the followers for organisational achievement. This motivation is through a dint of personality and charm, rather than any form of authority or external power by the charismatic leaders.

2.3.1.2 Behavioural theory of leadership

Due to some drawbacks in the trait theory, like limited research findings, the researchers turned towards "Behavioural Theory" in the 1940s and later in 1950s (Kristic, 2012). In fact, the behavioural theory is an extension of the trait theory. Northouse (2004) stated that "the style approach expanded the study of leadership to include the actions of leaders toward subordinates in various contexts" (p. 65). The names such as: employee

oriented and task- oriented behaviours were also given to this theory based on the research work regarding leadership styles. In an organisational setting these two names created two types of behaviours. In employee-oriented behaviour, the leader concentrated on the welfare of followers, and showed equality in treating them. While in the task-oriented behaviour, the leader described the goals to be achieved, defined the work process, and stressed on meeting deadlines but planned and decided alone (Bass, 2008).

i) The Skill Mix theory

Floyed Mann (1962) developed the "Skill Mix" theory based on the three skills a leader ought to have such as: human relation skills, technical skills, and administrative skills (e.g. Barrow, 1977; Bowers & Seashore, 1966; Kristic, 2012). Human relation refers to the ability of a leader to understand the variation in the behaviour of the followers, to motivate them, to judge them accurately, and to work with them. Technical skills refer to the necessary knowledge, skills, and techniques required by a leader. While, the ability of a leader is to see the holistic picture of organisation, to place the right person on the right job, to plan and follow up the work for goal achievement which are related to administrative skills.

ii) Leadership Grid theory

"Leadership Grid" theory was developed by Robert R. Blake and Jane Mouton in 1964 (Bowers & Seashore, 1966; Kristic, 2012). It is considered as the best and more practical behavioural model. According to this theory a leader is engaged in a two-fold job. On one side seeking better production by keeping involved in the process concerning production, while on the other side struggling to enhance better relations with followers, necessary for better production (Northouse, 2004). In other words this

theory may be stated as the combination of task-oriented and relation-oriented behaviours.

iii) Four-Factor theory

The "Four-Factor" theory was developed by Bowers and Seashore in 1964 (Kristic, 2012). They build leader's behaviour on the four factors such as: 1. "Support" which enhances followers' self-confidence; 2. "Interaction Facilitation" which describes the positive attitudes of a leader and its influence on work-relationship; 3. "Goal Emphasis" through which the leader explains and communicates the need for goal achievement; and 4. "Work Facilitation" in which the leader displays a good behaviour to plan, and to coordinate the tasks (Bowers & Seashore, 1966; Kristic, 2012).

2.3.1.3 Situational and Contingency theory of leadership

Regarding leadership, the researchers were unable to describe leaders only by the traits and behavioural theories, so they turned towards the "Situational and Contingency theory" in the mid of 1960s (Kristic, 2012). Based on the literature of leadership the researchers claimed that no one leadership style is effective under all circumstances. Effective leaders may not be effective in all situations and may fail to conduct new matters in previously recognised effective ways, because leadership is dependent on the factors like: the task, the situation, the people, other environmental variables, and the organisation (Bolden, Gosling, Marturano, & Dennison, 2003). This theory stressed on certain more basic contextual conditions (Scheerens, 2015).

i) Cognitive Resource theory

Fiedler (1987) developed Cognitive Resource theory in 1987. Basically, this theory is originated from the "Contingency Theory" evolved in the mid of 1960s, that has described the situational effects on leader's behaviour and personality, and vice versa.

Cognitive Resource theory was also called as "person-by-situation interaction" theory focusing on effects caused by the situational stress on the leaders and followers (Kristic, 2012). It also describes the leader's ability to influence and control a work-group process that comes under situational control (House and Aditya, 1997). The literature review shows three variables of this theory such as: (1) leadership intelligence, (2) leadership experience and (3) situational stress experienced by leaders and followers. The cognition table described by Fiedler (1987) shows that: Under "Low-Stress", intelligence is positively correlated, while experience is negatively correlated to performance while, under "High-Stress" intelligence is negatively correlated while, experience is positively correlated to performance (Kristic, 2012).

ii) Path-Goal theory (theoretical framework)

The "Path-Goal" theory originally developed by Evan (1970) and later modified by House (1971) to identify motivation, and the leader's practical style to accomplish goals by followers (Polston-Murdoch, 2013). The idea about: 1- "leader subordinate interaction" and 2- "subordinates overall success based on that interaction" was reinforced by the "Path-Goal" theory. Initially through this theory a number of situational terms were specified to illustrate the relationship between task and person-oriented leadership and their effects (Kristic, 2012). The Path-Goal theory smoothened the way for charismatic leadership style (motivation of the followers through traits of a leader) in 1976, which later caused to refine the Path-Goal theory in 1996 (House & Aditya, 1997). House (1971) presented two basic propositions through Path-Goal theory given as: firstly, the psychological states of subordinates are enhanced by the leader's strategic functions, which resulted in motivation to perform, or job satisfaction. it simply means that the leader is intended to recognise steps necessary to clarify goals, path and getting motivation through rewards; and secondly, it is asserted by House (1971) that the leader's behaviour in a particular situation will accomplish the

motivational function (Polston-Murdoch, 2013). The four leadership styles, discussed in House and Mitchell (1974) are based on three attitudes of subordinates such as: 1- Subordinates' satisfaction, 2- subordinates' expectations of their leaders, and 3- subordinates' expectations of effective performance (Negron, 2008; Polston-Murdoch, 2013).

The new Path-Goal theory is consisted of four sets of leader's behaviour such as: 1- directive, 2-supportive, 3-participative and 4-achievement-oriented. Moreover, the Path-Goal theory is based on situational contingencies which determine the effect on the work unit's performance through the exercised behaviours (e.g. House & Aditya, 1997; House & Mitchell, 1974; Kristic, 2012; Polston-Murdoch, 2013). A detailed sketch of Path-Goal theory is given in the Figure 2.2 below.

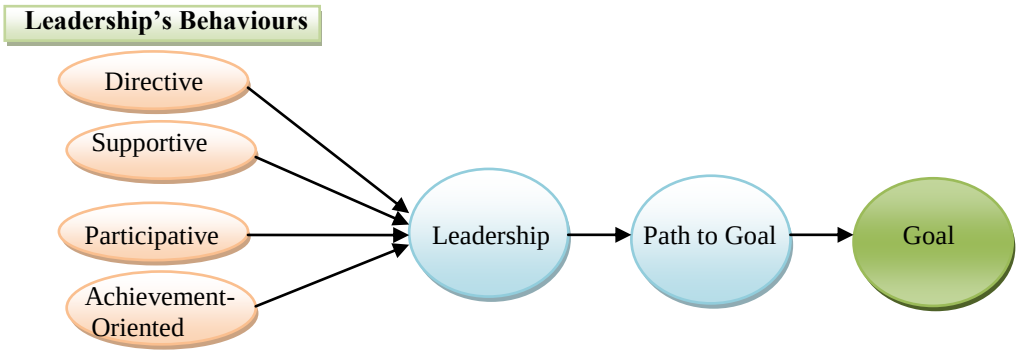

Figure 2.2 Showing Path-Goal Theory Detailed

House (1996) has given the detail for these leadership behaviours (shown in Figure 2.2) such as:

1. Directive leader behaviour that provides a psychological structure for subordinates. Helps subordinates in what they are expected to do, clarifying rules, policies and behaviours, scheduling and coordinating work, and giving specific guidance.

2. Supportive leader behaviour which is based on subordinates' satisfaction about their needs and preferences, developing a supportive environment that has potentials for subordinates' welfare.

3. Participative leader behaviour that concerns subordinates' encouragement in decision making and work unit operations such as making consultation with subordinates in decision making.

4. Achievement oriented behaviour which stresses on excellence for performance encouraging such as: setting goals, seeking improvement and its excellence, to show confidence for excellent performance of subordinates. This behaviour encourages subordinates to strive for high standard goals.

The personal characteristics of the subordinates according to The Path Goal Theory, moderate their performance and satisfaction, as well as the structural and environmental factors of the goals (Gill, 2011).

So this theory, combines traits and behaviour of leadership and focuses on situational and environmental factors of the goal to be achieved through moderators (personal characteristics) of followers. This theory also incorporates motivational factors in leadership, which was never done till the evolution of this theory (Kristic, 2012). Therefore, to reach the specified goals successfully, it is a practical approach to guide subordinates along the path (Northouse, 2004).

2.3.1.4 LMX theory

It is evident from many leadership theories that essentially to behave in the same manner towards all group members is a chief characteristic of a supervisor. Instead, leaders behave differently towards different followers that result in developing contrasting kinds of relationship (e.g. Glendon, Clarke, & McKenna, 2016; Graen &

Uhl-Bien, 1995; Miner, 2015; Punjaisri, & Balmer, 2016). These relations may be developed vertically and/or horizontally. The leader-member exchange (LMX) theory was developed in the stated perspective (Graen & Uhl-Bien, 1995). The relationship between leader and subordinate is developed independently as "dyad" rather than the relationship as a superior and a group has (e.g Phillips, 2015; Herbin 2015). These relationships may be in-group or out-group, in the form of pairs or dyads.

At the early stage of a dyadic relationship, the leader makes an exchange with an in-group or out-group member within the organisation. The benefits of job latitude are enjoyed by in-group members, in many respects such as: confidence-in and consideration for the member, open communications, and influence in decision making (Lunenburg, 2010). Members of out-group are treated with their formal contract. The research studies developed under LMX theory show that the subordinates with in-group status will have job satisfaction, higher productivity, engaging in more citizenship behaviour, and improved motivation (e.g. Chen, Lam, & Zhong, 2012; Ilies, Nahrgang, & Morgeson, 2007; Li & Liao, 2014: Lunenburg, 2010; Pellegrini, 2015). According to Schermerhorn, Hunt, & Osborn (2011) the following steps help to develop high leader-member exchange relationships.

1. In the initial stage a separate meeting should be conducted with in-group member for the purpose to get help from each of them to evaluate potential resources to be exchanged and each other's motives, attitudes, and to establish mutual role expectations;

2. In the next step work by developing mutual exchange, mutual trust, loyalty, and respect for these "in-group" members should be developed;

3. In the third stage self oriented interest is transformed into mutual-commitment for objectives of organisation, mission, and vision,

4. Fourth step involves rewarding in-group members with benefits to get extra attention from them; and

5. Fifth step is working towards increasing the number of in-group members, and making sure of day-to-day observations and discussions.

2.3.1.5 Transformational and Transactional leadership theories

The attention of the researchers turned towards transformational and transactional leadership in 1980s. Burns stand as the most influential author in 1978 with his book "Leadership" (Kristic, 2012). Making a summary of Burns (1978) work, Yukl (1989) stated that "Transformational leadership refers to the process of influencing major changes in the attitudes and assumptions of organization members and building commitment for the organization's mission, objectives, and strategies" (p. 269). In this type of leadership the leaders empowering followers to participate in the process of transformative leadership (Kristic, 2012). While Bass stated that "transformational leadership occurs when leaders broaden and elevate the interests of their employees, when they generate awareness and acceptance of the purposes and mission of the group, and when they stir their employees to look beyond their own self-interest for the good of the group" (p. 21). Therefore, in a nutshell, it can be stated that "Transformational" leadership develops admiration, loyalty, trust, and respect in the follower for their leader. To raise the above one's own boundaries, "Transformational" leadership motivates the followers to do more than expected (Kristic, 2012; Yukl, 1989).

Hallinger (2007) compared Instructional and Transformational Leadership Models which were actually adapted from Hallinger & Murphy (1985) and Leithwood et al. (1998) given as under:

Instructional Leadership model focuses on clarity and nature of shared goals, while Transactional Leadership model focuses on linkage between personal goals and shared organizational goals. Regarding curriculum and instruction there are no equivalent elements for these functions in the Transformational Leadership model, which assumes "others" will carry these out as a function of their roles. For High "Expectations" both "Transformational Leadership" and "Instructional Leadership" focus on ensuring that rewards are aligned with the school's mission. Similarly, regarding professional & intellectual development Instructional Leaderhip model focuses on training and development of the teachers regarding the school mission, while Transformational Leadership model views personal and professional growth widely. For high visibility and modeling of the principal both, Transformational Leadership and Instructional Leadership need not be tightly linked to school goals. In order to model values and priorities, principal maintains high visibility in the school context. Insstructional Leadership models also focuses on school culture building (Hallinger, 2007).

On the other hand "Transactionalleadership" focuses on the followers' tasks issued by the leaders to be accomplished, therefore for success they are rewarded while in case of failure they are finding punishment (Northouse, 2004). This leadership theory has greatly emphasized the exchanges between leaders and followers. "These exchanges allow leaders to accomplish their performance objectives, complete required tasks, maintain the current organizational situation, motivate followers through contractual agreement, direct behavior of followers toward achievement of established goals, emphasize extrinsic rewards, avoid unnecessary risks, and focus on improve organizational efficiency" (McCleskey, 2014, p. 122). The transactional leadership is goal oriented, while in contrast the transformational eadership is learning oriented. In fact, the main function of transactional leadership is to focus the exchange between leadership and subordinate which benefit both. In a nutshell, it can be stated that

instructional leaders use transformational leadership to focus learning and to create a positive and collaborative school culture as suggested transformational leadership.

2.3.1.6 Summary of leadership theories supporting conceptual framework

The trait approaches like "Achievement Motivation", and "Charismatic" leadership theories involve traits of leader in the motivation of followers, but these don't speak to leadership behaviour, skills, and situational effects. While, the behavioural theories such as "Skill Mix Theory", "Four-Factor Theory" and "Leadership Grid Theory" of leadership are considered to be an extension to the trait theories. The aim of these theories is to fulfil the finding's gaps of the behavioural theories, but widely ignored the situational and environmental effects. While the "Situational and Contingency" theories of leadership such as "Cognitive Recourse Theory" and "Path-Goal Theory" constitutes the abilities to help leaders to answer the situational and environmental factors through their traits, skills and behaviours. The instructional leaders also use transformational and transactional behaviours at different situations as suitable. In fact, the leaders develop school culture, as a path to reach the target goals.

Hallinger and Heck (1998) revised Model-B to describe the indirect relation of leader to student achievement. This indirect model involves school culture or environment as mediator to relate leadership with goals. So, this mediator acts as a path for a leader to reach the goals. Therefore, this model is supported by Path-Goal theory of leadership.

In schools, the instructional leaders adopting "Path-Goal" theory develop school culture as a path to achieve school effectiveness. This path is developed and clarified by the instructional leaders to their followers for the purpose to achieve goals through the motivation of teacher. Therefore, the intervening variable such as school culture emerges as a path to target goals or school effectiveness. In nutshell, the role of instructional leadership is vital in school effectiveness.

2.3.2 Instructional leadership

Different leadership styles and behaviours have been studied for a long time since 1980 with different characteristics. Basically, the concept of "instructional leadership" emerged from "instructionally effective elementary schools" (e.g. Edmonds, 1979; Kraft, Papay, Johnson, Charner-Laird, & Reinhorn, 2015) and was described as the role carried out by the school principal. Furthermore, the dissemination which occurred widely during 1980s was instructionally-effective schools undergoing strong instructional-leadership (Hallinger, 2005).

From the very beginning since 1967, considerable attention was given to research in instructional leadership to explore its new dimensions to bring change. But the research in instructional leadership from 1967-1982 has little effect in the process of education as "the more things change, the more they stay the same" (DuPont, 2009, p. 9). At the end of this 15 year period, research studies developed by Bridges (1982) and Bossert (1982), laid a base stone for onward effective studies regarding instructional leadership. Furthermore, looking into the background of instructional leadership, the study by Hallinger (2008) discussed educational reform in USA, in which the emerging trend was the "principal's effectiveness in reforming schools and classrooms". Further, it was analysed that instructional leadership studies, developed during the 25 years (from 1983 to 2008) found that importance was given to instructional leadership, excluding the period from 1992 to 2002, because interest was taken in teacher leadership, transformation leadership and distributed leadership in this period (Barth, 1991; Donaldson, 2001; Hallenger, 2008; Leithwood, Jantzi, & Steinbach, 1999). In the same way, Miles (2002) also confirmed that interest in instructional leadership was decreased in the decade of 1990s and the focus was given to other behaviours of leadership as transformational leadership etc. But later the research studies (e.g. Hallinger, 2015; Hallinger, 2008; Leithwood, 2003; Lochmiller, 2016; Murphy & Shipman, 2003;

Sergiovanni, 2015) have found that, at the turn of the millennium, the instructional leadership got its position back.

Learning for All K–12 (Ontario Ministry of Education, 2011) has argued that "Sustaining an effective professional learning community requires that school staff focus on learning as much as teaching, on working collaboratively to improve learning, and on holding themselves accountable for the kinds of results that fuel continued improvements" (p. 55). This statement is exploring the ability of instructional leaders to create a learning climate aimed at school effectiveness.

Sometimes, the term 'instructional management' was used for 'instructional leadership' because the principals of effective schools were practicing traditional functions of coordinating and controlling in effective schools (Bossert et al., 1982). But the new concept is that the principal ". . . should manage the conditions of learning so as to produce a given result" (Elmore, 2000, p. 9), and "The critical role of "being an instructional leader" played by the principals affects teaching and student achievement" (Sahin, 2011, p. 1920). All kinds of leadership are not equal, and leadership for learning has emerged as a special kind also known as 'instructionally focused leadership' or 'leadership for school improvement' that is visible in high productive schools (e.g. Goddard, Goddard, Kim, & Miller, 2015; Hallinger, 2015; Murphy et al., 2007). They further argued that, the leaders of highly productive schools have a great focus on learning and teaching by having knowledge of pedagogy, be involved in instructional programmes, and giving considerable time to teaching functions aimed to achieve school goals.

Instructional leaders were also named as strong and directive leaders because they were able in "turning their schools around" (Bamburg & Andrews, 1990; Bossert et al., 1982; Edmonds, 1979; Hallinger, 2015; Haliinger, 2005; Murphy & Hallinger, 1985; Spillane,

2015). Different schools have different terms of their needs and resources, giving direction to instructional leadership. The instructional leadership was also called as "culture builders", "goal-oriented", and "hand-on principles" through a combination of expertise and charisma (Hallinger, 2005). These approaches develop different instructional leadership models.

2.3.2.1 Review of instructional leadership's models

The instructional leadership model was introduced in 1980s and evolved continuously but, the researchers are still struggling to discover new dimensions of instructional leadership to bring changes for better school outcomes (Hallinger, 2009).

Karl Weick (1982) declared "principal" as a communicator to instructional leader, by arguing that principals communicate school goals and vision. Later, the study of David Dwyer (1984) was conducted to explore instructional leadership from a rural and urban context. Similarly, the study of Vogel (2015) has discovered the contextual influences in preparation of instructional leaders. The finding of the study showed that principals were dependent on their beliefs, desired goals, and vision to create school culture, to make schools as an organisation providing a better outcome. According to this theory, the principal develops a belief system that helps in creating vision to achieve target, and this belief system shapes the school culture which is necessary for goal achievement.

As a continuation to leadership studies, Hallinger (1987) discussed three dimensions of instructional leadership expanding into different constructs form which the following two are of most important:

Manage the curriculum: A combination of expertise and charisma is used by leaders, in setting high standards to get great value in curriculum and instructions. To improve teaching and learning in schools, leaders often work directly with teachers in a given

environment. This dimension enabled the instructional leaders to frame and communicate goals in an effective manner.

Promote school culture: The principal as instructional leader builds such a culture in schools that develops high expectations and standards for the basic stakeholder e.g. teacher and students. Following this dimension, instructional leaders provide incentives for teachers, maintain high visibility in environment, promote professional development of teachers, and provide incentives for learning to make easy the process of teaching and learning.

Wilma Smith and Richard Andrews (1989) argued that four trends were emerged from research during 1980s that focused on interaction between teachers and principals such that; the principal as a visible presence, the principal as a resource provider, the principal as a communicator, and the principal as an instructional resource. The above concept is also supported by other researchers (Abrahamsen, Aas, & Hellekjær, 2015; Chang, Leach, & Anderman, 2015). This interaction system led the school to an effective level and it is the concept which the LMX theory of leadership explains.

The role of the principal in achieving school effectiveness is very important. Smith and Andrews (1989) viewed that talking about instructional leadership teachers are expected to be experts and principals are to facilitate teaching by providing the latest instructional strategies and techniques. Furthermore, Instructional leadership helps to link the principal with the success of the school (e.g. Fredericks & Brown, 1993; Grissom, Loeb, & Mitani, 2015; Tschannen-Moran & Gareis, 2015). The role of principal as an instructional leader is essential for school effectiveness. To set high expectations for the faculty and teachers' lifelong learning make the principal responsible to enhance the process (Black, 2015; Fullan & Hargreaves, 1996).

Hallinger and Heck (1998, p. 162) proposed two models. The first model was described as Model-A or "Direct Effect Model" of leadership. This stated model is relating to the principal instructional leadership to student achievement directly. This model was discussed later by Hallinger (2008) as "the next classification of studies was the Direct Leadership Effects Model. …… this model studies the relationship between instructional leadership and a second variable, usually an in-school variable (school climate, school missions) or school outcomes (e.g., teacher satisfaction, student achievement, school effectiveness)" (p. 18). The second model was termed as Model-B or "Indirect Effect Model" of leadership. These models are adopted from the study of Pitner in 1988 (see Hallinger & Heck, 1998, p. 162). In this model the principal instructional leadership is related to student achievement through an intervening variable (e.g. school culture). Different models are considered as different dimensions of instructional-leadership which is essential for the principal.

Believing in the principal's role in creating the conditions which enables school to become professional learning-community is instructional leadership. To develop a professional learning community the six characteristics are described such as: 1-Shared mission, vision, values and goals, 2-collective inquiry, 3-high performing collaborative teams, 4-action orientation and experimentation, 5-continuous improvement, and 6-results oriented (DuFour 1998; Eaker, & DuFour, 2015).

Glatthorn (2000) proposed the cycle of achievement for instructional leaders, which consist of four key elements: "standards based curricula; performance evaluation; assessment-driven instruction; and authentic learning" (p. 3). The principal is a curriculum leader who leads the learning community e.g. students and teachers toward high achievement of students (Boudreaux, Martin, & McNeal, 2016; Glatthorn, 2000).

Kevin McGuire (2001) developed nine essential characteristics and abilities for instructional leader in which seven characteristics showed a guideline to achieve school goals (Zepeda, 2004). The skills and knowledge that bothered the principals for school effectiveness including Knowledge about leadership, collaboration and cooperation, taking a long view & preservation, responsibility, staff development, accountability, skill achievement, life-long learning etc. The researchers (e.g. Eaker & DuFour, 2015; DuFour, & Marzano, 2015) also supported the above statement.

The behaviours through which the principals instructionally support the teachers such as collaboration and clear distinctive voice, collective approach to goals, values and ability to adopt change were given the most importance. Later the three things were focused by instructional leader such as: to provide teachers with resources to enhance teaching and to hire experienced teachers, secondly, having standards and high expectations for learning, and providing an opportunity for staff development through instructional conferences and other opportunities (e.g. Zepeda, 2016; Daresh, & Alexander, 2015).

Hallinger (2005) stressed on collective efforts for school effectiveness by claiming that "leaders cannot lead by themselves". This sense of teachers' collaboration clarifies the way for school culture development by the principal aimed at school goals.

The factors relating to instructional leadership such as school culture, communication, ideals/beliefs, focus, involvement in curriculum, knowledge of curriculum, instruction and assessment, monitoring/evaluating, resources, visibility, and relationships were focused by the researchers (e.g. Dimmock & Walker, 2005; Gardner, 2016; Hofstede & Hofstede, 2005; Moreno, 2015).

At the same period Hallinger (2005) assessed the instructional leadership role of the school principal. This role is reflected upon the studies conducted during the 1980s and 1990s. The conclusion was that instructional leaders should focus on: creating a shared

vision that aligns with much of the general leadership research in the field of instructional leadership; developing a climate of high expectations that mean “zero tolerance” to failure; guiding the continuous improvements of the school through instructional leadership skills−assessing, evaluate and monitor the curriculum and student learning outcomes continuously for school effectiveness; creating and communicating the school's vision; orchestrating staff development through continuous development programmes in schools, like instructional conferences and in-service trainings etc, and; show a visibility in school by practicing the shared values of the school's culture.

Murphy et al. (2007) favoured that leadership behaviour is the composition of four important characteristics, such as: knowledge, personal characteristics, experience, values and beliefs. It is expressed that these characteristics have a great impact on student’s achievement and school performance.

Fook and Sidhu (2009) highlighted the great challenge faced by the leaders in the past, as only school management, legal issues, finance and state mandates were focused in their preparation. But recently due to the implementation of educational reforms the main focus is turned to instructional leadership skills aimed at teaching effectiveness and a high level learning. Therefore principals are expected to be experts in the school instructional programmes and collaborative school culture to enhance school effectiveness. To assess the principals for their instructional role different studies were developed using the Principal Instructional Management Rating Scale (PIMRS).

It is evident from a review of recent articles that, scholars studying principal leadership used PIMRS instrument as their first choice (Hallinger, 2011b). Principal Instructional Management Rating Scale was used in over 200 studies in the context of 26 countries (Hallinger, Wang, & Chen, 2013). “The same article further suggested that the PIMRS

has maintained a consistent record of yielding reliable and valid data……. We [have] note[d] that there has not been any systematic attempt of this kind since the initial published report in the Elementary School Journal in 1985" (Hallinger, Wang, & Chen, 2013; p. 274). Although, recently the reliability of several studies was criticised by Condon & Matthews (2010), but the information found regarding PIMRS were not, up-to-date and complete (Hallinger, Wang, & Chen, 2013).

Further, Hallinger, Wang, and Chen (2013) have discussed PIMRS and its dimensions as under:

The PIMRS is purposed to describe three dimensions of the instructional leadership role: Defines the School Mission, Manages the Instructional Programme, and Develops a Positive School Learning Climate. There were ten leadership functions delineated in the above three dimensions. Firstly, the dimension of "Defining School Mission" includes framing school goals and communicating school goals, which are based on the principal working with teachers. It simply, means making school goals clear. In other words the principal ensures that school goals are developed and communicated effectively to subordinates.

Secondly, three leadership functions are incorporated in the dimension of "Managing Instructional Programmes". These functions are given as: 1. coordinating the curriculum, evaluating and supervising instruction, and monitoring the progress of student. The principal's role in "Managing the technical core" of school is described in this dimension.

Thirdly, the dimension of "Developing a Positive School Learning Climate" incorporates several functions of the leader and thus its scope is broadened. These incorporated functions are described as: promoting professional development, protecting instructional time, providing incentives for learning, maintaining high

visibility, and providing incentives for teachers. The notion that the successful schools create an "academic-press" is confirmed by these dimensions. All the studied dimensions are important for the instructional role of the principal to achieve school effectiveness, but to highlight all these, research studies are rarely found in a Pakistani context.

2.3.2.2 Instructional Leadership in the Global Education Context

Though, the instructional leadership studies were mainly focused by the researchers from the last three decades, but as a fact the term is still poorly understood in different regions of the world. It is essential to bring change in the teaching and learning to answer the global challenges regarding education, but for the stated purpose first a change is essential in instructional leadership. That is the reason for which education reforms were noted mostly in East Asia (Hallinger, 2011a, 2011b). Hallinger (2013) discussed two conceptual models, actually originated from USA in the mid of 20th century. The detail is given below.

(i) The Far West Lab Instructional Management Framework

This framework was developed by the Far West Lab for Educational Research and Development (USA). The aime was to define instructional leadership as a researchable construct. This model discussed the instructional leadership in the context of school. This model described some moderating variables to shape the instructional leadership for example, personal characteristics, institutional context, and community context (Hallinger & Lee, 2013). This model also discussed the mediating variables for example, instructional climate, and instructional organization. It was suggested that through these variables a principal leadership impacts students' outcomes. Different research studies support the efficacy of this framework (e.g Hallinger, 2011a; Hallinger

& Heck, 1996; Leithwood et al., 2006; Mulford & Silins, 2003; Robinson, 2006). This framework assumed that:

1) The principal's personal characteristics affect their leadership's approaches such as resilience, gender, optimism, and efficacy.
2) The principal and community features which shapes principal's instructional leadership affect the principal's leadership in different context.
3) School leadership has its indirect impacts on students' outcome through designing the school organization, developing people, and setting direction.

(ii) The Sociocultural Environment of schools

Different scholars have given an intensive attention to this model (e.g. Bajunid, 1996; Cheng, 1995; Hallinger, 1995; Hallinger & Leithwood, 1996; Walker & Dimmock, 2002). This model is in fact the Far West Lab model with addition of sociocultural context variable (e.g. Hallinger, 2013). It was further stated that due to the omission of this variable, the researchers in 1980s seldom considered the sociocultural context implications. The global education policies have revealed that different leadership practices in different cultural settings were ignored largly. This model supports and guide instructional leadership in different sciocultral context.

2.3.2.3 Instructional leadership: studies and practices in Pakistan

The study of Hallinger and Bryant (2013) was conducted to find the contribution from Asian countries who have published instructional leadership studies between 2000 and 2011. They compared the contribution from each society from Asia and especially South Asia. Their findings of study were very surprising for example; according to Hallinger and Bryant (2013) the comparison of South Asian countries regarding instructional leadership studies is very difficult, because out of 22 contributing South

Asian universities, only two produced more than two studies. The study found that India has developed 13 studies, while Pakistan has produced only 10 studies regarding educational leadership and management in twelve years. Adding further, in the last twelve years, the 15th ranked university of education in Pakistan has published only three papers in the area of educational leadership and management (Hallinger & Bryant, 2013). This contribution of studies mirrors the instructional leadership in Pakistan.

Although there is a globalisation trend in the world, but in such a situation the value of individualised factors is increasing more (Dimmock, 2000; Hallinger & Bryant 2013). While thinking globally, although the developed countries produced many studies in the area of educational leadership, but the contribution from the rest of the courtiers look smaller (Nawab, 2011). It is stressed that the role and influence of school leadership could not be denied in developing countries like Pakistan. But in contrast as evident from the literature a few empirical research work is found regarding the role and impact of the principal in Pakistan (Rizvi, 2010).

There are many problems that are associated with instructional leadership in Pakistan. Such as the instructional leaders have a Bachelor of Education (B.Ed), and/or Master of Education (M.Ed) as their pre-service professional development. But, in fact, such programmes have no capacity to develop leaders, as these are not valid for practical application in schools (Ministry of Education, NEP-1998-2010). The same problem is also highlighted by Alam (2012), who emphasised that Pakistani teachers are promoted to the post of principals without having adequate leadership skills or prior leadership training. This leadership-weakness can be fulfilled with in-service trainings of the school leaders. But the programmes for in-service professional development are very few in Pakistan, which are usually organised under foreign funded projects (Khan, 2013a; Khan, 2004). These problems of instructional leadership are due to the

unavailability of trained and qualified instructional leaders to run educational programmes in Pakistan (Rizvi, 2010).

Although the education policies of 1998-2010 and 2009 had stressed to provide a strong educational leadership, equipped with skills and knowledge for the improvement and achievement of educational goals, but in contrast no practical contribution is sighted from central management to update and upgrade skills of principals required for the quality of schools (Khaki, 2005). Therefore, the current situation is that the principals in Pakistan have focussed only on administrative jobs rather than on curriculum designing and instructional practices of the schools (Memon, 2003). Due to the above weaknesses, the recent education policy of Pakistan NEP 2009 declared that Pakistan has failed to achieve its educational goals highlighted in its different education policies. These goals can be achieved only through positive and collaborative school culture which resulted from the collective efforts of the principal and staff members.

2.4 Culture

For a comprehensive understanding of the school culture, this section explores the culture and organisation culture as well. This section also explores the relationship between the school culture and other variables; like school effectiveness and instructional leadership based on the related literature.

2.4.1 Definition of culture

The definition of culture found in Dupont (2009) is very comprehensive: it is "an abstract concept that is found among the individuals of an organisation with the background of shared history that includes shared experiences, purpose, conflicts, rituals, celebrations, myths, and traditions known as culture" (p. 22). The factors

discussed, become a part of the teachers' personality that are thoughtfully reflected in schools and in the personality of students through the hidden curriculum of school.

Culture is an intricate life inside a group of people, to solve the problems relating to them in society. On the maturity of this system, it is no longer of interest, except for new members of the culture to be guided, as in schools at the end of every term new comers enter. Therefore culture can be stated as "a pattern of shared basic assumptions that was learned by a group as it solves its problems of external adaptation and internal integration that has worked well enough to be considered invalid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems" (DuPont, 2009, p. 23). DuPont (2009) also mentioned that the term culture defines personality for example a "well cultured person" while, culture of organisation means, the shared and collective experiences of individuals or group/s within the organisation. In this organizational culture, individuals learn from social environment where they survive (Hofstede & Hofstede, 2005). Therefore, in a more focused way one can say that "culture is the way we do things around here" (Deal & Peterson, 1999, p. 3).

Although, this study has not focused the linkage between the culture and organisational culture, but in fact, learned culture becomes personality, and personalities develop organisation/s and organisational culture.

2.4.2 Organisational Culture

The development of organisational culture is not simple. The emergence of organisation culture in the shape of a product resulted from many interactions. It involves different variables such as rituals, authority, socialisation, technology, language, influence, and economy (Turan & Bektas, 2013). DuPont (2009) studied organisational culture from Hofstede and Hofstede (2005) and focused its six dimensions namely: 1.Process

oriented versus results oriented, 2. Employee oriented versus job oriented, 3. Parochial versus professional, 4. Open system versus closed system, 5.Loose control versus tight control, and 6. Normative versus pragmatic. These dimensions were adopted from their study at the Institute for Research on Intercultural Cooperation (IRIC) developed in 1987. While Bergiel, Bergiel and Upson (2012) discussed the four dimensions of organisational culture such as: 1. Power distance, 2. Individualism, 3. Masculinity and femininity, and 4. Uncertainty avoidance. Furthermore, DuPont (2009) added that the study of Chinese Culture Connection (1987) disclosed a fifth meaningful dimension labeled as "Confucian dynamism" later called as "long-term orientation".

Bolman and Deal (1984, 2003) explored four approaches within organisations namely: Structural approach emphasizing on goals, policies and chain of command within the organisation; human resource approach which embodies skills within the organisation; political approach which focuses on power, conflict and resources; symbolic approach which touches on the values cultivating organisational cultures and rituals (DuPont, 2009). The dimensions like humility, flexibility and adaptability to changing circumstances are discussed by other researchers (e.g. Abdollahimohammad & Ja'afar, 2015; Hofstede & Minkov, 2010) as well.

The strong culture of an organisation always caused strong results (e.g. Bolman & Deal, 2003) that are related to the different approaches to effectiveness by arguing that many of these approaches function in organisations to produce results (DuPont, 2009).

2.4.3 School Culture

It is evident from organisational theories that the most important function a leader can perform is paying attention to the school's culture because, the principal's impacts on learning has no direct-effect but, through, climate and culture of the school (e.g. Hallinger & Heck, 1998; MacNeil , Prater, & Busch, 2009; Schaufeli, 2015; Neves &

Story, 2015; Wu, Kwan, Yim, Chiu, & He, 2015). Therefore, the responsibility to establish a pervasive culture of teaching and learning falls upon principals in each school. Similarly, to understand the school culture before starting the implementation is essential for the principal (MacNeil, Prater, & Busch, 2009; Walker & Qian, 2015). Similarly, some researchers (e.g. Lee & Li, 2015; Semiha Sahin, 2011) have discussed the instructional leadership style and school culture aimed at developing and understanding the school culture by the principal.

Although, it is clear that the idea of school culture is a borrowed concept from anthropology, but its linkage to organisational studies as a dependent and independent variable is for increasing its importance (Brady, 2008; McNeal, 2015). Therefore, many researchers (e.g. Gruenert & Whitaker, 2015; Houtte, 2005; Hoy & Miskel, 2001; Martin et al., 2004; Teddlie & Reynolds, 2000; Ubben, Hughes & Norris, 2015) have developed studies about school culture and school climate that led school culture to become a popular concept in educational research.

Conceptualising the above discussion, school culture has been defined by different scholars in different ways including; values, behaviours, norms, system, social activities heritage, and interaction etc. in a society. In conclusion, it can be stated that school culture is "the total of thoughts and habits learnt mentally; as the system of symbols that are a product of mental processes structurally; as a vehicle and mechanism that helps harmony functionally; as the total of meaningful symbols symbolically; as a social heritage transferred to the next generations historically; as the total of learnt behaviours behaviourally; as the total of moral values and rules that determine the activities of human beings normatively" (Ayik & Atas, 2014, p. 71). Hopkins (1994) has also highlighted that the observed patterns of behaviours among the individuals within the school is school culture, for example, how the individuals within school a context behave and interact with each other in different situation to succeed professionally and

socially. Deal and Peterson (1999) viewed that, school cultures "become like tribes and clans, with deep ties among people and with values and traditions that give meaning to everyday life" (p. 21). Furthermore, they added that school culture have a great impact on school performance as school culture clear the people's feelings, beliefs, thoughts, and act. In fact, school culture has proven to be a symbolic tool, influential in effectiveness (Sahin, 2011). But still there exist a consensus problem in the organisational culture (Abu-Jarad et al., 2010).

The school culture is influenced by the culture of the society. The general culture possessed by an organisation must be accepted by all members of the society. In case, if it has no contradiction with the culture of society it will become school culture (Yeşilyurt, 2009). As a conclusion, it is the duty of old members of the school culture to transfer it in a meaningful way to the new teachers. New teachers should also understand school culture for their own professional and social development and mutual understanding to reform school.

While describing competing approaches to school reform in their book entitled "shaping school culture" Deal and Peterson (1990) discussed some approaches such as: human approach, structural approach, political approach, free market economic approach with the addition of new fifth approach i.e. school culture or ethos approach. This new approach was described as "focuses on behavioural patterns, and the values, beliefs, and norms that define and sustain those patterns" (Deal & Peterson, 1990, p. 17). Furthermore, an assumption was made by them that students and teachers accept a strong influence by the routines, mores, morale, and conscious and unconscious conventions about how things are accruing in their schools (Deal & Peterson, 1990). Two other models for school reform were also studied by the researchers (e.g. Kytle & Bogotch, 2000, 2014) and 'reculturing-model' was appreciated as compared to 'restructuring-model' in school reform efforts. The Reculturing-model has focused on

school culture which was aimed at effectiveness. In simple words, the researchers favoured to bring a change, through changes in school culture rather than making a change in system.

There are two different functions of school culture discussed by the researchers (e.g. Kuen, 2009; Newton-John, et al., 2016; Rackow, Scholz, & Hornung, 2014). They are "instrumental-social control" and "expressive-social cohesion". These include 'welfarest' school culture (high cohesion and low control); 'survivalist' school culture (low cohesion and low control), 'hothouse' school culture (high cohesion and high control); 'formal' school culture (low cohesion and high control); and 'ideal' school culture (the optimal levels of the two domains). Furthermore, it was found that some variables like: optimal control, optimal cohesion, and support in facilitating high achievements and high expectations are effective in achieving ideal school culture (Hargreaves, 1995; Kuen, 2009). Similarly, another six factors were discussed by Gruenert (1998) regarding school culture such as: collaborative leadership, teacher collaboration, professional development, collegiate support and unity of purpose, and learning partnership considered essential for school effectiveness. The above factors state different functions and dimensions of school culture which were focused in different approaches.

2.4.3.1 School culture approaches

Cavanaugh and Dellar (1997a) stated that "the concept of school culture has evolved from the studies of organisational culture and school climate in the disciplines of organisational management and school administration" (p. 2). The above statement was supported by Papolngam (2011) as well. On the basis of this statement, the school culture concept was developed from the research on school climate and organisational management social-system theories. The social-system theories highlighted the bonding

of teachers grouping based on their personal and social needs (e.g. Cavanaugh & Dellar, 1997; Follett, 1941; Getzels, Lipham & Campbell, 1968; Olsson et al., 2015; Scott, 1961). According to Cavanaugh and Dellar (1997) the school social system developed a system of norms and group climate. This notion of the school climate was studied by Halpin and Croft (1962) with the profile of six climates as perceived by the teacher which are related to the principal's behaviour in elementary schools (Cavanaugh & Dellar, 1997). In fact, "A school's culture builds commitment to and the identification with core value" (Peterson & Deal, 2011, p. 11). Similarly, Anderson (1982) also studied the cultural aspects of school climate on student learning, and considered the school culture as a "social dimension of school climate concerned with belief systems, values, cognitive structures and meaning" (p. 382) (see also Amstutz, 2015).

According to Cavanaugh and Dellar (1997a) school culture was considered as an important factor in the school improvement programme. On the basis of these thoughts, the schools were viewed as a community with the process of bonding between people and exercised control (e.g. Cavanaugh & Dellar, 1997; Wise, 2015). This community is dependent on "shared ideas, through norms, purposes, values, professional socialisation, collegiality, and natural interdependence" (Sergiovanni, 1993, p. 7).

In fact, the differences between social interaction system and traditional management were caused to introduce a school culture model (Cavanaugh & Dellar, 1997). The school culture model of Cavanaugh and Dellar (1997) regarding school effectiveness research provides an emphasis on both cultural constructs (interaction system) and school mission.

Furthermore, approaches to school culture regarding school effectiveness were also adopted by other researcher like Hargreaves (1995), who developed a model describing expressive and instrumental domains. Similarly, Erikson (1987) presented school

culture with three conceptions such as: cultural knowledge that exists in small bits spread throughout the school; school culture as a conceptual structure with the presence of central organising constructs and core symbols; systematic variation in cultural knowledge between the groups (Cavanaugh & Dellar, 1997). Maxwell and Thomas (1991) stated that school culture is the system of behaviours composed of ideas, beliefs and values. It is evident from the literature that different researchers (e.g. Cavanaugh & Dellar, 1997; Dalin & Kleekamp, 1993; Fullan, 1993; Osman & Ongeti, 2013) studied the "improvement effectiveness approach" of school culture.

In addition Keun (2009) studied three approaches to the school culture namely: typology functionalism, process approach, and improvement-effectiveness approach to make an understanding of the school culture and school culture phenomenon. According to this study, improvement-effectiveness approach proved to be more appropriate as compared to the other two approaches. Other researchers (e.g. He, 2014; Osman & Ongeti, 2013) also studied these approaches. Details are given as below:

Typology Functionalist Approach: This perspective explains that a variety of functions are performed by school culture in order to help the school as: help to 1- convey identity of members, 2- generate school commitment 3- create social system stability 4- shape behaviours 5- bind organisation 6- defining behavioural standards 7- combined organisation and 8- create soft corner for members of organisation (Burrello & Reitzug, 1993; Cheng, 1993; Hoy & Miskel, 2005; Kuen, 2009; Smircich, 1983). Hargreaves (1995) converted this typology model as collegial culture (e.g. Ribando & Evans, 2015; Naidoo, 2013) and traditional culture, and suggested principals to adopt collegial culture.

Process Approach: This was adopted by scholars to fill the gaps in the typology model discussed above and this process focuses on the school development and maintenance

process mechanism (Cavanaugh & Dellar, 1997a; Keun, 2009). This approach considered school culture as dynamic having continuous interaction with the outer environment (Cavanaugh & Dellar, 1997b, 2003; Keun, 2009). It simply explains how the school culture was developed and maintained (Houtte, 2005).

Improvement-effectiveness Approach: This was developed with the background that the process approach model and typology-functionalist models were unsophisticated for school effectiveness and improvement (Keun, 2009). While this approach was used to achieve school effectiveness and school improvement, school culture is considered as critical component to do this function (Bennett, 2001; McMahon, 2001; Reezigt & Creemers, 2005). Besides these different approaches, school culture also consists of different elements that make attempts to clarify the term school culture.

2.4.3.2 The Elements of School Culture

In the light of the school culture definitions, it seems very difficult to understand school culture at a glance. For organisational analysis the framework of Bolman and Deal (1984) was favoured by the researchers (DuPont, 2009). To understand the elements of school culture, it is just like understanding the individual letters from an alphabet, because school culture elements create a cohesive school identity (DuPont, 2009; Deal & Peterson, 1999).

The elements of school culture found in (Dupont, 2009) are given below:

I) Vision and value

Vision is the most important object in the school's success. Schoen (2005) argued that defining school mission-statement and beliefs-system cause an understanding of the teachers; as a result they show cooperation that shapes a strong culture. This vision and beliefs combine to make a strong myth that creates a spiritual source for developing

school culture. This myth makes an internal cohesion and support that enables an institution to answer internal and external challenges (Bolman & Deal, 1984; DuPont, 2009). Furthermore, Deal and Peterson (1999) added that the schools may have different visions and when they are shared they make a reason for the school's existence. The school themes like performance, learning, change, community involvement and students' potentials are shared through the communicational role of the principal to get output or success.

II) History and stories

Different studies show that history and stories play a vital role in creating school culture (e.g. Berry III, Ellis, & Hughes, 2014; Olson, 2015). It is a fact that "a learning organisation is one that mines past and present experiences for important lessons and principles" (Deal & Peterson, 1999, p. 48). As a common belief, humans naturally learn from their past experiences. In schools different subjects are taught by telling stories. These stories forward messages and morals convincingly (Bolman & Deal; 1984). Different past experiences, values and traditions are transferred from parents and teachers to children through stories. Values and traditions are the elements that strengthen language, past heroes, meanings and present practices by playing an important role in school culture (Handy, 1993; Hollins, 2015). Against this background, today's history and stories play a vital role in school culture.

III) Rituals and ceremonies

To achieve the school's purpose and mission; rituals and ceremonies play an important role in making people connected. Rituals should be manifested in an effective way to all teachers, students and principals (Sahin, 2011; Trueba, Jacobs, & Kirton, 2014). Rituals and ceremonies connect principals, teachers, students and parents (Deal & Peterson, 1999). These types of activities provide a chance to recognise the contribution of others.

IV) Architecture and artifacts

Some researchers also claimed that school architecture and artifacts are part of school culture (Deal & Peterson, 1999; DuPont, 2009; Karadag, Kilicoglu, & Yilmaz, 2014). School buildings and its different parts represent the school's culture as green areas and sports corners of the school; or artifacts on the walls of the schools explain the school culture.

The combination and interaction of different school culture elements resulted in the development of different types of school culture. Therefore, it is essential for the instructional leader to understand types of school culture in terms of suitability for school to make future plans and decisions.

2.4.3.3 Types of school culture

Literature shows different types of school culture. School culture must be "either positive, toxic or anywhere in between" (DuPont, 2009, p. 31). Schools are "stuck" and "moving" regarding its culture (Rosenholtz, 1989). She further explained that in "stuck" schools no progress is noted while moving schools have a collaboration of stakeholders and progress is noted.

There are five types of school culture in which the first one is fragmented individualism in which teachers keep themselves protected from the outside environment and no collaboration is noted. In a relative position the second one is balkanisation in which a little cooperation occurrs as compared to fragmented individualisation. The third one is contrived collegiality in which the principal struggles to make collaborative elements without involving teachers. The fourth one is comfortable collaboration that includes teachers' conversation to solve the problems of their classrooms. While the fifth or final

one is the collaborative culture where individuals and teams feel equal responsibility and show full collaboration (Fullan & Hargreaves, 1996).

Later, the "Four Mind-Set Model" was presented by Charles Elbot and David Fulton (2008) that uncovered four stages as: dependence, independence, interdependence, and the mind-set of integration. The first one that is "dependent", a top-down manner is followed by everyone and has a respect for each other. The second one is "dependence" in this manner every person works individually and no acknowledgement is found for others. The third one is "interdependence" that includes a collaborative approach. The fourth is "mind-set" of integration that collects all the qualities from other three approaches to develop a collaborative and flexible model (DuPont, 2009). Regarding this Four-Mind Set model, Elbot and Fulton (2008) conducted a survey from teachers, students and parents to find the category of school with respect to the Four-Mind Set model.

The study of school culture has become an "inquiry into the phenomenon of social order" (Smircich, 1983, p. 341). But "The point is that assessing your school's culture isn't just a nice, trendy thing to do; it's a leadership imperative. Anything less is a dereliction of duty" (Ramsey, 2008, p. 41). Many researchers examined the school culture either by qualitative or quantitative method. The aim was to reach inside into the school culture regarding school effectiveness. The school culture was examined on different variables such as: academic achievement, length of service, teaching level, gender and SES (Sahin, 2011). School culture has indicators like: collaborative leadership, teacher collaboration, professional development, unity of purpose, collegial support, and learning partnership (Dupont, 2009). Cavanaugh and Dellar (1996) used a tool to assess school culture with the dimensions like professional values, collegiality, collaboration, and shared planning. Gonzalez-Prendes (2011) discussed the core professional values of the teachers who created the school culture such as social justice,

importance of human-relationship, dignity and worth of the person, integrity, and competence. Later, the dimensions stated above were studied by different researchers. The development and maintenance of school culture by the instructional leader are essential factors in school effectiveness.

2.4.3.4 Difference between school culture and school climate

The literature on school culture shows that the two terms, school climate and school culture used interchangeably, but in fact they are two different terms. The term 'school climate' shows people's perception towards the essential attributes or characteristics of a school (e.g. Anderson, 1982; Moos, 1979; Tagiuri, 1968), while the term 'school culture is a system of shared beliefs, assumptions, norms and values among the school members (e.g. Cheng, 2000; Maxwell & Thomas, 1991; Stolp & Smith, 1995). Therefore, Deal and Peterson (1999) argued that the school culture is the underlying tone of school, that permeates everything such as; expectations, actions, relationships, behavior, beliefs, values collaboration and assumptions. While School climate is considered to be the only superficial level of school culture (e.g. Cheng, 1989; Schein, 1992; Stolp & Smith, 1995). According to Gruenenrt (2008) for many decades, the term school climate was used to denote the ethos, or spirit, of an organization but, more recently, school climate represents the attitude of an organization while, culture of organization show its collective personality. Furthermore, it was described that although the characteristics of these two terms are the same but, in fact they are widely different. For example, if culture is personality of an organization then climate is its attitude, and to change attitude is much easier than to change personality (Gruenert, 2008).

2.5 The relationship between principal's instructional leadership, school culture, and school effectiveness.

The relationship between the above variables is too strong a word from the review of related literature as given below.

2.5.1 Instructional leadership & school effectiveness

A leader in the school is the main figure to affect the process of school. Basically, a leader defines school goals and notifies directions to the followers. The aim is to achieve goals through managing the instructional programmes and creating a learning climate in school. By doing so, the principal assures the learning by students and professional development by teachers. Heachinger (as cited in Masuku, 2011) has argued that "I have never seen a good school with a poor principal, or a poor school with a good principal. I have seen unsuccessful schools turned around into successful ones, and regrettably outstanding schools slide into decline" (p. 4). The above statement clearly defines the relationship of principal to school effectiveness. Though, the relation of instructional leader with school effectiveness is clear but, still different strategies, skills and techniques of the leaders are needed. To find school effectiveness, there seems to be no single formula. Only tried practices of the school principal can create a culture of teaching and learning aimed at school effectiveness (Robbins & Alvy, 2003).

The evolution and performance of a school are greatly influenced by the principal. The principal develops behaviour to perform many functions in order to be an effective instructional leader. According to Bredeson (1985) "behaviour of the school principal is the single most important factor supporting high quality educational programmes…..while schools make a difference in what students learn, principals make a difference in schools" (p. 31). In school the role of the instructional leader has been proven as a key for effectiveness. The principal being instructional leader performs

many functions for the betterment of the school outcome. For example they direct assistance to teachers and staff development, enhance student achievement, develop action research to solve problems, voice-in teachers and encourage reflective thinking etc. (Blasé & Blasé, 1999, 2002). All these functions are carried out in a systematic way. Primarily, the role of the principal is limited to "inspection, oversight and judgment of classroom instruction" (Blasé & Blasé, 2002, p. 14). That results in better students' academic achievement partial to school effectiveness. Gradually, the instructional leader broadens the circle of actions through a greater emphasis on the learning and teaching process to achieve school effectiveness (Coleman, 2001; Masuku, 2011).

It is discussed earlier that at the very begining the school leaders were expected to bring effectiveness through their traits they have, as explained by "Achievement Motivation Theory" (e.g. Heckhausen, 2013; McClelland, 1996, 2015; Weiner, 2013) and "Charismatic Leadership Theory" (e.g. Avolio & Yammarino, 2013; House, 1977). But later the trend was turned to use behaviours in addition to traits aimed to bring change e.g. "The Skill Mix Theory" (Mann, 1962) and "The Leadership Grid" (e.g. Blake & Mouton, 1964; Saeed, Almas, Anis-ul-Haq, & Niazi, 2014.). But recently, the instructional leaders are expected to achieve school effectiveness through their traits, attitudes, skills, and behaviours to answer the instant situational problems in their schools to make them globalised. Therefore, they are expected to think globally and to act locally.

A great attention is given to the role of the principal as instructional leader in the emerging research studies. Without considering the role of the principal whether direct or in direct, the empirical relationship is found between the principal's and student's achievement (Mendels, 2012). The principals are expected to be instructional leaders rather than managers. Therefore, the instructional leader is the most important school-

based factor in student achievement, which is considered as a school effectiveness indicator (Leithwood, Louis, Anderson, & Wahlstrom, 2004). “In developing a starting point for this six-year study, we claimed, based on a preliminary review of research, that leadership is second only to classroom instruction as an influence on student learning. After six additional years of research, we are even more confident about this claim” (Louis et al., 2010, p. 9).

The Wallace Perspective report that has been published recently takes a look back at the foundation’s research and finds that five practices in particular seem central to make effective the leadership of school i.e.

The principal must;

1. shape vision for the academic achievement of the students to focus high standards;
2. assure fruitfull interaction, cooperative spirit, and safety by creating a feasable climate.
3. transform leadership in the followers to make them realise the school vision;
4.struggle to enhance the process of teaching and learning to assure the best learning of the students and best teaching of the teachers; and
5. manage different things at a time such as data, people, and processes of the school to make foster the improvement of school (Mendels, 2012).

By adopting these above stated attitudes the principals can assure the effectiveness of schools.

Furthermore, principals can also ensure the collaboration and team-work in their respective schools, and confirm that teachers give help and guidance to each other for the sake of institutional improvement, and they do not work in isolation from one

another (Louis et al., 2010, p. 50). This friendly and cooperative environment creates a learning climate which in turn results to school effectiveness.

To confirm the high visibility in school, the principal moves to block their scheduled activities and administrative jobs like meetings etc. They plan their time for teachers and classroom interaction and accommodate the professional training of teachers such as peer observation and grade level meetings aimed at various professional developments (Portin et al., 2009).

The main responsibilities such as “planning, implementing, subfeature supporting, advocating, communicating, and monitoring” are related to the effective principals (Goldring et al., 2008, p. 9). Herrera (2010) has added more to it, “show me a good school and I'll show you a good principal. However, nailing down what defines 'good', especially as it relates to instructional leadership, has proved to be somewhat elusive” (p. 5). In different literature, the statement is also found to be ‘give me a good principal I will give you a good school’. Therefore, the relationship between principal and school effectiveness is deep and notable.

The principals with innovative attitudes can improve schools rather than traditional ones by keeping beliefs in top-down decision making. The principal not only develops a vision but also communicates effectively this vision to achieve targets by collaborative decision making. The principals create a supportive environment suitable for in-school stakeholders which positively reinforce them for improvement. For this purpose, at different times the principals adopt different styles to get more benifit of the situation and time.

Addressing the broaden focus; the principals adopt bureaucratic, participative and transformational leadership styles. Among these the organisational learning is to undergo the transformational leadership (Leithwood, Leonard & Sharratt, 1998).

Transformational leadership comprises five first order factors as Idealised influence (attribute), Idealised influence (behaviour), Inspirational motivation, Intellectual simulation, and Individualised consideration (Bodla & Nawaz, 2010). These five first order factors help to create school culture as a path to school effectiveness.

2.5.2 Instructional leadership & school culture

The role of instructional leadership is important in setting positive and productive dimensions through a cooperative and collaborative school culture to get school effectiveness. Masuku (2011) considered that "a healthy school culture is principal-driven" (p. 50). In fact, in school, the main focus of the principal remains on the interaction system among the school members, which in turn, develops and nourishes school culture required for better teaching and learning. The instructional leader is an important agent in developing school culture. Baig (2010) viewed that the principals resolve conflicts in schools by applying their personal values. These values reflect in specific situations named as school culture, and this type of attempt impacts the life of others, strongly justified by educational leadership. The development of the school culture is the responsibility of the school leader through symbolic leadership practices. In case of failure, the leader will lose the attachment with school culture, and with the power of influence, which is considered as the foundation for leadership (Turan & Bektas, 2013).

The key elements of a climate that is hospitable to learning, were listed by the University of Washington researchers: "a sense of student and staff safety; respect for all members of the school community, without regard to the professional status or position; an upbeat, welcoming, solution-oriented, no-blame, professional environment; an effort to invite and involve staff in various schoolwide functions; and a parallel

outreach to students that engaged and involved them in a variety of activities" (Portin et al., 2009, p. 59).

Leaders are key factors and initiators in developing school culture. Someone, who initiates in a group, and make processes and efforts to fulfill the overall objectives of an organisation, is a leader. Therefore, leadership refers to starting initiatives for a change in the system or makes struggles for accomplishing the organisational objectives (Tatlah, Ali, & Saeed, 2011).

Instructional leadership and school culture may be refered to two sides of a coin. While explaining the role of leaders, DuPont (2009) stated that they should focus on instructional programmes on one hand and understanding school culture on the other. Furthermore, Masuku (2011) claimed that the principals create an atmosphere of collaboration and collegiality within the school which causes shared vision, which affects the quality of teaching and learning in schools. This type of school culture makes positive the atmosphere of school and succeeding to get the attraction of parents and community for the school's success.

All schools may not be "effective" and "positive cultured", without a good leadership because they are dependent on school leadership which is evident from the literature. In such schools where there is a toxic school culture, the principal is the main reason, because the principal only obey order and keeps the parents at bay (Masuku, 2011). This attitude of the principals is called breakdown of leadership (Steyn, 2003). This ignorant and curse attitude by the principals does not allow the school to be promoted. On one hand if the principals are getting the credit of creating a positive school culture, on the other, they are also considered responsible for toxic school culture in schools.

To make an understanding of what infact the core layer of the school culture entails, the school members sometimes find it difficult to articulate. But, with the passage of time

when the organisational values seem to work effectively and succeeded to continue the same attitude for a long time they become accepted facts. Therefore, the school leaders are expected to make their professional actions clear as much as these may be, to develop values as a requirement of school culture (Bush, 2008).

Schein (2004) related instructional leadership to school culture by claiming that the most important function the leaders perform is managing the school culture. Furthermore, he added that different managers have different abilities to identify culture, manage and change it. Once the school culture is identified by the instructional leader the "ultimate act of leadership is to destroy culture when it is viewed as dysfunctional" (Schein, 2004, p.11).

An effective instructional leader ensures an atmosphere of learning for students and teachers as well. Through this attitude the school culture becomes a learner centered due to which all the activities in school seem learning centered. This culture creates a healthy environment which ensures safety and orderliness with tangible qualities such as responsive and supportive attitudes towards the students. Even this type of school culture allows the teachers to respond positively to the whole community including parents. This type of school culture may be called as "professionals focused on good instructions" school culture (Harvey & Holland, 2011).

The principals covered the distance from "mangers" to "leaders" with a dramatic change which occured in the concept of principalship. The authors converted from management to ledership for example the theme in "The Organisation Man" by William Whyte in 1950's was changed into "Good to Great" by Jim Collins in 2001. "Good is the enemy of great. And that is one of the key reasons why we have so little that becomes great" (Jakobsen, 2015, p.65). This change no longer allows principals to perform managerial tasks such as carrying out regulations and avoiding mistakes with adhering to district

rules. This is a change from management into leadership. With the new concept of leadership, the principals mostly rely on the intention of school members to develop teamwork for school improvement. This interaction by the leader develops school culture. Therefore, instructional leadership and school culture are interrelated.

Marzano, Waters, and McNulty (2005) related the school culture, leadership and student achievement. They argued that "Fostering school culture that indirectly affects student achievement is a strong theme within the literature on principal leadership" (p. 47). Based on their study, the summarised key leadership behaviours are given as: (a) promote cohesion among all staff, (b) promote a sense of well-being among all staff, (c) develop an understanding of purpose among all staff, and (d) develop a shared vision of what school should be like (Marzano, Waters, & McNulty, 2005, p. 48).

Regarding the relationship between instructional leadership and school culture are given as: school leaders, either in a formal or informal setting help to shape the school culture (e.g. Gilvania, Montazeri, Habibi, & Kazemian, 2014; Leithwood, 2005), for the sustainability of school reform both the leadership and school culture go hand in hand (Valentine, 2006). "In the schools that sustained reforms, there was more likely to be continuity of leadership (but not always), commitment to the reform among key stakeholders, and the reform was an obvious feature of the structure and culture of the school" (Dantow, 2005; p. 135), school leader is instrumental in school culture development (Harris, et al., 2013; Valentine, 2006). "In essence, the principal is probably the most essential element in a highly successful school. The principal is necessary to set change into motion, to establish the culture of change and a learning organisation, and to provide the support and energy to maintain the change over time until it becomes a way of life in the school. Over time, the principal's leadership will shape the school, positively or negatively. Without highquality leadership, high-quality schools cannot exist" (Valentine et al., 2004, p. 112).

Always school culture practices may not be the same in different contexts. Therefore, school culture and practices are chosen according to the changing context that may result in different implications for school leadership (Blomeke, & Klein, 2013; Yanow, 2000). School leadership study deepen the requirement of school, and care about what is happening in school by investigating past, present, and future realities and sharing the leadership (Deal & Peterson, 1999; Houghton et al., 2015). This sharing attitude of instructional leader results in school culture. In other words it is a socialisation process that will affect school outcome (Hoy & Sabo, 1998). The leader is the beginner to start the process of socialisation at the school level. If a positive interaction is initiated by the principal, the teachers will also respond positively. This attempt will lead definitely towards participation and mutual trust resulted in school outcome/effectiveness (Ostroff & Schmitt, 1993).

2.5.3 School culture & school effectiveness

Abu-Jarad et al. (2010) stated that there is no consensus on the definition of organisation culture found in the literature. The statement shows that different definitions of school culture are found in the related literature. These definitions are based on the development, maintaining, communicating the school culture and finding its relation to school effectiveness. Cavanaugh and Dellar (2003) believed that school culture "is manifested, developed, maintained and transformed by the sharing of beliefs, values and norms amongst the teachers resulting in the commonality of purpose and actions intended to improve the learning of both students and teachers" (p. 199). In the above statement improvement in the teaching-learning process and the commonality of purpose shows the school's effectiveness.

To study the relation of school culture and school effectiveness Kuen (2009) has given different citations for example: better productivity, adaptability and flexibility of the

schools are the result of a strong culture of the school (Cheng, 1993), teachers wellbeing is related to school culture (Aelterman et al., 2007), cause to increase pupil outcome (Brady, 2005), increase job attitudes and organisational commitment of teachers (Cheng, 1989). Similarly Cavanaugh and Dellar (1997b, 1998, & 2003) added that an effective mean for the school improvement is to promote cultural intervention. The statement by Cavanaugh and Dellar (1997b, 1998, & 2003) further clarified that to imagine school effectiveness without proper promotion and intervention of school culture is mere thinking. Therefore, the role of school culture is considered very important in school effectiveness (Hollins, 2015; Kartal, 2016). Jurasaite-Harbison and Rex (2010) have given importance to school culture by arguing that "The defining research focused on culture supports the idea that culture is instrumental in any change, innovation, or reform" (p. 268).

When the schools are getting their target outcome in a specific time period and maintaining their efficiency through collective efforts within the parameters, the school culture is effective one. Yesil and Kaya (2012) related school culture and school effectiveness as they argued that "empirical studies provide evidence of link between organisational culture and organisation related performance outcome" (p. 14). School culture was found by the researchers as a critical component to achieve, maintain, and improve school effectiveness (Kuen, 2009).

Further, research studies (Crow & Pounder, 2000; Hollins, 2015; Kartal, 2016; Pounder, 1999) also supported the idea of linking school culture and school effectiveness. They advocated that school effectiveness undergo different dimensions of school culture that develop a teamwork spirit. Team work is only possible in a cooperative, collaborative and collegial school culture. The literature review shows that school culture is acting behind school effectiveness. If there is such a school culture, in which social interaction

between individuals, and knowledge building through learning and teaching exists, then it should be a good place to bring change (Busher, 2006).

If the instructional leaders focus on school culture and school climate definitely it will improve student achievement (MacNeil, Prater, & Busch, 2009; Pellicer, 2003). A strong school culture motivates teachers and students which smoothen the way for school effectiveness. Simply, the only change in the structutre through high expectations has failed to achieve school effectiveness. Therefore, a positive change in the school culture in needed aimed at high output (Saranson, 1996). During the change process of the structure, if the school culture is ignored it will results to no change because, to bring change is the ability of school culture (e.g. Alvesson, & Sveningsson, 2015; Schlechty, 1997). In fact "Organisational culture is the basic need of the individual to strike the excellence within the organisation" (Ab Talib, Don, Daud, & Raman, 2015, p. 410). Patterson, Purkey and Parker (1986) (as cited in Ebadollah, 2011) have summarised the knowledge about school culture as follows:

- the achievement and behaviour of students and school effectiveness at secondary level is affected by school culture;
- the school culture is developed and gerrymander by the school members, and not fallen from the sky;
- school culture in different schools is different and it may not be the same;
- though the authors focused the positive aspect of the school culture but it may also have negative aspects for various sub groups within the school which affects negatively the educational success;
- everlasting school effectiveness and change is based on the understanding of school culture.

To characterise the internal capacity of school effectiveness/improvement, Harris and Chapman (2004) proposed two dimensions such as: 1. Collaborative school culture instead of an individualised school culture, and 2. Continuum between external and internal accountability most conducive to school improvement. In individualised school culture, members of the school concentrate on their personal interest, while in a collaborative school culture, in contrast, members of school concentrate on the collective interest for the sake of institution. Internal accountability in a sense is a professional responsibility in the shape of teachers' experience as peer commitment. While the second one (external accountability) indicates towards incentives and hierarchical pressures, which acts as a catalyst for teachers motivation regarding improvement (Bellei, Vanni, Valenzuela, & Contreras, 2015).

Collaborative school culture is, in fact, a collective responsibility, which is also termed as "teachers' professional culture". It is the extent to which the teachers have a sense of responsibility to educate their students, have high expectations for students' learning and teachers' performance, keeping shared beliefs about teaching and learning in the school environment. In a nutshell, this indicates the trust of teachers on school leaders, "doing things well", and having institutional commitment resulting from colleagues' pressure (Bellei, Vanni, Valenzuela, & Contreras, 2015; Elmore, 2003, Harris & Chapman, 2004).

When the school culture is created and aimed at school effectiveness, it develops shared identity among the teachers, which cause to produce motivation. This collective identity of the teachers also combines personal identity to fuel in the process of school change. Thus, it enables the achievement of an institutional mission.

The above literature has revealed that school culture is the system of interaction among individuals of a school, which is necessary to bring change and innovation to get school's effectiveness.

2.6 The demographic variable

The demographic variable is the "Age" of the respondents. Most of the demographic variables were studied by Hallinger (2013) through his tool assessing instructional leadership known as "PIMRS". The study of Saleem et al. (2012) entitled as "Determinants of School Effectiveness: A study at Punjab level" in Pakistani context also studied demographic variables to find school effectiveness dimensions.

Recently Salfi et al. (2014) and Salfi (2011) conducted studies with demographic variables like: the name and type of school, locality of school (rural/urban), gender (male/female), teaching and administrative experience, academic and professional qualification. These stated studies were also in a Pakistani context to find the relationship between leadership and school improvement. Javed (2012) stated that "this kind of professional relationship is subject to many other factors, for example, demographical characteristics of a school, economic conditions of the families involved, family background of the parents, type of resources available in school, willingness of the team members and student culture" (p. 199). Due to limited resources the researcher was unable to include all these demographic variables in this study. Therefore, the study is limited only to "Age" as the demography of the respondents.

Khan, Saeed and Fatima (2009) studied the demographic variables like: school name, position, gender, academic and professional qualifications, experience, etc. Tatlah and Iqbal (2012) also included gender, age and caste, marital status, professional qualification, experience, academic qualification, designation. These studies were also

in Pakistani context. Based on the literature review, the Age of the respondents was considered as the demographic variable for this study.

2.7 Secondary schools of Pakistan

The role of a school is very important in the socialisation process of the people, cultural enrichment, personal growth and development of individuals. Therefore, schools are called social institutions. Regarding these parameters, secondary schools are of most important as they prepare students for practical life and they anticipate for professional studies and future direction in the context. According to Khan and Saad (2014) the education system of Pakistan is based on different levels as primary, elementary, secondary and higher education. The secondary education is divided into two stages according to the Ministry of Education (2013) as:

Class VI to VIII (stage I)

Class IX to X (stage II)

The national education policy has clearly articulated that the link of the secondary stage to other tiers of education is important and vertical (e.g. Ministry of education, NEP-1998-2010). For those students who are unable to reach the college level it is considered as finishing ground to engage them in the economy. Therefore, secondary education should reflect quality and practicability. But unfortunately, regarding these parameters the standard of secondary education in Pakistan is very low. There are many factors for its weaknesses but, the main factor is lack of related research. Khan and Saad (2014) have argued that the national education policy is demanding for school research to strengthen its effectiveness. According to District Education Plan Mardan 2015-2020 (I-SAPS, 2015) the education system in Pakistan is faced with many challenges relating to quality, access, and equity. The plan further mentioned that for out-of-school children,

Pakistan is at the second number in global ranking having 20 million children out of school "where girls outnumber boys" (p. 02). Especially in the district of Mardan, the Gross Enrolment Rate (GER) at primary level is 72 percent and at secondary level 42 percent. A decrease is found in the enrollment rate with increase in the level of education in Mardan district (Pakistan). To discuss further the stated plan, the following two questions were raised:

(a) Why has the education sector not yielded the desired outcomes despite tremendous financial and human resource allocation?

(b) How can the available fiscal space be utilised to attain optimum results? (I-SAPS, 2015, p. 02).

These stated problems are related to school effectiveness, and have to be answered through research studies. Saleem et al. (2012) suggested comparing rural schools to urban and girls' schools with boys' schools at secondary level in Pakistan with the aim of getting school effectiveness.

2.8 Overlook on the bigger model

From the literature review different studies were found that used indirect effect model of instructional leadership on student achievement or school effectiveness. Alig-Mielcarek (2003) studied student achievement with the indirect model of leadership. This indirect model of study was called "Path Model of Student Achievement" (p.74). In this model instructional leadership and student achievement were mediated through academic press. Hallinger and Heck (1996) reviewed 19 studies based on indirect relationship through mediating variables (Alig-Mielcarek, 2003). As a conclusion Hallinger and Heck (1996) argued that "Well-designed studies must use theoretical models that allow for the likelihood that the relationship between principal actions and

school outcomes is indirect rather than direct" (p. 24). In the same way, Mees (2008) conducted a doctoral study to find the relationship between leadership, school culture and student achievement. This study of Mees (2008) was also based on an indirect effect model such as revised Model-B of Hallinger and Heck in 1998. Hallinger and Heck (1998) classified Pitner (1988) models of leadership effects (direct effects, antecedent-effects, mediated effects, reciprocal effects, and moderated effects) for the purpose to classify the studies for review. As a conclusion Hallinger and Heck (1998) have narrated that "Researchers adopting this model [direct-effect model of leadership effect] were unable to produce sound or consistent evidence of leadership effects on student outcome" (p. 166). In case of indirect model it was concluded that "Leadership practices contribute to the outcomes desired by schools but the contribution is almost always mediated by other people, events, and organisational factors such as teacher commitment, instructional practices, or school culture" (Hallinger & Heck, 1998, p. 167). Similarly, Ross and Gray (2006) conducted a study exploring the role of leadership on student achievement mediated by effects of teacher beliefs. As a conclusion they found no significant direct effect of leadership on student achievement, but instead they found significant indirect leadership effect on student achievement. Hallinger (2009) defined instructional leadership characteristics in his study and argued that "over a decade ago Ron Heck and I reviewed the literature on school leadership effects on student learning. We concluded that the effects of principal leadership were largely indirect" (p. 10).

In case of indirect model, there is a greater effect of school culture in school effectiveness. Instructional leaders have indirect effects on school effectiveness. A school culture is developed by instructionally effective schools in which students and teachers are rewarded according to practices and purposes (Barth, 1990; Glasman, 1984;

Hallinger, 2009; Hallinger & Murphy, 1986; Leithwood & Montgomery, 1982; Mortimore, 1993; Neumerski, 2013; Purkey & Smith, 1983; Zepeda, 2013).

Therefore, it can be stated that the related literature advocates for the conceptual model of this study. The conceptual model of this study includes the variables like instructional leadership (IV), school effectiveness (DV), and school culture (MV). This conceptual model advocates that school effectiveness is achieved by instructional leadership indirectly through school culture. This model is supported by the revised model-B of Hallinger and Heck (1998) and Path-Goal theory of leadership as well. The Path Goal theory of leadership advocated that leaders reach their goals through a path. This study used school culture (mediator) as a path for instructional leader to reach the goal/school effectiveness. To asses all the three variables there are some dimensions given in the conceptual model. Detail is given below.

The dimensions for school effectiveness were selected after a thick review of the literature given as: High Expectations of Stakeholders, Quality Assurance, Community Involvement, Student Academic Achievement, Teachers' Efficacy, and Material and Non-Material Resources. These dimensions relied on a comprehensive model for school effectiveness by Creemers (2002). The comprehensive model discussed four levels for school effectiveness. These levels were given as: student level, classroom level, school level, and context level. The detail for the resemblance of dimensions of school effectiveness for this study and comprehensive model is given in chapter-1.

The dimensions for instructional leadership are based on Hallinger (2003, 2013) and Hallinger and Heck (1998) for this study. These are given as Defining School Mission, Managing Instructional Programmes, and Creating School Learning Climate. Till now more than 200 studies have used these dimensions in shape of PIMRS (Hallinger, 2013).

School culture dimensions selected for this study are given as: Professional Values, Collegiality, Collaboration, and Shared Planning. This school effectiveness model of school culture was based on typological approach and developmental approach of school effectiveness. These approaches were already discussed in detail under the title "School Culture Approach". Similarly, the demographic variable of staff members may also affect school effectiveness, such as "Age" of the respondents.

In a process, instructional leaders use the dimensions discussed in instructional leadership to create school culture aimed at school effectiveness.

Summary

The second chapter on literature review focused on the studies from different context at different times to uncover the fact of instructional leadership, its dimensions and its relationship to school culture and school effectiveness. Secondly, the data collected for school culture and its different dimensions has proved its importance in school effectiveness. This chapter contains literature on school effectiveness and the importance of instructional leader and school culture in school effectiveness. Also, it contains literature on the demographic variables and its impacts on school effectiveness. Similarly, secondary schools in a Pakistani context are discussed in the light of literature. So, this chapter has found the research gap regarding school effectiveness, instructional leadership and school culture. Therefore, research shoulde be conducted on the principal's role as instructional leader, in creating the school culture aimed at school effectiveness in secondary schools in Pakistan.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter explains the methodology used for this study. The research design is briefly described in the first section of this chapter while, the population of the study, sampling procedure and technique, and data collection tools are explained subsequently. Further, for testing the validity and reliability of the data collecting tool, this chapter elaborated on pilot study. The face validity for the data collecting tool was found out before the pilot study. The last section of this chapter explains the data analysis techniques that were brought out to find the answers to the research questions.

3.2 Research design and research process

The research design is a non-experimental design. For data collection a quantitative survey approach was used. The stated approach was chosen for generalisation purpose. According to Creswell (2013) this approach was primarily used by the researchers to collect post positive statements for the purpose of developing knowledge from different dimensions of variables and observations or by testing specific theories. In the Western tradition of science, two major research philosophies have been identified namely positivist (sometimes called scientific) and interpretivist (also known as antipositivist) (Galliers, 1991). Positivist philosophy identifies regularities in, and form relationships between, some of the constituent elements of the social world. Positivist has a successful association with physical and natural sciences, and it was found that all the empirical researches are potivist. The aim of potivism is to create knowledge.

The data collected by the researchers through encoded tools results in statistical data for analysis. In this study three constructs are conceptualised named as principal instructional leadership (as independent variable), school culture (as mediating

variable), and school effectiveness (as dependent variable). The demography "Age" (as a control variable) has also been included in the model of this study. Burns and Grove (2010) were of the view that "Demographic variables are characteristics or attributes of subjects that are collected to describe the sample" (p. 156). A close ended questionnaire with items on the described variables was used for data collection from the teachers of secondary schools of Mardan district, in Khyber Pukhtunkhwa (KP) province (Pakistan). A total of 1755 teachers (including 1128 male & 627 female) from 138 secondary schools (including 76 boy schools & 62 girl schools) was the target population of the study. Boys and girls schools were taken from two stratas i.e. rural and urban for the purpose of equal participation (see Table 3.1). For the pilot study data was collected from the target population. The sample size for pilot study was 100 teachers, both from male and female schools with equal ratio. Both the strata (rural and urban) were taken with the ratio of 60:40 respectively, because rural schools varied in number from urban schools in the district of Mardan. The response rate was 100% for the pilot study. For the actual study, a total of 367 teachers were studied. The actual study used Spearman rho correlation, percentage distribution technique, and Structural Equation Modeling (SEM) to analyse the data on SPSS-22 and Amos-22.

The study is aimed to investigate teachers' perceptions about the levels of instructional leadership of principals, school culture and school effectiveness and the relationship between these variables in secondary schools of Mardan district. The study is also aimed to find the mediation and moderation affects in developing a model of school effectiveness. For this purpose, a closed ended questionnaire was developed encapsulating Part-A as a demographic variable, Part-B as instructional leadership of principal, Part-C as school culture, and Part-D as school effectiveness. The following Figure 3.1 is aimed at showing the research process for this study.

Research process:

The following figure shows the research process.

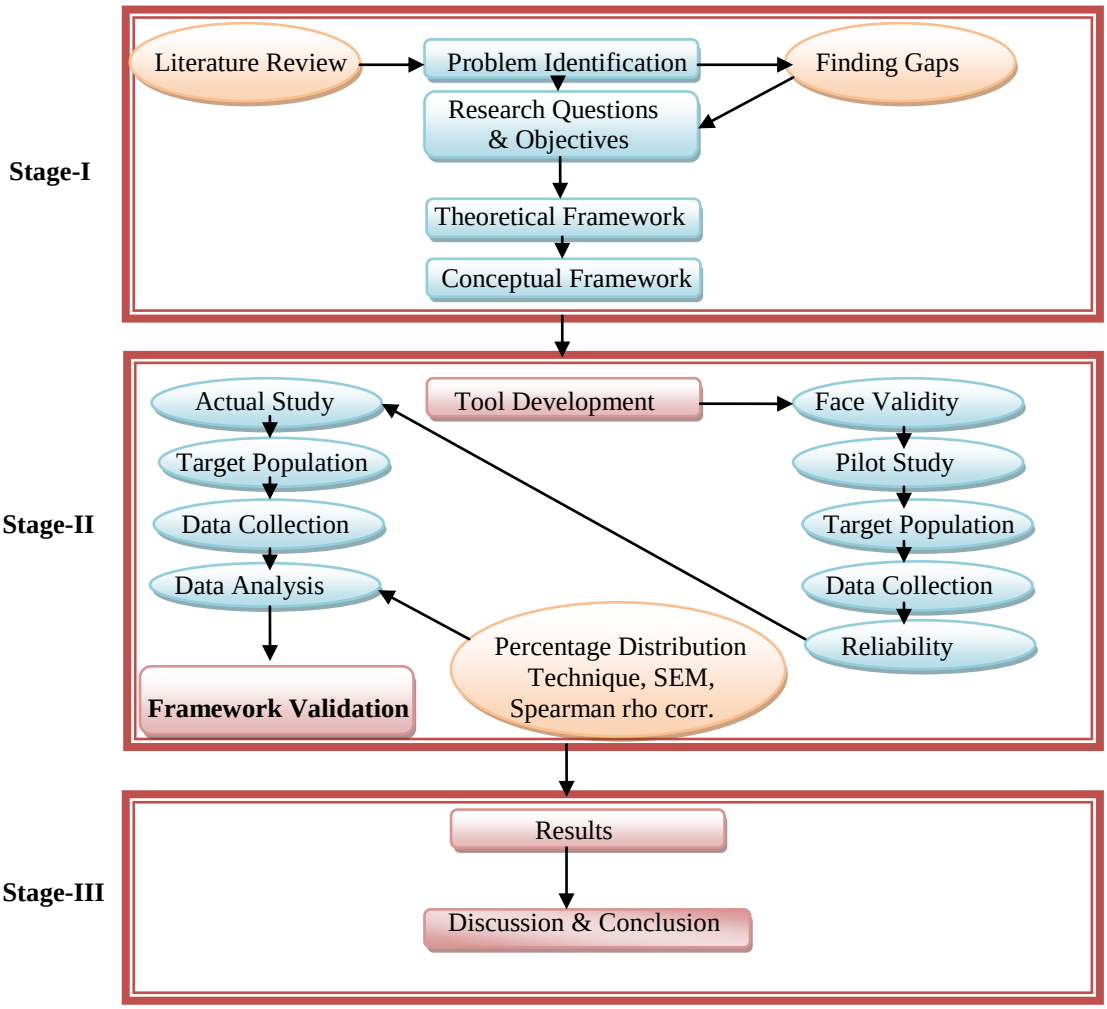

Figure 3.1 Showing research process

The research problem was identified from the related literature and was structured in the light of theories given in the literature review of instructional leadership, school culture and school effectiveness. This review of literature confirms the revised Model-B of Hallinger and Heck (1998) which was adopted from the Pitner model in 1988. This model explains an indirect relation of IL to SE by mediating another variable like SC. This indirect relationship is also explained in the Path-Goal theory of House developed in 1971. The Path-Goal theory claimed that the leaders reached their goals indirectly,

through a path. In this research, the school culture role is a path for the leader to reach the goal (school effectiveness). Then the research objectives were identified by the researcher, which resulted in research questions. A conceptual framework was drawn to achieve these objectives and to answer the research questions supported by these theories.

To assess the three variables (IL, SC, & SE) of the conceptual framework, a tool was developed. Later, face validity was obtained through experts' opinions, and reliability through a pilot study for the closed ended survey instrument. This stated process enabled the tool to be distributed among the larger population by the researcher himself, aimed at data collection. The data collected was analysed with statistical techniques such as the percentage distribution technique, the Spearman rho correlation and Structure Equation Modeling (SEM). Finally, the results drawn were discussed in the light of related literature.

3.2.1 Population

The population for the contemporary study comprised the teachers of government secondary schools of Mardan district in KP province (Pakistan). In the government sector, the schools have a separated system for the girls and boys. The number of schools and teachers (as shown in the Table 3.1) was taken from the website[1] of Educational Management Information System (EMIS) Misnistory of Education Government of Pakistan, which divided secondary schools into rural and urban divisions (see Appendix-I & K). There are a total of 1755 teachers in these schools (see Table 3.1).

The permission to visit these schools was taken from the District Education Officer (DEO) in Mardan after many attempts, because of the uncertain situation in the

[1] http://www.fde.gov.pk/emis.htm

province. The permission is based on terms and conditions such as (1) the researcher is allowed to visit only government secondary (girls' and boys') schools of Mardan district, and (2) the researcher is not allowed to conduct interviews (see Appendix-I & K). Table 3.1 is showing strength of (male & female) teachers and the number of schools (boys' schools & girls' schools) in the rural and urban areas.

Table 3.1 Number of schools and strength of teachers

No	Strata	No. of Schools		No. of Teachers	
		Boy schools	Girl schools	Male	Female
1	Rural	60	53	827	465
2	Urban	16	09	301	162
3	Total	76	62	1128	627
4	Grand Total	**138**		**1755**	

Source: (Ministry of Education, 2015, p.110) (See Appendix-I & K)

3.2.2 Sample size and sampling procedure

In the report by the Education Ministry of Pakistan (2015), government secondary schools are divided into rural and urban areas in the Mardan district. Therefore, to find the exact results, secondary schools of Mardan district were divided into two stratas such as: rural and urban for this study. To select the sample size from each sub group, a stratified random sampling technique is considered appropriate. According to Chua (2011) stratified random sampling is the best sampling technique because; it produces a sample error, which is smaller than the simple-random-sampling and systematic-random-sampling techniques. Furthermore, he described that it makes possible the

selection of sample for each sub-group of population separately, that have different sample sizes. Therefore, stratified random sampling has proven to be the best way for the researcher in selecting the number of the respondents in each stratum i.e. rural and urban for this study.

In order to determine the sample size Krejcie and Morgan (1970), a sample size determination table was utilised. According to this table, the minimum sample size is 317 for the population of 1755. The sample size was raised to 367 teachers because; according to Hair et al. (2009) the sample size may be increased in three cases:

"(1) [if the] data deviates from multivariate normality, (2) [if] sample intensive estimation technique [is used], (3) [if the] missing data exceeds [more] than10%" (Hair et al., 2009, p. 637). Thus, for this study, the first and second case is applicable due to which the number of the sample size was increased to 367. The number of respondents was not exceeded at once, but gradually till the model was run on SPSS (e.g Ali et al., 2016). In case, if the sample size is less than the required number it may produce errors (Hair et al., 2009).

There are 76 secondary boys' schools having 1128 functioning male teachers, and 62 girls' schools having 627 working female teachers with different scales and posts (See the Table 3.1). The population of the study was divided into two strata to give equal participation to each stratum for prerequisites. The sample size was based on a confidence level of 95% and a margin error less than 5% (the degree of confidence at 95 % or $p < .05$). Hair, Black, Babin and Anderson (2009) have discussed about the prerequisites for the relationship between Cronbach's alpha, effect size and power, and sample size but the matter was considered as a complex one. To ensure these prerequisites, this study took the sample size of 367.

This study also applied the structural equation modeling technique (SEM). According to Kline (2010) the SEM required a larger population. Further, Kline (2010) and Barrett (2007) added that the sample size which is less than 200 is always rejected. For the sample size that is suitable for SEM, Jackson (2003) and Kline (2010) has given a rule of thumb with N:q where N= Number of cases and q= number of statistical estimates. The detail of schools and the genders of teachers are given location wise in Table 3.1 while details for the sampling procedure with quota stratified random sampling are given in Figure 3.2 below. In the following figure, 367 is sample size for the study, while 827 and 465 show the number of male and female teachers in the rural stratum respectively, similarly 301 and 162 show the number of male and female teachers respectively in the urban stratum as shown in the Table 3.1 above. Each respondent was selected randomly. The sampling procedure is shown in the Figure 3.2 below.

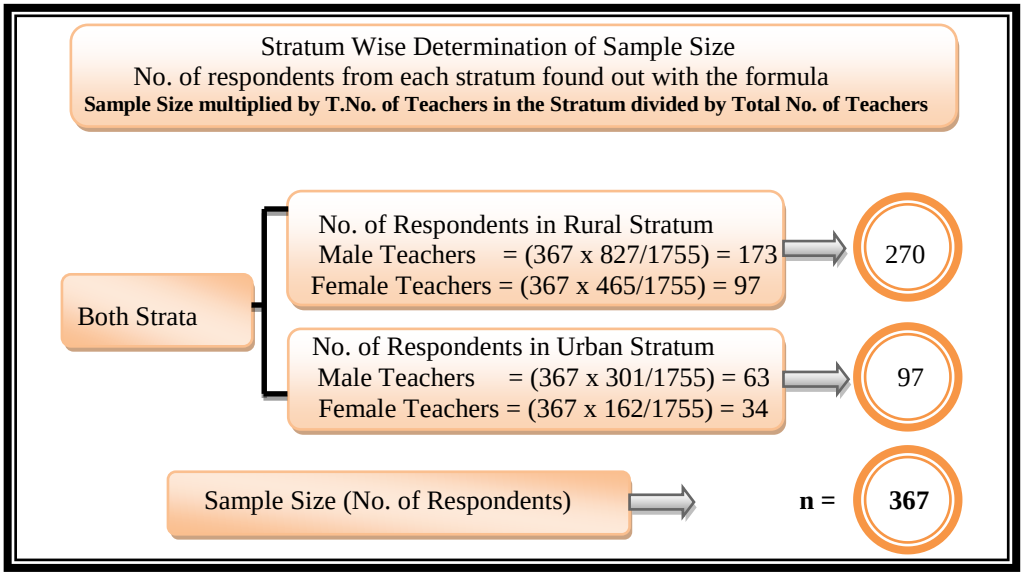

Figure 3.2 Quota stratified random sampling procedure

There are 138 total government secondary schools in Mardan district (see Table 3.1). The table of Krejcie and Morgan (1970) showed a sample size of 103 for a population size of 138, therefore for this study, 103 schools were visited. To find the number of

schools in each stratum and gender the following Figure 3.3 is given. In the figure below 138 shows the number of secondary schools, 103 the sample size, 60 male and 53 female rural schools, while 16 male and 9 female urban secondary schools. Each sample school was selected randomly. The number of schools was taken from Table 3.1 above. Number of sample schools is shown in Figure 3.3 below.

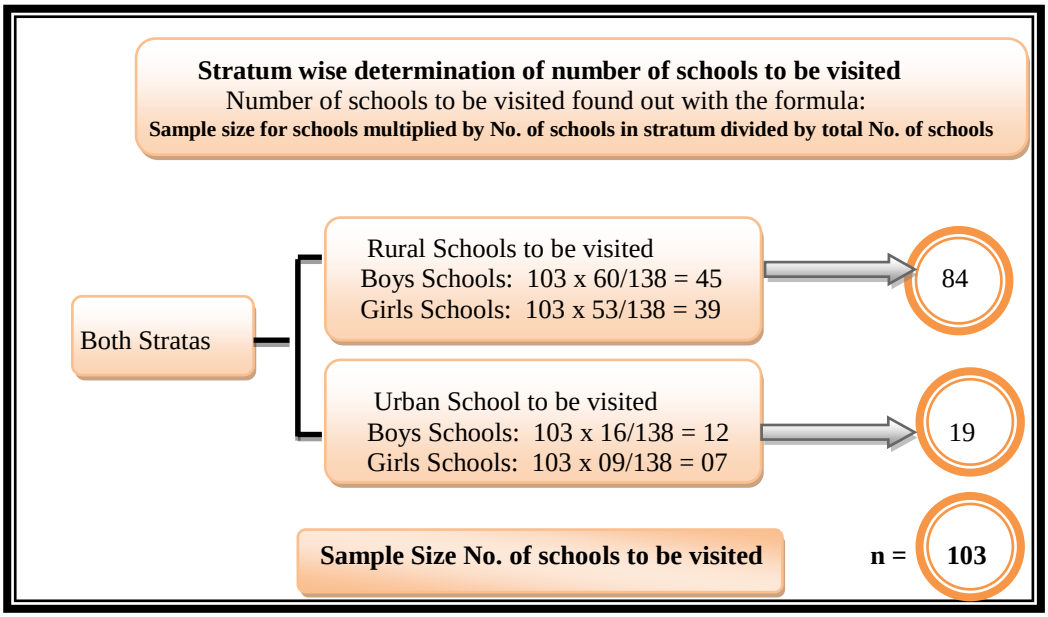

Figure 3.3 showing number of schools to be visited in each stratum

The following Table 3.2 illustrates the average number of respondents for each sample school. The average number of respondents from each sample school is obtained through dividing the number of respondents by the number of schools in each strata and gender of school.

Table 3.2 Showing the Average Number of Respondents from each Sample School

Strata	**Rural**	**Urban**
Number of Male Respondents	173 ÷	63 ÷
Sample Size of Boy Schools	45	12
Average Number Respondents from each Sample Boy Schools.	**= 3.84 or 3-4**	**=5.25 or 5-6**
Number of Female Respondents	97 ÷	34 ÷
Sample Size of Girl Schools	39	07
Average Number Respondents from each Sample School.	**= 2.48 or 2-3**	**=4.85 or 4-5**

3.2.3 Instrumentation

A close ended questionnaire was developed for data collection from secondary school teachers of Mardan district. The questionnaire encapsulated four parts. "Part-A" demographic information: "Part-B" instructional leadership of principal, Part-C school culture, and "Part-D" school effectiveness. For all the three variables, the Likert type scale ranged between 0-6 (a total of seven points), because the scale with seven points is more significant as compared to others (Ali et al., 2016; Preston & Colman 2000), and it is used for illustrative purposes (Van Vaerenbergh & Thomas, 2013).

In part Part-B: - to assess instructional leadership the "Principal Instructional Management Rating Scale" (PIMRS) teacher short form of Hallinger (2013) was used with the permission of the developer (see Appendix-C). This construct have 22 items and three dimensions (Defining School Mission; 5 items, Managing Instructional Programme; 8 items, Creating School Learning Climate; 9 items). A Likert type scale ranging from 0-(Never), 1-(Almost never), 2-(Some time), 4-(Frequently), to 5-(Almost Always), and 6-(Always) was used for the whole questionnaire. As it was stated earlier that the Likert type scale ranged between 0-6 (a total of seven points) is more significant as compared to others (Ali et al., 2016; Preston & Colman 2000), and used for

illustrative purposes (Van Vaerenbergh & Thomas, 2013). According to Aziz, Fooi, Hassan and Asimiran (2014) the original PIMRS of Professor Philip Hallinger has fifty items and seven dimensions.

The reliability and validity was tested for this tool. The reliability values were found to be significant for this tool. Further he also argued that this tool was used in more than 200 studies but later, Hallinger (2013) reduced the number of items to 22 only as the principals were reluctant to burden the teachers with such a long questionnaire. Aziz et al. (2014) found that the reliability for the short form instrument was .94, while for the three dimensions it ranged between .90 and .93. After analysis Hallinger (2013) concluded that the 'PIMRS teacher short form' (PIMRS-22) is more efficient and more effective than PIMRS original instrument of seven dimensions and fifty items. By calculating the mean, the instrument is scored for each subscale that comprises the items. This leads to such a profile and data on each of the three functions of instructional leadership.

In Part-C: - to assess the school culture a construct of 17 items was used by the researcher. This construct was modified form of the original "School Culture Element Questionnaire" (SCEQ) developed by Cavanaugh and Dellar (1996, 1997a, 1997b, 1998, 2003) having forty two items. Permission was taken from developer by the researcher to modify and use this close ended questionnaire for this study (see Appendix-D). The original SCEQ has six dimensions (professional values, emphasis on learning, collegiality, collaboration, shared planning, transformational leadership) but getting face, the number of dimensions were reduced from 6 to 4 (Professional values; 4 items, Collegiality; 5 items, Collaboration; 4 items, Shared planning; 4 items) in accordance to the expert opinion (see detail in Table 3.6).

In Part-D: - to assess school effectiveness a close-ended self developed questionnaire was used by the researcher as Part-D. The full questionnaire is named as "School Effectiveness Questionnaire" (SEQ). There is no system in Pakistan to check school effectiveness, or in other words no dimensions are given to check school effectiveness by the Department of Elementary and Secondary Education in the KP province, of Pakistan. Therefore, to set dimensions an email was sent to the Director of the Elementary and Secondary Education (E&SE) KP province (Pakistan). The email was forwarded to the Deputy Director but no response was given (see Appendix-M). To struggle more for this purpose, the National Education Policies such as 2009 and 1998-2010 of Pakistan were reviewed. The National Education Policy 1998-2010 stressed to conduct school research to enhance its effectiveness but found no dimensions for school effectiveness. In this regard the National Education Policy of Pakistan 2009 clearly mentioned that articulated standards for educational inventories is a key deficit in Pakistan, due to which a clear picture of organisational effectiveness cannot be drawn (Ministry of Education, NEP-2009). As a reality, no measurement tool was found to check the standards of educational institutions but, the Ministry of Education through the 2009 education policy has mentioned that the National Education Information System (EMIS) has taken initiative through collaboration with UNESCO to set these standards (Ministry of Education, 2013, p. 12). Therefore, the programmemer of Education Management Information System (EMIS) from Ministry of Federal Education and Professional Training (Islamabad Pakistan) was contacted to set the dimensions (see Appendix-N). But here also no response was given. Therefore, the researcher focused previous studies and education policy of 2009 to select the dimension for school effectiveness. Finally, the dimensions were selected in accordance with the indications given in the national education policy 2009 for school

effectiveness, and the dimensions given by other researchers in this area. For the purpose, the studies considered are given as:

Salfi et al. (2014) conducted a research with the direct impact of principal's leadership on school effectiveness, in four districts of Punjab province (Pakistan). Another study was conducted by Saleem et al. (2012) in Punjab province to find out the determinants of school effectiveness through perceptions of teachers and administrators. Similarly, Saleem and Naseem (2013) explored the school effectiveness by considering the gender impact in 36 districts of Punjab province (Pakistan) through perceptions of teachers, administrators and curriculum developers/experts.

Furthermore, different school effectiveness models were considered for confirmation of dimensions of the school effectiveness model of this study. A comparison was made with Carroll (1963) model, Edmonds (1979) model, Mortimore (1988) model, and Creemers (2002) comprehensive model. For example, the dimension of "Quality Assurance" in this model was also studied by Carroll (1963), "High Expectations" and "Student Academic Achievement" were found in Edmonds (1979), "Community involvement" as 'parental involvement' and "Teachers' Efficacy" as 'consistency among the teachers' were mentioned in the effectiveness model of Mortimore (1988). Different research studies considered the Mortimore (1988) model, but for this study all the 11 dimensions of the stated model were not possible to be considered, because of similarities to the dimensions of independent and mediating variables of this study. For example, 7 out of 11 dimensions of Mortimore's (1988) model were given as: 1-professional leadership, 2-shared vision and goals, 3-a learning environment, 4-concentration on teaching and learning, 5-purposeful teaching, 6-monitoring progress, and 7-a learning organisation (staff development) were related to the independent variable (instructional leadership) of this study. Similarly, among the remaining four dimensions, the three dimensions were given as: 1-high expectations, 2-home school

relation, 3- pupil rights and responsibilities (as high expectations of this study) were selected as the dimensions of school effectiveness variable of this study. The remaining one dimension such as: 1-positive reinforcement is related to mediating variable (school culture) of this study. So the school effectiveness model of Mortimore (1988) is found in split form in this model.

Similarly, the comprehensive model of Creemers (2002) is also suitable to find school effectiveness because this model involves both the external and internal factors, and also focus on input, process and output. Therefore, the school effectiveness model of this study relies mostly on the comprehensive model of Creemers developed in 2002. All the six dimensions of school effectiveness of this study show a relationship with all the four levels of comprehensive model given in the Table 3.3 below.

Table 3.3 School Effectiveness Model of this study and Comprehensive Model of Creemers (2002).

Levels of Comprehensive Model of Effectiveness (Creemers, 2002)	**Dimensions of School Effectiveness Model of this Study**					
Student Level	Student Academic achievement	High Expectations of Stakeholders	Teachers' Efficacy	Material & Non-Material Resources	Community Involvement	Quality Assurance
Classroom Level	High Expectations of Stakeholders	Student Academic achievement	Teachers' Efficacy	Material & Non-Material Resources	Community Involvement	Quality Assurance
School Level	High Expectations of Stakeholders	Teachers' Efficacy	Quality Assurance	Material & Non-Material Resources	Community Involvement	Student Academic achievement
Context Level	High Expectations of Stakeholders	Community Involvement	Quality Assurance	Teachers' Efficacy	Material & Non-Material	Student Academic achievement

The dimensions of school effectiveness (used in SE tool for this study) were also considered by other studies. The detail is given in Table 3.4 below.

Table 3.4 Dimension of SE used in previous studies

Dimensions of SE for this study	**Previous studies which are showing the SE dimensions of this study**						
High Expectations	Ehren, Perryma & Shackleton (2015)	Creemers (2002) "School level & context level"	Purkey & Smith (1983)	Webber (1971)	Sammons, Hillman & Mortimore (1995)	Mortimore, Sammons, Stoll, Lewis, & Ecob (1988)	Edmonds (1982)
Student academic Achievement	DuFour & Marzano (2015).	Núñez, Suárez, Rosário, Vallejo, Cerezo& Valle, (2015)	Salfi et al. (2014)		Creemers (2002) "Student Level"		
Teachers, Efficacy	Malinen & Savolainen (2016)	Belfi, Gielen, De Fraine, Verschueren, & Meredith (2015).	Saleem & Nasreen (2013)	Saleem et al. (2012)	Creemers (2002) "Teacher Level"	Scheerens (1992)	
Quality Assurance	Page, Martín, Orellana, & González (2016)	Dijkstra, Geijsel, Ledoux, van der Veen, & ten Dam, (2015)	Jana, & Soumendu Chatterjee (2015)	Saleem & Nasreen (2013)	Saleem et al. (2012)	Creemers (2002) "School Level"	
Community involvement	Saleem & Nasreen (2013)	Saleem et al. (2012)	Pak. NEP-2009	Creemers (2002) "Context Level"	Mortimore (1988)	Edmonds (1982)	
Material & Non-Material Resources	Lee & Shaw (2016)	Adato, Devereux, & Sabates-Wheeler (2016)	Alif Ailaan (2015)	Creemers (2002) "Classroom Level & School Level	Reynolds et al. (1996)		

Finally, six dimensions were finalised from all the above studies and and Education Policy of 2009 by Ministry of Education, Pakistan. Detail of dimensions and item wise distribution is given in Table 3.6. Each item was developed at seven-point Likert type scale ranging from 0- Never, 1-Almost never, 2-Sometime, 4-Frequently, 5-Almost Always to 6-Always.

(1) Validity

The measuring ability of an instrument for what it is supposed to measure, known as validity. To ensure the validity of any construct the four types of validity (face validity, convergent validity, construct validity, and discriminate validity) were suggested by Hair et al. (2009). Among these four types, the face validity was considered as most important to validate a tool. Therefore, face validity was found after the development of the tool.

Face Validity**:** To get the face validity the instrument after being constructed was referred to two of the experts in the field of instructional leadership from local university in a Pakistani context. On the basis of theoretical background and contextual needs some changes were suggested by them in the instrument. According to their opinion, some items and dimensions were suggested to be excluded, while few items were suggested to be rephrased, aimed at its suitability in a Pakistani context. The remaining items were suggested to be deleted as they were not suitable in the context. First, the instrument had 79 items, but after making the changes, the number of items was reduced to 62 only. The questionnaire was also translated into Urdu (national language of Pakistan) for the purpose of better understanding of the respondents. The detailed changes in the instrument were aimed to achieve face validity as given in Table 3.5. (For expert opinion see Appendix-F & G).

The opinions of the experts were followed strictly by the researcher. The researcher also gave the information about instructional leadership tool that the permission for any change in the tool is not permitted by the developer of the tool (PIMRS). As a response from the experts, if any changes are needed, the tool might not be used. Details of their feedback are given below.

Expert-1: After checking all the three variables their dimensions and relative items of the tool constructed for this study, the following suggestions were made.

A suggestion was given regarding the independent variable (instructional leadership) that all the three dimensions and their respective items (1-22) should be accepted without making any changes.

For the dimensions and items of the mediating variable (school culture) some changes were suggested such as: the two dimensions namely "emphasis on learning", and "transformational leadership" should be removed totally. According to him (expert-1) these dimensions and their items had similarities to the dimensions and items of independent variable (instructional leadership). As a result, both the dimensions were removed. Similarly, the items like 27, 28, 29, 34, 35, 38, 40, 41, 45, 47 and 49 were suggested to be deleted because these items were not suitable for the context as per his opinion. While the remaining items like 23, 24, 25, 32, 33, 36, 37, 43, 44, 46 and 50 were suggested to be rephrased and item like 26, 30, 31, 39, and 48 were suggested to be kept without any change.

Similarly, some changes were suggested in the dependent variable i.e. school effectiveness. He (expert-1) suggested that the items like 54, 63, 65, 66, 67 and 70 should be deleted as these items were not standard and suitable. The items like 51, 52, 53, 62, and 64 were suggested to be rephrased. The rests of the items will remain unchanged (see Appendix-F). Expert-1 also suggested for translating the tool into Urdu (National Language of Pakistan) and aimed at the respondents' comprehension (see Appendix-G)

Expert-2: After making the translation, the tool was sent to Expert-2 for checking Urdu translation and the tool purposing face validity. He also suggested keeping the items 1-22 the same as they were in the independent variable. Further, it was suggested to

remove the two dimensions “emphasis on learning”, and “transformational leadership” from mediating variable due to similarity problems. The items like 27, 28, 29, 34, 35, 38, 40, 41, 45, 47 and 49 were suggested to be deleted due to non suitability in the context. So, as per suggestions the remaining items were selected for this study.

For the dependent variable the items like 54, 63, 65, 66, 67 and 70 were suggested to be deleted. While the items such as 51, 52, 53, 62, and 64 were suggested to be rephrased. The detail of validation is given in Table 3.5 below.

Table 3.5 Showing item-wise detail of survey instrument

Variables	Dimension	Item No.	Original	Approach	Decision	Item Re-Phrased
Instructional Leadership “IL” Independent Variable	Defining School Mission (DSM)	1	Develop a focused set of annual school-wide goals	Adopted	Accepted without any change	
		2	Use data on student performance when developing the school's academic goals	Adopted	Accepted without any change	
		3	Develop goals that are easily understood and used by teachers in the school	Adopted	Accepted without any change	
		4	Communicate the school's mission effectively to members of the school community	Adopted	Accepted without change	
		5	Refer to the school's academic goals when making curricular decisions with teachers	Adopted	Accepted without any change	
	Managing Instructional Programme: (MIP)	6	Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school	Adopted	Accepted without any change	
		7	Review student work products	Adopted	Accepted without	

		when evaluating classroom instruction		any change
	8	Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders)	Adopted	Accepted without change
	9	Draw upon the results of school-wide testing when making curricular decisions	Adopted	Accepted without any change
	10	Participate actively in the review of curricular materials	Adopted	Accepted without any change
	11	Meet individually with teachers to discuss student progress	Adopted	Accepted without any change
	12	Use tests and other performance measure to assess progress toward school goals	Adopted	Accepted without any change
	13	Encourage teachers to use instructional time for teaching and practicing new skills and concepts	Adopted	Accepted without change
Dimension of Creating School Learning Climate: (CSLC)	14	Take time to talk informally with students and teachers during recess and breaks	Adopted	Accepted without any change
	15	Attend/participate in extra- and co-curricular activities	Adopted	Accepted without any change
	16	Compliment teachers privately for their efforts or performance	Adopted	Accepted without change
	17	Acknowledge teachers' exceptional performance by writing memos	Adopted	Accepted without any change

			for their personnel files			
		18	Create professional growth opportunities for teachers as a reward for special contributions to the school	Adopted	Accepted without any change	
		19	Lead or attend teacher in-service activities concerned with instruction	Adopted	Accepted without any change	
		20	Set aside time at faculty meetings for teachers to share ideas or information from in-service activities	Adopted	Accepted without any change	
		21	Recognise superior student achievement or improvement by seeing in the office the students with their work	Adopted	Accepted without any change	
		22	Contact parents to communicate improved or exemplary student performance or contributions	Adopted	Accepted without any change	

Note: Adopted from PIMR teacher short form of Hallinger (2013).

School culture "SC" (Mediating Variable)	Professional Values (PV)	23	Students are not provided with the skills needed for future educational or vocational experiences.	Adopted	Rephrased	Students are provided with the skills needed for future educational or vocational experiences.
		24	Educational programmes don't contribute to improving the quality of life in our society.	Adopted	Rephrased	Educational programmes of this school contribute to improve the quality of life in our society.
		25	The creative potential of students is not realised.	Adopted	Rephrased	The creative potential of students is realised.

	26	I can contribute to realising the future vision	Adopted	Accepted without any change	
	27	Individual differences between students are not catered for.	Adopted	Deleted	
	28	I work towards achieving the school vision.	Adopted	Deleted	
	29	Improvements in student achievement are rewarded.	Adopted	Deleted	
Collegiality(COL)	30	Teachers of this school support each other	Adopted	Accepted without any changes	
	31	Teachers are reluctant to share problems with each other	Adopted	Accepted without any changes	
	32	Teachers do not make an effort to maintain positive relationships with colleagues	Adopted	Rephrased	Teachers make an effort to maintain positive relationships with colleagues.
	33	My professional decisions are not usually supported by colleagues	Adopted	Rephrased	My professional decisions are supported by colleagues
	34	We are willing to help each other when problems arise	Adopted	Deleted	
	35	We always encourage each other to exercise our professional judgments	Adopted	Deleted	
	36	We encourage each other to take responsibility for new projects	Adopted	Rephrased	We encourage each other to take responsibility for new assignment
Collaboration (COB)	37	Items for discussion at meetings always come from the	Adopted	Rephrased	Ideas are shared with each other during

		same people			meetings
	38	There is little debate in meetings.	Adopted	Deleted	
	39	We work together to implement the decisions of meetings.	Adopted	Accepted without any changes	
	40	We frequently discuss what should be taught in particular curricula or courses.	Adopted	Deleted	
	41	Teaching methods and strategies are not discussed sufficiently.	Adopted	Deleted	
	42	We often compare how we assess student achievement.	Adopted	Accepted without any changes	
	43	Student behaviour management strategies are not discussed sufficiently.	Adopted	Rephrased	Student behaviour management strategies are discussed by us
Shared Planning (SP)	44	Expressions of the school's future vision do not reflect staff consensus	Adopted	Rephrased	Expressions of the school's vision reflect staff consensus
	45	We have not developed a common vision for the school's future.	Adopted	Deleted	
	46	We do not gather data for gauging the success of school programmes	Adopted	Rephrased	We gather data for gauging the success of school programmes
	47	We do not always evaluate the success of existing school programmes	Adopted	Deleted	
	48	We have identified ways of determining if school priorities are achieved	Adopted	Accepted without any changes	
	49	Teachers are not unified in	Adopted	Deleted	

			working towards the school's future vision			
		50	Teachers have not implemented school priorities	Adopted	Rephrased	Priorities are implemented by teachers

Note: Adopted from SCEQ 2 Robert F Cavanaugh and Graham B Dellar (Curtin University) 1996

School Effectiveness "SE" (Dependent Variable)	High Expectations of Stakeholders (HES)	51	I am a key factor in school	Adopted	Rephrased	I have high expectations for me as a professional
		52	My school results are best in the annual examination of SSC held by B.I.S.E Mardan	Adopted	Rephrased	I hold high expectations for students
		53	The students graduated from my school get admission in reputed professional institutions	Adopted	Rephrased	The teachers of this school expect themselves to engage in ongoing professional growth
		54	My school owns good reputation in community	Adopted	Deleted	
		55	Students in my school have healthy competition with their classmates	Adopted	Accepted without any changes	
		56	Parents/community holds high expectations from the future of this school	Adopted	Accepted without any changes	
	Material and Non-Material Resources(RES)	57	This school is provided with facilities like electricity, water, boundary wall and playground	Adopted	Accepted without any changes	
		58	Teachers use equipment available in this school for greater teaching output	Adopted	Accepted without any changes	
		59	The school receives sufficient budget to fulfil its needs	Adopted	Accepted without any changes	
	Community Involvement(CI)	60	The community gets involved in different improvement based physical activities of the school when they are needed	Adopted	Accepted without any changes	
		61	The holistic school activities are recognised and appreciated by the	Adopted	Accepted without any changes	

		community of the school			
	62	The community doesn't interrupt in the internal matters/policies of the school	Adopted	Rephrased	Community interrupts in the internal matters/ policies of this school
	63	There is no political pressure on school individuals to use their authority unethically	Adopted	Deleted	
	64	There is a great appreciation for better academic achievement of the students and goal attainment of teachers in this school	Adopted	Rephrased	Better achievement of students and teachers is recognised by the society
	65	Community and parents take part in fund raising that serves as aid for students etc.	Adopted	Deleted	
Student Academic Achievement (SAA)	66	The average students achieved better marks in the current annual examination of SSC as compared to the previous result	Adopted	Deleted	
	67	The percentage of failure of students in current annual examination of SSC is less than the previous.	Adopted	Deleted	
	68	The percentage of passing SSC students in current result is in accordance to the minimum targeted percentage by the department	Adopted	Accepted without any changes	
	69	The parents are satisfied with the academic achievement of the students	Adopted	Accepted without any changes	
	70	No unfair means are used by the stakeholders to greater the academic achievement of the students	Adopted	Deleted	
	71	The parents care about the grades earned by their	Adopted	Accepted without any	

		children		changes
Teacher's Efficacy (TE)	72	Teachers of this school are fully qualified and trained	Adopted	Accepted without any changes
	73	Teachers are enough skilled and experienced to cope with the problems of teaching-learning processes	Adopted	Accepted without any changes
	74	Teachers know and use modern technologies and techniques for effective teaching	Adopted	Accepted without any changes
Quality Assurance (QA)	75	Teachers of the school are involved in the school improvement activities.	Adopted	Accepted without any changes
	76	Principal motivate teachers for improvement of the school	Adopted	Accepted without any changes
	77	Teachers get encouragement and acknowledgement for their services.	Adopted	Accepted without any changes
	78	The quality of the services and products in this school is outstanding.	Adopted	Accepted without any changes
	79	The available resources are used by the teachers efficiently for school improvement.	Adopted	Accepted without any changes

Note:
This Part-D is a self-developed School Effectiveness Questionnaire (SEQ)which is aimed to assess school's effectiveness. It relies on various research studies such as 4 levels of EER; Comprehensive Effectiveness Model of Creemers (2002), Mortimore (1988) model and others. Similarly, this model is also based on the NEPs of Pakistan.

After making changes (for validation purpose) the tool was developed as given in the Table 3.6 below.

Table 3.6 Showing details of variables, their related dimensions and item-wise distribution.

Variable	Dimensions	Items distribution	Total Items
Instructional Leadership	1- Defining School Mission	1-5	5
		6-12	7
	2- Managing Instructional Programme	13-22	10
			Total 22
	3- Creating School Learning Climate		
School Culture	1- Professional Values	23-26	4
	2- Collegiality	27-31	5
	3- Collaboration	32-35	4
	4- Shared Planning	36-39	4
			Total 17
School Effectiveness	1- High Expectations of Stakeholders	40-44	5
	2- Material and Non-Material Resources	45-47	3
	3- Community Involvement	48-51	4
		52-54	3
	4- Student Academic Achievement	55-57	3
	5- Teacher-Efficacy	58-62	5
	6- Quality Assurance		**Total 23**
		G.Total (22+17+23)=	**62**

3.3. Pilot study

To investigate the reliability and relevancy of all the items of the questionnaire before the actual data collection process, a pilot study was conducted from twenty government secondary schools in the Mardan district of Khyber Pukhtunkhwa (KP), Province of Pakistan. The data for pilot study was collected from 100 (50 male & 50 female)

secondary school teachers. For this purpose 20 schools were visited. The number of respondents from each school was five. As the population is divided into two strata i.e. rural and urban therefore, six schools from rural and four schools from urban areas were visited for each gender (male & female). The translated questionnaire assuring comprehension was distributed among the respondents to collect the responses.

The pilot study started in the mid of June, 2015 and the researcher collected data from 50 teachers of ten government secondary schools for boys, and 50 teachers from government secondary schools for girls. The questionnaire was distributed and collected by the researcher himself. The response rate was 100%. Reliability was found on the basis of collected data.

3.3.1 Reliability

To ensure the reliability of the instrument, a reliability analysis was conducted. The reliability of an instrument is the degree of consistency with which the instrument can measure variables or constructs (Hair et al., 2010).

To ensure that the instrument can be applied to predict, and produce findings that can answer the research questions, the role of reliability analysis is critical (Aziz, et al. 2014). The extinct of closeness of the coefficient Cronbach alpha to 1, shows higher the internal reliability of the instrument (Hair et al., 2010). If the value for the Cronbach alpha is greater than 0.6, then the instrument is highly reliable (Niqab, 2015). If the value for Cronbach alpha is less than 0.6, then it should be removed or modified. Cronbach alpha coefficient values were higher than .70 for the tool of this study therefore, a reliable instrument was reflected. The Cronbach alpha values for the instrument are shown in the Table 3.7 below.

Table 3.7: Cronbach Alpha value for the dimensions and variables of the tool

Variables	Dimensions	Cronbach Alpha Values
IL	Defining School Mission (DSM)	.86
	Managing Instructional Programme (MIP)	.85
	Creating School Learning Climate (CSLC)	.75
	Overall	**.95**
SC	Professional Values (PV)	.90
	Collegiality (COL)	.81
	Collaboration (COB)	.71
	Shared Planning (SP)	.73
	Overall	**.94**
SE	High Expectations of Stakeholders (HES)	.81
	Quality Assurance (QA)	.75
	Community Involvement (CI)	.76
	Student Academic Achievement (SAA)	.78
	Teachers' Efficacy (TE)	.79
	Material and Non-Material Resources (RES)	.77
	Overall	**.95**

The analysis of data for the pilot study revealed that the Cronbach Alpha value for IL is .95 and the individual reliability coefficient for each measure ranged between .75 and .86. Cronbach Alpha value for SC is .94 and the individual reliability coefficient for each measure ranged between .71 and .90. While the Cronbach Alpha value for SE is .95 and the individual reliability coefficient for each measure ranged between .75 and .81. The test results indicate that the Cronbach alpha values were good. Based on these values the instrument is acceptable for use in an actual study.

3.4 Data collection procedure

Khyber Pukhtunkhwa is the third largest province of Pakistan based on the size of population and economy. This province has 26 districts in which Mardan is the second largest district of the province (Govt. of Khyber Pukhtunkhwa, 2015). Khyber Pukhtunkhwa is a major threat of militancy and terrorism after terrorists' attacks on USA since 9/11 in 2001. To seize the control of the province Taliban started an unsuccessful attempt in 2004 in KP province of Pakistan (Wikipedia). Majority of the

schools in KP were damaged as a result of terrorists attacks and the education system collapsed for some time. An example is the large massacre of school children in Peshawar (capital of KP province) by terrorists in December 2014. Different schools of Mardan district were also damaged in terrorist attacks. Besides, during army operation against terrorism all the schools of Mardan district were used as camps for internally displaced persons (IDPs) (Crisis Group Asia Briefing, 2010).

These secondary schools of Mardan district were also used as shelter homes for flood affected people. As a result all these uncertain situations brought many difficulties for students, teachers, principals, parents and administrators in the process of schooling.

Besides, the schools in the Mardan district are divided into two stratas, as rural and urban, by the education department of KP province. Most of the rural schools (having a large proportion) are situated in the far flung hilly areas of the district. The schools in Mardan district are mostly high-needs schools. Therefore, considering this background the government secondary schools in the Mardan district of Khyber Pukhtunkhwa province, of Pakistan ware selected for this study.

Keeping in view the research ethics, the District Education Officer (DEO) was consulted to give permission to visit these schools. After many attempts, permission for data collection was granted with some terms and condition such as: not to conduct interviews and to visit only government secondary schools. In the Mardan district there are a total of 138 government secondary schools but for the pilot study only 20 schools (10 boys and 10 girls) were visited during summer camps in the month of June and August, 2015. The data for pilot study was collected from 100 teachers (male & female at equal percentage). Among the 20 visited schools, 4 were selected from urban and 6 from rural area for each gender (male & female). For the actual study the data was collected from 367 teachers of the stated schools.

For the actual study 103 out of 138 government secondary schools of district Mardan were studied by the researcher. The respondents were selected according to the prescribed size of sample within the schools. The questionnaire was distributed among the sample of the study with research ethics.

3.5 Research Ethics

In respect of research ethics, the sample schools were visited after obtaining a permission letter from the District Education Officer (DEO) in Mardan (see Appendix-E). For the pilot study, although the researcher faced difficulties, but prior permission was taken from the principal concerned to visit each sample school. Inside the schools, each randomly selected respondent was also given the letter requesting to fill the questionnaire (see Appendix-B). The letter assures that research ethics such as confidentiality and other ethical values and codes were followed strictly. A friendly and bias free environment was provided to respondents to express freely.

3.6 Data analysis

This study includes an independent variable (instructional leadership skills), a dependent variable (school effectiveness), a mediator (school culture) and a moderator (demographic variable). The study is co-relational in nature. The data collected for pilot study was analysed on SPSS-22 to get the values for Cronbach Alpha to check the reliability of the tool. The reliability is determined for all the dimensions of each variable of the tool in the pilot study. For the actual study, the data for SE, IL, and SC was analysed through the percentage technique, Spearman rho correlation, and through structural equation modeling (SEM). The data was not normally distributed so it was supposed to use PLS, but keeping in view the obejective regarding model fitness of this study SEM analysis were carried out, because the model fitness cannot be found out through PLS. To confirm the use of SEM technique for non normal data, the

Bootstrapping analysis was carried out. The relationship between the three variables SE, IL, and SC was determined through Structural Equation Modeling (SEM) technique in the actual study. The Spearman rho correlation was used to check the robustness of results. To analyse the mediation, the moderation and model fitness SEM technique was used. The data analysis process is shown in Figure 3.4 below.

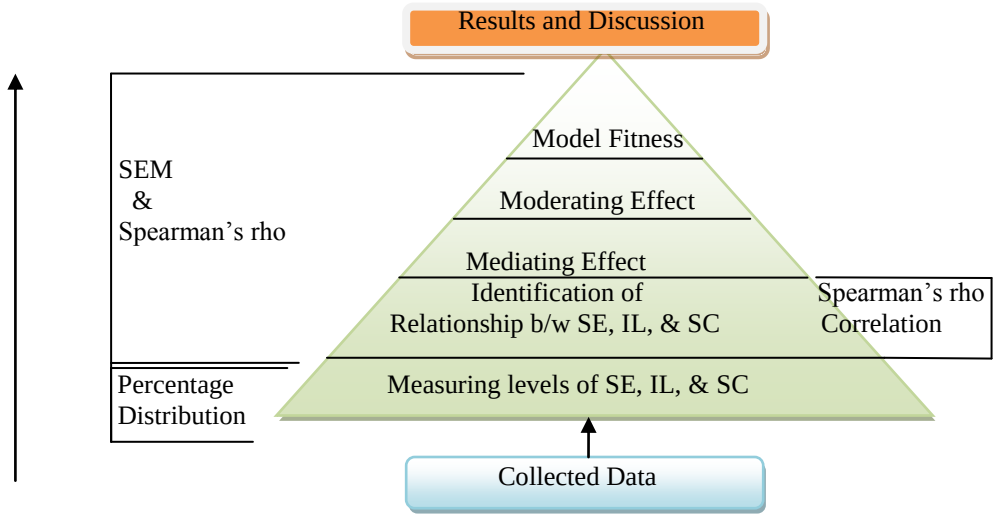

Figure 3.4 Data Analysis Process

The research is correlative in nature. The data was analysed with the help of SPSS-22 and Amos graphics-22. Various analysis techniques were used to answer the research questions as given in the table below.

Table 3.8 Data analysis according to the research questions

Research Question	Scale of Measurement	Data Analysis
1. What are the levels of school effectiveness?	Ordinal	Descriptive Statistics: Frequency, Percentage Distribution.
2. What are the levels of the principal's instructional leadership?	Ordinal	Descriptive Statistics: Frequency, Percentage

		Distribution.
3. What are the levels of school culture?	Ordinal	Descriptive Statistics: Frequency, Percentage Distribution.
4. Is there a significant relationship between the principal's instructional leadership and school effectiveness of secondary schools?	Ordinal	Spearman's rho Correlation/ SEM
5. Is there a significant relationship between principal's instructional leadership and school culture of secondary schools?	Ordinal	Spearman's rho Correlation/ SEM
6. Is there a significant relationship between the school culture and school effectiveness of secondary schools?	Ordinal	Spearman's rho Correlation/ SEM
7. Is school culture a mediator for the relationship between the principal's instructional leadership and school effectiveness of secondary schools?	Ordinal	Spearman's rho Correlation/ SEM
8. Is the demographic variable (age) moderator for the relationship between principal's instructional leadership and school effectiveness of secondary schools?	Ordinal	Moderator Analysis Using SEM Technique
9. Does the proposed model that links the principal's instructional leadership with the school effectiveness through school culture as mediator fits the data collected?	Ordinal	Using SEM Technique

3.6.1 Analysis of research question 1, 2, & 3:

For questions 1, 2, and 3, assessing the level of school effectiveness, instructional leadership, and school culture, the researcher used the percentage distribution technique.

To check the levels of a variable Polat (2009) has taken five levels in the context of Turkey, Dikshit and Dikshit (2014) has taken five levels in the context of India, and Halawah (2005) has taken three levels, similarly Niqab (2015) and Ali et al. (2016) have also taken three levels in a Pakistani context. Therefore, the researcher selected the three levels for the stated variables. Therefore, never and almost never combined to consider "Low Level", seldom, sometimes, and frequently combined to consider "Medium Level", and almost always and always combined to make "High Level". The frequency that got by each level was described in terms of percentage. The three levels were not used directly as the categories of the scale because, Preston and Colman (2000) stated that, based on several indices of validity, reliablity and power of discriminancy the two points, three points, and four points Likert scale performed very poorly, regardless of the seven points which showed a higher significance.

The selected levels are given as:

1- Low Level in terms of percentage (never % + almost never %)
2- Moderate Level in terms of percentage (seldom % + sometimes % + frequently %)
3- High Level in terms of percentage (almost always %+ always %)

3.6.2 Analysis of research question 4, 5, & 6:

For research questions 4, 5, and 6 finding the relationship of instructional leadership to school effectiveness, instructional leadership to school culture, and school culture to school effectiveness, the data was analysed using the Spearman rho correlation SEM. According to Hinkle, Wiersma, and Jurs (2003) the rule of thumb for Spearman rho correlation is given below.

- Spearman rho correlation is denoted by (ρ) and its effect size ranges between ±1. Plus (+) and minus (-) signs show the directions only. The calculated value of "ρ" shows the relationship strength between two variables for example as shown in the Table 3.9.

Table 3.9 Showing levels of correlation

Values	Description
1. If ρ= 0 to .29 (0 to -.29)	Low positive (Low negative) correlation
2. If ρ= .30 to .49 (-.30 to -.49)	Moderate positive (Moderate negative) correlation
3. If ρ= .50 to 1.00 (-.50 to -1.00)	High positive (High negative) correlation

Source**:** Cohen, J. (1988, p. 81)

The appropriateness to use the Spearman rho correlation for the measurement scale used in this study was checked through the following Table 3.10.

Table 3.10 Correlation Coefficients Appropriate for Scales of Measurement

		Variable X		
		Nominal	Ordinal	Interval/Ratio
Variable Y	Nominal	Phi (ϕ) C coefficient Cramer's V λ and λϒ	Rank-biserial	Point-biserial
	Ordinal	Rank-biserial	a. Tetrachoric b. Spearman ρ	Biseral
	Interval/Ratio	Point-biseria	Biserial rb	Pearson r

Source: Hinkle, Wiersma, and Jurs (2003)

The scales for each variable used in this study are ordinal (as ranged from never to always) therefore, to use Spearman rho (ρ) correlation is appropriate as evident from the Table 3.10 abow.

3.6.3 Analysis of research question 7, 8 & 9:

For research questions 7, 8, and 9, to find the moderation; structural equation modeling (SEM) was used. SEM is an authentic technique to find the relationship among various variables, mediation, moderation, error estimation or model fitness. To find the answers of the questions like how a set of variables is constructed and how they are correlated, SEM is used in highly reported research studies. Confirmatory-factor-models and path-models are combined through SEM, for example latent and observed variables are incorporated by SEM (Niqab, 2015; Schumacker & Lomax, 2012).

3.7 Model fitness

Hair et al. (2009) has given three stages for model fitness: 1-Absolute Fit, 2-Incremental fit, and 3-Parsimoious Fit. To find each of the abow stated model-fitness, the popular test indices used in AMOS are given as RAMSEA, GFI, CFI and Chi-square/df. While using AMOS to find the model fitness, if the value for MI (Modification Index) is calculated more than 15, then the model needs modification. In the following table the threshold values for goodness of fit indices are given.

Table 3.11 Goodness of fit indices

Fitness Indices	Acceptable Value
Cronbach Alpha	≥0.70
Factor Loading	≥0.50
CR	≥0.60
AVE	≥0.50
Ratio of Chi-square/df	<5
RMSEA	<0.08
CFI	>0.90
GFI	>0.90

Source: Hair et al. (2009) cited in Niqab (2015) & Cronbach (1951).

Summary

This chapter described the methodology of research that the actual study adopted. Also, the sample size, sample technique, instruments and its dimensions were explained. This chapter clearly stated how different research questions were related to statistical methods in finding results. Furthermore, reliability and validity was also explained for the instrument of the study.

CHAPTER 4: RESULTS

4.1 Introduction

This chapter describes the data analysis that addresses the research questions (RQ) in comparing the three variables of the study: school effectiveness, instructional leadership, and school culture. It also includes further in-depth analysis in order to achieve the aim of this study, as described in chapter-1.

The aim of this study is:

1. To assess levels of school effectiveness, principal instructional leadership and school culture in secondary schools in Mardan District, of Khyber Pukhtunkhwa, Pakistan.
2. To analyse the influence of instructional leadership on school effectiveness in the secondary schools.
3. To assess whether school culture mediates the relationship between instructional leadership of the principal and school effectiveness in the secondary schools.
4. To test whether the demographic variable (age) of teachers moderates the relationship between principal instructional leadership and school effectiveness in the secondary schools.
5. To test whether the model that links the principal instructional leadership with school effectiveness through school culture as mediator fits the Pakistan's secondary schools data.

4.2 Data analysis

4.2.1 Demographic profile of the respondents

The only demographic variable studied is the age of the respondents for this study. Due to limited resources and short time by the host university only age was considered as the demographic variable. Myrberg and Rosen (2006) stated that of course, "teachers' Experience" and "teachers' Age" are coefficient. Though, different studies have found a

positive relationship between teacher's experience and student's achievement (e.g., Murnane & Philips, 1981; Klitgaard & Hall, 1974) but, it is difficult to interpret the experience because; it's a matter whether the teacher is temporary or surplus (Wayne & Youngs, 2003). Similarly, Bchelor of Education (B.Ed) and Master of Education (M.Ed) have no practicality in the school context (Ministry of Education, NEP-1998-2010). The academic qualification such as: Bachelor of Arts (B.A) and Master of Arts (M.A) having no capacity to produce leadership skills (Rizvi, 2010). Due to the above stated reasons only "Age" was considered as demography but, the Table 4.1 below depicts the demography of the schools and respondents for comprehension purpose.

Table 4.1 Demography of the sample

Demographic Characteristics		**Frequency**	**Percentage**
School Division	Rural Schools	84	81.55
	Urban School	19	18.44
School Type	Boys	57	55.33
	Girls	46	44.67
Respondents	from Rural Secondary Schools	270	73.6
	from Urban Secondary Schools	97	26.4
Gender	Male	235	64.0
	Female	132	36.0
Age	Up to 25 Years	03	0.8
	26-30 Years	27	7.4
	31-35 Years	93	25.3
	36-40 Years	177	48.2
	More than 40 years	67	18.3
Experience	1 Year	06	1.6
	2-4 Years	20	5.4
	5-9 Years	73	19.9
	10-15 Years	194	52.9

	More than 15 Years	74	20.2
Academic Qualfication	Graduate	18	4.9
	Master	337	91.8
	Others	12	3.3
Professional Qualification	C.T	11	3.0
	B.Ed	116	31.6
	M.Ed	232	63.2
	Others	08	2.2

A total of 103 secondary schools were selected randomly for this study. Among these schools, eighty four (81.55%) were rural while 19 (18.44%) were urban secondary schools. As for the gender aspects, 57 (55.33%) were boys' secondary schools while 46 (44.67%) were girls' secondary schools. From these secondary schools a total of 367 respondents took part in this study, among which 270 (73.6%) were from rural secondary schools while 97 (26.4%) were from urban secondary schools. As for the gender aspects of teachers, 235 (64.4%) respondents were male while 132 (36.0%) were female.

Among the respondents 3 (0.8%) were of 25 years of age, 27 (7.4%) were aged between 26 to 30 years, 93 (25.3%) were aged between 31 to 35 years, 177 (48.2%) were aged between 36 to 40 years, and 67 (18.3%) were aged more than 40 years.

Accordingly, from the respondents 6 (1.6%) have one year experience, 20 (5.4%) have 2-4 years of experience, 73 (19.9%) have 5-9 years experience, 194 (52.9%) have 10-15 years of experience, and 74 (20.2%) have more than 15 years of experience.

It was also revealed that among the respondents 18 (4.9%) are graduates, 337 (91.8%) are Master of Arts/Science, and 12 (3.3%) have other academic qualification.

Among the respondents 11 (3%) have C.T (Certificate of Teaching), 116 (31.6%) have B.Ed (Bachelor of Education), 232 (63.2%) have M.Ed (Master of Education), while 8 (2.2%) have other professional qualification.

4.2.2 Reliability and Validity of the Instrument

The Table 4.2 shows different measurement indices to check the validity and reliability.

Table 4.2 Reliability and Validity measurement indices

Construct	**CR**	**AVE**	**Cronbach Alpha**
School Effectiveness (SE)	.90	.61	.95
Instructional Leadership (IL)	.92	.73	.95
School Culture (SC)	.89	.85	.94

Note: SE= school effectiveness, IL= instructional leadership, SC= school culture

The above Table 4.2 shows that the extracted values for reliability and validity of all the three variables (SE, IL, & SC) are within the range of the threshold values. The CR values for SE [.90], for IL [.92], and SC [.89] are within the range of threshold value [CR≥.60]. The AVE values for SE [.61], IL [.73], and SC [.85] are also within the threshold value [AVE ≥.50]. Similarly, the Cronbach alpha values for SE [.95], IL [.95], and SC [.94] are also within the threshold value [Cronbach alpha ≥ .70] (Hair, et al. 2009).

The scale was further analysed to check the Discriminant validity as shown in the Table 4.3 below. In fact, Discriminant validity checks the extent to which a construct is truly distinct from other construct.

Table 4.3 Fornell-Larker Criterion for Discriminant Validity

Latent Variable	SE	IL	SC
SE	.61		
IL	**(.372)**	.73	
SC		**(.532)**	.85
			(.722)

The diagonal values (.61, .73, .85) are AVEs and the values in parenthesis (.372, .532, .722) are R-Squares, looking into the table above the AVEs> R-Squares, which has confirmed Discriminant validity for the three constructs. Therefore, suitability of the instrument for data collection was confirmed.

4.2.3 RQ1: What are the levels of school effectiveness?

This question was analysed with the help of descriptive Statistics: Median & percentage distribution technique. To assess the frequencies got by each item; the six dimensions (community involvement, teacher efficacy, student academic achievement, high expectations of stakeholders, material and non-material resources, and quality assurance) of school effectiveness were described statistically. The Table 4.4 below is aimed to show the percentage of frequency for each item in the Community Involvement (CI) dimension.

Table 4.4 Percentage of Responses for Community Involvement dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
51	Better achievement of students and teachers is recognised by the community.	(78%)			(8.4%)		(13.6%)	
		14.2	63.8	6.8	0.0	1.6	3.8	9.8
50	Community interrupts in the internal matters/policies of this school.	(76.1%)			(9.2%)		(14.7%)	
		14.2	61.9	7.6	0.0	1.6	3.0	11.7
48	The community gets involved in different improvement based physical activities of this school when they are needed.	(75.5%)			(9.0%)		(15.5%)	
		11.7	63.8	6.0	0.8	2.2	3.8	11.7
49	The holistic school activities are recognised and appreciated by the community of this school.	(75.3%)			(8.7%)		(16%)	
		13.4	61.9	6.3	0.8	1.6	3.5	12.5

The above Table 4.4 shows that 78% of teachers perceive that better achievement of students and teachers is never or almost never recognised by the community, while 13.6% more perceive that better achievement of students and teachers is always or almost always recognised by the community. About 8.4% teachers perceived that better achievement of students and teachers is seldom, or sometimes, or frequently recognised by the community.

Similarly, it is found that 76.1% of teachers perceive that community never or almost never interrupts in the internal matters/policies of their school, while 14.7 more perceive that the community always or almost always interrupts in the internal matters/policies of their school. About 9.2% teachers perceive that the community seldom, or sometimes, or frequently interrupts in the internal matters/policies of their school.

For the third item it was noted that 75.5% teachers perceive that the community never or almost never gets involved in different improvement based physical activities of the school when they are needed, while 15.5% more perceive that the community always or almost always gets involved in different improvement based physical activities of the school when they are needed. About 9% teachers perceive that the community seldom, or sometimes, or frequently gets involved in different improvement based physical activities of the school when they are needed.

For the last item of Community Involvement dimension 75.3% teachers perceive that the holistic school activities are never or almost never recognised and appreciated by the community of the school, while 16% more perceive that the holistic school activities are always or almost always recognised and appreciated by the community of the school. About 8.7% teachers perceive that the holistic school activities are seldom, or sometimes, or frequently recognised and appreciated by the community of the school.

Among the four items within the Community Involvement dimension, the perception that that better achievement of students and teachers is never or almost never recognised by the community got the higher frequency. This is followed by the perception that the community never or almost never interrupts in the internal matters/policies of the school, the perception that the community gets never or almost never involved in different improvement based physical activities of the school when they are needed, and finally the perception that the holistic school activities are never or almost never recognised and appreciated by the community of the school. Similarly, the Table 4.5 below is aimed to

show the percentage of frequency for each item in the Teacher Efficacy (TE) dimension.

Table 4.5 Percentage of Response for Teacher Efficacy dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
57	Teachers of this school use modern technologies and techniques for effective teaching.	(15.8%)			(16.6%)		(67.6%)	
		9.0	6.8	5.2	6.5	4.9	49.9	17.7
56	Teachers of this school are skilled enough and experienced to cope with the problems of teaching-learning processes.	(19.9%)			(12.8%)		(67.3%)	
		8.7	11.2	4.9	5.4	2.5	51.2	16.1
55	This school is provided with fully qualified and trained teachers.	(16.3%)			(17.2%)		(66.5%)	
		7.9	8.4	5.2	8.2	3.8	50.7	15.8

The above Table 4.5 shows that 67.6% of teachers perceive that they always or almost always use modern technologies and techniques for effective teaching while 16.6% more perceive that they use either frequently, sometimes, or seldom modern technologies and techniques for effective teaching. About 15.8% of teachers perceive that they never or almost never use modern technologies and techniques for effective teaching.

Similarly, it is found that 67.3% of teachers perceive that teachers of the school are always or almost always skilled enough and experienced to cope with the problems of teaching-learning processes while 12.8% more are of the perception that teachers of the school are either frequently, sometimes, or seldom skilled enough and experienced to cope with the problems of teaching-learning processes. It is also noted that about 18.9% of teachers perceive that teachers of the school are never or almost never skilled enough and experienced to cope with the problems of teaching-learning processes.

As for the third item in the Teacher Efficacy dimension, it is noted that 66.5% of teachers perceive that their schools are always or almost always provided with fully qualified and trained teachers, while 17.2% more perceive that the schools are either frequently, sometimes or seldom provided with fully qualified and trained teachers. About 16.3% of

teachers perceive that the schools are never or almost never provided with fully qualified and trained teachers.

Among the three items within the Teacher Efficacy dimension, the perception that the teachers always or almost always use modern technologies and techniques for effective teaching got the higher frequency. This is followed by the perception that teachers of the school are always or almost always skilled enough and experienced to cope with the problems of teaching-learning processes, and finally the perception that the school is always or almost always provided with fully qualified and trained teachers. On the same way, the Table 4.6 below is aimed to show the percentage of frequency for each item in the Student Academic Achievement (SAA) dimension.

Table 4.6 Percentage of Response for Student Academic Achievement dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
53	The parents are satisfied with the academic achievement of the students.	(10.4%) 4.9	5.5	3.0	(70%) 2.7	64.3	(19.6%) 6.5	13.1
54	The parents care about the grades earned by their children.	(10.9%) 4.4	6.5	3.5	(69.2%) 3.0	62.7	(19.9%) 4.6	15.3
52	The percentage of passing SSC students in current result is in accordance to the minimum targeted percentage by the department.	(13.6%) 5.4	8.2	1.1	(69%) 4.1	63.8	(17.4%) 4.9	12.5

The above Table 4.6 shows that 70% of teachers perceive that the parents are seldom, or sometimes, or frequently satisfied with the academic achievement of the students. While 19.6% more perceive that the parents are always or almost always satisfied with the academic achievement of the students. In contrast, about 10.4% of teacher perceive that the parents are never or almost never satisfied with the academic achievement of the students.

Similarly, it is found that 69.2% of teachers perceive that the parents are seldom, or sometimes or frequently care about the grades earned by their children. While 19.9% more perceive that the parents are always or almost always care about the grades earned by their children. About 10.9% teachers perceive that the parents never or almost never care about the grades earned by their children.

As for the third item in Student Academic Achievement dimension, it is noted that 69% of teachers perceive that their school seldom, or sometimes or frequently fit the departmental criterion of passing-percentage for SSC students. While 17.4% more perceive that their school always or almost always fit the departmental criterion of passing-percentage for SSC students. It is also noted that about 13.6% of teachers perceive that their school never or almost never fit the departmental criterion of passing-percentage for SSC students.

Among the three items within the Student Academic Achievement dimension, the perception that the parents are seldom, or sometimes, or frequently satisfied with the academic achievement of the students got the higher frequency. This is followed by the perception that the parents are seldom, or sometimes or frequently care about the grades earned by their children, and finally the perception that their school seldom, or sometimes or frequently fit the departmental criterion of passing-percentage for SSC students. Furthermore, the Table 4.7 below is aimed to show the percentage of frequency for each item in the High Expectations of Stakeholders (HES) dimension

Table 4.7 Percentage of Response for High Expectations of Stakeholders dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
41	I hold high expectations for students.	(5.8%)			(43%)		(51.2%)	
		1.1	4.7	7.4	10.4	25.2	49.0	2.2
44	Parents/community holds high expectations from the future of this school.	(15.5%)			(37.4%)		(47.1%)	
		2.4	13.1	6.8	6.3	24.3	46.6	0.5
40	I have high expectations for myself as a professional.	(12.8%)			(40.6%)		(46.6%)	
		2.7	10.1	9.0	2.2	29.4	46.3	0.3
43	Students in my school have healthy competition with their classmates.	(18%)			(42.8%)		(39.2%)	
		2.2	15.8	8.2	8.4	26.2	38.7	0.5
42	The teachers of this school expect themselves to engage in ongoing professional growth.	(18.2%)			(41.2%)		(40.6%)	
		1.4	16.8	10.4	6.0	24.8	40.6	0.0

The above Table 4.7 shows that 51.2% of teachers perceive that they always or almost always hold high expectations for students, while 43% more perceive that they frequently, sometimes, or seldom hold high expectations for students. About 5.8% of teachers perceive that they never or almost never hold high expectations for students.

Similarly it is found that 47.1% of teachers perceive that parents/community always or almost always hold high expectations from the future of this school while 34.4% more perceive that parents/community frequently, sometimes or seldom hold high expectations from the future of this school. About 15.5% of teachers perceive that parents/community never or almost never holds high expectations from the future of this school.

As for the third item in the High Expectations of Stakeholders dimension, it is noted that 46.6% of teachers perceive that they always or almost always have high expectations for them as professional. While 40.6% more are of the perception that they have frequently, sometimes, or seldom hold high expectations for them as professional. It is also noted that about 8.12% of teachers perceive that they never or almost never have high expectations

for them as professional.

In contrast for the next item it is found that 42.8% of teachers perceive that students in their school frequently, or sometimes, or seldom have healthy competition with their classmates. While 39.2% more are of the perception that students in their school always or almost always have healthy competition with their classmates. It is also noted that about 18% teachers perceive that students in their school never or almost never have healthy competition with their classmates.

Similarly, in contrast for the final item in the High Expectations of Stakeholders dimension it is noted that 41.2% of teachers perceive that the teachers of their school frequently, sometimes, or seldom expect themselves to engage in ongoing professional growth. While 40.6% more are of the perception that the teachers of their school always or almost always expect themselves to engage in ongoing professional growth. It is also noted that about 18.2% of teachers perceive that the teachers of their school never or almost never expect themselves to be engaged in ongoing professional growth.

Among the five items within the High Expectations of Stakeholders dimension, the perception of teachers that parents/community always or almost always hold high expectations from the future of this school got a higher frequency. This is followed by the perception that parents/community always or almost always hold high expectations from the future of this school, the perception that the teachers always or almost always have high expectations for them as professional, in contrast the perception that that students in their school frequently, or sometimes, or seldom have healthy competition with their classmates, and finally in contrast the perception that the teachers of their school frequently, sometimes, or seldom expect themselves to engage in ongoing professional growth. The following Table 4.8 is aimed to show the percentage of frequency for each item in the Material and Non-Material Resources (RES) dimension

Table 4.8 Percentage of Response for Material & Non-Material resources dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
45	This school is provided with facilities like electricity, water, boundary wall, and playground etc.	(11.7%)			(16.3%)		(72%)	
		3.8	7.9	10.6	3.0	2.7	60.2	11.8
46	Teachers use equipment available in this school for greater teaching output	(15.3%)			(25.9%)		(58.8%)	
		7.1	8.2	22.1	0.8	3.0	51.2	7.6
47	The school receives sufficient budget to fulfill its needs.	(23.4%)			(20.2%)		(56.4%)	
		7.6	15.8	9.8	4.1	6.3	47.7	8.7

The above Table 4.8 shows that 72% of teachers perceive that their school is always or almost always provided with facilities like electricity, water, boundary wall, and playground etc. while 16.3% more perceive that their school is seldom, or sometimes, or frequently provided with facilities like electricity, water, boundary wall, and playground etc. About 11.7% of teachers perceive that their school is never or almost never provided with facilities like electricity, water, boundary wall, and playground etc.

Similarly, it is noted that 58.8% of teachers perceive that they use always or almost always equipment available in the school for greater teaching output, while 25.9% more are of the perception that they use seldom, or sometimes, or frequently equipment available in the school for greater teaching output. It is also noted that 15.2% of teachers perceive that they use never or almost never equipment available in the school for greater teaching output.

For the third item in the Material and Non-Material Resources dimension, it is noted that 56.4% of teachers perceive that the school almost always or always receives sufficient budget to fulfill its needs, while 23.4% of teachers perceive that the school never or almost never receive sufficient budget to fulfill its needs. It is also noted that 20.2% of teachers were of the perception that the schools seldom, or sometimes, or frequently receive

sufficient budget to fulfill its needs.

Among the three items within the Material and Non-Material Resources dimension, the perception that the schools are always or almost always provided with facilities like electricity, water, boundary wall, and playground etc. got higher frequency. This is followed by the perception that they use always or almost always equipment available in the school for greater teaching output, and finally the perception that the schools are always or almost always receives sufficient budget to fulfill its needs. The next Table 4.9 below is aimed to show the percentage of frequency for each item in the Quality Assurance (QA) dimension.

Table 4.9 Percentage of Responses for Quality Assurance dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
59	Principal motivate teachers for improvement of the school.	(25.5%) 6.2	19.3	4.4	(64.9%) 8.5	52.0	(9.6%) 5.8	3.8
60	Teachers get encouragement and acknowledgement for their services.	(25.1%) 6.3	18.8	7.6	(64.6%) 8.2	48.8	(10.6%) 6.0	4.3
61	The quality of the services and products in this school is outstanding.	(25.1%) 6.4	18.7	7.4	(64.6%) 8.4	48.8	(10.3%) 6.0	4.3
58	Teachers of this school are involved in the school improvement activities.	(25%) 4.6	20.4	2.5	(62.4%) 11.7	48.2	(12.6%) 6.6	6.0
62	The available resources are used by the teachers efficiently for school improvement.	(25.3%) 5.7	19.4	5.4	(62%) 9.5	47.1	(12.7%) 7.5	5.2

The above Table 4.9 shows that 64.9% of teachers perceive that their principal seldom, or sometimes, or frequently motivate teachers for improvement of the school while 25.5% more perceive that their principal never or almost never motivate teachers for improvement of the school. About 9.6% of teachers perceive that their principal always or almost always motivate teachers for improvement of the school.

Similarly, it found that 64.6 % of teachers perceived that they get seldom, or sometimes, or frequently encouragement and acknowledgement for their services while 25.1 % more perceive that teachers get never or almost never encouragement and acknowledgement for their services. About 10.6% of teachers perceive that they get always or almost always encouragement and acknowledgement for their services.

As for the next item in Quality Assurance dimension 64.6% of teachers perceive that the quality of the services and products in this school is seldom, or sometimes, or frequently outstanding, while 25.1% of teachers perceive that the quality of the services and products in this school is never or almost never outstanding. It is noted that 10.3% of teachers were of the perception that the quality of the services and products in this school is always or almost always outstanding.

For the fourth item 62.4% of teachers perceive that the teachers of this school are seldom, or sometimes, or frequently involved in the school improvement activities, while 25% more perceive that teachers of this school are never or almost never involved in the school improvement activities. It is also noted that 12.6% of teachers perceive that teachers of this school are always or almost always involved in the school improvement activities.

For the last item of Quality Assurance dimension it is noted that 62% of teachers perceive that the available resources are seldom, or sometimes, or frequently used by the teachers efficiently for school improvement while, 25.3% more perceive that the available resources are never or almost never used by the teachers efficiently for school improvement. It is also noted that 12.7% of teachers perceive that the available resources are always or almost always used by the teachers efficiently for school improvement.

Among the five items in the Quality Assurance dimension, the perception that the principals seldom, or sometimes, or frequently motivate teachers for improvement of the school got higher frequency. This is followed by the perception that they seldom, or sometimes, or frequently get encouragement and acknowledgement for their services, the

perception that the teachers of the schools are seldom, or sometimes, or frequently involved in the school improvement activities, the perception that the teachers of the schools are seldom, or sometimes, or frequently involved in the school improvement activities, and finally the perception that the available resources are seldom, or sometimes, or frequently used by the teachers efficiently for school improvement.

The following Table 4.10 is showing levels of school effectiveness in secondary schools of Mardan district in KP province of Pakistan.

Table 4.10 Levels of school effectiveness (N=367)

Dimensions of SE Variable	Min	Max	Median	Levels		
				Low (%)	Moderate (%)	High (%)
Community Involvement	0	24	4	68.4	23.7	7.9
Teacher Efficacy	0	18	15	15.8	22.9	61.3
Student Academic Achievement	0	18	12	10.4	59.9	29.7
High Expectations of Stakeholders	5	27	21	12	33.2	54.8
Material & Non-Material Resources	0	18	13	19.3	28.3	52.4
Quality Assurance	2	27	18	25.1	47.4	27.5
Overall School Effectiveness	31	123	87	13.6	45.8	40.6

The above Table 4.10 shows the dimensions of school effectiveness with their respective medians and levels. The values are arranged in the descending order of percentages interpreted below in detail. But first, looking into the Median scores, Min values and Max values, high expectations of stakeholders dimension shows the highest median score (Med=21, Min=5, Max=27) followed by quality assurance (Med=18, Min=2, Max=27), teachers' efficacy (Med=15, Min=0, Max=18), material and non-material resources (Med=13, Min=0, Max=18), student academic achievement (Med=12, Min=0, Max=18), and finally community involvement (Med=4, Min=0, Max=24). The median score for the overall school effectiveness variable is 87 (Min=31, Max=123).

The above table shows that the teachers with higher percentage (68.4%) perceive that community involvement is of a low level, while more 23.7% of teachers perceive its level as moderate, and 7.9% perceive as high.

The next higher percentage (61.3%) of teachers in contrast perceive that the level of teacher efficacy is high, about 22.9% more perceive as moderate level, and about 15.8% perceive as low level.

With respect to percentage, the next following one dimension is the High Expectations of Stakeholders for which 54.8% of teachers perceive that its level is high, about 32.2% more perceive its level as moderate, and about 12% of teachers perceive its level as low.

Regarding percentage, the coming next dimension is student academic achievement, about which 59.9% of teachers perceive that its level is moderate, while 29.7% perceive its level as high, and 10.4% more perceive its level as low. But, in contrast 52.4% perceive that the level of material and non-material resources is high, while 28.3% more perceive as moderate, and 19.3% perceive its level as low.

About 47.4% of teachers perceive that the level of quality assurance is moderate level, about 27.5% more perceive as high level, and 25.1% perceive as low level.

For the whole SE variable, 45.8% of teachers perceive that its level is of moderate, while about 40.6% perceive its level as high, and 13.6% more perceive as low.

4.2.4 RQ2: What are the levels of principal's instructional leadership?

This question was analysed with the help of descriptive Statistics: Median, Min, Max, & percentage distribution technique. To assess the frequencies of perception of each item; the three dimensions (creating school learning climate, managing instructional programmes, and Defining school mission) of instructional leadership were described statistically. The Table 4.11 below is aimed to show the percentage of perception for each item in the Creating School Learning Climate (CSLC) dimension.

Table 4.11 Percentage of Response for Creating School Learning Climate dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
22	Contact parents to communicate improved or exemplary student performance	(74.4%)			(22.3%)		(3.3%)	
		14.7	59.7	6.5	7.4	8.4	2.2	1.1
19	Lead or attend teacher in-service activities concerned with instruction	(69.2%)			(26.7%)		(4.1%)	
		12.8	56.4	13.4	3.8	9.5	2.2	1.9
17	Acknowledge teachers' exceptional performance by writing memos for their personnel files	(68.7%)			(28.9%)		(2.4%)	
		13.4	55.3	12.5	5.2	11.2	1.9	0.5
20	Set aside time at faculty meetings for teachers to share ideas or information from in-service activities.	(68.4%)			(28.8%)		(2.8%)	
		15.0	53.4	10.8	6.3	11.7	2.5	0.3
15	Attend/participate in extra- and co-curricular activities	(68.4%)			(29.7%)		(1.9%)	
		13.1	55.3	11.6	7.2	10.9	1.9	0.0
14	Take time to talk informally with students and teachers during recess and breaks	(68.2%)			(28.3%)		(3.5%)	
		12.0	56.2	13.6	4.9	9.8	2.7	0.8
18	Create professional growth opportunities for teachers as a reward for special contributions to the school	(68.1%)			(26.4%)		(5.5%)	
		12.8	55.3	9.5	6.5	10.4	4.6	0.9
21	Recognise superior student achievement or improvement by seeing in the office the students with their work	(68.1%)			(31%)		(0.9%)	
		11.7	56.4	13.9	6.5	10.6	0.9	0.0
16	Compliment teachers privately for their efforts or performance	(66.3%)			(31.2%)		(2.5%)	
		12.3	54.0	13.2	7.1	10.9	2.2	0.3

The above Table 4.11 shows that 74.4% of teachers perceive that the principal of their school never or almost never contact parents to communicate improved or exemplary students' performance, while 22.3% more perceive that the principal of their school seldom, or sometimes, or frequently contact parents to communicate improved or exemplary students' performance. About 3.3% of teachers perceive that the principal of their school always or almost always contact parents to communicate improved or exemplary students' performance.

Similarly, it is found that 69.2% of teachers perceive that their principal never or almost never lead or attend teacher in-service activities concerned with instruction, while more

26.7% perceive that their principal seldom, or sometimes, or frequently lead or attend teacher in-service activities concerned with instruction. About 4.1% perceive that their principal always or almost always lead or attend teacher in-service activities concerned with instruction.

For the third item 68.7% of teachers perceive that their principal almost never or never acknowledge teachers' exceptional performance by writing memos for their personnel files, while 28.9% more perceive that their principal seldom, or sometimes, or frequently acknowledge teachers' exceptional performance by writing memos for their personnel files. About 2.4% perceive that their principal always or almost always acknowledge teachers' exceptional performance by writing memos for their personnel files.

For the fourth item 68.4% of teachers perceive that their principal never or almost never set aside time at faculty meetings for teachers to share ideas or information from in-service activities. While 28.8% more perceive that their principal seldom, or sometimes, or frequently set aside time at faculty meetings for teachers to share ideas or information from in-service activities. About 2.8% of teachers perceive that their principal always or almost always set aside time at faculty meetings for teachers to share ideas or information from in-service activities.

It was noted for the next item that 68.5% of teachers perceive that their principal never or almost never attend/participate in extra- and co-curricular activities, while 29.7% perceive that their principal seldom, or sometimes, or frequently attend/participate in extra- and co-curricular activities. About 1.9% more perceive that their principal always or almost always attend/participate in extra- and co-curricular activities.

The next item reveals that 68.2% of teachers perceive that their principal never or almost never take time to talk informally with students and teachers during recess and breaks, while 28.3% more perceive that their principal seldom, or sometimes, or frequently take time to talk informally with students and teachers during recess and breaks. About 3.5%

teachers perceive that their principal always or almost always take time to talk informally with students and teachers during recess and breaks.

It is noted for the next item that 68.1% of teachers perceive that their principals never or almost never create professional growth opportunities for teachers as a reward for special contributions to the school, while 26.4% more perceive that their principal seldom, or sometimes, or frequently create professional growth opportunities for teachers as a reward for special contributions to the school. About 5.5% perceive that their principal always or almost always create professional growth opportunities for teachers as a reward for special contributions to the school.

Similarly, it is found that 68.1% of teachers perceive that their principal never or almost never recognise superior student achievement or improvement by seeing in the office the students with their work, while 31% more perceive that their principal seldom, or sometimes, or frequently recognise superior student achievement or improvement by seeing the students in the office with their work. About 0.9% more perceive that their principal always or almost always recognise superior student achievement or improvement by seeing the students in the office with their work.

For the final item of Creating School Learning Climate dimension, it is noted that 66.3% of teachers perceive that their principal never or almost never compliment teachers privately for their efforts or performance, while 31.2% more perceive that their principal seldom, or sometimes, or frequently compliment teachers privately for their efforts or performance. About 2.5% teachers perceive that their principal always or almost always compliment teachers privately for their efforts or performance.

Among the nine items of Creating School Learning Climate dimension, the perception that the principal of their school never or almost never contact parents to communicate improved or exemplary student performance; got a higher frequency. This is followed by the perception that the principals never or almost never lead or attend teacher in-service

activities concerned with instruction, the perception that the principal almost never or never acknowledge teachers' exceptional performance by writing memos for their personnel files, the perception that the principal never or almost never set aside time at faculty meetings for teachers to share ideas or information from in-service activities, the perception that the principal never or almost never attend/participate in extra- and co-curricular activities, the perception that the principal never or almost never take time to talk informally with students and teachers during recess and breaks, the perception that the principal never or almost never create professional growth opportunities for teachers as a reward for special contributions to the school, the perception that the principal never or almost never recognise superior student achievement or improvement by seeing the students in the office with their work, and finally the perception that the principal never or almost never compliment teachers privately for their efforts or performance.

The Table 4.12 below is aimed to show the percentage of frequency for each item in the Managing Instructional Programmes (MIP) dimension

Table 4.12 Percentage of Response for Managing Instructional Programmes dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
9	Draw upon the results of school-wide testing when making curricular decisions	(68.4%)			(26.7%)		(4.9%)	
		11.7	56.7	12.0	3.5	11.2	3.3	1.6
11	Meet individually with teachers to discuss student progress	(68.2%)			(24.8%)		(7%)	
		11.7	56.5	11.7	3.8	9.3	3.5	3.5
6	Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school	(67.6%)			(26.2%)		(6.2%)	
		11.7	55.9	12.3	3.8	10.1	3.5	2.7
13	Encourage teachers to use instructional time for teaching and practicing new skills and concepts	(67.1%)			(26.5%)		(6.4%)	
		10.4	56.7	13.1	4.1	9.3	4.1	2.3
10	Participate actively in the review of curricular materials	(66.7%)			(24.3%)		(9%)	
		10.4	56.3	9.0	6.0	9.3	6.5	2.5
7	Review student work products when evaluating classroom instruction	(66.5%)			(30%)		(3.5%)	
		12.3	54.2	11.2	6.8	12.0	3.2	0.3
12	Use tests and other performance measure to assess progress toward	(66.5%)			(29.7%)		(3.8%)	
		13.1	53.4	10.9	7.1	11.7	3.3	0.5

	school goals												
8	Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders)	(65.4%)				(30.3%)				(4.3%)			
		9.8	55.6		13.1	7.1		10.1		3.5		0.8	

The above Table 4.12 shows that 68.4% of teachers perceive that their principal never or almost never draw upon the results of school-wide testing when making curricular decisions, while 26.7% more perceive that their principal seldom, or sometimes, or frequently draw upon the results of school-wide testing when making curricular decisions. About 4.9% of teachers perceive their principal always or almost always draw upon the results of school-wide testing when making curricular decisions.

The next item shows that 68.2% of teachers perceive that their principal never or almost never meet individually with teachers to discuss student progress, while 24.8% more perceive that their principal seldom, or sometimes, or frequently meet individually with teachers to discuss student progress. About 7% of teachers perceive that their principal always or almost always meet individually with teachers to discuss student progress.

The third item shows that 67.6% of teachers perceive their principals never or almost never ensures that the classroom priorities of teachers are consistent with the goals and direction of the school, while 26.2% more perceive that their principals seldom, or sometimes or frequently ensures that the classroom priorities of teachers are consistent with the goals and direction of the school. About 6.2% perceive that their principal always or almost always ensures that the classroom priorities of teachers are consistent with the goals and direction of the school.

Similarly, the analysis for the next item shows 67.1% of teachers perceive their principal never or almost never encourage teachers to use instructional time for teaching and practicing new skills and concepts, while 26.5% more perceive that their principal seldom, or sometimes, or frequently encourage teachers to use instructional time for teaching and

practicing new skills and concepts. About 6.4% perceive that their principal always or almost always encourage teachers to use instructional time for teaching and practicing new skills and concepts.

For the fifth item, 66.7% of teachers perceive that their principal never or almost never participate actively in the review of curricular materials, while 24.3% more perceive that their principal seldom, or sometimes, or frequently participate actively in the review of curricular materials. About 9% of teachers perceive that their principal always or almost always participate actively in the review of curricular materials.

For the sixth item, 66.5% of teachers perceive that their principal never or almost never review student work products when evaluating classroom instruction, while 30% more perceive that their principal seldom, or sometimes, or frequently review student work products when evaluating classroom instruction. About 3.5% of teachers perceive that their principal always or almost always review student work products when evaluating classroom instruction.

Similarly, for the next item 66.5% of teacher perceive that their principal never or almost never use tests and other performance measure to assess progress towards school goals, while 29.7% more perceive that their principals seldom, or sometimes, or frequently use tests and other performance measure to assess progress towards school goals. About 3.8% teachers perceive that their principal always or almost always use tests and other performance measure to assess progress towards school goals.

For the last item in Managing Instructional Programmes dimension, it was noted that 65.4% of teachers perceive that their principal never or almost never make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders), while 30.3% more perceive that their principal seldom, or sometimes, or frequently make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders). About 4.3% of

teachers perceive that their principal always or almost always make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders).

Among the eight items within the Managing Instructional Programmes dimension, the perception that the principal never or almost never draw upon the results of school-wide testing when making curricular decisions got a higher frequency. This is followed by the perception about the principal to meet never or almost never individually with teachers to discuss student progress, the perception that the principals never or almost never ensure that the classroom priorities of teachers are consistent with the goals and direction of the school, the perception that the principal encourage never or almost never the teachers to use instructional time for teaching and practicing new skills and concepts, the perception that the principal make never or almost never an active participation in the review of curricular materials, the perception that the principal make never or almost never a review of student work products when evaluating classroom instruction, the perception that the principals use never or almost never tests and other performance measure to assess progress toward school goals, and finally the perception that the principal never or almost never make clear that who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders).

Similarly, the Table 4.13 below is aimed to show the percentage of frequency for each item in the Defininig School Mission (SM) dimension.

Table 4.13 Percentage of Responses for Defining School Mission dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
1	Develops a focused set of annual school-wide goals	(70.9%)			(19.4%)		(9.7%)	
		13.1	57.8	7.4	2.2	9.8	6.5	3.2
4	Communicates the school's mission effectively to members of the school community	(70%)			(22.1%)		(7.9%)	
		12.5	57.5	7.9	3.3	10.9	4.1	3.8
3	Develops goals that are easily understood by teachers in the school	(69.2%)			(21.3%)		(9.5%)	
		12.8	56.4	7.1	3.0	11.2	5.7	3.8
2	Uses data on student performance when developing the school's academic goals	(69%)			(24.2%)		(6.8%)	
		14.2	54.8	5.7	4.6	13.9	5.2	1.6
5	Refers to the school's academic goals when making curricular decisions with teachers	(68.7%)			(17.7%)		(13.6%)	
		12.3	56.4	4.9	2.7	10.1	8.4	5.2

The above Table 4.13 shows that 70.9% of teachers perceive that their principal never or almost never develops a focused set of annual school-wide goals, while 19.4% more perceive that their principal seldom, or sometimes, or frequently develops a focused set of annual school-wide goals. About 9.7% of teachers perceive that their principal always or almost always develops a focused set of annual school-wide goals.

For the next item, 70% of teachers perceive that their principal never or almost never communicates the school's mission effectively to members of the school community, while 22.1% more perceive that their principal seldom, or sometimes, or frequently communicates the school's mission effectively to members of the school community. About 7.9% perceive that their principal always or almost always communicates the school's mission effectively to members of the school community.

For the third item, 69.2% of teachers perceive that their principal never or almost never develops goals that are easily understood by teachers in the school, while 21.3% more perceive that their principal seldom, or sometimes, or frequently develops goals that are

easily understood by teachers in the school. About 9.5% perceive that the principal always or almost always develops goals that are easily understood by teachers in the school.

For the fourth item in Defining School Mission dimension, 69% of teachers perceive that their principal never or almost never uses data on student performance when developing the school's academic goals, while 24.2% more perceive that their principal seldom, or sometimes, or frequently uses data on student performance when developing the school's academic goals. About 6.8% of teachers perceive that their principal always or almost always uses data on student performance when developing the school's academic goals.

For the final item, 68.7% of teachers perceive that their principal never or almost never refers to the school's academic goals when making curricular decisions with teachers, while 17.7% more perceive that their principal seldom, or sometimes, or frequently refers to the school's academic goals when making curricular decisions with teachers. About 13.6% of teachers perceive their principal always or almost always refers to the school's academic goals when making curricular decisions with teachers.

Among the five items with the Defining School Mission dimension, the perception that their principal never or almost never develops a focused set of annual school-wide goals got a higher frequency. This is followed by the perception that the principal never or almost never communicate the school's mission effectively to members of the school community, the perception that the principal never or almost never develop goals that are easily understood by teachers in the school, the perception that the principal never or almost never use data on student performance when developing the school's academic goals, and finally the perception that the principal never or almost never refer to the school's academic goals when making curricular decisions with teachers.

The following Table 4.14 is showing levels of Instructional Leadership in the secondary schools of Mardan district of KP province (Pakistan).

Table 4.14 Levels of instructional leadership (N=367)

Dimensions of Variable IL	Min	Max	Median	Levels		
				Low (%)	Moderate (%)	High (%)
Creating School Learning climate	2	38	12	73.3	26.4	0.3
Managing Instructional Programmes	2	43	11	68.9	30	1.1
Defining school Mission	0	27	7	64.6	32.7	2.7
Overall IL	5	107	29	70.3	29.4	0.3

The above Table 4.14 shows the dimensions of instructional leadership with their respective medians, Max values, Min Values, and levels. The dimensions are arranged in the descending order of percentages interpreted in detail below. Regarding median scores, the dimension of creating school learning climate shows the highest median (Med=12, Min=2, Max=38) followed by managing instructional programmes (Med=11, Min=2, Max=43), and defining school mission (Med=7, Min=0, Max=27). At last the median score for overall instructional leadership is 29 (Min=5, Max=107).

Among the teachers 73.3% perceive that the level of creating school learning climate is low, about 26.4% more perceive that its level is moderate, and about 0.3% perceive its level as high.

About 68.9% more perceive the level of managing instructional programmes is low, and 30% more perceive that its level is moderate, while 1.1% teachers perceive it as high.

About 64.6% teachers perceive that the level of defining schools mission is also low, while 32.7% more perceive its level as moderate, and 2.7% perceive its level as high.

Similarly, 70.3% of teachers perceive that the overall instructional leadership is of low level, about 29.4% more perceive its level is moderate, and about 0.3% teachers perceive its level as high.

4.2.5 RQ3: What are the levels of school culture?

This question was analysed with the help of descriptive statistics: Median, Max values, Min values, and percentage distribution technique. To assess the frequencies of perception achieved by each item, the four dimensions (shared planning, collaboration, collegiality, and professional values) of school culture were described statistically in term of percentages. The Table 4.15 below shows the percentage of perception for the items of shared planning (SP) dimension.

Table 4.15 Percentage of Response for Shared Planning dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
36	Expressions of the school's vision reflect staff consensus.	(78.7%)			(16.7%)		(4.6%)	
		16.3	62.4	2.5	6.3	7.9	4.6	0.00
38	We have identified ways of determining if school priorities are achieved.	(78%)			(19.3%)		(2.7%)	
		16.1	61.9	2.2	8.7	8.4	2.7	0.00
39	Priorities are implemented by teachers.	(76%)			(21.8%)		(2.2%)	
		18.8	57.2	6.8	6.3	8.7	1.4	0.8
37	We gather data for gauging the success of school programmes.	(75.2%)			(22.6%)		(2.2%)	
		21.0	54.2	7.1	6.0	9.5	1.9	0.3

The above Table 4.15 shows that 78.7% of teachers perceive that expressions of the school's vision never or almost never reflect staff consensus, while 16.7% more perceive that expressions of the school's vision seldom, or sometimes, or frequently reflect staff consensus. About 4.6% perceive that expressions of the school's vision always or almost always reflect staff consensus.

For the second item, it is noted that 78% perceive that they have never or almost never identified ways of determining if school priorities are achieved, while 19.3% more perceive that they seldom, or sometimes, or frequently have identified ways of determining if school priorities are achieved. About 2.7% more perceive that they have always or almost always identified ways of determining if school priorities are achieved.

Similarly, it is noted that 76% of teachers perceive that priorities are never or almost never

implemented by teachers, while 21.8% more perceive that priorities are seldom, or sometimes, or frequently implemented by teachers. About 2.2% of teachers perceive that priorities are always or almost always implemented by teachers.

For the final item of Shared Planning dimension, it is noted that 75.2% of teachers perceive they never or almost never gather data for gauging the success of school programmes, while 22.6% more perceive that they seldom, or sometimes, or frequently gather data for gauging the success of school programmes. About 2.2% perceive that they always or almost always gather data for gauging the success of school programmes.

Among the four items of Shared Planning dimension, the perception about, "the teachers have never or almost never identified ways of determining if school priorities are achieved" got the higher frequency. This is followed by the perception that they have never or almost never identified ways of determining if school priorities are achieved, the perception that priorities are never or almost never implemented by teachers, and finally the perception that the teachers never or almost never gather data for gauging the success of school programmes.

Similarly, the Table 4.16 below is aimed to show the percentage of frequency for each item in the Collaboration (COB) dimension.

Table 4.16 Percentage of Response for Collaboration dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
32	Ideas are shared with each other during meetings.	(79%)			(20.2%)		(0.8%)	
		15.9	63.1	3.4	6.4	10.4	0.8	0.00
34	We share how to assess students' achievement.	(78.4%)			(19.1%)		(2.5%)	
		16.3	62.1	2.7	6.0	10.4	2.2	0.3
33	We work together to implement the decisions of meetings.	(76.8%)			(21.3%)		(1.9%)	
		19.9	56.9	3.8	5.2	12.3	1.6	0.3
35	Student behaviour management strategies are sufficiently discussed.	(76.5%)			(21.3%)		(2.2%)	
		16.3	60.2	3.3	4.9	13.1	1.4	0.8

The above Table 4.16 shows that 79% of teachers perceive that in their schools the ideas are never or almost never shared with each other during meetings, while 20.2% more perceive that in their schools the ideas are seldom, or sometimes or frequently shared with each other during meetings. About 0.8% of teachers perceive that in their schools the ideas are always or almost always shared with each other during meetings.

For the next item 78.4% of the teachers perceive that they never or almost never share how to assess students' achievement, while 19.1% more perceive that they seldom, or sometimes, or frequently share how to assess students' achievement. About 2.5% of teachers perceive that they always or almost always share how to assess students' achievement.

Similarly, it is noted that 76.8% of teachers perceive that they never or almost never work together to implement the decisions of meetings, while 21.3% more perceive that they seldom, or sometimes, or frequently work together to implement the decisions of meetings. About 1.9% perceive that they always or almost always work together to implement the decisions of meetings.

For the final item of Collaboration dimension, it is noted that 76.5% of teachers perceive that student behaviour management strategies are never or almost never sufficiently discussed, while 21.3% teachers perceive that student behaviour management strategies are seldom, or sometimes, or frequently discussed sufficiently. About 2.2% of teachers perceive that student behaviour management strategies are always or almost always sufficiently discussed.

Among the four items within the Collaboration dimension, the perception of teachers that in their schools the ideas are never or almost never shared with each other during meetings got a higher frequency. This is followed by the perception that the teachers never or almost never share how to assess students' achievement, the perception of the teachers that they never or almost never work together to implement the decisions of meetings, and finally

the perception that student behaviour management strategies are never or almost never sufficiently discussed.

Furthermore, the Table 4.17 below is aimed to show the percentage of frequency for each item in the Collegiality (COL) dimension.

Table 4.17 Percentage of Response for Collegiality dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
29	Teachers make an effort to maintain positive relationships with colleagues.	(77.6%)			(18%)		(4.4%)	
		16.6	61.0	3.3	5.7	9.0	4.1	0.3
27	Teachers of this school support each other.	(77.1%)			(19.8%)		(3.1%)	
		15.8	61.3	5.4	5.7	8.7	1.9	1.2
30	My professional decisions are supported by colleagues	(75.5%)			(22.1%)		(2.4%)	
		15.8	59.7	6.0	4.1	12.0	1.6	0.8
31	We encourage each other to take responsibility for new assignment.	(74.4%)			(18.2%)		(7.4%)	
		16.9	57.5	3.5	6.3	8.4	4.4	3.0
28	Teachers are reluctant to share problems with each other.	(74.1%)			(21.8%)		(4.1%)	
		19.6	54.5	5.4	5.2	11.2	3.3	0.8

The above Table 4.17 shows that 77.6% of teachers perceive that teachers never or almost never make an effort to maintain positive relationships with colleagues, while 18% more perceive that teachers seldom, or sometimes, or frequently make an effort to maintain positive relationships with colleagues. About 4.4% of teachers perceive that they always or almost always make an effort to maintain positive relationships with colleagues.

For the second item, 77.1% of teachers perceive that they never or almost never support each other, while 19.8% perceive that they seldom, or sometimes, or frequently support each other. About 3.1% perceive that the teachers always or almost always support each other.

For the third item, 75.5% of teachers perceive that their professional decisions are never or almost never supported by colleagues, while 22.1% more perceive their professional

decisions are seldom, or sometimes, or frequently supported by colleagues. About 2.4% of teachers perceive their professional decisions are always or almost always supported by colleagues.

For the fourth item of Collegiality dimension, 74.4% of teachers perceive that they never or almost never encourage each other to take responsibility for new assignment, while 18.2% more perceive that they seldom, or sometimes, or frequently encourage each other to take responsibility for new assignment. About 7.4% of teachers perceive that they always or almost always encourage each other to take responsibility for new assignment.

For the final item, 74.1% of teachers perceive that they are never or almost never reluctant to share problems with each other, while 21.8% more perceive that they are seldom, or sometimes, or frequently reluctant to share problems with each other. About 4.1% perceive that they are always or almost always reluctant to share problems with each other.

Among the five items in Collegiality dimension, the perception that teachers never or almost never make an effort to maintain positive relationships with colleagues got a higher frequency. This is followed by the perception that the teachers never or almost never support each other, the perception that teachers' professional decisions are never or almost never supported by colleagues, the perception that the teachers never or almost never encourage each other to take responsibility for new assignment, that they are never or almost never reluctant to share problems with each other.

The following Table 4.18 is aimed to show the percentage of frequency for each item in the Professional Values (PV) dimension.

Table 4.18 Percentage of Responses for Professional Values dimension's items (N = 367)

NO.	Item	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
25	I can contribute to realising the future vision.	(70.9%)			(21.8%)		(7.3%)	
		12.9	58.0	8.2	4.1	9.5	3.8	3.5
24	Educational programmes of this school contribute to improve the quality of life in our society.	(69.7%)			(24.5%)		(5.8%)	
		15.5	54.2	8.2	4.6	11.7	3.9	1.9
26	The creative potential of students is realised.	(69.2%)			(22.1%)		(8.7%)	
		12.8	56.4	9.3	3.3	9.5	5.2	3.5
23	Students are provided with the skills needed for future educational or vocational experiences.	(68.6%)			(22.3%)		(9.1%)	
		12.5	56.1	9.3	3.5	9.5	4.2	4.9

The above Table 4.18 shows that 70.9% of teachers perceive that they can never or almost never contribute to realise their future vision, while 21.8% more perceive that they can seldom, or sometimes, or frequently contribute to realise the future vision. About 7.3% of teachers perceive that they can always or almost always contribute to realise the future vision.

For the second item 69.7% of teachers perceive that educational programmes of their school contribute never or almost never to improve the quality of life in their society, while 24.5% more perceive that educational programmes of their school contribute seldom, or sometimes, or frequently to improve the quality of life in their society. About 5.8% perceive that educational programmes of their school contribute always or almost always to improve the quality of life in their society.

Similarly, it was found that 69.2% of teachers perceive that the creative potential of students is never or almost never realised, while 22.1% more perceive that the creative potential of students is seldom, or sometimes or frequently realised. About 8.7% of teachers perceive that the creative potential of students is always or almost always realised.

For the final item in the Professional Values dimension, 68.6% of teachers perceive that students are never or almost never provided with the skills needed for future educational or

vocational experiences, while 22.3% of teachers perceive that students are seldom, or sometimes, or frequently provided with the skills needed for future educational or vocational experiences. About 9.1% more perceive that students are always or almost always provided with the skills needed for future educational or vocational experiences.

Among the four items in the Professional Values dimension, the perception that teachers never or almost never can contribute to realise the future vision got the higher frequency. This is followed by the perception of the teachers that educational programmes of their school contribute never or almost never to improve the quality of life in their society, the perception that the creative potential of students is never or almost never realised, and finally the perception that students are never or almost never provided with the skills needed for future educational or vocational experiences.

The Table 4.19 given below is showing levels of School Culture in the secondary schools of Mardan district in KP province (Pakistan).

Table 4.19 Levels of School Culture (N=367)

Dimensions of Variable SC	Min	Max	Median	Levels		
				Low (%)	Moderate (%)	High (%)
Shared Planning	0	19	4	79.0	19.9	1.1
Collaboration	0	18	4	77.4	21.8	0.8
Collegiality	0	23	5	71.7	27.5	0.8
Professional Values	0	22	5	70.8	26.2	3.0
Overall SC	2	74	19	71.4	28.1	0.5

The above Table 4.19 shows the dimensions of school culture with their respective Medians, Max value, Min value, and levels. The dimensions are arranged in the descending order of percentages, interpreted below in detail. Regarding median score, both the dimension of collegiality and professional values shows the highest medians, professional values (Med=5, Min=0, Max=22) and collegiality (Med=5, Min=0, Max=23) followed by both collaboration (Med=4, Min=0, Max=18) and shared planning (Med=4, Min=0, Max=19). While for the whole school culture variable the median score is 19

(Min=2, Max=74).

Discussing the percentages of levels in descending order, among the teachers 79% perceive that the shared planning is of a low level, about 19.9% perceive its level as moderate, and 1.1% teachers perceived its level as high.

About 77.4% of teachers perceive that the level of collaboration is low. About 21.8% more perceive its level as moderate, and 0.8% of teachers perceive its level as high.

For the collegiality dimension, 71.7% of teachers perceive its level as low, while 27.5% more perceive its level as medium. About 0.8% more teachers perceive its level as high.

About 70.8% of teachers perceive that the level of professional values is low, whole 26.2% perceive its level as moderate, and 0.3% teachers perceive its level as high.

Similarly, 71.4% of teachers perceive that the level of overall school culture is low, about 28.1% perceive its level as moderate, and more 0.5% of teachers perceive its level as high.

4.2.6 Q4: Is there a significant relationship between principal's instructional leadership and school effectiveness of the secondary schools?

Hypothesis-1: There is no significant relationship between the principal's instructional leadership and school effectiveness of the secondary schools.

Structure Equation Modeling (SEM) was applied to analyse the relationship between principal's instructional leadership and school effectiveness. The results of the proposed and estimated model are shown in Figure 4.1 below. It is essential to affirm the fitness of individual and overall measurement model in SEM, before bringing the relationship analysis. Results [CFI=0.97, RMSEA=0.077 & Chi-sq/df= 3.56] showed that the overall model is fit to proceed for further analysis. The Table 4.20 below showing results for testing the hypothesis, the significant p-value at 5% illustrates that instructional leadership has significant effect on school effectiveness. The significant effect was checked through (AMOS) SPSS-22. The following Table 4.20 is showing the direct effect of principal's

instructional leadership on school effectiveness in secondary schools in Mardan district of KP province in Pakistan.

Table 4.20 The direct effect of principal's instructional leadership on school effectiveness

		Beta Estimate	S.E	C.R	P	Result
Principal's instructional leadership ⟶	School Effectiveness	0.74	0.050	14.575	0.00	Significant

The above Table 4.20 shows that the relationship between instructional leadership and school effectiveness is significant (P<0.05).

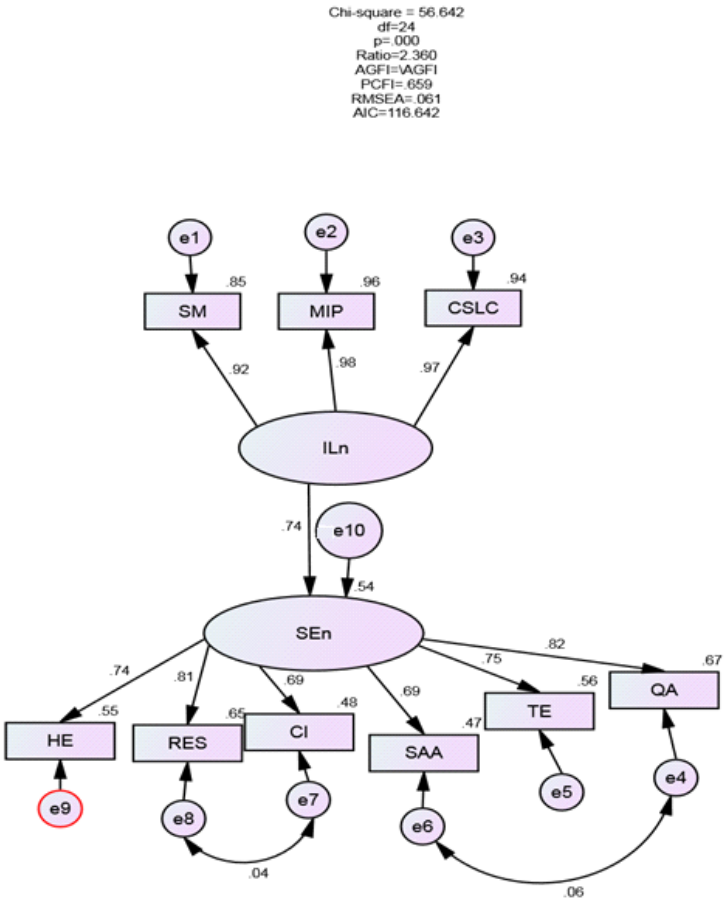

Figure 4.1 Estimated model

For a further in-depth analysis, a test of spearman rho correlation was conducted. The results are shown in the Table 4.21 below.

Table 4.21 Correlation between principal's instructional leadership and school effectiveness (N=367)

		IL		
SE	SM	MIP	CSLC	Overall (IL)
QA	0.633**	0.597**	0.627**	
TE	0.616**	0.589**	0.627**	
SAA	0.615**	0.583**	0.580**	
CI	0.617**	0.614**	0.644**	
RES	0.624**	0.589**	0.632**	
HES	0.540**	0.512**	0.534**	
Overall (SE)				0.665**

Note: [p** < 0.01, p* < 0.05 (sig: 2-tailed), IL= instructional leadership, SM= Defining School Mission, MIP= Managing Instructional Programme, CSLC= Creating School Learning Climate, SE= school effectiveness, QA= quality assurance, TE= teachers efficacy, SAA= student academic achievement, CI= community involvement, RES= Material and Non-Material Resources, HES= High Expectations of stakeholders].

The above Table 4.21 showed the correlation values for the dimensions of IL and the dimensions of SE, having a strong and significant positive-relationship. The relationship [$\rho=0.665$, $p<0.01$] between the overall IL variable and SE variable showed positive significant high relationship.

Further analyses showed that each dimension of IL and SE have a notable relationship i.e. the quality assurance (QA) dimension has a strong, significant and positive-relationship with; the dimension "defining school mission (SM)" ($\rho=0.633$, $p<0.01$), "managing instructional programmes (MIP)" ($\rho=0.597$, $p<0.01$), and "creating school learning climate (CSLC)" ($\rho=0.627$, $p<0.01$).

The teacher's efficiency (TE) dimension of SE showed a strong, significant and positive-relationship with all the three dimensions of IL such as "defining school mission (SM)" ($\rho=0.616$, $p<0.01$), "managing instructional programmes (MIP)" ($\rho=0.589$, $p<0.01$), and "creating school learning climate (CSLS)" ($\rho=0.627$, $p<0.01$).

Similalrly, the next dimension of SE "student academic achievement (SAA)" also has a strong, significant and positive-relationship with all the three dimensions of IL like:

“defining school mission (SM)” (ρ=0.615, p<0.01), “managing instructional programmes (MIP)” (ρ=0.583, p<0.01), and “creating school learning climate (CSLC)” (ρ=0.580, p<0.01).

The community involvement (CI) dimension of SE also has a strong, significant and positive-relationship with the entire three dimensions of IL such that: “defining school mission (SM)” (ρ=0.617, p<0.01), “managing instructional programmes (MIP)” (ρ=0.614, p<0.01), and “creating school learning climate (CSLC)” (ρ=0.644, p<0.01).

The dimension “material and non-material resources (RES)” of SE variable has a strong, significant and positive-relationship with; “defining school mission (DSM)” (ρ=0.624, p<0.01), “managing instructional programmes (MIP)” (ρ=0.589, p<0.01), and “creating school learning climate (CSLC)” (ρ=0.632, p<0.01).

The dimension of SE variable named as “high expectation of stakeholders (HE)” has a strong, significant and positive-relationship with the entire three dimensions of IL such as: “defining school mission (DSM)” (ρ=0.540, p<0.01), managing instructional programmes (MIP)” (ρ=0.512, p<0.01), and “creating school learning climate (CSLC)” (ρ= 0.534, p<0.01).

While discussing the strength of relationship, the following significant relationships are given in descending order of (ρ) values. The dimension SAA (of SE variable) has a stronger relationship with CSLC [0.644**]; followed by both the relationship between QA and SM [0.633**], and the relationship between RES and CSLC [0.632**], followed by both the relationship between QA and CSLC [0.627**] and the relationship between TE and CSLC [0.627**], the relationship between RES and SM [0.624**], the relationship between CI and SM [0.617**], the relationship between TE and SM [0.616**], the relationship between SAA and SM [0.615**], the relationship between CI and MIP [0.614**], the relationship between QA and MIP [0.597**], both the relationship between TE and MIP [0.589**] and the relationship between RES and MIP [0.589**], the

relationship between SAA and MIP [0.583**], the relationship between SAA and CSLC [0.580**], the relationship between HES and SM [0.540**], the relationship between HES and CSLC [0.534**], and followed by the relationship between HES and MIP [0.512**].

4.2.7 Q5: Is there a significant relationship between principal's instructional leadership and school culture of secondary schools?

Hypothesis-2: There is no significant relationship between the principal's instructional leadership and school culture of the secondary schools.

To answer the above question, the significant relationship between instructional leadership and school culture was found through SEM technique. The results are given in the Table 4.22 below.

Table 4.22 Hypothesis testing

	Estimate	S.E	C.R	P
SC <--- IL	0.74	0.042	28.14	0.00

The above Table 4.22 shows there is significant relationship (P<0.05) between instructional leadership and school culture.

The significant relationship between the dimensions of IL, and the dimensions of SC was also analysed through Spearman rho correlation technique. The results are given in the Table 4.23 below.

Table 4.23 Correlation between principal's instructional leadership and school culture (N=367)

	IL			
SC	SM	MIP	CSLC	Overall (IL)
PV	0.880**	0.864**	0.829**	
COL	0.872**	0.845**	0.861**	
COB	0.830**	0.830**	0.827**	
SP	0.880**	0.864**	0.829**	
Overall (SC)				0.923**

Note: [p**<0.01, p*<0.05 (sig: 2-tailed), SC= school culture PV= professional values, COL= collegiality, COB=collaboration, SP= shared planning, IL= instructional leadership, SM= defining school mission, MIP= managing instructional programmes, and CSLC= creating school learning climate].

The above Table 4.23 shows the analysis for correlation between all the dimensions of the variable "instructional leadership" and all the dimensions of the variable "school culture". The value for correlation [ρ=0.923, p<0.01] between IL and SC has revealed that there exists an overall strong correlation between them. Furthermore, the above table also shows that there is a high correlation between the dimensions. Among all these dimensions, the professional values (PV) of SC variable has a stronger [ρ=0.880, p<0.01] positive-correlation with defining school mission (SM) of IL variable. Similarly, shared planning (SP) of SC has also stronger [ρ=0.880, p<0.01] positive-correlation with SM dimension of IL.

Overall the entire dimension "professional values" (PV) of SC variable has;

High (positive) correlation [ρ=0.880, p<0.01] with defining school mission (DSM), high (positive) correlation [ρ= 0.665, p<001] with managing instructional programme (MIP), and high (positive) correlation [ρ= 0.738, p<0.01] with creating school learning climate (CSLC) dimensions of IL.

The next dimension collegiality (COL) of SC variable has: strong [ρ= 0.814, p<0.01] positive-relationship with DSM, strong [ρ= 0.864, p<0.01] positive-relationship with MIP, and strong-positive [ρ= 0.829, p<0.01] relationship with CSLC, dimensions of IL variable.

The dimension collaboration (COB) of SC variable has;

Positive high [ρ= 0.830, p<0.01] correlation with DSM, high [ρ= 0.830, p<01] positive correlation with MIP, and high [ρ= 0.827, p<0.01] positive correlation with CSLC, dimensions of IL.

The fourth dimension of SC "shared planning (SP)" has;

High [ρ= .880, p<0.01] positive correlation with DSM, high [ρ= 0.864, p<0.01] positive correlation with MIP, and high [= 0.829, p<0.01] positive correlation with CSLC dimensions of IL as well.

While discussing the strength of relationship, the following significant relationships are given in descending order of (ρ) values. PV has a higher significant relationship with SM, and SP has a higher significant correlation with SM, followed by the significant relationship between Col and SM, followed by both, the significant relationship between PV and MIP and between SP and MIP, the significant relationship between COL and CSLC, the significant relationship between COL and MIP, both, the significant relationship between COB and SM; and between COB and MIP, both, the significant relationship between SP and CSLC; and between PV and CSLC, and followed by the significant relationship between COB and CSLC.

4.2.8 Q6: Is there a significant relationship between the school culture and school effectiveness of secondary schools?

Hypothesis-3: There is no significant relationship between school culture and school effectiveness of the secondary schools.

To analyse the data for this research question SEM technique was applied. The values obtained are given in the Table 4.24 below.

Table 4.24 Hypothesis testing (N=367)

	Estimate	S.E.	C.R.	P
SE <--- SC	0.941	0.141	6.65	0.00

The above Table 4.24 shows that the relationship between school effectiveness and school culture is significant (P<0.05).

The relationship between SE and SC was further examined through Spearman rho correlation technique. The results are given in Table 4.25 below.

Table 4.25 Correlation between school culture and school effectiveness (N=367)

	SC				
SE	PV	COL	COB	SP	Overall (SC)
QA	0.647**	0. 653**	0. 655**	0. 671**	
TE	0.617 **	0. 659**	0. 633**	0. 667**	
SAA	0.615**	0. 636**	0. 642**	0. 660**	
CI	0.641**	0.650**	0.667**	0. 678**	
RES	0.641**	0. 688**	0. 689**	0. 697**	
HE	0.534**	0. 579**	0.615**	0. 596**	
Overall (SE)					0. 736**

Note: [p** < 0.01, p* < 0.05], SE=school effectiveness, SC= school culture, PV= professional valuesc, COL= collegialicty, COB= Collaboration, QA= quality assurance, TE= teacher efficacy, SAA= student academic achievement, CI= community involvement, RES= material & non-material resources, HE= high expectations of stakeholders.

The above Table 4.25 shows that, on the basis of analysis there is an overall positive high correlation [ρ=0.736, p<0.01] that exists between school effectiveness variable and school culture variable. The in-depth analysis shows that there is a positive high correlation among the entire dimensions of school culture variable with all the entire dimensions of school effectiveness variable. Among these dimensions, RES has a higher correlation [ρ=0.697, p<0.01] with SP as compared to others.

Furthermore, the above table has revealed that QA dimension of SE variable has a positive high correlation with;

PV [ρ=0.647, p<0.01], COL [ρ=0.753, p<0.01], COB [ρ=0.755, p<0.01], and SP [ρ=0.771, p<0.01] dimensions of SC variable.

The next TE dimension of SE variable has also positive high correlation with;

PV [ρ=0.717, p<001], COL [ρ= 0.759, p<0.01], COB [ρ=0.733, p<0.01], and SP [ρ= 0.767, p<0.01] dimensions of school culture variable.

The student academic achievement (SAA) dimension of SE variable has a positive high correlation with; PV [ρ=0.715, p<001], COL [ρ=0.736, p<001], COB [ρ=0.742, p<001], and SP [ρ=0.760, p<001] dimensions of SC variable.

The community involvement (CI) dimension of SE variable has a positive high correlation with; PV [ρ=0.741, p<001], COL [ρ=0.750, p<001], COB [ρ=0.767, p<001], and SP [ρ=0.778, p<001] dimensions of SC variable as well.

Similarly, RES dimension of SE variable has a positive high correlation with;

PV [ρ=0.741, p<001], COL [ρ=0.768, p<001], COB [ρ=0.789, p<001], and SP [ρ=0.797, p<001] dimensions of SC variable.

The final HE dimension of SE variable has a positive high correlation with;

PV [ρ=0.705, p<001], COL [ρ=0.711, p<001], COB [ρ=0.715, p<001], and SP [ρ=0.714, p<001] dimensions of SC variable as well.

Putting the values of high correlation among the dimension of SE and SC in descending order, the top high correlation exist between RES and SP [ρ=0.697, p<0.01], followed by the correlation between RES and COB [ρ=0.689, p<0.01], the correlation between RES and COL [ρ=0.688, p<0.01], the correlation between CI and SP [ρ=0.678, p<0.01], the correlation between QA and SP [ρ=0.671, p<0.01], both the correlation between CI and COB [ρ=0.667, p<0.01] and the correlation between TE and SP [ρ=0.667, p<0.01], the correlation between SAA and SP [ρ=0.660, p<0.01], the correlation between TE and COL [ρ=0.659, p<0.01], the correlation between QA and COB [ρ=0.655, p<0.01], the correlation between QA and COL [ρ=0.653, p<0.01], the correlation between CI and COL [ρ=0.650, p<0.01], the correlation between QA and PV [ρ=0.647, p<0.01], the correlation

between SAA and COB [ρ=0.642, p<0.01], both the correlation between CI and PV [ρ=0.641, p<0.01] and the correlation between RES and PV [ρ=0.641, p<0.01], the correlation between SAA and COL [ρ=0.636, p<0.01], the correlation between TE and COB [ρ=0.633, p<0.01], the correlation between TE and PV [ρ=0.617, p<0.01], both the correlation between SAA and PV [ρ=0.615, p<0.01] and the correlation between HE and COB [ρ=0.615, p<0.01], the correlation between HE and SP [ρ=0.596, p<0.01], the correlation between HE and COL [ρ=0.579, p<0.01], and the correlation between HE and PV [ρ=0.534, p<0.01].

4.2.9 Q7: Is school culture a mediator for the relationship between principal's instructional leadership and school effectiveness of secondary schools in Mardan district of KP province of Pakistan?

Hypothesis-4: School culture is not a significant mediator for the relationship between the principal instructional leadership and school effectiveness of the secondary schools.

It is already known that all the three variables (IL, SC and SE) are correlated significantly in bivariate manner. Therefore, this correlation allows for the applying next for mediator test. To fulfill the stated purpose SEM was applied. The direct effect of (exogenous) instructional leadership of principal on (endogenous) school effectiveness was found significant. The results are shown in the Table 4.26 below.

Note: The required levels were achieved by all fitness indices.

Table 4.26 The direct effect of principal's instructional leadership on school effectiveness (N=367)

		Beta Estimate	S.E	C.R	P	Result
Principal's instructional leadership ⟶	School Effectiveness	0.74	0.050	14.575	0.00	Significant

Note: [p** < 0.01, p* < 0.05]

The above Table 4.26 shows a significant direct relationship between instructional leadership and school effectiveness.

On inserting the mediator "school culture" into the model, the following Figure 4.2 was achieved. The obtained subsequent results are also shown in the Table 4.27 given below.

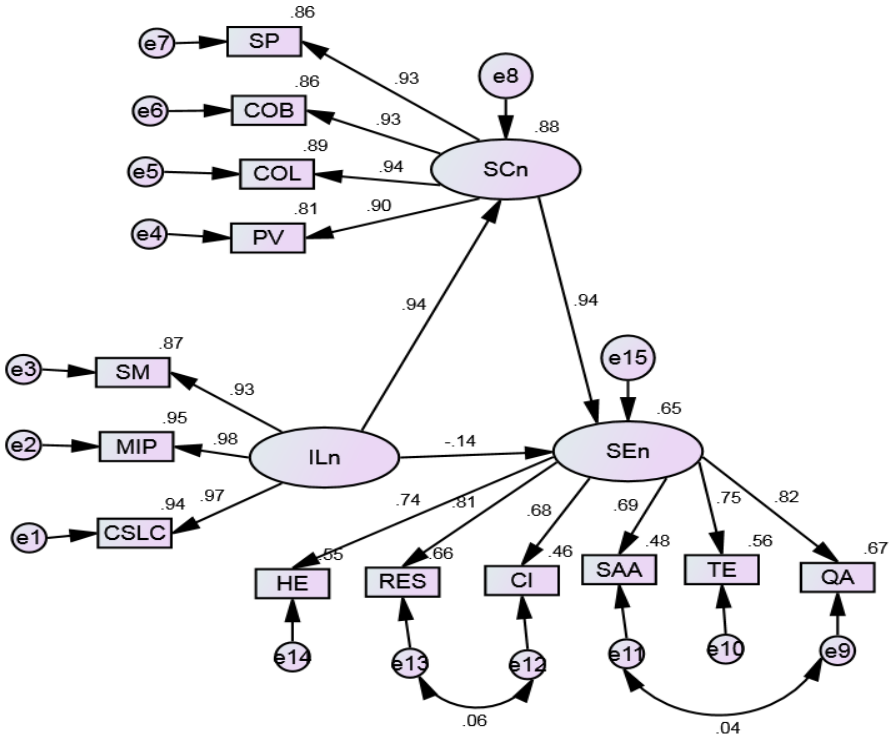

Figure 4.2 Regression coefficients between the constructs as shown by AMOS output.

Note: (All the achieved levels are in-accordance to the required fitness indices.)

The following Table 4.27 is showing multiple regression weights for the between instructional leadership of principal, school culture and school effectiveness.

Table 4.27 Hypothesis testing (N=367) Multiple regression weights

	Beta Estimates	S.E	C.R	P-value	Results
SC ← IL	1.016	0.033	30.520	0.00	Significant
SE ← IL	-0.147	0.143	-1.0310	0.303	Insignificant
SE ← SC	0.909	0.141	6.450	0.00	Significant

The Table 4.27 above suggested strongly that school culture is mediating variable for the relationship between principal's instructional leadership and school effectiveness. It is to be noted that when the mediator school culture enters the model, the direct effect of

instructional leadership on school effectiveness becomes insignificant. Therefore, it is evident from the results that this type of mediation can be stated as full mediation. In other words it can be stated that instructional leadership of principal has indirect effect on school effectiveness by mediating school culture, because the indirect effect becomes significant. The statement is also proved through the bootstrapping estimates as shown in the Tabe 4.28 below.

Table 4.28 The result of bootstrapping estimate showing at 95% CIs

Parameter	Estimate	Lower (L)	Upper (U)	P
SC <---IL	1.016	0.919	1.119	0.003
SE <---IL	-0.147	-.455	0 .118	0.337
SE <---SC	0.909	0.665	0.801	.002

The Table 4.28 above suggest that the direct effect of IL on SE is: -0.147 (95% CI: L = -0.455, U = 0.118), p > .05, which proves that there is no direct relation between instructional leadership and school effectiveness but through mediation. It is also proven that from Figure 4.2 above the relationship between instructional leadership and school culture = 0.94, and the relationship between school culture and school effectiveness = 0.94, Then $0.94*0.94 \neq 0$ therefore H_0 is rejected and there is mediation effect.

4.2.10 Q8: Is the demographic variable (age) moderator for the relationship between principal's instructional leadership and school effectiveness of secondary schools in Mardan district of KP province of Pakistan?

Hypothesis-5: Age is not a signififcant moderator for the relationship between the principal's instructional leadership and school effectiveness of the secondary schools.

For the analysis of demographic variable (age) for the relationship between instructional leadership and school effectiveness, SEM analysis was used. The value of; p [$p<0.05$; $p<0.01$] determines whether the stated demographic variable be used as a moderator. The

moderator is aimed at strengthening or weakening the relationship between the dependent variable (criterion/outcome) and independent variable (predictor). In this study, the criterion/outcome variable is the school effectiveness and the predictor is the instructional leadership of principal of secondary schools in Mardan district in KP province of Pakistan.

The relationship between the independent (predictor) variable and dependent (outcome/criterion) variable may be strengthened or weakened through moderator "age". The analysis for moderation effects is shown in the following Table 4.29.

Table 4.29 Hypothesis testing (N=367)

	Estimate	S.E.	C.R.	P	Result	**B**
SE<--- IL	.912	.174	5.255	0.00	Significant	.79
SE<---Age	.135	.095	1.418	.156	Insignificant	.11
SE<--- ILxAge	-.033	.050	-.672	.502	Insignificant	-.11

[**Note:** p** < 0.01, p* < 0.05, Age represents the physical age of the respondents].

The Table 4.29 above showed that there is an effect of age of the respondents as moderator on the relationship between instructional leadership and school effectiveness. The fact is that Age is a moderator that changes the relationship between IL and SE from significant and large effect (.79, p < .01) to a non-significant with small and negative effect (-.11, p > .05).

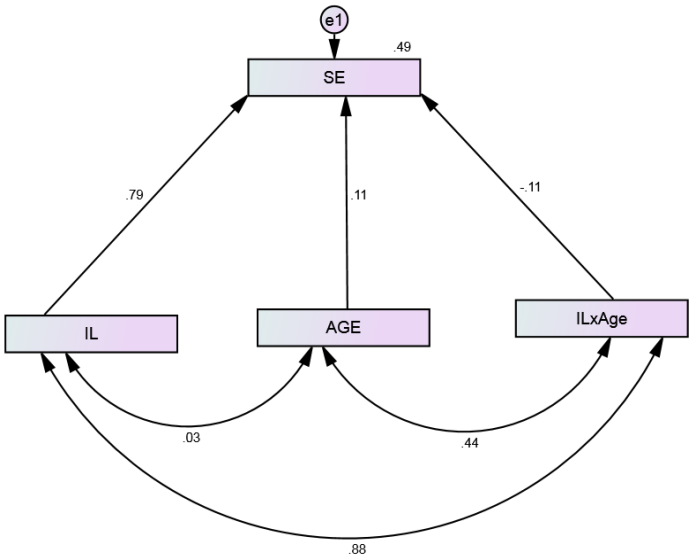

Figure 4.3 showing moderation for age of the respondents

4.2.11 Q9: Does the proposed model that links the principal's instructional leadership with the school effectiveness through school culture as mediator fit the data collected?

Hypothesis-6: The proposed model that links the principal's instructional leadership with the school effectiveness through school culture as mediator does not fit the data collected from the secondary schools.

This study seeks to investigate the relationship between the principal's instructional leadership and school effectiveness by the mediating school culture. The results of bivariate correlation between; 1-principal's instructional leadership and school effectiveness, 2- principal's instructional leadership and school culture, and 3-school culture and school effectiveness give a strong evidence for mediating effect. It was clear that school culture acts as mediator between instructional leadership of principal and school effectiveness. By applying SEM-AMOS technique a full mediation of school culture was found out between instructional leadership and school effectiveness. Keeping in mind the above question it was revealed that the proposed model fit the data collected. For the purpose to verify and check whether the proposed model fit the data collected, SEM-AMOS version-22 was utilised. Three types of fitness were recommended by Hair et al. (2009) for model fitness. All these three indices have their own threshold values. However, to verify the proposed model one index has been taken by the researcher. The value of root mean square error approximation (RMSEA) was checked for absolute fit, for the purpose of increment fit the value of comparative fit index (CFI) was found out, similarly the value of chi-sq/df was checked for the purpose of parsimonious fit. The Table 4.30 below shows full details of the values for fitness and their related threshold values.

Table 4.30 Hypothesis testing (N=367) Model fitness measurements

Absolute Fit			**Increment Fit**			**Parsimonious Fit**		
Fitness Index	Critical Value	Test Value	Fitness Index	Critical Value	Test Value	Fitness Index	Critical Value	Test Value
RMSEA	<0.10	0.077	**CFI**	>0.95	0.97	**Chi-sq/df**	<5	3.56

Source: Hair et al. (2009) as cited in Niqab (2015)

The Table 4.30 above shows that the value of RMSEA [0.077] for absolute fit is within the threshold value [RMSEA < 0.08], the value of CFI [0.97] for incremental fit is within the threshold value [CFI>0.96], and the value of Chi-sq/df [3.56] for parsimonious fit is also within the threshold value [Chi-sq/df < 5]

All the statistical indices given in the above table suggesting, the proposed model fits the data collected for this study.

4.2.12 Overall Findings of the Analysis

The following Table 4.31 showed the overall findings of the analysis.

No.	Description	Findings
1	Level of School Effectiveness	Medium
2	Level of Instructional Leadership	Low
3	Level of School Culture	Low
4	Relationship between Instructional Leadershi and School Effectiveness	Sig. High
5	Relationship between Instructional Leadership and School culture	Sig. High
6	Relationship between School Culture and School Effectiveness	Sig. High
7	School culture is a mediator for the relationship between the principal instructional leadership and school effectiveness of the secondary schools.	H_0 is rejected
8	The demographic variable (age) is a moderator for the relationship between the principal's instructional leadership and school effectiveness of the secondary schools.	H_0 is rejected
9	The proposed model that links the principal's instructional leadership with the school effectiveness through school culture as mediator fit the data collected from the secondary schools.	H_0 is rejected

4.2.13 Conclusion

From the analysis as shown in the Table 4.31 above it was concluded that the level of the school effectiveness is medium, while the level of instructional leadership and school culture is low. It can be stated that even low levels of instructional leadership and school culture contribute combindly to the school effectiveness in getting medium level. If the levels of instructional leadership and school culture were improved in turn the school effectiveness will be improved.

There was noted a high correlation between all the variables such as instructional

leadership and school effectiveness, instructional leadership and school culture, and school culture and school effectiveness.

The analysis showed that school culture is a mediator for the relationship between instructional leaderhip and school effectiveness. Similary, Age of the respondents is a moderator for the relationship between instructional leadership and school effectiveness. Also, it was concluded that the model fits the data collected from the teachers of secondary schools in Mardan district of KP province in Pakistan.

CHAPTER 5: SUMMARY, DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter discusses the results and findings. It makes comparisons with the results of other studies conducted on this theme but makes a particular contribution because the majority of school effectiveness studies have not been conducted in contexts outside USA and UK and particularly in Pakistan. Future research areas and the limitations of the study are discussed in the last part of this chapter. At a glance, this chapter provides an insight into current principal instructional leadership, and its influence on school effectiveness in secondary schools of Mardan district in KP province (Pakistan). This study also seeks to describe, whether establishing and developing school culture causes school effectiveness.

In fact, currently there is negligible evidence supporting the relationship between the three variables such as: instructional leadership, school culture, and school effectiveness in secondary schools in the context of Pakistan. Using this statement as the background, this study analysed the relationship between instructional leadership, school culture and school effectiveness in the secondary schools in Mardan district (Pakistan). The purpose of this study was to establish the realities about school effectiveness with the research questions given below.

i. What are the levels of school effectiveness in the secondary schools of Mardan district in Khyber Pukhtunkhwa, Pakistan?
ii. What are the levels of the principal's instructional leadership in the secondary schools?
iii. What are the levels of the school culture in the secondary schools?
iv. Is there a significant relationship between the principal's instructional leadership and school effectiveness of the secondary schools?

v. Is there a significant relationship between the principal's instructional leadership and school culture of the secondary schools?

vi. Is there a significant relationship between school culture and school effectiveness of the secondary schools?

vii. Is school culture a mediator for the relationship between the principal instructional leadership and school effectiveness of the secondary schools?

viii. Is age a moderator for the relationship between the principal's instructional leadership and school effectiveness of the secondary schools?

ix. Does the proposed model that links the principal's instructional leadership with the school effectiveness through school culture as mediator fit the data collected from the secondary schools?

The research design was a non-experimental design. A quantitative survey approach was used aimed at finding the most appropriate answers for the research questions. This approach can be applied to a large population for generalisation purposes. This approach included descriptive statistics, regression, correlation, and Structural Equation Modeling (SEM) being relevant to the research questions. A quantitative type of research can develop knowledge, through statistical data (Creswell, 2013).

5.2 Summary of the Findings

A summary of the findings is given for the three variables used in the study such as: school effectiveness, instructional leadership, and school culture.

School effectiveness encapsulates six components/dimensions namely: (1) community involvement, (2) teacher's efficacy, (3) student academic achievement, (4) high expectations of stakeholders, (5) material and non-material resources, and (6) quality assurance. The above factors are written in descending order of percentages for their levels (see Table 4.10). The three dimensions namely teacher efficacy, high expectations of

stakeholders, and material and non-material resources indicated a high level, while quality assurance and student academic achievement dimension showed a medium level. The remaining dimension "Community involvement" was found at a low level. The overall school effectiveness variable showed a medium level (see Table 4.10).

The principal's instructional leadership has three components namely; creating school learning climate, managing instructional programmes, and defining school mission. The above dimensions are written in descending order of percentages for their levels (see Tables 4.14). The creating school learning climate dimension indicated a higher percentage followed by managing instructional programmes, and defining school mission for low level. Similarly, the whole instructional leadership variable was found at a low level (see Tables 4.14).

While discussing school culture, its entire four dimensions such as: shared planning, collaboration, collegiality, and professional values are written in descending order of percentages for low level. The shared planning dimension got the highest percentage while, professional values dimension got the lowest percentage for low-level among the entire dimensions. Since the level of all four dimensions was low, therefore, the level of school culture variable was also low (see Tables 4.19).

The analysis for a significant relationship between the principal's instructional leadership and school effectiveness has shown that the exogenous variable has a strong relationship with the endogenous variable (see Table 4.21). Correspondingly, the analysis showed there exist a high correlation between the entire six dimensions (i.e. student academic achievement, teacher's efficacy, material and non-material resources, community involvement, high expectations of stakeholders, and quality assurance) of school effectiveness variable and the entire three dimensions (i.e. managing instructional programmes, creating school learning climate, and defining school mission) of instructional leadership variable. Among the dimensions of SE, quality assurance (QA) has

the highest positive correlation with defining school mission (SM) of instructional leadership, followed by both the correlation between quality assurance (QA) and creating school learning climate (CSLC), and the correlation between teacher efficacy (TE) and creating school learning climate (CSLC) (see Table 4.21).

The analysis for a significant relationship between exogenous variable (instructional leadership) and mediating variable (school culture) showed a significant high-positive correlation (see Table 4.23). By investigating more, the entire three dimensions (managing instructional programmes, creating school learning climate, and defining school mission) of instructional leadership has a high correlation with all the four (professional values, collaboration, collegiality, shared planning) dimensions of school culture. Among all the dimensions, the highest correlation was found for defining school mission with both, professional values and shared planning (see Table 4.23).

Similarly, the analysis for a significant relationship between the mediating variable (school culture) and the endogenous variable (school effectiveness) revealed a significant high-positive correlation (see Table 4.25). In depth analysis has shown that the overall four dimensions (collegiality, professional values, collaboration, and shared planning) of school culture have high correlations with the six dimensions (teacher's efficacy, material and non-material resources, high expectations of stakeholders, student academic achievement, and quality assurance, community involvement) of school effectiveness (see Table 4.25).

The analysis has also revealed that all the three variables (IL, SE, & SC) tested in this study are significantly correlated bivariately. This bivariate correlation allowed the researcher to test for mediating effect of school culture. For this mediating test, a structural equation modeling technique (SEM) was used. The test showed a significant direct effect that exists between instructional leadership (independent variable) and school effectiveness (dependent variable) before inserting the school culture (as mediating variable) (see Tables 4.26), but after inserting school culture as the mediator the direct relationship becomes

non-significant (see Table 4.27). In other words, there was a strong significant indirect correlation that leads to the conclusion that school culture is a full mediator between the instructional leadership of principal and school effectiveness. This indirect relationship between instructional leadership and school effectiveness was also confirmed through bootstrapping analysis as shown in the Table 4.28.

The demographic variable (age of the respondents) was also analysed for the moderating effect through SEM technique. It was found that the Age of the respondents is a moderator that changes the relationship between IL and SE from significant and large effect (.79, $p < .01$) to a non-significant with small and negative effect. It was concluded that the relationship between the instructional leadership (as independent/predictor) variable and school effectiveness (as dependent/outcome/criterion) variable may be strengthened or weakened through a moderator (see Table 4.29).

The analysis has shown that the conceptual model that links instructional leadership of principal with school effectiveness through school culture (mediator) fits the data collected from secondary schools in KP province, Pakistan (see Table 4.30).

5.3 Discussion

5.3.1 School effectiveness

As perceived by the majority of teachers, the overall level of school effectiveness in the secondary schools of Mardan district (Pakistan) is moderate (see Table 4.10). Teacher efficacy, high expectations of stakeholders, and material and non-material resources are the six dimensions of school effectiveness and these have been tested in this study. The next two dimensions such as quality assurance and student academic achievement were found to be exhibiting a moderate level. The sixth community involvement dimension has shown a low level. Digging in-depth, each dimension is discussed below in descending order of percentages for each level.

Although, its level is low but the Community Involvement dimension got the top position in descending order of percentages (see Table 4.10). This dimension suggests that there is a lack of appreciation and recognition for school activities by the community. Even in the annual results there is no recognition for greater achievement by the students. The literature review stresses how community involvement is an essential part of school effectiveness. But in contrast the principals in Pakistan perceive the community involvement negatively. Non-involvement in school affairs by the community is considered as positive by the principals because, they perceive that no interruption means 'a free hand to the school management' to act upon their policy matters. Principals believe that parents and community might actually create management problems for them (Ahmad & Bin Said, 2013). This attitude from the principals actually keeps the community away from school activities.

It could be argued that this lack of collaboration between the school and community could result in a decline for schools. The government schools actually are public schools indicating that they are for the public and by the public. Therefore, the parents and community should be involved in different school-based activities for its improvement. Although, the government has taken steps recently for full involvement of the community in school activities there has been little interest noted from the community side. The relationship of the school with different stakeholders is considered as the asset of the school (e.g Gestwicki, 2015; Kyriakideset al., 2015; Talavera, 2008).

The literature review showed that there are unlimited benefits to the school from the involvement of parents and the community. This particular relationship improves student academic achievement and motivates the school members as well. To develop this type of relationship, the role of an instructional leader has been established, in the literature, as very important (Ahmad & Bin Said, 2013; Van Velsor & Orozco, 2006). Furthermore, it is very strange that the principals in the context believe in collaboration with the community

but perceive this relation as an "interruption" by the community in school affairs (Ahmad & Bin Said, 2013). The reason is that as perceived by the principals, parents and community have no knowledge about educational processes. However it has been argued that the process of leadership is not possible without giving a chance to the community to participate in their children's education and to take part in school process (Padrós & Flecha, 2014). The findings from this study were similar to the findings of Ahmad and Bin Said (2013). The reality is that principal should involve parents and community in the struggle for greater school effectiveness (Stelmach & Preston, 2008).

The Teacher Efficacy dimension is of a high level because the majority of the teachers are able to deal with the problems of teaching and learning faced by them in the daily school life (see Table 4.10). But it is a fact that, due to teachers' transfer; the schools do not have efficient teachers all the academic year, and mostly their seats remain vacant. The reason for this is political interruption where teachers face many transfers, even in a single academic year. The majority of the teachers are well trained to use modern technologies and techniques for better classroom interaction. But, due to the lack of motivation because of transfers the teachers; potential is hindered. It is interesting that professional programmes like B.Ed (Bachelor of Education) and M.Ed (Master of Education) by the teachers have no practical application to a school context (Ministry of Education, NEP-1998-2010), but they know how to use modern technologies. The reasons for this efficacy of teachers may be refresher courses and in-service trainings, but it need to be found out by further research, what are the reasons that are actually behind it.

As a matter of fact, the teacher must be too efficient to have productive and reactive abilities, and management capabilities (Lim et al., 2010). Teacher efficacy can be improved through refresher courses and in-service trainings, which are the cause for increasing teachers' satisfaction and performance (Marimuthu et al., 2009). Some aspects of teacher efficacy such as: social skills, communicative abilities, flexibility, development, and taking

responsibilities are essential for school effectiveness (Kazemi et al., 2012). The teachers are the units of the school organisation; therefore their performance affects the effectiveness of the whole school. The teachers are considered as the assets of the school and these assets (e.g. tangible or intangible) affect the performance of the school (Awan & Saeed, 2014).

Being an intangible resource, teacher efficacy may not be ignored for school effectiveness.

The Student Academic Achievement (SAA) dimension is of moderate level in the stated schools (see Table 4.10). The parents frequently care about the grades of their students, and to some extent they are satisfied with the grades earned by their children. The principal being an instructional leader is responsible for student academic achievement. For this purpose, the principal needs to take many steps such as involving stakeholders and maximising classroom interaction. In the Pakistani context, most of the parents keep themselves satisfied only with the attendance of their children and they have no communication with the school or ask about the academic achievement of their children. There is a lack of communication between the school and parents. Lack of interest by the parents in their children's grades leads to their dissatisfaction and vice versa which affects the schools. The schools are failing to satisfy fully the criterion of 100% students in SSC (Secondary School Certificate) examination. All the above stated reasons placed Pakistan at the second number in global ranking for out of school children. There are 20 million children out of school "where girls outnumber boys" (I-SAPS, 2015, p.02). In the Mardan district, the gross enrollment rate (GER) at primary level is 72 percent and at secondary level 42 percent (I-SAPS, 2015). The increase in the class level is inversely proportional to GER.

The level of High Expectations of Stakeholders dimension is high (see Table 4.10). This dimension indicates that the teachers have high expectations from themselves being teachers. The teachers also have high expectations from their students regarding healthy competition with their class mates. Similarly, the school community and parents also have high expectations from the future of the schools. But unfortunately they don't get involved in the school process. Similarly, the teachers need to be engaged in lifelong learning but such opportunities are very rare (e.g. Khan, 2013a; Khan, 2004).

The achievement motivational theory states that if the stakeholders keep high expectations of themselves, they will be self motivated for high achievement. With their high expectations the stakeholders are self-motivated unconsciously (Kristic, 2012).Therefore, high expectations have much importance in achieving goals.

The community and teachers being important stakeholders of secondary schools in the Mardan district (Pakistan) have high expectations. The high expectations of stakeholders are necessary for the success of a project or institution (Bourne & Walker, 2008; Ehren, Perryman, & Shackleton, 2015; Takim, 2009).

The Material and Non-material Resources dimension was ranked fifth position in the descending order of percentages (see Table 4.10). The overall level of this dimension is high, but as a fact the schools are not always provided with facilities such as water electricity and play grounds. Most of the schools use their school-yards as playgrounds or as space for co-curricular activities at specific times. Though, the teachers use the available teaching aids, but in exceptional cases the available resources are just part of the school record. The schools receive sufficient budgets but not always. The reason is that Pakistan spent only 2% of GDP on education (MOF[2], Economic Survey of Pakistan-2010).

Generally, both the tangible and intangible resources have a positive influence on school effectiveness (Awan & Saeed, 2014; Visser, Juan, & Feza, 2015). Therefore, these

[2] Ministry of Finance

resources should be provided always to schools that aim to be more effective.

The Quality Assurance dimension for school effectiveness was ranked last in the descending order of percentages. The majority of the teachers perceived that the schools frequently assure quality. The quality assurance dimension was rated at a moderate level (see Table 4.10). It is a sign of school effectiveness, if the resources are using in effective way to raise the quality. But the majority of the teachers of secondary schools in the Mardan district do not always use the available resources to improve the schools. Either the teachers don't know how to use these resources effectively or they are not motivated to do so. As it is was stated earlier that the principals are responsible to asuusre quality of education in their concerned schools, but in fact they are unable to do so. There are many reasons which hinder the principals to ensure quality such as: they do not have the idea of quality assurance as they were not trained as leaders (Alam, 2012), their professional qualification such as B.Ed and M.Ed has no practicality of leadership (Ministry of Education, NEP-1998-2010), and their limited professional training creates dependency and autocratic leadership style (Rizvi, 2010). On the other hand the district management never focused the quality aspects of the schools. Similarly, the principals were never encouraged for taking part in co-curricular activities of the school and professional development of the teachers.

The above stated reasons lead to non-involvement of the teachers in the activities for school improvement. This ignorant attitude by the principals does not let the teachers to be encouraged and motivated, which negatively affects the process of effective schooling. In such circumstances no quality targets are going to be achieved. The quality of products (graduated students) and the quality of the process (interaction system) in an organisation are the best indicators for its effectiveness, but both are not always assured in the stated secondary schools.

At the end, it is concluded that the two major reasons (irrelevant training of the teachers

and lack of leadership training and skills) are significantly hindering the quality assurance process in schools in Pakistan.

5.3.2 Instructional leadership of principal

The overall instructional leadership of principals in the secondary schools of Mardan district (Pakistan) is of a low level (see Table 4.14). The instructional leadership of principal has three dimensions (creating school learning climate, managing instructional programmes, and defining school mission) in this study. A low level is noted for each of the three dimensions as well. In descending order of percentages, the first dimension is creating school learning climate followed by managing instructional programmes, and defining the school mission (see Table 4.14).

The role of the principal as instructional leader is very important. According to the report by Southern Regional Education Board "a principal can impact the lives of anywhere from a few hundred to a few thousand students during a year" (Schmidt-Davis & Bottoms, 2011, p. 2). The researchers, Louis, Leithwood, Wahlstrom, and Anderson (2010) argued that "Why is leadership crucial? One explanation is that leaders have the potential to unleash latent capacities in organisations" (p. 9). But the low level of leadership in Pakistani schools is evident for its unsuitability to do so.

The first dimension Creating School Learning Climate is of low level (see Table 4.14). Regarding this dimension majority of the teachers viewed that instructional leaders almost never created a school learning climate. In fact, the relationship of the principal's performance and school climate is reciprocal. The principal is responsible for creating the school learning climate, and the school learning climate enhances the performance of the principal, it also enhances the performance of the teachers, and achievement and behaviour of the students (Halawah, 2005).

The different dimensions of instructional leadership combine to make it meaningful because, "Education research shows that most school variables, considered separately,

have at most small effects on learning. The real payoff comes when individual variables combine to reach critical mass. Creating the conditions under which, that can occur is the job of the principal" (Harvey & Holland, 2011, p. 2). The creation of a positive school learning climate is the key to know how good principals can help improve teaching and learning, because "it is neither teachers alone nor principals alone who improve schools, but teachers and principals working together" (Schmidt-Davis & Bottoms, 2011, p. 2). To lead their schools to become more effective requires collaboration, shared vision and decision making with subordinate, plus greater expectations for the principals.

Unfortunately, the principals of secondary schools in Mardan district rarely take the time to talk informally with students and teachers during recess and breaks. Similarly, they do not take part in co-curricular activities of the school. The devoted teachers are almost never getting acknowledgement by the principal for their extra efforts, either privately or in memos.

The opportunities for in-service trainings of the teachers are normally created by the principal but like activities are very rare in the stated schools. In fact, the principals of these schools don't even know about leadership because, they are promoted to the post of principals from teaching without having adequate leadership skills or prior leadership training (Alam, 2012). Although, a limited number of principals in Pakistan are given in-service training through foreign funds but its contribution is negligible (Khan, 2013a). As a result majority of Pakistani schools do not have sufficient qualified and trained leaders (Rizvi, 2010). The principals in the stated schools almost never set aside time at faculty meetings to share ideas from in-service activities. In contrast, Wahlstrom et al. (2010) found that "leadership effects on student learning occurred largely because, leadership strengthens professional community; teachers' engagement in professional community, in turn, fosters the use of instructional practices that are associated with student achievement" (p. 10). In the schools in this study there is no culture to recognise the superior students to

contact their parents about their better performance. It can be concluded that the principals in the secondary schools of Mardan district lack vision for student's success.

Harvey and Holland (2011) define four exclusive functions of the principals such as: shaping a vision of academic success for all students, creating a climate hospitable to education, cultivating leadership in others, instructional improvement and management for school improvement (p. 4). In the secondary schools of Mardan district the lack of creating school learning climate attitude by the principal adds to the ineffectiveness and low performance.

The Managing Instructional Programmes dimension is also of a low level (see Table 4.14). In fact, majority of the principals almost never manage the instructional programmes of the schools aimed at effectiveness. The teachers are not being motivated using their instructional time aimed at teaching while practicing new skills. This attitude by the principals caused to create a situation of less involvement of the teachers in their related classrooms. Leithwood, Day, Sammons, Harris, and Hopkins (2006) have found that the "School leaders improved teaching and learning indirectly and most powerfully through their influence on staff motivation, commitment, and working conditions" (p. 5). If the teachers who use most of their time in classroom interaction are encouraged, an enhancement will be noted in the student's achievement. Harvey and Holland (2011) has concluded that: "A particularly noteworthy finding is the empirical link between school leadership and improved student achievement" (p. 3). The main aim of schooling is to graduate students; therefore planning new targets and keeping a view of the previous academic records of the students is essential for school principals.

Unfortunately the principals in Pakistani schools almost never draw upon the results of school-wide testing, when making curricular decisions. The principals of the stated schools are ignoring to assess the school programmes. They are not used to participate in the review of curriculum materials. The subordinate teachers are not clear about who is

responsible for coordinating curriculum across the grade levels. As a result this neglecting behaviour of the principals does not let the teachers know, whether the classroom priorities are consistent with the goals and direction.

Wahlstrom et al. (2010) have found that "leadership effects on student learning occur largely because leadership strengthens the professional community; teachers' engagement in professional community, in turn, fosters the use of instructional practices that are associated with student achievement" (p.10). The principals are responsible for maximising the instructional time of the teachers and to discuss student's progress with teachers individually. But in a Pakistani context the situation is entirely different, as the principals almost never discuss students' progress individually with teachers, and thus fail to maximise the instructional time.

The last Defining the School Mission dimension is also of a low level (see Table 4.14). In the secondary schools of Mardan district (Pakistan) the principals almost never define school mission. Hallinger (2009) stated that this dimension is concerned with the role of the principal to determine the central purpose of the school. The members are empowered by vision and they can act individually and creatively because, every decision, solution and action is directed towards achieving its mission (Zepeda, 2014). According to the definition of leadership that was essence from the findings of Louis et al. (2010) "Leadership is all about organisational improvement; more specifically, it is about establishing agreed-upon and worthwhile directions for the organisation in question, and doing whatever it takes to promote and support people to move in those directions" (pp. 9–10).

But in contrast, the findings of this study has shown that the principals almost never develop a focused set of annual school-wide goals, or the school's academic goals that can easily be understood by the teachers. The principals in the stated schools fail to communicate the school's mission effectively to members of the school community. The

school's academic goals are ignored while making curricular decisions with teachers. In fact, these are the principals who are reluctant to promote leadership through communication openly (Zepeda, 2014). Both, the principals and teachers must identify and implement instructional strategies that will make it easy to achieve the school's vision and mission (Halawah, 2005).

Effective principals were found to be engaged in curriculum development and instructions. They always focus on education-related issues rather than management-related issues. These types of principals always succeed in accomplishing the school's mission. But, in contrast as per findings of this study, the principals of the stated schools are focusing on managerial tasks rather than leadership concerns.

5.3.3 School culture

The school culture in the secondary schools of Mardan district (Pakistan) is of low a level (see Table 4.19). There are four dimensions (shared planning, collaboration, collegiality, and professional values) of school culture in this study. Individually, all the four dimensions of the school culture are of a low level as well. In descending order of percentages, the first dimension is shared planning, followed by collaboration, collegiality, and professional values.

Although, the school culture plays a vital role in exemplary performance of schools, but it cannot be created in a moment. The development of school culture is dependent on the continuous struggle of leadership. The low level of school culture in the stated schools indicates the failure of leadership. Many schools stumble along with an unfocused and weak school culture due to the scarcity of effective leadership. But in contrast many other schools are thriving only because of intense and amorous school culture. Therefore, instructional leaders must develop a positive and non-toxic school culture. The reason is that "A school's culture builds commitment to and identification with the core value, for

example, in one school, staff felt they were the members of a professional community, and even when they were offered high salaries and new opportunities elsewhere, they refused to leave" (Peterson & Deal, 2011, p. 11).

Different research studies have found that school culture is an essential ingredient in school effectiveness. This study has revealed that the weakened school culture that exists in the secondary schools of Mardan district (Pakistan) is causing school ineffectiveness. For an in-depth understanding, it is essential to discuss each of the dimensions of school culture individually.

In the secondary schools of Mardan district, the shared planning is of a low level (see Table 4.19). The teachers have never shared the school planning. In fact, shared planning indicates the teachers' involvement in development, acceptance, and implementation of future direction. Commonly, it takes place when a response is needed to the institution or programme. The instructional leaders as well as teachers, for the purpose of school effectiveness, create this type of school culture. The shared planning creates a staff consensus, always reflecting the school vision. If there is shared planning, then the teachers are able to implement their priorities. In contrast, there is lack of consensus in the stated secondary schools. Generally, in a positive school culture the teachers determine their ways to achieve school effectiveness through shared planning.

While discussing the schools in this study, there may be two reasons that have caused the low levels of shared planning. Either the teachers do not take an interest in shared planning or principals are not involved with them. The first case is caused by low level of teachers' motivation while the second is caused by the authoritative leadership style. Kelly and Cherkowski (2015) found that in schools if a group is going to create knowledge for itself, it means the group is creating a shared sense of meaning and developing culture in school. In the shared planning culture, the teachers are even expected to share their ongoing

experiences and results of inquiries. It helps in the future planning, if there is a need for new strategy. Based on the analysis, the low level of school culture has proved there is a lack in the teamwork development. This disappointing situation in the study schools weakens the process of school effectiveness.

The Collaboration dimension of school culture variable is also of a low level (see Table 4.19). In fact, collaboration is the interaction among individuals for the sake of institution, for example, having a debate at school meetings. Gruenert (1998) and Mees (2008) considered collaboration as the degree to which teachers are engaged in constructive dialogue that furthers the educational vision of the school. Similarly, collaboration is the behaviour through which the principal instructionally support teachers, and even teachers also instructionally support each other for the sake of school effectiveness. Kelly and Cherkowski (2015) have found that "PLCs [professional learning communities] can allow for collaboration and reflective practice, where teachers can come together with their colleagues to actively learn about and reflect on their practice with their colleagues" (p.2).

But in contrast, the low level of collaboration in this study indicates that almost no collaboration was found in secondary school of the Mardan district.

This lack of collaboration results in 'individualism' in turn affecting the school performance. In fact, the term individualism refers to a situation, where self-interest is focused.In contrast, certain researchers (e.g. DuFour & Eaker, 1998; Hord 2004; Kelly & Cherkowski, 2015; McLaughlin & Talbert, 2001; Stoll & Louis, 2007; Harris & Jones, 2010) have found that through reflective practice (keeping focus on collaboration, collegial relationships, and professional learning), a structure for supporting and sustaining improved teaching can be provided. Based on the findings if the collaboration is embedded in a school culture, schools will get a higher level of effectiveness.

The level of Collegiality dimension is low in the stated secondary schools (see Table 4.19). Hargreaves and Fullan (2012) have found that when collegiality is used in an accommodative way instead of a steer way it will provide a starting point for collaborative culture. In contrast, this study has found out that the teachers are not reluctant to share problems with each other. The teachers in the stated schools do not support each other, even in their professional decisions. It was also noted that the teachers almost never make an effort to create a positive relationship with colleagues. They do not encourage each other for new tasks assigned by the school management. It can be concluded therefore that there is no team work.

Bergiel, Bergiel and Upson (2012) described four dimensions of culture; previously discussed by Hofstede (1984), in which the second dimension is "individualism-collectivism" which explains how the society views its members, either as individuals or group-members. In the case of individualism, they are concerned with their own interest or the interest of their families, while in collectivism their own actions are not known, except for the actions of groups. Therefore, on the basis of this argument one can say that, the school culture of the stated secondary schools is individualized because, they do not focus on group concerns.

Based on the analysis, the level of Professional Values dimension is low (see Table 4.19). Basically, the professional value is the belief of teachers in such principles that affect pedagogical processes and changes. School culture involves professional values, which in turn affect the student's performance. For example, every child can learn and no diversification is made to affect student learning (Maslowski, 2001). It is clear from the analysis that professional values are almost never found in the teachers of government secondary schools of Mardan district. González-Prendes (2011) found the core professional values named as: service (primary goal is to help others in need and to face

social problems), social justice (challenging social justice), Dignity and worth of the person (to respect others), importance of human-relationship (to recognise the central importance of human relationship), Integrity (to behave in a trustworthy manner), and Competence (to develop an atmosphere of positive competition with other colleagues). As a matter of fact, this study has found that the secondary schools of Mardan district lack these values, due to which the schools are not achieving a high level of school effectiveness.

5.3.4 Relationship between principal's instructional leadership and school effectiveness

A high correlation was found between whole instructional leadership and whole school effectiveness (see Tables 4.20 & 4.21). An in-depth analysis of this study revealed that there is high correlation that exists between each of the three dimensions (defining school mission, managing instructional programmes, and creating school learning climate) of instructional leadership and each of the six dimensions (quality assurance, teachers' efficacy, student academic achievement, community involvement, material and non-material resources, and high expectations of stakeholders) of school effectiveness. These are discussed below in detail.

A high correlation was found between quality assurance and defining school mission (see Table 4.21). To ensure the quality of schools, the instructional leaders need to define the school mission first. As a matter of fact, the school's mission helps the stakeholders to know how to achieve the level of quality. In this study, quality assurance is a characteristic of the school with strong leadership, which can improve teaching-learning capabilities. The stated leadership cause to produce: students with competitive skills and knowledge, stakeholders with motivation, and a focus on the school process and output, rather than inputs. If leadership is provided with those characteristics as discussed above, high

expectations are normally developed.

Similar to this study, Khan (2013b) has also found that in hierarchy of every institution the heads were responsible for delivering quality education. It is, therefore, concluded that the climate of high expectations in secondary schools will produce self-motivation towards quality assurance. House (1971) presented two basic propositions through the Path-Goal theory given as: (1) the psychological states of subordinates were enhanced by the leader's strategic functions, which resulted in the motivation to perform, or job satisfaction. It simply means that the leader is intended to recognise steps necessary for goals clarification (in fact that is defining school mission) and getting motivation through rewards (in fact that is quality assurance), and (2) it was asserted that the leader's behaviour (of defining school mission) in a particular situation will accomplish the motivational function (essential for quality assurance). On the basis of these statements, it is clear that there is a strong correlation between quality assurance and defining school mission.

This study has also found a high correlation between quality assurance and managing instructional programmes. Hallinger (2009) has found that managing instructional programme focuses on the coordination and control of instruction and curriculum. Managing instructional programmes may also be termed as management that incorporates three leadership functions such as; monitoring student's progress, coordinating the curriculum, supervising and evaluating instruction. Therefore, it is concluded that the above stated functions by the instructional leader essentially will produce school learning climate in the stated schools. Khan (2013b) found that quality can be assured by bringing all the concerns of the leaders such as managing instructional programmes.

This study has also shown a high correlation between quality assurance and creating school learning climate. As it is already discussed, quality assurance is a characteristic the every school should have for example; (1) a strong leadership that can improve teaching-

learning capabilities and (2) students with competitive skills and knowledge. It also includes characteristics of the school, teachers and students, schooling cost, students' years of schooling, eventually students' academic achievement, and output as valued by the society. The instructional leaders create a school-learning climate to ensure quality of the school. Ayeni and Adelabu (2011) found in the secondary schools of Ondo State, South-West, Nigeria that the facilities like classrooms, offices, libraries, conveniences, other buildings as well as furniture items, and sports equipment are needed to facilitate the teaching-learning process in schools for effectiveness. The above stated facilitation to school is caused to produce a better learning environment. Also, it has a strong influence on the schools' standard and the academic achievement of the students, which are considered as an index of quality assurance in the schools. Similar to this study, Ayeni and Adelabu (2011) have also found a strong positive correlation between quality assurance and learning environment of the school.

This study has revealed a high correlation between teacher efficacy and defining school mission dimensions (see Table 4.21). In fact, teacher efficacy is the belief of a teacher about his/her own ability, rather than actual ability, which he/she possesses. The collective ability of one's colleagues is known as collective efficacy. Defining school mission explains the future directions of the efforts for school effectiveness. Bandura (1997) (as cited in Seashore, Leithwood, Wahlstrom, & Anderson, 2010) has narrated that "--Given appropriate skills and adequate incentives…efficacy expectations are a major determinant of peoples' choice of activities, how much effort they will expend and how long they will sustain effort in dealing with stressful situations" (p. 128). Looking into both the terms (defining school mission and teachers' efficacy) the term "how" makes its relation closer. Similar to this study, Seashore et al. (2010) concluded that, teachers' efficacy develops motivation, and mastery experiences. These motivations are created to help achieve the high level of school effectiveness on condition that the school mission is defined by the

instructional leader (e.g. Belfi et al., 2015; Ling et al., 2015).

This study also revealed a high correlation between teacher efficacy and managing instructional programmes (see Table 4.21). As it was discussed earlier, managing instructional programmes encapsulates different functions such as; providing instructional support, buffering staff from distractions to their work, aligning resources, monitoring school activity, and staffing the programme. As managing instructional programmes has a tendency towards management behaviour, therefore, instructional leaders always search for the right person for the right job. In fulfilling these functions, instructional leaders always need teachers' motivation, which is dependent on teachers' efficacy. Thus, there is a close relationship between teachers' efficacy and managing instructional programmes. Seashore et al. (2010) have also found a high correlation between efficacy and managing instructional programmes.

A high correlation between teacher efficacy and creating school learning climate is also noted for this study (see Table 4.21). Creating a school learning climate is a function of the instructional leader in productive schools. The instructional leaders create a climate of learning in schools by involving different functions such as; curriculum development, instructional evaluation, and students monitoring. When the school climate is fit for learning, then it is dependent on the teachers' efficacy, on how teachers keep them adjusted in the school process. Similar to this study, Hughes and Pickeral (2013) also found a high correlation between the school learning climate and school performance. Hughes and Pickeral (2013) argued that "We know that important factors in a positive school [learning] climate are also significant mediators of learning: empowerment, authentic, engagement, self-efficacy, and motivation" (p.1). The above statement shows that teachers' efficacy has a strong correlation with school learning climate. The role of instructional leaders is not a solo fight, they involve teachers in the process of creating school learning climate, and

teachers get motivation for their full involvement through their efficacy.

This study has also revealed a high correlation between student academic achievement and defining school mission (see Table 4.21). Defining school mission is the characteristic of the instructional leader. Khan (2013b) found that instructional leadership has a high correlation with students' academic achievement. The findings of Khan (2013b) were similar to the findings of this study. Hallinger (2010) has claimed that defining school mission is one of the most important responsibilities of the instructional leader. From his study, it was revealed that a strong correlation exists between defining school mission and student academic achievement.

The term "mission" is derived from values, which enables teachers to struggle for the sake of mission without taking notice of their self-interest. Therefore, this attitude has positive effects on student academic achievement. Hallinger (2010) termed instructional leader as "gate keepers" who introduce new values and make clear "what's important", for example whether the school will adopt or will not, what are acceptable behaviours of teachers and students, and how instructional time will or will not be used. These functions come under the definition of school mission that affect student's academic achievement. Similarly, Hallinger (2009) has termed defining school mission as the role of the principal to determine the central purpose of the school. Further, it was stated that while working with staff, the principal's role is to ensure that the school has clear, time based and measurable goals. Student academic achievement is always focused while defining the school goals. "First, like "vision", the word "mission" derives from the religious sector and connotes a moral purpose or sacred quest" (Hallinger & Heck, 2002, p. 12). Furthermore, it was stated that if the role of the principal is indirect, then defining the school mission creates preconditions in the classrooms. These preconditions enfolds; constructing appropriate strategic responses, monitoring process, building capacity, developing commitment, and

direction settings. All the above stated functions of defining school mission have positive effects on student academic achievement. Therefore its relationship is positive and high.

In this study student academic achievement and managing instructional programmes have a high correlation (see Table 4.21). The instructional leaders manage the instructional programmes for high student academic achievement. The findings of this study were similar to the findings of other studies (e.g. Day et al., 2010; Hallinger, 2003 & 2010; Leithwood et al., 2006 & 2010; MacBeath & Cheng, 2008; Mulford & Silins, 2003; Robinson et al., 2008) found in the literature. In fact, the approaches used to achieve the school goals were described and employed by leadership for learning (instructional leaders), particularly focusing on student learning. It was concluded that if instructional leader used to manage instructional programmes in schools, it will influence positively student academic achievement.

A stronger correlation was also noted between students' academic achievement and creating school learning climate (see Table 4.21). Like the findings of this study, Halawah (2005) has found that the principals are responsible for creating the school-learning climate. This school climate enhances the principals' effectiveness, teachers' performance, and students' achievement and behaviour. In fact, a single dimension has very little effect on school performance. The instructional leader combines different aspects/resources of school to create a school-learning climate. These different resources of the school were described as intellectual capitals of teachers and students, self-efficacy of teachers and leader, and community involvement etc. are combined by the instructional leader to create school learning climate.

Hughes and Pikeral (2013) also found that positive school learning is the best mediator for students' learning and students' achievement. In their opinion, leaders, students, staff, teachers, and parents use a different strategy to contribute to the positive school learning

climate.

In a Pakistani context, students' academic achievement is considered as the main purpose of schooling. Therefore, creating a school learning climate and students' academic achievement has high correlation in this context. It was illustrated that "The instructional leadership literature asserted that goal-related constructs (e.g. vision, mission, goals) must contain an academic focus" (Hallinger, 2010, p.130).

A high correlation between community involvement and defining school mission was also noted (see Table 4.21). It was stated earlier that the instructional leadership is not a solo fight. The instructional leader performs all the functions such as involving staff members and community in developing and defining the school's mission, managing instructional programmes, and creating school learning climate. This attempt by the instructional leader creates a positive and collaborative school culture that helps in school effectiveness. Hallinger (2009) has found that defining the school mission dimension is concerned with the role of the principal to determine the central purpose of the school. This central purpose is defined for the parents and community as school is part of the community, and it is the community who will decide its quality.

While working with staff, the principal ensures that the school has clear, time bound and measurable goals. In these goals a focus is given to student academic achievement. These goals are communicated to the community by the principal. The principal also ensures whether these goals are widely known and accepted by the community. A clear vision of the principal as instructional leader undermines a consensus to develop school mission. This school mission is communicated to the teachers and community as well to achieve the prescribed goals. "An organisational mission exists when the personal visions of a critical mass of people cohere in a common sense of purpose within a community" (Hallinger & Heck, 2002, p.12). Mission is purposing moral quest, therefore the subordinates struggle

beyond their self-interest. Behaviour of the community affects the school mission as schools exist in the community.

Community involvement also has a high correlation with managing instructional programmes (see Table 4.21). The responsibility for creating and managing the instructional programmes falls upon the principal (e.g. Day et al., 2010; Hallinger, 2003, 2010; Leithwood et al., 2006, 2010; MacBeath & Cheng, 2008; Mulford & Silins, 2003; Robinson et al., 2008). Therefore, the principal is called instructional leader despite the role whether direct or indirect. In fact, the approaches used to achieve the school goals were described by instructional leaders, particularly with focus on student learning. And student learning is the function of the school which the community expects. While managing instructional programmes, the instructional leaders operate in an "open system" consisting of community, institutional system, and social culture (Bossert et al., 1982; Feldhoff, Radisch, & Bischof, 2016; Hallinger, 2010; Leithwood et al., 2010; Mulford & Silins, 2009). The opportunities available are in an organisation and in its environment shape instructional leadership (Hallinger, 2010). Considerably, the major part of this environment is community. In a nutshell, it was concluded that instructional programme are managed by instructional leaders by getting the community involved by aiming at school effectiveness. The conclusion of Hallinger (2010) such as "Finally, we note that this conceptualization frames leadership as directed explicitly, though not solely, towards student growth, and particularly learning outcomes" (p. 27) has narrated the whole phenomenon.

There is a high correlation between the community involvement and creating school learning climate dimensions (see Table 4.21). Different studies have shown the importance of community involvement in school effectiveness. The community through recognition motivates teachers and students. As this study has found, Payen (2006) has declared the

role of principal as a bridge between the school and the community. This attitude of the principal is important for school effectiveness and student's progress. In contrast, the study of Ahmad and Bin Said (2013) has proved that parental or community involvement in secondary schools in a Pakistani context is negligible. Further, it was illustrated that principals do not play their role in involving parents and community in school activities. The principals perceive that this involvement creates management issues. It means that the principals don't trust the parents and community regarding school effectiveness. In contrast, Robinson (2007) has found that "trust is applicable to all the relationships in the school community, including those between teachers and their principal, teachers and parents, and between teachers themselves" (pp. 18-19). Furthermore, the trust is broken when the parents think their children are ill-treated, the teachers think the parents are interested only in their own children, and the principals think their managerial system is interrupted by the parents/community.

According to the findings of Ahmad and Bin Said (2013) the parents are satisfied with only sending their children to schools in a Pakistani context. Their findings were quite similar to the findings of this study. Van Velsor and Orozco (2006) have found that the role of the principal in developing home-school relationship is more than important. The role of the community in creating school learning climate is very important and goes side by side in the process of school effectiveness.

At a single look, if one sees that everybody in school is busy with teaching and learning, then it could be stated as good learning climate. In such a climate, every person is the source of knowledge for others, and they are willing to multiply their knowledge by sharing. As a result, this participation has a good effect on school improvement. As community is large part of the environment therefore, the related literature has discussed its participation in broad terms. Participation includes, but not limited to, participation at

meetings or seminars only. Rather, it starts from school meetings to different events, conferences, committees, and helping their children at home with assignments (Christie, 2005; Strickland, 2015). As a conclusion, community involvement is essential in creating a school learning climate that in turn helps to achieve school effectiveness.

In this study, a high correlation was found between material and non-material resources and defining school mission (see Table 4.21). The instructional leaders made clear the main purpose of the school while defining the school's mission. In order to achieve the purpose, they depend on material and non-material resources. An effective instructional leader puts the right person on the right job within the available resources. Similar to this study, Hallinger (2010) has also found that the effectiveness of leadership is dependent on the context i.e. available resources. If the resources of the school are limited and the goals are high the situation will result in uncertainty, and the targets will seem abstract. This stated drastic situation results in difficulty for the instructional leader while defining the school mission.

The resources of a school might be in two forms, either material or non-material. The first case includes teachers' efficacy, human capitals, social capitals, in-service trainings and refresher courses etc. It is the ability of the leadership to make clear how these resources will be used in an effective way for school purposes or instructional programmes. "Teachers have extraordinary leadership capabilities, and their leadership is a major untapped resource for improving our nation's schools" (Barth, 1990; as cited in Hughes & Pikeral, 2013, p.2). It is the leader who clarifies how to use these capabilities of the teacher (as resources) while defining the school mission.

In a Pakistani context, low education budget, gives the schools a sense of incomplete resources. Therefore, most of the teachers and principals relate the ineffectiveness of schools with the lack of resources. As a conclusion, it can be stated that in the context, 'defining the school's mission' attitude of the instructional leader is related closely to the

available resources.

A high correlation was noted between material and non material resources and managing instructional programmes in this study (see Table 4.21). In managing instructional programmes the instructional leader allocates all the (material and non-material) resources effectively. The "time" being a non-material resource is essential for instructions to increase the student's achievement. The instructional leaders provide a full time frame to the teacher while managing the instructional programmes. The instructional leaders also show high visibility (giving more time) to make sure whether the teachers in classrooms spend a maximum time. It is the responsibility of the instructional leader to provide all the material resources as needed in classroom interaction.

Glewwe et al. (2011) reviewed the literature from 1990 to 2010 to study school resources and educational outcomes in developing countries. This study was based on forty three studies in which only two has clearly found that, through building more schools and decreasing in-service trainings, students' time in classrooms can be increased. It was claim that, the classroom time will be reduced by the engagement of teachers in in-service trainings. It indicates that while managing instructional programmes, the non-material resources such as in-service trainings and classroom time must be focused.

The material resources like water, electricity and play ground etc. also affect student's achievement. The availability of these resources must be ensured with the directions for its proper use while managing instructional programmes.

Similar to this study, Glewweet al. (2011) found a positive significant relationship of the electricity (material resources) on student's academic achievement and school effectiveness. Electricity has a positive effect on student's achievement by making visible the blackboards. There is consensus found for the provision of resources to schools, as developed countries are spending a lot of money on education. But, in contrast, Iqbal (2012) has found that Pakistan spends only two percent of GDP on education that affects

school performance. In a nutshell, there is a close relationship between the school resources and the characteristic of the instructional leaders to manage the instructional programmes.

Analysis of this study has revealed a high correlation between material and non-material resources and creating a school learning climate (see Table 4.21). Hallinger (2009) explained that the dimension of creating school learning climate includes different functions like; promoting professional development, protecting instructional time, providing incentives for teachers, maintaining high visibility. In a common sense, all the above functions need resources to be carried out. For example, the professional development of teachers or incentives for teachers and students needs material and non-material resources. Iqbal (2012) has found that the availability of (material and non-material) resources such as qualified and trained staff, and laboratories have ensured the school performance in a Pakistani context. The well designed buildings with large size of classrooms, availability of science laboratories, playgrounds, electricity, blackboards, furniture etc are the resources which help the instructional leaders in creating a school learning climate. Therefore, there is a close and significant relationship between material and non-material resources and creating school learning climate.

There is a high correlation between high expectations of stakeholders and defining school mission (see Table 4.21). If the school mission is defined by the instructional leader, it creates high expectations of stakeholders for success. For example, if somebody does not know where to go? how one can expect his/her success. Therefore, instructional leaders through their efforts create a climate; called instructional climate, in which they define the school vision, and also a mission to achieve this vision. The process of defining the school mission is called communication. And only after communicating the school mission instructional leaders can keep high expectations from the stakeholders. Once vision is developed ultimately the development of school mission takes place. “Clearly, what gets

the highly rated principals out of bed each morning is what keeps them awake at night: they have a vision and believe that all students can achieve at high levels" (Seashore et al., 2010, p.84). The principal defines school mission to develop a phenomenon of collaboration, and so the vision is called shared vision. Ahmad and Bin Said (2013) found that the establishment of common goals, defining school mission and keeping high expectations for its achievement creates a bond among stakeholders. The above statement clarifies that, the high expectations of stakeholders are closely related to defining school mission.

In this study, a high correlation is noted between high expectations of stakeholders and managing instructional programmes (see Table 4.21). High expectations of stakeholders exist in a climate where instructional programmes are managed. Managing instructional programmes by the instructional leader is aimed at student's academic achievement. Scheeren (2004) has found a close relation between high expectations and student's academic achievement. Some functions are described under managing instructional programmes such as: supervising and evaluating instruction, coordinating the curriculum, and monitoring student's progress. These above stated functions develop high expectations for success. The above stated functions are also caused by effective teaching. Effective teaching is one of the school effectiveness factors (Reynolds & Teddlie, 2000). High expectations mean zero tolerance to failure or success for all, which is possible only through proper arrangement of instructional programmes.

On the basis of the above discussion, it is concluded that, high expectations of stakeholders are dependent on managing instructional programmes for example supervising and evaluating instruction, coordinating the curriculum, and monitoring student's progress, motivation through positive and in time feedback.

High correlation is noted between high expectations of stakeholders and creating school

learning climate dimensions (see Table 4.21). The high expectations of stakeholders (students, teachers, principals, and parents) work as an indicator for school effectiveness. Ahmad and Bin Said (2013) found that high expectations create a climate of learning in schools, resulting in feelings of collaboration between teachers and parents. These high expectations and learning climate, entail reaching to the school effectiveness through achievement of the students. "The link between professional community and student achievement may be explained by reference to a school climate that encourages levels of student effort above and beyond the levels encouraged in individual classrooms" (Seashore, Leithwood, Wahlstrom, & Anderson, 2010, p.37). In such a learning climate not only the levels of student's achievement are encouraged, but the levels of teachers' professionalism as well. The creation of a learning climate is expected from the instructional leader. Kenneth Leithwood, Sarah Patten, and Doris Jantzi (2010) have agreed that "the principal is the most potent factor in determining school climate" and that "a direct relationship between visionary leadership and school climate and culture is imperative to support teacher efforts that lead to the success of the instructional programme" (p.675). High expectations of the stakeholders' simply mean to drive for improvement. The dimension of high expectation of the stakeholders stresses on the restlessness for valued achievements. For example, the learning climate of the school makes possible "Success for all" (Slavin, 1996) and "zero tolerance to failure" (Anderson & Pellicer, 1998). On the basis of the findings and review from the literature, it can be stated that there is a high correlation that exists between the high expectations of stakeholders and school learning climate.

5.3.5 Relationship between instructional leadership and school culture

A high correlation was found between the principal's instructional leadership and school culture in this study (see Table 4.22 & 4.23). The in-depth analysis for correlation has revealed that the three dimensions (managing instructional programmes, creating school learning climate, and defining school mission) of instructional leadership variable have a high correlation with four dimensions (professional values, collegiality, collaboration, and shared planning) of the school culture variable.

Like the findings of this study, Ohlson (2009) has also found a high correlation between school culture and instructional leadership. The leaders who are more involved with teachers rather than in their offices are more likely to help teachers solve the behavioural issues (Ohlson, 2009). Furthermore, Elizabeth A. Le Clear (2005) also found a high correlation between leadership characteristics and school culture. Howard (2010) discussed that collaboration must be a part of one's professional identity, which means working together. Senge (1990) called this term as "alignment" (p.234). Further, Howard (2010) found that "The administrators of School D support a collaborative style that is based on Garmston and Wellman's (1999) concept of shared leadership" (p.11). Mees (2008) conducted a study and found that there is a relationship between principal leadership, school culture, and student achievement in Missouri middle schools. The nature of relationship between school culture and leadership style was highly positive. On the same note, DuPont (2009) conducted a study on teacher perceptions on the influence of principal instructional leadership on school culture. As a result, a highly positive correlation between school culture and instructional leadership was found out, though the external factors were excluded. Going into it more intensely, Ayik and Atas (2014) found a high positive correlation between collaborative leadership and teachers' collaboration, and a high positive correlation between collegiality learning partnerships. Learning partnership

provides such a school culture, in which the school members find collegial support in learning which may be called peer learning. The findings of all the above studies were similar to the findings of this study.

Going in-depth, the analysis has revealed that there is a positively high correlation between the professional values and the defining school mission. In fact, school culture involves the professional values: the belief of teachers' in such principles that affect pedagogical processes and changes that affect students. For example, every child can learn and no diversification is made to affect student learning. These principles and values help to create the school culture, which is essential for the organisation's commitment. The professional values of the school help to motivate teachers to choose the right path to increase students' achievement. Therefore, the instructional leaders must keep in view the professional values while defining the school mission which is aimed at a better outcome. The professional values such as showing loyalty to the organisation is a state that helps the welfare of the organisation and control the freedom of the members of school in order to help the instructional leaders in defining school mission. Professional values are complementary to the organisational commitment. Professional values are emotional commitment or how the people think, and show attachment with the organisation in terms of values and goals (Ayik & Atas, 2014). If there professional values are existing in a context, it means there is emotional commitment towards the goals, helping the school mission to be defined. In a nutshell, the professional values make the teachers help each other to share the problems with internal motives to reach the goals. Therefore, professional values within the schools define the way to smoothen the school mission.

The analysis for this study has revealed a positively high correlation between professional values and managing instructional programmes. Every school person has two types of values such as personal values and professional values. While managing the instructional programmes the instructional leaders keep these values in consideration to avoid any

dilemma between personal and professional values. In fact, the professional values make a motivation towards school goals, which managing the instructional programmes dimension is searching for. The instructional leaders keep in mind the ethical issues that may be produced due to the conflict between personal values and professional values. In the process of managing instructional programmes some ethical dilemmas might be faced. These dilemmas might be shared with the supervisors, colleagues, and professional organisation to be answered through their professional values (e.g. Shephard, 2015; Cormier et al., 2009). In fact, this attitude is known as managing instructional programmes. All the inputs must be kept in view by the instructional leader while managing the instructional programmes. These inputs may include teachers' family for teachers, culture, society and law. In such a way all these inputs of a person become the professional values (Winston, 2005), which later will determine what is important in managing the instructional programmes. As a conclusion, it is clear that there is a close relation between professional values and managing instructional programmes.

A high correlation was also found between professional values and creating school learning climate dimensions. In fact, professional values let us understand what is important for us, what is good, and what is bad. While in creating a school learning climate, professional values help the school members, on what is good for the school. The professional values help to get success in the way to adopt good things regarding school effectiveness.

Professional values served as a part of the school's overall values. The effective schools, generally, have a defined set of commonly held norms and values, which had a primary focus on the teaching and learning of students, open expression, members' collaboration with the organisation (Valentine, 2006). It can be stated that with the help of professional values, teachers and leaders have a focus on student's achievement which in turn help in

developing the school learning climate. Furthermore, Valentine (2006) stated that "Principals and teachers shared a common core of values and beliefs that guide programmes and practices, including high expectations for all students, education of the whole child, all students will be successful, and a dedication to a coherent curriculum, student-centered instruction, and the effective use of formative and summative student data" (p.2). The above statement shows that professional values and school learning climate go side by side. When there no professional values are found in a school, then the school is toxic cultured. In a toxic school culture the teachers are joking by other colleagues who do better work and attend workshops or conferences (Deal & Peterson, 1998). School culture is related to students' achievement, teaching, and learning (Valentine, 2006).

Collegiality is the interpersonal relationship to help each other when a problem is faced. The researchers (e.g. Gruenert, 1998; Mees, 2008) have explained collegiality is the degree to which teachers work together effectively. On the other hand, collaboration is the interaction among individuals for the sake of institution such as having debates in school meetings. Collaboration is the degree to which teachers are engaged in constructive dialogue that furthers the educational vision of the school (Gruenert, 1998; Mees, 2008). Both of the terms collegiality and collaboration is developed by the principal to achieve the school goals. Le Clear (2005) associated the higher levels of transformational leadership with the higher levels of professional learning communities and personal teacher efficacy. The findings of this study were consistent with the findings of the researchers (e.g. Deal & Peterson, 1999; Le Clear, 2005; Leithwood&Jantzi, 1990; Sashkin&Sashkin, 1993; Sergiovanni, 1994) who examined effective school leadership or visionary leadership and its correlation to a positive school culture.

5.3.6 Relationship between school culture and school effectiveness

This study has revealed the high correlation between the school culture variable and school effectiveness variable. Furthermore, there also exists a high correlation among the entire dimension of school culture variable and school effectiveness variable. The highest correlation was found between material and non-material resources and shared planning (see Table 4.24 & 4.25).

In the context of Iran, Ahmadi Ebadollah (2011) conducted a study on organisational culture and productivity, who found that the school culture has a greater role in organisational effectiveness. The findings of this study regarding school culture and school effectiveness were consistent to other studies (e.g. Ebadollah, 2011; Hoy & Ferguson, 1985; Miskel et al., 1979; Mott, 1972). The instructional leaders to achieve school effectiveness create the school culture. But this role of the leader is not direct in achieving school effectiveness (Hallinger& Heck, 1998). The principal always has an indirect effect on learning therefore other situational events are mediating in this relationship (e.g. Hallinger& Heck, 1998; Hoy et al., 2006; Leithwood et al., 2004; MacNeil, Prater, & Busch, 2009). With this background, Liethwood (1992) called the principal a "change agent".

But in contrast, the analysis of this study has shown that the principals of secondary schools in the Mardan district (Pakistan) failed to prove themselves as instructional leaders. The instructional leader is meant to improve school effectiveness with a positive and non-toxic school culture. It was revealed that the community and parents did not get involved in school activities. In a Pakistani context, the community does not want to be involved in school activities at all (Ahmad & Bin Said, 2013). The study by Ahmad and Bin Said (2013) showed similar results. Valentine (2006) has also found a close relationship between school effectiveness/improvement and school culture.

Valentine, Clark, Hackmann, and Petzko (2004) provided practical insights about

collaborative, effective school culture in highly successful schools. A high correlation between school culture and school effectiveness was revealed from the findings of Valentine, Clark, Hackmann, and Petzko (2004). A positive, collaborative, and collegial school culture maintains the image of a professional community (Newman & Wehlage, 1995), it has a clear mission (Deal & Peterson, 1990), it encourages teachers to work collaboratively (Fullan, 1993), and it is considered as a place to lean (Rosenholtz, 1989). If the norms of the school culture are compatible with the mission of the organisation, the organisation flourishes (Valentine, 2006). It is evident from the findings of this study as supported by the literature, there is a significant and positive relationship between school culture and school effectiveness.

5.3.7 Role of school culture as mediator

In this study all the three variables of school effectiveness, instructional leadership of principal, and school culture were found to be significantly correlated in a bivariate manner. This significant correlation allowed for a mediator test, which has proven school culture as a full mediator for the relationship between instructional leadership and school effectiveness. Findings (from the Tables 4.26 & 4.27) have shown that the relationship between instructional leadership and school effectiveness is significant, but when the school culture is introduced as a mediator, this direct relationship became insignificant (see Table 4.27). This indication means that the relationship between instructional leadership and school effectiveness is fully mediated by school culture. This type of relationship highlights the importance of school culture in achieving school effectiveness. It is evident that the relationship between instructional leadership and school effectiveness is indirect through school culture (see Table 4.28).

In contrast, principals in Pakistani schools have focused only on administrative jobs, rather than be engaged in curriculum designing and instructional practices of the schools

(Memon, 2003). The reason is that, they are promoted as principals from teaching jobs without having any proper training of leadership (Alam, 2012). It has been proven that school culture can help in achieving school effectiveness. School culture provides an opportunity for sharing knowledge in a collaborative and collegial atmosphere through shared vision and professional values. It is concluded that principals should develop and promote school culture to achieve school effectiveness.

In the present era, the school culture gained more importance in school effectiveness. As has been declared that instructional leadership is not a solo fight, therefore school effectiveness can be achieved only through a collaborative school culture. Regarding the relationship of school culture and school effectiveness, the results of this study were consistent with different studies (e.g. Ebadollah, 2011; Hoy & Ferguson, 1985; Mott, 1972; Miskel et al., 1979) from the literature. As the school culture serves as a mediator for the relationship between instructional leadership and school effectiveness therefore, the role of the instructional leader is not direct (e.g. Hallinger& Heck, 1998). The findings from other studies of literature (e.g Hallinger& Heck, 1998; Hoy et al., 2006; Leithwood et al., 2004; MacNeil, Prater, & Busch, 2009) have also proved that the principal has an indirect effect on learning.

There are some situational events which mediate on the relationship of the principal and school effectiveness. A position paper on the Character Education Partnership (CEP, 2010) has found that it is good news for us that we are not scratching the school culture newly, but many schools have put a great time to assess the elements of the school culture for effectiveness of the schools. The findings of the previous studies are narrated in the following words:

1) successful schools have a thirst for development and have a positive school culture (Fullan, 2001),
2) the successful schools have a relational trust (Bryk & Schneider, 2002),

3) the productivity and student's achievements are linked to school culture (Gonder & Hymes, 1994).

Similarly, the publication of Collaborative for Academic, Social, and Emotional Learning (2003) under the title 'Safe and Sound: An Educational Leader's Guide to Evidence-Based Social and Emotional Learning Programmes' has summarised eleven research reviews. These reviews were based on educational interventions aimed at creating anti-social and risk behaviours for school culture. A conclusion was made that the emotional and social skills can be taught by school culture. In turn this creates a motivation to achieve an academic success.

The role of instructional leaders is vital in producing such school culture but school leaders in Pakistan have limited their role to file work aimed at satisfying the district management. At the annual inspections, the main focus of the district management is on the documentation and checking of school funds. And thus, the matter on school performance and student's achievement is widely ignored. Berkowitz and Bier (2006) have identified character development programmes entitled as "what works in character education: a research-driven guide for educators, University of Missouri" with a clear imperial support. The character development programmes improve the school culture that affect the school's progress and improvement towards success. The child development centres and the development of projects are both aimed at creating school culture (Collaborative for Academic, Social, & Emotional Learning, 2003). To meet the student's need viz; competencies, belongings, and autonomy, a positive school culture works better (Deci & Ryan, 1985).

Le Clear (2005) conducted a study to find the relationship of leadership styles and students achievement, mediating by school culture. It was found that the leadership styles were significant to the school culture and students achievement. The findings of the study of Le Clear (2005) were inconsistent to the findings of this study. Supporting this study,

Mees (2008) has also found a significant relationship between principal leadership, school culture and students achievement. Other studies (e.g. Barnett, McCormick, & Conners 2001; Hallinger, Bickman, & Davis, 1996; Hallinger& Heck, 1996, 1998; Leithwood & Jantzi, 2000; Marzano, Waters, & McNulty, 2005; Waters et al., 2003) have also supported this study for indirect relationship between principal instructional leadership and school effectiveness.

It becomes clear that the principals in secondary schools of Mardan district in KP province, of Pakistan should utilise their instructional leadership skills for promoting school culture. For instance, they do not have leadership skills; but they can still groom their students and teachers through proper establishment of school culture, which is aimed at school effectiveness.

5.3.8 Effect of demography as moderator on relationship between instructional leadership and school effectiveness

The results of this study have revealed that the Age of the respondents have an effect on school effectiveness. The fact is that Age is a moderator that changes the relationship between instructional leadership and school effectiveness from significant and large effect to a non-significant with small and negative effect (see Table 4.29). It was claimed that, the characteristics of demography affect attitudes, cognition, ability of making decisions, and outcomes (Johnson et al., 2013). Different researchers studied different types of demography. Niqab (2015) conducted a study to find the relationship between the principal's leadership skills, organisational citizenship behaviour, and intellectual capitals in the secondary schools of Pakistan, but in contrast to this study, there was no effect found of the demography for the stated relationship. Age and seniority are directly proportional. Therefore, in demography one may affect the other. For example like this study, Johnoson et al. (2013) have found that the seniority status or the structure of an organisation causes effectiveness or ineffectiveness.

The findings of some studies for example Slater et al. (2009) were found to be in contrasting the findings of this study. Similarly, Myrberg and Rosen (2006) stated that of course, "teachers' Experience" and "teachers' Age" are coefficient, but teachers' experience has no effect on the positive influence of teachers. Although, it is difficult to interpret the experience because, it's a matter whether the teacher is temporary or surplus (Wayne & Youngs, 2003) but in Pakistani context the Age of the respondents have effect on the relationship between instructional leadership and school effectiveness.

The other studies have also found a positive relationship between teacher's experience and student's achievement (e.g., Murnane & Philips, 1981; Klitgaard & Hall, 1974). Shepherd (2013) found a significant effect with the age of 30 or less on the students' achievement. The two reasons for the better performance of the younger teachers were shown by Armstrong (2009) such as: (a) closeness in age with their students and (b) the recent trainings of the teachers being updated with new technologies. Keeping in mind the above reasons, it can be stated that this study showed 'Age' as moderator which changes the relationship from high positive significant to low negative insignificant. Though, the professional training programmes in Pakistan like B.Ed (Bachelor of Education) and M.Ed (Master of Education) have no practical application in a school context (Ministry of Education, NEP-1998-2010) but closeness of the teachers in the age with their students affects the relationship. Therefore, the age of the teachers have the effects that changes the mode of the relationship between instructional leadership and school effectiveness variables.

5.3.9 Fitness of conceptual model

In fact the process of data collection itself is a science, with some targets, which have to be checked whether these have been achieved or not. Therefore, it becomes essential to accept that "data is science and reciprocally science is data, which is provided for certain need, validated need for the backing of, much value added data preservation" (Borgman, 2012, p.1059; Hanson et al. 2011; Niqab, 2015). Based on various analyses it was found that the conceptual model of this study fitted the data analysis (see Table 4.30).

In the proposed conceptual model of this study, the instructional leadership of principal is an exogenous variable, and the school effectiveness is an endogenous variable while school culture is a mediating variable. For these variables, data was collected through a survey instrument, comprising 62 items. The first 22 items represent the three dimensions (defining school mission, managing instructional programmes, & creating a school learning climate) of principal's instructional leadership. The next 17 items represent the four dimensions (collegiality, professional values, collaboration &shared planning) of school culture. The remaining 23 items represent the six dimensions (high expectations of stakeholders, student academic achievement, community involvement, teacher efficacy, material and non-material resources, & quality assurance) of school effectiveness.

A Structural Equation Modeling (SEM) technique was used by the researcher for model fitness. Hair et al. (2009) recommended three types of fitness such as: absolute fit, incremental fit, and parsimonious fit, which have their own measurement indices. For each test, the researcher used one measurement index (see Table 4.30).

To verify the proposed conceptual model, such as to find the absolute fit index, the researcher used value of the Root Mean Square Error Approximation (RMSEA). Similarly, to find the increment fit, the value of comparative index (CFI) and to find parsimonious fit,

the value of chi-sq/df was used by the researcher. Basically, the category of 'Absolute Fit' includes the Chi-Squared test, RMSEA, GFI, AGFI, the RMR and the SRMR (Hooper, Coughlan, & Mullen, 2008). The 'Incremental Fit' relies on a comparison with the baseline model while, Absolute Fit measures only how well the model fits (Jöreskog & Sörbom, 1993).

Parsimonious Fit: the parsimonious fit was found to be dividing the Chi-square by degree of freedom. Alone, Chi-square test is considered as traditional measure to assess model fit. It 'assesses the magnitude of discrepancy between the sample and the fitted covariance matrices' (Hu & Bentler, 1999: 2). "Chi-Square statistic is often referred to as either a 'badness of fit' (Kline, 2005) or a 'lack of fit' (Mulaik et al., 1989) measure" (Hooper, Coughlan, & Mullen, 2008, p.53). The Chi-square test assumes a multivariate normality therefore; it has some drawbacks such as:

a) if there is deviation found from the normality, the model is rejected even when the model is fit (McIntosh, 2006),

b) it is in essence a statistical significance test, which means that the model is always rejected with a large sample size (Bentler & Bonnet, 1980; Jöreskog & Sörbom, 1993),

c) this may not discriminate between the good fitting models and poor fitting models because this test has lacks power if small sample are used (Kenny & McCoach, 2003).

"Although the Model Chi-Square has many problems associated with it, it is still essential that this statistic, along with its degrees of freedom and associated p value, should at all times reported" (Hooper, Coughlan, & Mullen, 2008, p.56). It is evident that "there is no consensus regarding an acceptable ratio for this statistic, recommendations range from as high as 5.0 for relative/normed chi-square …… to as low as 2.0" (Hooper, Coughlan, & Mullen, 2008, p.54). The value of Chi-square/df test for this model is 3.56 which is less

than the threshold value (<5) therefore, the model is fit (see Table 4.30).

Absolut Fit: RMSEA is a second fit index (Steiger, 1990; & Hooper, Coughlan, & Mullen, 2008) reported in LISREL, tells how "with unknown but optimally chosen parameter estimates would fit the populations covariance matrix" (Hooper, Coughlan, & Mullen, 2008, p.54). It has become "one of the most informative fit indices" in the recent years (Diamantopoulos & Siguaw, 2000, p.85) because of sensitivity to the numbers of parameters (Hooper, Coughlan, & Mullen, 2008). The cut-off point values reduced considerably in the last fifteen years. For example, in the early nineties the RMSEA value which ranged between 0.05 to 0.10 was considered as a fair fit, and the value above 0.10 indicated a poor fit (MacCallum et al., 1996), but in general, the value of the RMSEA should be between 0 and less than 0.08 (Hooper, Coughlan, & Mullen, 2008). The recent research studies have shown that, the RMSEA values of 0.05 could be considered as a good fit (Browne & Cudeck, 1993), values between 0.05 and 0.08 are adequate fit, and values between 0.08 and 0.10 are mediocre fit, whereas values > 0.10 are not acceptable (Wahid, 2014). As the test value for RMSEA is 0.077 in this study therefore, the evidence was provided by the full structure model to believe that the data adequate fits the conceptual model (see table 4.30).

Increment Fit: Incremental fit index, is also known as relative fit indices (McDonald & Ho, 2002) or comparative (Miles &Shevlin, 2007). This is a group of indices which do not use the chi-square in its raw form; instead it is used to compare the chi-square value to a baseline model (Hooper, Coughlan, & Mullen, 2008). Comparative fit index (CFI) was introduced by Bentler (1990) from NFI, which considers the sample size (Byrne, 1998) and resulted well, even if the sample size was smaller (Tabachnick & Fidell, 2007). "Like the NFI, this statistic assumes that all latent variables are uncorrelated (null/independence model) and compares the sample covariance matrix with this null model" (Hooper,

Coughlan, & Mullen, 2008, p.55). The values closer to 1.0 indicate a good fit. Although, this statistic ranged between 0.0 and 1.0, but the initial values for good fit were ranged between 0.90 and 1.0, and now the value greater than 0.90 is needed to ensure fitness (Hu & Bentler, 1999). A value of CFI ≥ 0.95 presently indicates a good fit (Hu & Bentler, 1999). "Today this index is included in all SEM programmes and is one of the most popularly reported fit indices due to being one of the measures least affected by sample size" (Fan et al, 1999; as cited in Hooper, Coughlan, & Mullen, 2008, p.55). As the CFI value in this study is 3.97, therefore, the model is considered as a good fit (see Table 4.30).

Going into it more intensely, the data collected from the secondary school teachers of Mardan district (Pakistan), is supporting strongly the proposed conceptual model of this study. This study provides feedback to step into the self-development of the education system of Pakistan. It was found that the allocated budget for education system in Pakistan may not be considered as sufficient to bring changes. In fact, the essential requirements may not be fulfilled with minimum educational budget (Ministry of Finance, Economic Survey of Pakistan-2010). Unfortunately, in Pakistan the principals only focus on administrative jobs rather than be engaged in curriculum designing and instructional practices of the schools (Memon, 2003), because without having leadership training, teachers were promoted as leaders (Alam, 2012). Even, their professional trainings such as Bachelor of Education and Master of Education have no practical application in school context (Ministry of Education, NEP-1998-2010). In like situation, the leaders should focus on instructional programmes on one hand and understanding school culture on theother for better results of the school (DuPont, 2009). This study has provided empirical evidence that school culture can be used to achieve school effectiveness.

The principals should play their role as instructional leader, instead of working as managers to create a positive and non-toxic school culture. With a positive school culture

the teachers help each other and the leaders as well, through shared planning, collaboration, collegiality, and professional values. The findings of this study regarding model fitness were similar to the findings of Alig-Mielcarek (2003), who presented the "Path Model of Student Achievement" by mediating instructional leadership and student achievement through academic press. Similarly, Mees (2008) presented a model which mediated transformational leadership and student achievement through school culture, and found the model as fit. This study and the above stated studies are supported by the Path-Goal theory of House (1971) and House & Mitchell (1974) as well, which are based on Vroom's (1964) expectancy theory, and Model of Evans (1970). The revised Model-B of Hallinger and Heck (1998) also supported the findings of this study regarding indirect model.

In a nutshell, it can be stated that the stance of the researcher has found fit, through the collected data. This developed model can be stated as a good fit for Pakistani schools.

5.4 Conclusion

This study was conducted with the perceptions of the teachers (the stakeholders as suggested by Saleem et al., 2012) because, there was possibility to miss some realities while assessing principals with the perceptions of principals. Also self assessment needs many possible metacognitive skills (McMillan, & Hearn, 2008).

The Government of Pakistan allocates 2% of GDP for education (Ministry of Education, NEP-2009). This minimal budget allocation is failed to develop schools therefore, self-development of the education system is needed (Rahman, 2014). To develop a school, all responsibilities will fall on instructional leadership. But unfortunately, the principals in Pakistan have no leadership training to be inducted in schools. Although, there are some professional development programmes but, usually they are dependent on foreign-funded

projects (Khan, 2013a; Khan, 2004). The programmes aimed at in-service professional development are negligible in Pakistani schools. As a result Pakistan faces problems such as the unavailability of trained and qualified instructional leaders to run educational programmes (Rizvi, 2010). In Pakistani schools, the principals are not inducted on the basis of their leadership skills and attributes, but on the basis of their teaching experience (Khan, 2013a). Due to the above reasons, the principals in a Pakistani context adopt a standby situation (Alam, 2012). Like the principals in Pakistani schools, the principals in Tixas do not focus the role as instructional leader because, they focus administrative and clerical matters largly (Sim, 2011). Furthermore, it was stated that in many of the principals in Malaysian schools play an important role in the academic achievement of students in school. "The findings has been revealed that the Malaysian government annually invests a large proportion of its income on education in both infrastructure and provision sectors and human resource development" (Fahimirad, Idris, & Kotamjani, 2016, p-108). Though, a strong educational leadership is important in achieving educational goals (Ministry of Education, NEP-2009) but, no proper contribution was sighted from central management to update and upgrade principals' skills aimed at school quality (Khaki, 2005). The principals can play their role as instructional leader by defining school mission, managing instructional programs, and creating school learning climate in a suppertive andc olaborative school culture. By applying all these above stated functions the climate of motivationi can be produced in schools to smothen the process of school effectiveness.

Although, instructional leaders have a greater role in school effectiveness, but it is evident that, the relationship of instructional leadership to learning and school effectiveness is not direct (Hallinger& Heck, 1998; Hoy et al. 2006; Leithwood et al., 2004; MacNeil, Prater, & Busch, 2009). There are some situational events; mediating the relationship of principal and school effectiveness for example school culture (Ebadollah, 2011; Hoy & Ferguson,

1985; Mott, 1972; Miskel et al., 1979). Therefore, Liethwood (1992) called the principal as a "change agent". The successful schools with a positive school culture have a thirst for development (Fullan, 2001), and have a relational trust (Bryk& Schneider, 2002). The productivity and students' achievements are linked to school culture (Gonder & Hymes, 1994). Therefore, teachers' and principals' initiatives are also discussed in terms of school culture.

The above uncertainty of the Pakistani education system is posted on different phases of literature. The study lacks cultural difference and out of school dimensions for example students' teachers' and principals' background, which may affect the quality of education in Pakistani schools. To enhance the quality of education, there is a dire need of quality leaders and teachers as well (Peleg, 2012). It is evident from the literature that the leaders must have enough skills to run the institutions effectively and to improve students' outcome. It seems very rare that the leaders can affect students' achievement directly, but they have an impact on school culture for school effectiveness. Therefore, the leaders must have enough skills to develop a positive school culture aimed at school effectiveness. It is evident from the analysis that the levels of instructional leadership and school culture are low, but still have a contribution in school effectiveness. The analysis has shown a high correlation between the variables, which resulted in a model of school effectiveness. School leadership in Pakistani context should be improved aimed at school effectiveness. To improve the skills of the leaders there are fewer opportunities available in a Pakistani context. Mostly, skill development programmes are run by foreign funded projects (Khan, 2013a; Khan, 2004).

While keeping in view the above atrocious and horrific situation of the education system in Pakistan, the researcher developed this study to examine leadership skills and their application to develop school culture aimed at school effectiveness.

The researcher deliberated to conduct this study to show behind the screen situation to the readers, regarding the levels of instructional leadership of the principals, school culture, and school effectiveness. Also, the study was purposed to develop a conceptual model to enhance the learning potentials of the students for quality education in KP province of Pakistan.

The efforts of the researcher should be considered a step forward to study; school effectiveness in KP province suggested by Saleem et al. (2012), instructional leadership of principals suggested by Hallinger and Bryant (2013), and education system's self development suggested by Rahman (2014) in Pakistan.

It is evident from the literature that Pakistan lacked opportunities and funds to develop an effective education system. Therefore, self-development of education system is essential in Pakistani schools.

Regarding the education system of Pakistan, some areas were not focused. Therefore, it might not be conceived that all the leaders do not possess instructional leadership skills. The levels of instructional leadership might be different when compared between: single sex schools and co-education schools, provincial and federal schools, public and private schools, primary and secondary schools, male and female schools. Because of cultural differences, the background of the stakeholders, political situation and peace, and the external policies may also affect the role or the level of instructional leadership, which in turn affect school effectiveness.

It was empirically evident that the level of instructional leadership is low. Therefore, the main reason revealed is a lack of leadership skills. The teachers were promoted to the post of leadership without having proper leadership training. They were not motivated to improve the academics of students. They were only stressed for managerial tasks.

This study revealed that instructional leaders indirectly affect school effectiveness. If the principals have leadership skills, they can promote their schools. Based on the evidence, the schools studied have leaders with weak leadership skills. The principals in Pakistani schools are not involved in developing school culture aimed at school effectiveness. The studied schools showed an overall medium level of school effectiveness, but it may vary among organisations.

The findings of this study have also revealed that, through promoting school culture, principals have been successful in achieving school effectiveness. Promoting positive school culture does not need funds, but the only tool is principal leadership skills. Through, school culture a climate of shared planning, collegiality, collaboration, and professional values is assured. The above elements help leaders in defining the school's mission, creating a school learning climate, and managing instructional programmes. The school culture gets the teachers involved in: sharing knowledge and work load, getting and providing feedback, evaluating their progress, focusing students outcome, preferring organisational priorities, cooperating the process and evaluation of organisation, co-curricular activities and home school relationship. In a nutshell, school culture: develops staff through sharing knowledge, brings a good repute to the school, and shaping results of the better students in curricular and co-curricular activities.

The proposed conceptual model of this study was found to be fitting the data collected. The model has explained explicitly that there is a strong amalgamation of three different fields such as: instructional leadership, school culture, and school effectiveness. This model can be applied for bringing positive changes to the education system in developing countries like Pakistan. Therefore, this model may be considered as interesting and valuable for its contribution to the literature in a Pakistani context.

5.5 Implications

The implications rely on the findings of this study based on three variables; instructional leadership, school culture, and school effectiveness. As mentioned in the national education policy of Pakistan (Ministry of Education, NEP-2009) good leadership is essential for school effectiveness, but the minimum education budget (2% of GDP) does not allow the leadership to have professional development. Therefore, Rahman (2014) suggested for self-development of the education system. The proposed conceptual model of this study is a step forward in this context to achieve school effectiveness through developing school culture by instructional leadership.

5.5.1 Implications for school effectiveness

School effectiveness is essential for the economic betterment of a developing country like Pakistan. Saleem et al. (2012) suggested exploring school effectiveness in a Pakistani context with the perceptions of stakeholders, by making a comparison between boys' and girls' schools, public and private schools, and primary and secondary schools. According to them for nearly six decades, Pakistan has not produced just a single research which can makes schools effective. Taking one step forward the suggestions of Saleem et al. (2012), the study developed a conceptual model, which will help the schools in getting effectiveness. To validate this conceptual model a self developed measurement instrument was used. The instrument with 23 items was found to be better in collecting data to assess school effectiveness. Regarding school effectiveness the study provided knowledge about the levels of school effectiveness of secondary schools of Mardan district of KP province of Pakistan.

This study developed a conceptual model, which will help to get school effectiveness. The self developed instrument assessed the levels of school effectiveness regarding quality

assurance, community involvement, student academic achievement, high expectations of stakeholders, material and non-material resources, and teacher efficacy. The three dimensions like high expectations of stakeholders, teacher efficacy, and material and non-material resources were found to be of a high level. While the two dimensions like student academic achievement and quality assurance were found to be of a medium level. The only community involvement dimension was found to be of a low level. It is suggested that the principals, teachers, central and district management should maximise the involvement of parents and community aimed at school effectiveness. The education budget should be increased making schools able to arrange in-service trainings and workshops. In this regard, different NGOs can also support the education department. The medium level of school effectiveness and the low level of leadership in this study have uncovered the low quality of education and challenging situations in the stated schools. The findings of this study provided a guideline for other federal, provincials, private, and co-education schools for their self development but with a low budget. Another study should be conducted to find the levels of school effectiveness, in federal, other provincial, and private schools.

Effective school, better management, leadership and school culture is essential for a developing country like Pakistan. As a frequent solution for the problem such as low budget of schools, the principals should develop a positive school culture to achieve school effectiveness, as their role is indirect. The dimensions of school effectiveness found in this study can be used for further research, which yielded in better information about school effectiveness. These dimensions have added something new to the body of knowledge in a developing country like Pakistan.

5.5.2 Implications for instructional leadership of principal

The findings of this study highlighted that the principals working in secondary schools in Mardan district (Pakistan) have low levels of instructional leadership. The principals of the stated schools showed a low level for defining school mission, managing instructional programmes, and creating school learning climate, which were considered as the essential characteristics of instructional leader. The study revealed that, the stated principals don't involve teachers and students, community, and parents while defining school mission. This attitude by the principals affects motivation negatively, which in turn affects the school's outcome.

The level of managing the instructional programmes is also of a low level in the stated schools. It means that the principals are unable to manage the instructional programmes in the shape of maximising instructional time in their concerned schools. The reason is a lack of the school culture. Creating a school learning climate also showed a low level. In fact, when the principals are unable to define school mission and to manage instructional programmes, they may not be able to create a school learning climate. To a create school learning climate the instructional leaders must focus on defining school mission and managing instructional programmes.

The findings of this study will help principals and policy makers in developing instructional leadership. The study has proved that the leadership is not just a position or principal's honour; it includes the development of team efforts, staff, collaboration, collegiality, shared planning, professional values, resources, policies, community involvement, rules and regulations aimed at school effectiveness. Other studies may be conducted; to find the core reasons for the low level of instructional leadership in the stated schools. Similarly, the researchers are invited to find the levels of instructional leadership in federal, private and schools of other provinces with these 22 items.

Developing this type of study will clear the way to understand leadership deficiencies, problems concerned, and acting upon the suggestions.

5.5.3 Implications for school culture

The findings of this study have revealed that the level of school culture is low. It was also found that there is high correlation among the four dimensions of school culture and three dimensions of instructional leadership. School culture is proved as a full mediator for the relationship between instructional leadership and school effectiveness. In the stated schools priority is not given to shared planning, professional values, collegiality, and collaboration. Therefore, the level of school culture is low. As a matter of fact, the dimensions of school culture should be developed to achieve school effectiveness. The importance of the school culture is clear from its correlation with instructional leadership and school effectiveness. School culture acts as an adequate mediator between the two stated variables.

School culture with this model should also be studied in other contexts to find out its levels and mediating nature. It is suggested that the principals and teachers should develop school culture for effective schooling. School culture can help the internal stakeholders and instructional leaders to perform their role in school effectiveness. It provides an atmosphere of sharing experiences and knowledge, even in a critical situation.

5.5.4 Implications for policy makers

The education policy 1998-2010 of Pakistan has stated that there there are clearly standards to check the effectiveness of schools. Furthermore, it was stated that strong leadership is required for the improvement of schools. On the same way education policy of Pakistan (Ministry of Education, NEP-2009) has stated that mostly the school effectiveness dimensions were borrowed from UNESCO. Therefore the dimensions of school effectiveness, instructional leadership, and school culture should be focused in

education policy to ensure the improvent of school in Pakistani context.

5.5.5 Implications for instructional ledership

Pakistan allocates only 2% budget for education, which is insufficient to imrove the quality of schools in the context. Therefore, the instructional leaders can use this model to improve the quality of schools without extra budget. The model of this study is well fit to be applied practically in Pakistani schools.

5.5.6 Implications for teachers

The teachers in Pakistani context are mostly master of education and bachelor of education. Their masters and bachelor dgrees has no practical applications in a school context (Ministry of Education, 1998-2010). If the the teachers focus the behavioral aspect such as school culture, definitely the instructional leaders will be cooperatd in defining school mission. Also, a culture of collegiality, collaboration, shared planning, and professional values will be created in school, which in turn effect schools.

5.5.7 Implications for investors

As this study has revealed that the level of school effectiveness is medium. Semilarly, the role of principals as instructionl leaders is at low level, which affected the quality of education in the government secondary schools in Pakistan. In like situation, there is a gap which provides an opportunity for the investors in the region. By applying this model the investors in the private sectors can improve the quality of their schools.

5.6 Recommendations for future research

Although, the findings of this study have uncovered the truth, but certain areas still need to be explored in Pakistani schools. If the researchers are interested to add more substance to the body of knowledge in the context, they might link instructional leadership, school culture and school effectiveness in other regions of Pakistan. The stated model should be applied in different tiers of education to bring some new and unexpected outcomes. The following suggestions are made for further research:

a) This study has found that there is no proper training programme for school leadership in Pakistan. The minimum education budget fails to provide continuous in-services leadership trainings. It will be interesting to investigate how the instructional leadership skills should be developed with minimum education budget in a Pakistani context.

b) Similar studies can be conducted in federal schools, FATA (federally administered tribal area) schools, and schools from other provinces in Pakistan with different tiers of education. These stated educational institutions might also be studied for making comparison using frame work of this study.

c) Future studies should focus on how to achieve school effectiveness with the help of tangible and intangible resources including professional trainings.

d) Future research might also uncover the hidden truth about the present status of school effectiveness in different geographical areas of Pakistan. Then one might be able to answer the uncertain situation in Pakistani schools.

e) The school culture plays its role as catalyst to achieve school effectiveness. But in some cases the school culture may be toxic as well, which is needed to be removed. Therefore, the researchers must investigate into the school culture to decide whether; it

is positive, toxic, or in-between, with a focus on how a toxic school culture can be converted into a positive one.

f) Using the conceptual model of this study, a longitudinal study should be undertaken aimed at comparing the effects and causes of school effectiveness. For example, what dimensions may cause to school effectiveness and what are their effects on educational outcome.

g) Using this proposed conceptual model, a study should be undertaken by the researchers to find the reciprocal effects of instructional leadership, school culture and school effectiveness.

h) The federal and provincial education departments should provide the opportunities for prior leadership training of the principals in the context. As it was evident that the teachers were promoted to the post of principals without prior leadership training.

i) In annual inspections of the schools by the District Education Officers (DEO) a focuss should be made on school input, process, and output to ensure a positive, collegial, and collaborative school culture for the sake of school effectiveness.

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Appendix-A

Survey Instrument

PART A

Please provide the following information about yourself:

برائے مہربانی اپنے متعلق مندرجہ ذیل معلومات فراہم کریں۔

(A) School Name: _____ **سکول کانام:**

(B) School Type: ☐ Boys **طلباء** ☐ Girls: **طالبات**

(C) School Division: ☐ 1. Rural **دیہاتی** ☐ 2. Urban **شہری**

(D) Years, at the end of this school year, that you have worked with the current principal:

اس سال کے آخر تک موجودہ پرنسپل کے ساتھ کام کرنے کا تجربہ سالوں میں

☐ **1 (1سال)** ☐ **2-4(2سے 4سال)** ☐ **5-9(5سے 9سال)**

☐ 10-15**(10 سے 15سال)** ☐ More than 15 **(15 سال سے زیادہ)**

(E) Years, experience as a teacher at the end of this school year:

بحیثیت معلم اس سال کے آخر تک آپکا تجربہ سالوں میں

☐ **1 (1سال)** ☐ **2-4(2سے 4سال)** ☐ **5-9(5سے 9سال)**

☐ 10-15**(10 سے 15سال)** ☐ More than 15 **(15 سال سے زیادہ)**

(F) Gender: **جنس :** 1. Male **مرد** ☐ 2. Female **عورت** ☐

(G) Age in years _____ **عمر سالوں میں**

(H) Professional Qualification_____**پیشہ ورانہ قابلیت**

(I) Academic Qualification_____ **تعلیمی قابلیت**

NOTE: For each Statement from 1 to 62 tick (✓) only one number from "0" to "6" that best fits during the past school year for the response to each statement and try to attempt each question.

ایک"1" سے لے کر 62 تک ہر سوال کے سامنے دئے گئے 0 سے6 تک کے ہندسوں میں صرف ایک کے گرد دائرہ بنائیں جو کہ آپکو سب سے زیادہ موزوں لگتا ہو۔ ایک سوال کے لئے ایک سے زیادہ دائرے نہ کھینچیں۔ کوشش رہے کہ ہر سوال ملاحظہ ہوں

6 represents ***Always***	6 **کا مطلب ہے ہمیشہ**
5 represents ***Almost Always***	5 **کا مطلب ہے تقریبا ہمیشہ**
4 represents ***Frequently***	**4 کا مطلب ہے اکثر**
3 represents ***Sometimes***	3 **کا مطلب ہے کبھی کبھی**
2 represents **Seldom**	**2 کا مطلب ہے شاذ و نادر ہی**
1 represents ***Almost Never***	**1 کا مطلب ہے تقریبا کبھی نہی**
0 represents ***Never***	**0 کا مطلب ہے کبھی نہیں**

Part-B

S.No	To what extent does your principal . . . ? **کسی حد تک آپکا پرنسپل**	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
1	Develop a focused set of annual school-wide goals **سالانہ اہداف کا ایک مرکوز سیٹ تیار کرتا ہے**	0	1	2	3	4	5	6
2	Use data on student performance when developing the school's academic goals **سکول کی تعلیمی اہداف تیار کرنے میں طلبہ کی کارکردگی پر مبنی اعداد و شمار کا استعما ل کرتا ہے ۔**	0	1	2	3	4	5	6
3	Develop goals that are easily understood by teachers in the school **اساتذہ کے حوالے سے عام فہم اہداف تیار کرتا ہے ۔**	0	1	2	3	4	5	6
4	Communicate the school's mission effectively to members of the school community **سکول کے مشن کو سکول کمیونٹی تک موثر انداز میں منتقل کر دیتا ہے ۔**	0	1	2	3	4	5	6
5	Refer to the school's academic goals when making curricular decisions with teachers **اساتذہ کے ساتھ نصابی فیصلے کرتے وقت تعلیمی اہداف کی طرف رجوع کرتا ہے ۔**	0	1	2	3	4	5	6
6	Ensure that the classroom priorities of teachers are consistent with the goals and direction of the school **اس بات کو یقینی بناتا ہے کہ کمرہ جماعت کی ترجیہات سکول کے مقاصد اور سمت کے ساتھ مطابقت رکھتی ہیں ۔**	0	1	2	3	4	5	6
7	Review student work products when evaluating classroom instruction **جب کمرہ جماعت کی تدریس کا جائزہ لیتا ہے تو طلبہ کے ما حاصل کا جائزہ لیتا ہے ۔**	0	1	2	3	4	5	6
8	Make clear who is responsible for coordinating the curriculum across grade levels (e.g., the principal, vice principal, or teacher-leaders) **اس بات کی وضاحت کرتا ہے کہ مختلف جماعتوں کے نصاب سے ہم آہنگی پیدا کرنے کیلئے ذمہ دار کون ہے ۔ (پرنسپل ، وائس پرنسپل ، یا اساتذہ کا رہنما)**	0	1	2	3	4	5	6

9	Draw upon the results of school-wide testing when making curricular decisions **تعلیمی فیصلے کرتے وقت سکول کی سطح پر امتحانات کے نتائج کو مدنظر رکھتا ہے ۔**	0	1	2	3	4	5	6
10	Participate actively in the review of curricular materials **نصابی مواد کے از سر نو جائزہ لینے میں بھرپور طور پر شرکت کرتا ہے ۔**	0	1	2	3	4	5	6
11	Meet individually with teachers to discuss student progress **طلبہ کے کام پر تبادلہ خیال کیلئے اساتذہ سے انفرادی طور پر ملتا ہے ۔**	0	1	2	3	4	5	6
12	Use tests and other performance measure to assess progress toward school goals **سکول اہداف کی طرف پیش رفت کا جائزہ لینے کیلئے تحریری امتحانات اور دوسری قسم کے جائزوں کا استعمال کرتا ہے**	0	1	2	3	4	5	6
13	Encourage teachers to use instructional time for teaching and practicing new skills and concepts **نئے مہارات او ر تصورات کی تعلیم اور مشق کیلئے تعلیمی وقت استعمال کرنے پر اساتذہ کی حوصلہ افزائی کرتا ہے ۔**	0	1	2	3	4	5	6
14	Take time to talk informally with students and teachers during recess and breaks **ریسس اور بریک کے دوران طلبہ اور اساتذہ کے ساتھ غیر رسمی بات کرنے میں وقت گزارتا ہے ۔**	0	1	2	3	4	5	6
15	Attend/participate in extra- and co-curricular activities **ہم نصابی سرگرمیوں میں شامل ہوتا ہے ۔**	0	1	2	3	4	5	6
16	Compliment teachers privately for their efforts or performance **اساتذہ کی کارکردگی یا کوششوں کیلئے نجی طور پر مبارکباد پیش کرتا ہے ۔**	0	1	2	3	4	5	6
17	Acknowledge teachers' exceptional performance by writing memos for their personnel files **میمو ۔ لکھتے وقت اساتذہ کی غیر معمولی کارکردگی کو سراہتے ہیں۔**	0	1	2	3	4	5	6
18	Create professional growth opportunities for teachers as a reward for special contributions to the school **اساتذہ کا سکول کے ساتھ خصوصی تعاون پر ان کے لئے بطور انعام پیشہ ورانہ ترقی کے مواقع فراہم کرتا ہے ۔**	0	1	2	3	4	5	6
19	Lead or attend teacher in-service activities concerned with instruction **دوران ملازمت تدریس سے متعلق سرگرمیوں میں حصہ لیتا ہے یا اسکی رہنمائی کرتا ہے ۔**	0	1	2	3	4	5	6
20	Set aside time at faculty meetings for teachers to share ideas or information from in-service activities **اجلاس کے دوران ایک وقت مختص کرتا ہے جس میں اساتذہ کے وہ خیالات اور معلومات جو دوران ملازمت حاصل ہوئے ہوں دوسروں سے شیئر کرتے ہیں۔**	0	1	2	3	4	5	6
21	Recognise superior student achievement or improvement by seeing in the office the students with their work **ایک اعلیٰ طالب علم کو اپنے اچھے کام کے ساتھ دفتر میں دیکھ کر انکی حوصلہ افزائی کرتا ہے ۔**	0	1	2	3	4	5	6
22	Contact parents to communicate improved or exemplary student performance or contributions **بہتر یا مثالی طالبعلم کی کارکردگی کی اطلاع انکے والدین کو دیتا ہے ۔**	0	1	2	3	4	5	6

Part-C

S.No	In this School----------اس سکول میں	Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
23	Students are provided with the skills needed for future educational or vocational experiences. طلبہ کو وہ مہارت فراہم کی جاتی ہے جو کہ انکے مستقبل کی تعلیمی یا پیشہ ورانہ تجربات کیلئے ضروری ہوں۔	0	1	2	3	4	5	6
24	Educational programmes of this school contribute to improve the quality of life in our society. اس سکول کے تعلیمی پروگرام معاشرے میں زندگی کے معیار کو بہتر بنانے میں مدد فراہم کرتا ہے ۔	0	1	2	3	4	5	6
25	The creative potential of students is realised. طلبہ کی تخلیقی صلاحیتوں کو محسوس کیا جاتا ہے ۔	0	1	2	3	4	5	6
26	I can contribute to realizing the future vision میں سکول کے وژن کو محسوس کرانے میں مدد کر سکتا ہوں۔	0	1	2	3	4	5	6
27	Teachers of this school support each other. اس‌سکول کے اساتذہ ایک دوسرے کو مدد فراہم کرتے ہیں۔	0	1	2	3	4	5	6
28	Teachers are reluctant to share problems with each other. اساتذہ ایک دوسرے کے ساتھ مسائل کا اشتراک کرنے سے گریزاں ہیں۔	0	1	2	3	4	5	6
29	Teachers make an effort to maintain positive relationships with colleagues. اساتذہ اپنے ساتھیوں سے مثبت تعلقات برقرار رکھنے کےلئے کوشاں ہیں۔	0	1	2	3	4	5	6
30	My professional decisions are supported by colleagues. میرے ساتھی میرے پیشہ ورانہ فیصلوں کی تائید کرتے ہیں۔	0	1	2	3	4	5	6
31	We encourage each other to take responsibility for new assignment. ایک نئے کام کو لینے کیلئے ہم ایک دوسرے کی حوصلہ افزائی کرتے ہیں۔	0	1	2	3	4	5	6
32	Ideas are shared with each other during meetings. اجلاس کے دوران ہم اپنے خیالات دوسروں تک پہنچاتے ہیں۔	0	1	2	3	4	5	6
33	We work together to implement the decisions of meetings. اجلاس کے فیصلوں کو متعین کرنے کیلئے ہم اکھٹا کوشش کرتے ہیں۔	0	1	2	3	4	5	6
34	We often share how to assess students' achievement. ہم اکثر بحث کرتے ہیں کہ طلبہ کی کامیابی کا اندازہ کس طرح لگایا جائے۔	0	1	2	3	4	5	6
35	Student behaviour management strategies are discussed by us. طلبہ کے رویوں کی انتظام کے حکمت عملی پر ہم بحث کرتے ہیں۔	0	1	2	3	4	5	6
36	Expressions of the school's vision reflect staff consensus. سکول وژن سے اساتذہ کی ہم آہنگی کا اظہار ہوتا ہے ۔	0	1	2	3	4	5	6
37	We gather data for gauging the success of school programmes. سکول پروگرام کا جائزہ لینے کیلئے ہم اعداد وشمار اکھٹا کرتے ہیں۔	0	1	2	3	4	5	6
38	We have identified ways of determining if school priorities are achieved. ہم نے سکول کے ترجیحات حاصل کرنے کی طریقوں کی نشاندہی کی ہے۔	0	1	2	3	4	5	6
39	Priorities are implemented by teachers. ترجیحات اساتذہ کی طرف سے لاگو ہوتے ہیں۔	0	1	2	3	4	5	6

Part-D

S.No		Never	Almost Never	Seldom	Sometimes	Frequently	Almost Always	Always
40	I have high expectations for me as professional. **بطور پیشہ ورمیں اپنے آپ سے زیادہ توقعات رکھتا ہوں۔**	0	1	2	3	4	5	6
41	I hold high expectations for students. **میں طلبہ سے اونچی توقعات رکھتا ہوں۔**	0	1	2	3	4	5	6
42	The teachers of this school expect themselves to engage in ongoing professional growth. **اس سکول کے اساتذہ جاری پیشہ ورانہ ترقی میں مصروف رہنے کی توقع رکھتے ہیں۔**	0	1	2	3	4	5	6
43	Students in my school have healthy competition with their classmates. **اس سکول میں طلبہ ایک دوسرے کے ساتھ مثبت مقابلہ کرتے ہیں۔**	0	1	2	3	4	5	6
44	Parents/community holds high expectations from the future of this school. **والدین اور معاشرہ اس سکول سے اونچی توقعات رکھتے ہیں۔**	0	1	2	3	4	5	6
45	This school is provided with facilities like electricity, water, boundary wall and playground. **اس سکول میں بجلی ، پانی ، چاردیواری اور کھیل کے میدان جیسے سہولیات میسر ہیں۔**	0	1	2	3	4	5	6
46	Teachers use equipment available in this school for greater teaching output **بہتر تدریسی مقاصد حاصل کرنے کیلئے اس سکول کے اساتذہ فراہم کردہ معاونات سے استفادہ حاصل کرتے ہیں۔**	0	1	2	3	4	5	6
47	The school receives sufficient budget to fulfill its needs. **اپنی ضروریات کو پورا کرنے کیلئے سکول کو کافی بجٹ ملتا ہے ۔**	0	1	2	3	4	5	6
48	The community gets involved in different improvement based physical activities of this school when they are needed. **سکول کی ترقی کیلئے مختلف جسمانی سرگرمیوں میں برادری (کمیونٹی)بھرپورشراکت کرتی ہیں جب انکی ضرورت ہوتی ہے**	0	1	2	3	4	5	6
49	The holistic school activities are recognised and appreciated by the community of this school. **برادری(کمیونٹی)سکول کے تمام سرگرمیوں کو سراہتی اور تسلیم کرتی ہیں۔**	0	1	2	3	4	5	6
50	Community interrupts in the internal matters/policies of this school. **سکول کی اندرونی پالیسی یا معاملات میں برادری (کمیونٹی)دخل اندازی کرتی ہے ۔**	0	1	2	3	4	5	6
51	Better achievement of students and teachers is recognised by the society. **برادری(کمیونٹی)طلبہ یا اساتذہ کی بہتر کارکردگی کو تسلیم کرتی ہیں۔**	0	1	2	3	4	5	6
52	The percentage of passing SSC students in this result is in accordance to the minimum targeted percentage by the department. **SSC امتحان میں پاس طلبہ کا شرح محکمہ کے متعین کردہ کم سے کم شرح کے مطابق ہے**	0	1	2	3	4	5	6
53	The parents are satisfied with the academic achievement of the students. **والدین طلبہ کے تعلیمی کامیابی سے مطمئن ہیں۔**	0	1	2	3	4	5	6
54	The parents care about the grades earned by their children. **والدین بچوں کے حاصل کردہ گریڈ کی پروا رکھتے ہیں۔**	0	1	2	3	4	5	6
55	Teachers of this school are fully qualified and trained. **مکمل طور پر اس سکول کے اساتذہ تعلیم یافتہ اور تربیت یافتہ ہیں۔**	0	1	2	3	4	5	6

56	Teachers are enough skilled and experienced to cope with the problems of teaching-learning processes. **درس و تدریس کے مسائل سے نمٹنے کیلئے اساتذہ کافی ہنرمند اور تجربہ کار ہیں۔**	0	1	2	3	4	5	6
57	Teachers know and use modern technologies and techniques for effective teaching. **اساتذہ موثر تعلیم کیلئے جدید ٹیکنالوجی اور تکنیک کا استعمال جانتے ہیں۔**	0	1	2	3	4	5	6
58	Teachers of this school are involved in the school improvement activities. **اس سکول کے اساتذہ سکول کی ترقی کے کاموں میں مصروف عمل ہیں۔**	0	1	2	3	4	5	6
59	Principal motivate teachers for improvement of the school. **پرنسپل سکول کی ترقی کیلئے اساتذہ کے حوصلے بلند کرتا ہے ۔**	0	1	2	3	4	5	6
60	Teachers get encouragement and acknowledgement for their services. **اساتذہ کو انکی خدمات کیلئے حوصلہ افزائی اور اعتراف ملتا ہے ۔**	0	1	2	3	4	5	6
61	The quality of the services and products in this school is outstanding. **اس سکول کی خدمات اور ما حاصل کی معیار شاندار ہے ۔**	0	1	2	3	4	5	6
62	The available resources are used by the teachers efficiently for school improvement. **دستیاب وسائل کو اساتذہ موثر اندا ز میں سکول کی بہتری کیلئے استعمال کرتے ہیں۔**	0	1	2	3	4	5	6

Appendix-B

Letter (assuring confidentiality) to get cooperation of the respondents

Respected Sir/Madam!

I am going to study **"The role of principal as instructional leader in school effectiveness in secondary schools of district Mardan KP, province of Pakistan."**

I am collecting data for the said research through questionnaire from selected secondary school teachers randomly. In this connection I need your professional opinions about the said study.

Your full cooperation will enable me to complete this research. It is assured that your opinion/view will be kept confidential and will be used for research purpose only. The researcher solicits the most sincere cooperation and frank response from your side.

Thanks
Your sincere
Niaz Ali
PhD Research Scholar
level 11 Wisma R&D

IEL University Malaya 50603,
Kuala Lumpur Malaysia
Ph.No. +60172336214 Email: niazyousafzai2000@siswa.um.edu.my

Appendix-C

Permission Letter from Prof. Hallinger

Inbox x

Niaz Mar 20, 2015

Ali <niazyousafzai2000@gmail.com>

to hallinger

Respected Sir !

it is requested that I am PhD student of University of Malaya (Malaysia) in the Institute of Educational Leadership (IEL) in the supervision of Dr. Sathiamorthy Kannan (drsathia@um.edu.my) and Dr. Sailish Sharma (sharmuco@um.edu.my). I belong to Pakistan and I am also Lecturer in Shaheed Benazir Bhutto University (SBBU: Department of Education) Deer Upper (KP) Pakistan. I am going to study the impact of instructional leadership on school outcome with school culture as mediator in Pakistani context. So please sir I will be very thankful to you if you give me permission to use your instrument "PRINCIPAL INSTRUCTIONAL MANAGEMENT RATING SCALE :TEACHER FORM" for the said study.

Your Sincere

Niaz Ali Yousafzai

PhD Scholar (IEL) UM Malaysia

Cell No: 0060142380154

Dr. Philip Hallinger
199/43 Sukhumvit Soi 8
Bangkok, 10110, Thailand
hallinger@gmail.com

March 31, 2015

Niaz Ali

Dear Niaz:

As copyright holder and publisher, you have my permission as publisher to use the *Principal Instructional Management Rating Scale* (*PIMRS*) in your research study. In using the scale, you may make unlimited copies of any of the three forms of the PIMRS.

Please note the following conditions of use:

1. This authorization extends only to the use of the PIMRS for research purposes, not for general school district use of the instrument for evaluation or staff development purposes.
2. This is a single-use purchase for the author's graduate research, thereby requiring purchase of additional rights for use in any future research.
3. *The user agrees to send a soft copy (pdf) of the completed study to the publisher upon completion of the research.*
4. *The user agrees to send a soft copy of the data set and coding instructions to the publisher upon completion of the research in order to enable further instrument development.*
5. The user has permission to make minor adaptations to scale as necessary for the research.
6. *If the instrument is translated, the user will supply a copy of the translated version.*

Please be advised that a separate *permission to publish* letter, usually required by universities, will be sent after the publisher receives a soft copy of the completed study.

Sincerely,

Professor Philip Hallinger

www.philiphallinger.com

Appendix-D

Permission Letter from Prof. Rob Cavanaugh

Niaz Ali <niazyousafzai2000@gmail.com> Mar 23, 2015

to R.Cavanaugh

Respected Sir !

First of all I appreciate your research work on school culture. After that it humbly requested that I am PhD Scholar in University Malay, Institute of Educational Leadership (IEL) in the supervision of Dr. Sailish Sharma and Dr. Sathia Morhty Kannan. I am also Lecturer in the Shaheed Benazir Bhutto University, Deer Upper KP Province of Pakistan. I am studying Instructional leadership affecting schools effectiveness by mediating school culture. So in this regard I find the tool **"FORM-B and FORM-II "of** your study referenced as "Cavanaugh, R.F., & Dellar, G.B. (1998). The Development, Maintenance and Transformation of School Culture, Paper presented at the Annual Meeting of the American Educational Research Association, San Diego, CA, April 13-17, 1998."

Please sir if you give me permission I will use these tools for my research work in the context of Pakistan. I will be very thankful to you and I assure that this study will serve next researchers for the well-being of human.

Thanks

Your

sincere
Niaz Ali Yousafzai

Institute of Education Leadership

University of Malaya

Cell: 0060142380154

Rob Cavanaugh <R.Cavanaugh@exchange.curtin.edu.au> Mar 23, 2015

to me

Dear Niaz

You are welcome to use the instrument. I have attached a copy of the instrument and also the response form which shows the scoring structure. Incidentally, might be best to use a four point response scale, omit the middle category.

All the best with your research.

Rob

Rob Cavanaugh PhD

Professor of well-being metrics

School of Education

Curtin University

Kent St

BENTLEY 6102

Tel 61 08 9266 2162

Fax 61 9266 2547

Remember, we need to measure what's good in people as well as what's good for people.

Niaz Ali <niazyousafzai2000@gmail.com> Aug 11, 2015

to R.Cavanaugh

Respected Sir

Hope you are fine and enjoying your life.

Sir as you permits me to use your instrument for school culture. I found it very helpful in finding school culture in secondary schools of Pakistani context. First of all thanks once again for your permission. Secondly, sir during finding face validity, the professors from local university (who will give me validity certificate) reduced the number of items and some common dimensions that had similarity with other dimensions of the tool like: in instructional leadership tool of Hallinger and school effectiveness tool, so they were modified are removed as per validity requirements.

In this regard you are requested to permit these few changes. Thanks sir and in the last I remember your statement “Remember we need to measure what’s good in people as well as what good for the people.”

Best Regards

Thanks

Your sincere

Niaz Ali

PhD Research Scholar

level 11 Wisma R&D

IEL University Malaya 50603,

Kuala Lumpur Malaysia

Ph.No. +60172336214

Rob Cavanaugh <R.Cavanaugh@exchange.curtin.edu.au> Aug 14, 2015

to me

Dear Niaz, the changes are allowed.

Cheers

Rob

Rob Cavanaugh PhD

Professor of well-being metrics

School of education

Curtin University

Kent St

BENTLEY 6102

Tel 60 08 9266 2162

Fax 61 9266 2547

Appendix-E

Permission Letter from District Education Officer Mardan

O/O THE DISTRICT EDUCATION OFFICER
(MALE) MARDAN.

No. 4905 / Dated 29/7 /2015.

To

Mr, Niaz Ali S/O Shams Uz Zaman
PHD Research Scholar University of Malaya, Malaysia.

Subject:- **GRANT OF PERMISSION FOR COLLECTION OF DATA FOR RESEARCH PURPOSE.**

Memo:-

Considering your application No.Nil with the reference letter No. SBBU/ESTB/ltr/15-3863 from Asstt: Registrar Shaheed Benazir Bhutto University Dir Upper permission is granted to you for data collection from Government Secondary School of District Mardan with the following terms and conditions.

Due to security reasons in the province.

1. Data will be collected from government secondary schools of district Mardan only.
2. No interviews be conducted during data collection.

DISTRICT EDUCATION OFFICER
(MALE) MARDAN

Endst: No._____/

Copy forwarded to the:-

1. Principal/Head Master concerned with the remarks to ensure his identity by checking his CNIC No. 16101-4011296-9.
2. Asstt: Registrar Shaheed Benazir Bhutto University Dir Upper with reference letter No. SBBU/Estb/Ltr/15-3863 Dated 29-06-2015.

DISTRICT EDUCATION OFFICER
(MALE) MARDAN.

Appendix-F

Face Validity Report from Dr. Amir Zaman (Expert-1)

Dear Mr. Niaz Ali!

Regarding your application for getting face validity for your research tool developed to study instructional leadership, school culture and school effectiveness, please read the following.

After reviewing your research tool developed in four parts i.e. Part-A (demographic variables) Part-B (instructional leadership of principal), Part-C (school culture) and Part-D (school effectiveness) to study the stated variables in secondary schools of district Mardan Khyber Pukhtunkhwa (KP) province of Pakistan, the following suggestions were made.

1. Part-B (instructional leadership) with all the three dimensions and their respective items (1-22) should be accepted without making any change. As these items and dimensions are suitable in the context.
2. Part-C (school culture) should be accepted with few changes like the two dimensions namely "Emphases on Learning", and "transformational leadership" should be deleted. As these dimensions have common aspects with independent variable.
   The items like 27, 28, 29, 34, 35, 38, 40, 41, 45, 47 and 49 are also suggested to be deleted from school culture tool (Part-B), as these items are not clear or confusing due to common aspects. While the items like 23, 24, 25, 32, 33, 36, 37, 43, 44, 46 and 50 might be rephrased, others might be accepted.
3. Part-D (School effectiveness) also needs some changes, like item 54, 63, 65, 66, 67 and 70 should be removed as these items are not relevant and/or having no standard, and the items like 51, 52, 53, 62, and 64 should be rephrased.
4. Rests of the dimensions and items should be remained unchanged including Part-A. The total number of items should be reduced to 62 only.
   Generally the tool is quite better to assess the conceptual model of the study.

Dr Amir Zaman
Chairperson
Department of Education
Abdul Wali Khan University Mardan, Pakistan
HEC Approved Supervisor
Email: amirzaman69@yahoo.com
Cell No. 0092-3009309669

Dated: 15/7/15

Appendix-G

Face Validity Report from Dr. Abdul Ghaffar (Expert-2)

Dr Abdul Ghaffar
Asstt: Professor
Department of Education
Abdul Wali Khan University Mardan, Pakistan
HEC Approved Supervisor
Email: ghaffar75@yahoo.com
Cell No. 0092-3339645156

Dated: 20/07/15

Face Validity for Research Tool Assessing School Effectiveness

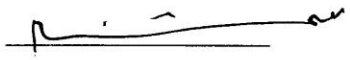
Dear Mr. Niaz Ali

The translation of your tool into URDU (as per suggestion) was found correct. Regarding your research tool the following suggestions were made.

1. Part-B should be accepted without making any change as all the three dimensions and related items are suitable in the context.
2. Par-C should be accepted with some changes like items 27, 28, 29, 34, 35, 38, 40, 41, 45, 47 and 49 might be deleted due to repeated and confused nature. The items like 23, 24, 25, 32, 33, 36, 37, 43, 44, 46 and 50 might be rephrased, and the remaining items should be accepted without making changes.
3. Part-D also needs a few changes, like item 54, 63, 65, 66, 67 and 70 should be removed as these items are not suitable and the items like 51, 52, 53, 62, and 64 might be rephrased.

Note: All the remaining dimensions and items should be included in the tool. Following the changes mentioned, the tool will prove suitable to assess school effectiveness, instructional leadership, and school culture in the secondary schools of district Mardan, KP province of Pakistan.

Dr. Abdul Ghaffar



Appendix-H

Number of Govt. Secondary Schools of District Mardan, KP province of Pakistan

Number of Govt. High Schools by District in Khyber Pakhtunkhwa

S.No	DISTRICT	Boys Schools			Girls Schools			(Boys+Girls) Schools		
		Functional	Closed	Total	Functional	Closed	Total	Functional	Closed	Total
01	ABBOTTABAD	66		**66**	39		**39**	105		**105**
02	BANNU	56		**56**	38	1	**39**	94	1	**95**
03	CHITRAL	50		**50**	16		**16**	66		**66**
04	CHARSADDA	63		**63**	33		**33**	96		**96**
05	D.I.KHAN	71		**71**	42		**42**	113		**113**
06	DIR PAYAN	72		**72**	39		**39**	111		**111**
07	KARAK	58		**58**	25		**25**	83		**83**
08	KOHAT	47		**47**	25		**25**	72		**72**
09	KOHISTAN	27		**27**	1		**1**	28		**28**
10	MANSEHRA	83		**83**	46		**46**	129		**129**
11	MARDAN	76		**76**	62		**62**	138		**138**
12	MALAKAND	44		**44**	29		**29**	73		**73**
13	NOWSHERA	64		**64**	29		**29**	93		**93**
14	PESHAWAR	79		**79**	49	1	**50**	128	1	**129**
15	SWAT	81		**81**	33		**33**	114		**114**
16	SWABI	80		**80**	48		**48**	128		**128**
17	BUNNER	50		**50**	19		**19**	69		**69**
18	HARIPUR	65		**65**	46		**46**	111		**111**
19	LAKKI	55		**55**	19		**19**	74		**74**
20	TANK	26		**26**	9		**9**	35		**35**
21	BATTAGRAM	33		**33**	7		**7**	40		**40**
22	DIR BALA	39		**39**	10		**10**	49		**49**
23	HANGU	25		**25**	9		**9**	34		**34**
24	SHANGLA	36		**36**	3		**3**	39		**39**
25	TORGHAR	5		**5**	0		**0**	5		**5**
Grand Total		1351	0	**1351**	676	2	**678**	2027	2	**2029**

Source: District EMIS 2013-14

63

Appendix-I

Number of Govt. Secondary Schools by Location

"OR" Urban and Rural Division in District Mardan

Number of Govt. High Schools by Location

S.No	DISTRICT	Urban Area			Rural Area			Total		
		Boys Sch	Girls Sch	Total	Boys Sch	Girls Sch	Total	Boys Sch	Girls Sch	Total
01	ABBOTTABAD	7	5	**12**	59	34	**93**	66	39	**105**
02	BANNU	4	4	**8**	52	34	**86**	56	38	**94**
03	CHITRAL	3	4	**7**	47	12	**59**	50	16	**66**
04	CHARSADDA	11	8	**19**	52	25	**77**	63	33	**96**
05	D.I.KHAN	6	8	**14**	65	34	**99**	71	42	**113**
06	DIR PAYAN	2	1	**3**	70	38	**108**	72	39	**111**
07	KARAK	1	1	**2**	57	24	**81**	58	25	**83**
08	KOHAT	5	7	**12**	42	18	**60**	47	25	**72**
09	KOHISTAN	0		**0**	27	1	**28**	27	1	**28**
10	MANSEHRA	2	1	**3**	81	45	**126**	83	46	**129**
11	MARDAN	16	9	**25**	60	53	**113**	76	62	**138**
12	MALAKAND	1	2	**3**	43	27	**70**	44	29	**73**
13	NOWSHERA	15	5	**20**	49	24	**73**	64	29	**93**
14	PESHAWAR	29	21	**50**	50	28	**78**	79	49	**128**
15	SWAT	8	10	**18**	73	23	**96**	81	33	**114**
16	SWABI	10	7	**17**	70	41	**111**	80	48	**128**
17	BUNNER	0		**0**	50	19	**69**	50	19	**69**
18	HARIPUR	8	5	**13**	57	41	**98**	65	46	**111**
19	LAKKI	3	6	**9**	52	13	**65**	55	19	**74**
20	TANK	3	2	**5**	23	7	**30**	26	9	**35**
21	BATTAGRAM	0		**0**	33	7	**40**	33	7	**40**
22	DIR BALA	2		**2**	37	10	**47**	39	10	**49**
23	HANGU	3	3	**6**	22	6	**28**	25	9	**34**
24	SHANGLA	0		**0**	36	3	**39**	36	3	**39**
25	TORGHAR	0		**0**	5		**5**	5		**5**
Grand Total		139	109	**248**	1212	567	**1779**	1351	676	**2027**

Source: District EMIS 2013-14

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Appendix-J

Number of Teaching Staff in Govt. Secondary Schools of District Mardan

Teaching Staff of Govt. High Schools by District in Khyber Pakhtunkhwa

S.No	DISTRICT	Male Schools		Female Schools		Grand Total	
		Sanctioned Posts	Working Teachers	Sanctioned Posts	Working Teachers	Sanctioned Posts	Working Teachers
01	ABBOTTABAD	1115	950	588	490	1703	1440
02	BANNU	968	768	488	314	1456	1082
03	CHITRAL	780	630	246	213	1026	843
04	CHARSADDA	989	862	426	319	1415	1181
05	D.I.KHAN	1073	811	629	457	1702	1268
06	DIR PAYAN	1075	833	468	312	1543	1145
07	KARAK	928	788	336	264	1264	1052
08	KOHAT	749	603	359	291	1108	894
09	KOHISTAN	316	184	11	8	327	192
10	MANSEHRA	1260	1056	642	526	1902	1582
11	MARDAN	1401	1128	835	627	2236	1755
12	MALAKAND	828	717	413	338	1241	1055
13	NOWSHERA	1076	878	410	306	1486	1184
14	PESHAWAR	1214	1012	751	609	1965	1621
15	SWAT	1412	1197	451	352	1863	1549
16	SWABI	1506	1242	639	483	2145	1725
17	BUNNER	708	543	210	118	918	661
18	HARIPUR	1012	835	676	537	1688	1372
19	LAKKI	805	697	250	194	1055	891
20	TANK	383	302	129	96	512	398
21	BATTAGRAM	455	345	84	54	539	399
22	DIR BALA	556	408	113	65	669	473
23	HANGU	371	254	110	64	481	318
24	SHANGLA	503	389	35	23	538	412
25	TORGHAR	62	37			62	37
Grand Total		**21545**	**17469**	**9299**	**7060**	**30844**	**24529**

Source: District EMIS 2013-14

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Appendix-K

Number of Teaching Staff in Govt. Secondary Schools of District Mardan by Location

"OR" Urban and Rural Division

Teaching Staff of Govt. High Schools by Location in Khyber Pakhtunkhwa

S.No	DISTRICT	Urban				Rural				Grand Total			
		Sanctioned		Working		Sanctioned		Working		Sanctioned		Working	
		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
01	ABBOTTABAD	238	123	214	116	877	465	736	374	1115	588	950	490
02	BANNU	163	64	156	52	805	424	612	262	968	488	768	314
03	CHITRAL	77	74	62	67	703	172	568	146	780	246	630	213
04	CHARSADDA	216	120	193	92	773	306	669	227	989	426	862	319
05	D.I.KHAN	149	178	131	156	924	451	680	301	1073	629	811	457
06	DIR PAYAN	56	11	53	8	1019	457	780	304	1075	468	833	312
07	KARAK	17	14	15	12	911	322	773	252	928	336	788	264
08	KOHAT	180	131	158	125	569	228	445	166	749	359	603	291
09	KOHISTAN					316	11	184	8	316	11	184	8
10	MANSEHRA	34	39	31	38	1226	603	1025	488	1260	642	1056	526
11	MARDAN	339	178	301	162	1062	657	827	465	1401	835	1128	627
12	MALAKAND	25	36	23	32	803	377	694	306	828	413	717	338
13	NOWSHERA	327	96	286	84	749	314	592	222	1076	410	878	306
14	PESHAWAR	505	388	454	347	709	363	558	262	1214	751	1012	609
15	SWAT	217	165	189	143	1195	286	1008	209	1412	451	1197	352
16	SWABI	278	125	234	106	1228	514	1008	377	1506	639	1242	483
17	BUNNER					708	210	543	118	708	210	543	118
18	HARIPUR	191	142	177	135	821	534	658	402	1012	676	835	537
19	LAKKI	71	89	68	75	734	161	629	119	805	250	697	194
20	TANK	69	39	62	28	314	90	240	68	383	129	302	96
21	BATTAGRAM					455	84	345	54	455	84	345	54
22	DIR BALA	49		38		507	113	370	65	556	113	408	65
23	HANGU	90	46	65	33	281	64	189	31	371	110	254	64
24	SHANGLA					503	35	389	23	503	35	389	23
25	TORGHAR					62		37		62	0	37	0
Grand Total		**3291**	**2058**	**2910**	**1811**	**18254**	**7241**	**14559**	**5249**	**21545**	**9299**	**17469**	**7060**

Source: District EMIS 2013-14

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Appendix-L

List of Govt. Secondary Schools with Their Names in the District of Mardan

GIRLS SECONDARY SCHOOLS			
S/ No	**School Name**	**School Type**	**School Division**
1	GOVT GIRLS HIGH SCHOOL ALO MARDAN	GIRLS	RURAL
2	GOVT GIRLS CENTENNIAL MODEL HIGH SCHOOL FOR GIRLS CANAL ROAD MARDAN	GIRLS	URBAN
3	GOVT GIRLS HIGH SCHOOL GHALA DHER MARDAN	GIRLS	RURAL
4	GOVT GIRLS HIGH SCHOOL AKBAR ABAD TAKHT BHAI MARDAN	GIRLS	RURAL
5	GOVT GIRLS HIGH SCHOOL BABOZAI MARDAN	GIRLS	RURAL
6	GOVT GIRLS HIGH SCHOOL BAGHICHA DHERI MARDAN	GIRLS	RURAL
7	GOVT GIRLS HIGH SCHOOL BAKHSHALI MARDAN	GIRLS	RURAL
8	GOVT GIRLS HIGH SCHOOL BAKRI BANDA MARDAN	GIRLS	RURAL
9	GOVT GIRLS HIGH SCHOOL BHAGO BANDA MARDAN	GIRLS	RURAL
10	GOVT GIRLS HIGH SCHOOL BHAI KHAN MARDAN	GIRLS	RURAL
11	GOVT GIRLS HIGH SCHOOL BUGHDADA MARDAN	GIRLS	URBAN
12	GOVT GIRLS HIGH SCHOOL CHAMRANG MARDAN	GIRLS	RURAL
13	GOVT GIRLS HIGH SCHOOL CHARGULLI MARDAN	GIRLS	RURAL
14	GOVT GIRLS HIGH SCHOOL DHERI KATLANG MARDAN	GIRLS	RURAL
15	GOVT GIRLS HIGH SCHOOL DABAI ADDA MARDAN	GIRLS	RURAL
16	GOVT GIRLS HIGH SCHOOL GANJAI MARDAN	GIRLS	RURAL
17	GOVT GIRLS HIGH SCHOOL GARHI DOLATZAI MARDAN	GIRLS	RURAL
18	GOVT GIRLS HIGH SCHOOL GARHI ISMAILZAI MARDAN	GIRLS	RURAL
19	GOVT GIRLS HIGH SCHOOL GUJAR GARHI MARDAN	GIRLS	URBAN
20	GOVT GIRLS HIGH SCHOOL GUMBAT MARDAN	GIRLS	RURAL
21	GOVT GIRLS HIGH SCHOOL IKRAM PUR MARDAN	GIRLS	URBAN
22	GOVT GIRLS HIGH SCHOOL JALALA MARDAN	GIRLS	RURAL
23	GOVT GIRLS HIGH SCHOOL JAMAL GARHI MARDAN	GIRLS	RURAL
24	GOVT GIRLS HIGH SCHOOL JANDAR PAR MARDAN	GIRLS	RURAL
25	GOVT GIRLS HIGH SCHOOL KALA KHEL TORU MARDAN	GIRLS	RURAL
26	GOVT GIRLS HIGH SCHOOL KANDARI GARHI KAPORA MARDAN	GIRLS	RURAL
27	GOVT GIRLS HIGH SCHOOL KASS KOROONA MARDAN	GIRLS	URBAN
28	GOVT GIRLS HIGH SCHOOL KATTI GARHI MARDAN	GIRLS	RURAL
29	GOVT GIRLS HIGH SCHOOL KOHI BARMOL MARDAN	GIRLS	RURAL
30	GOVT GIRLS HIGH SCHOOL KOPAR MARDAN	GIRLS	RURAL
31	GOVT GIRLS HIGH SCHOOL KORAGH MARDAN	GIRLS	RURAL
32	GOVT GIRLS HIGH SCHOOL KOTKAY MARDAN	GIRLS	RURAL

33	GOVT GIRLS HIGH SCHOOL LABOUR CALONY MARDAN	GIRLS	URBAN
34	GOVT GIRLS HIGH SCHOOL LUND KHWAR MARDAN	GIRLS	RURAL
35	GOVT GIRLS HIGH SCHOOL MADAY BABA MARDAN	GIRLS	RURAL
36	GOVT GIRLS HIGH SCHOOL MAHO DHERI	GIRLS	RURAL
37	GOVT GIRLS HIGH SCHOOL MANGA MARDAN	GIRLS	RURAL
38	GOVT GIRLS HIGH SCHOOL MAYAR MARDAN	GIRLS	RURAL
39	GOVT GIRLS HIGH SCHOOL MEHMOOD ABAD PARKHO JALALA MARDAN	GIRLS	RURAL
40	GOVT GIRLS HIGH SCHOOL MIAN GULZARA MARDAN	GIRLS	RURAL
41	GOVT GIRLS HIGH SCHOOL MIAN KHAN MARDAN	GIRLS	RURAL
42	GOVT GIRLS HIGH SCHOOL MOHMAND MAINA MARDAN	GIRLS	RURAL
43	GOVT GIRLS HIGH SCHOOL MORCHA KHAN KILLI MARDAN	GIRLS	RURAL
44	GOVT GIRLS HIGH SCHOOL NO.2 HOTI MARDAN	GIRLS	URBAN
45	GOVT GIRLS HIGH SCHOOL PALO DHERI MARDAN	GIRLS	RURAL
46	GOVT GIRLS HIGH SCHOOL PAR HOTI MARDAN	GIRLS	URBAN
47	GOVT GIRLS HIGH SCHOOL PIR SADDI MARDAN	GIRLS	RURAL
48	GOVT GIRLS HIGH SCHOOL QASMI MARDAN	GIRLS	RURAL
49	GOVT GIRLS HIGH SCHOOL QUDRAT KILLI MARDAN	GIRLS	RURAL
50	GOVT GIRLS HIGH SCHOOL SANGA AHMAD GUL KILLI MARDAN	GIRLS	RURAL
51	GOVT GIRLS HIGH SCHOOL SARO SHAH MARDAN	GIRLS	RURAL
52	GOVT GIRLS HIGH SCHOOL SERI BEHLOL MARDAN	GIRLS	RURAL
53	GOVT GIRLS HIGH SCHOOL SHAMSHAD ABAD MARDAN	GIRLS	RURAL
54	GOVT GIRLS HIGH SCHOOL SHANKAR MAHAL MARDAN	GIRLS	URBAN
55	GOVT GIRLS HIGH SCHOOL SHEIKH YOUSAF MARDAN	GIRLS	RURAL
56	GOVT GIRLS HIGH SCHOOL SHEIKHANO BANDA LUND KHWAR MARDAN	GIRLS	RURAL
57	GOVT GIRLS HIGH SCHOOL SHER GARH MARDAN	GIRLS	RURAL
58	GOVT GIRLS HIGH SCHOOL SHER DIL KHAN KOROONA TAKHT BHAI MARDAN	GIRLS	RURAL
59	GOVT GIRLS HIGH SCHOOL SOWKAY MARDAN	GIRLS	RURAL
60	GOVT GIRLS HIGH SCHOOL TAKKAR MARDAN	GIRLS	RURAL
61	GOVT GIRLS HIGH SCHOOL TAMBULAK MARDAN	GIRLS	RURAL
62	GOVT GIRLS HIGH SCHOOL WARD NO:4 TAKHT BHAI MARDAN	GIRLS	RURAL
BOYS SECONDARY SCHOOL IN DISTT MARDAN			
1	GOVT HIGH SCHOOL GULI BAGH HOTI MARDAN	BOYS	URBAN
2	GOVT CENTENNIAL MODEL HIGH SCHOOL FOR BOYS MARDAN	BOYS	URBAN
3	GOVT CENTENNIAL MODEL SCHOOL NO 3 MARDAN	BOYS	URBAN
4	GOVT HIGH SCHOOL ALO MARDAN	BOYS	RURAL

5	GOVT HIGH SCHOOL BABU ZAI KATLANG MARDAN	BOYS	RURAL
6	GOVT HIGH SCHOOL BABUZAI MARDAN	BOYS	RURAL
7	GOVT HIGH SCHOOL BADAR BANDA MARDAN	BOYS	RURAL
8	GOVT HIGH SCHOOL BAKHSHALI MARDAN	BOYS	RURAL
9	GOVT HIGH SCHOOL BALA GARHI MARDAN	BOYS	RURAL
10	GOVT HIGH SCHOOL BARINGAN RUSTAM MARDAN	BOYS	RURAL
11	GOVT HIGH SCHOOL DAKKI GUMBAT MARDAN	BOYS	RURAL
12	GOVT HIGH SCHOOL FARM KOROONA MARDAN	BOYS	URBAN
13	GOVT HIGH SCHOOL GADDAR MARDAN	BOYS	RURAL
14	GOVT HIGH SCHOOL GARHI DOLAT ZAI MARDAN	BOYS	RURAL
15	GOVT HIGH SCHOOL GARHI KAPURA MARDAN	BOYS	RURAL
16	GOVT HIGH SCHOOL GARYALA MARDAN	BOYS	RURAL
17	GOVT HIGH SCHOOL GHALA DHER MARDAN	BOYS	RURAL
18	GOVT HIGH SCHOOL KATLANG MARDAN	BOYS	RURAL
19	GOVT HIGH SCHOOL GUJRAT MARDAN	BOYS	RURAL
20	GOVT HIGH SCHOOL GULI BAGH SAWALDHER MARDAN	BOYS	RURAL
21	GOVT HIGH SCHOOL GUMBAT MARDAN	BOYS	RURAL
22	GOVT HIGH SCHOOL HOTI LANDAKI MARDAN	BOYS	URBAN
23	GOVT HIGH SCHOOL IBRAHIM KHAN KILLI MARDAN	BOYS	RURAL
24	GOVT HIGH SCHOOL IKRAM PUR MARDAN	BOYS	RURAL
25	GOVT HIGH SCHOOL JALALA MARDAN	BOYS	RURAL
26	GOVT HIGH SCHOOL JAMAL GARHI MARDAN	BOYS	RURAL
27	GOVT HIGH SCHOOL JEEWAR MARDAN	BOYS	RURAL
28	GOVT HIGH SCHOOL JEHANGIR ABAD MARDAN	BOYS	RURAL
29	GOVT HIGH SCHOOL KANDHAR GARHI KAPURA MARDAN	BOYS	RURAL
30	GOVT HIGH SCHOOL KASS KOROONA MARDAN	BOYS	URBAN
31	GOVT HIGH SCHOOL KATA KHAT MARDAN	BOYS	RURAL
32	GOVT HIGH SCHOOL KATLANG MARDAN	BOYS	RURAL
33	GOVT HIGH SCHOOL KATTI GARHI MARDAN	BOYS	RURAL
34	GOVT HIGH SCHOOL KHADI KILLI MARDAN	BOYS	RURAL
35	GOVT HIGH SCHOOL KHAIR ABAD MARDAN	BOYS	RURAL
36	GOVT HIGH SCHOOL KHAN PUR MARDAN	BOYS	RURAL
37	GOVT HIGH SCHOOL KHANJAR MARDAN	BOYS	RURAL
38	GOVT HIGH SCHOOL KHAZANA DHERI MARDAN	BOYS	URBAN
39	GOVT HIGH SCHOOL KOPER MARDAN	BOYS	RURAL
40	GOVT HIGH SCHOOL KOT TAKHT BAI MARDAN	BOYS	RURAL
41	GOVT HIGH SCHOOL KUNJ MARDAN	BOYS	RURAL

42	GOVT HIGH SCHOOL LABOUR COLONY MARDAN	BOYS	URBAN
43	GOVT HIGH SCHOOL LUND KHWAR MARDAN	BOYS	RURAL
44	GOVT HIGH SCHOOL MACHI MARDAN	BOYS	RURAL
45	GOVT HIGH SCHOOL MAZDOOR ABAD TAKHT BHAI MARDAN	BOYS	RURAL
46	GOVT HIGH SCHOOL MIAN KHAN MARDAN	BOYS	RURAL
47	GOVT HIGH SCHOOL MOHABBAT ABAD MARDAN	BOYS	URBAN
48	GOVT HIGH SCHOOL MOHIB BANDA MARDAN	BOYS	RURAL
49	GOVT HIGH SCHOOL NASEER KILLI MARDAN	BOYS	RURAL
50	GOVT HIGH SCHOOL NAWAN KILLI (Rustam) MARDAN	BOYS	RURAL
51	GOVT HIGH SCHOOL NO.1 BICKET GUNJ MARDAN	BOYS	URBAN
52	GOVT HIGH SCHOOL NO.2 BICKET GUNJ MARDAN	BOYS	URBAN
53	GOVT HIGH SCHOOL NODEH (TORU) MARDAN	BOYS	RURAL
54	GOVT HIGH SCHOOL PARKHO DHERI MARDAN	BOYS	RURAL
55	GOVT HIGH SCHOOL PATI KALAN TAKHT BHAI MARDAN	BOYS	RURAL
56	GOVT HIGH SCHOOL PUBLIC PARK TAKHT BHAI MARDAN	BOYS	RURAL
57	GOVT HIGH SCHOOL QASIM (TORU) MARDAN	BOYS	RURAL
58	GOVT HIGH SCHOOL QASMI MARDAN	BOYS	RURAL
59	GOVT HIGH SCHOOL QUTAB GARH MARDAN	BOYS	RURAL
60	GOVT HIGH SCHOOL RUSTAM	BOYS	RURAL
61	GOVT HIGH SCHOOL SANGA TAKHT BHAI MARDAN	BOYS	RURAL
62	GOVT HIGH SCHOOL SANGAO MARDAN	BOYS	RURAL
63	GOVT HIGH SCHOOL SARO SHAH MARDAN	BOYS	RURAL
64	GOVT HIGH SCHOOL SAWAL DHER MARDAN	BOYS	RURAL
65	GOVT HIGH SCHOOL SERI BEHLOL MARDAN	BOYS	RURAL
66	GOVT HIGH SCHOOL SHAH BAIG MARDAN	BOYS	RURAL
67	GOVT HIGH SCHOOL SHAMOZAI MARDAN	BOYS	RURAL
68	GOVT HIGH SCHOOL SHAMSHAD ABAD MARDAN	BOYS	RURAL
69	GOVT HIGH SCHOOL SHARQI HOTI MARDAN	BOYS	URBAN
70	GOVT HIGH SCHOOL SHER GARH MARDAN	BOYS	RURAL
71	GOVT HIGH SCHOOL SIKANDARI MARDAN	BOYS	URBAN
72	GOVT HIGH SCHOOL SOKAI MARDAN	BOYS	URBAN
73	GOVT HIGH SCHOOL SOWARYAN MARDAN	BOYS	URBAN
74	GOVT HIGH SCHOOL TAMBULAK MARDAN	BOYS	URBAN
75	GOVT HIGH SCHOOL TOR DHER MARDAN	BOYS	RURAL
76	GOVT HIGH SCHOOL TORU MARDAN	BOYS	RURAL

Girls 62 + Boys 76 = Total 138

Appendix-M

Letter to Director E&SE for School Effectiveness Dimensions

Indicators for School Effectiveness

Niaz Ali <niazyousafzai2000@gmail.com>

to rafiq_kk851

R/Sir

I am PhD research scholar and conducting study for school effectiveness in Pakistani context. Sir please help me in finding what are school effectiveness indicators OR dimensions in Pakistan that I may take to find school effectiveness during data collection. In other words what main things we judge to stand a school an effective school.

Thanks Sir
Niaz Ali Yousafzai

PhD Scholar IEL UM Malaysia

Lecturer Edu: Dept: SBBU KP

Pakistan

Ph: 0060-142380154

RafiqKhattak <rafiq_kk851@yahoo.com>

to DeputySalahuddin Khan

Deputy Director EMIS <roemis@yahoo.com>

roemis@yahoo.com / me

Please guide

Director, E&SE Department

Muhammad RafiqKhattak

091-9210389

rafiq_kk851@yahoo.com

Appendix-N

Litter to Programmemer EMIS for School Effectiveness Dimensions

Niaz Ali <niazyousafzai2000@gmail.com> Apr 21, 2015

to webinfo

Respected Sir

I am a research scholar. I am going to develop a study on school effectiveness with the impacts of instructional leadership in Pakistani context. But unfortunately I did not find any indicators for school effectiveness given by ministry of education in Pakistan. Sir if you could help me to find out these indicators for school effeteness through which I can developt my study tool, I will be very thankful to you. Thanks

Bilal Kakli <bilalkakli@hotmail.com> Apr 21

to me

Dear Mr. Niaz,

Regards,

Muhammad Bilal Kakli,

Programmemer (EMIS), AEPAM,

M/o Federal Education and Professional Training, Islamabad.

Ph: 051-9260675 , 0321-5252154

It is glad to know regarding your research. Can you please exactly state the standard terminology of indicators, which will enable us to guide you further in this regard?

Date: Tue, 21 Apr 2015 14:07:14 +0800

Subject: Standards for School Effectiveness

From: niazyousafzai2000@gmail.com

To: webinfo@aepam.edu.pk

Niaz Ali <niazyousafzai2000@gmail.com> **21 Apr 2015**

to Bilal

Thank you sir! for quick response. In fact I am studying instructional leadership skill on school effectiveness by mediating school culture. For this purpose the dimensions for instructional leadership of principal are developed by Prof. Hallinger as:

1.Dimension of Defining School Mission,

2.Dimension of Managing Instructional Programme

3.Dimension of creating school learning climate

so in the above dimensions the role of the principal as instructional leader will be studied. similarly for school culture the dimension are given by Prof. Cavanaugh & Deller as: 1.Professional Values 2.Emphases on Learning,

3.Collegiality , so in these dimensions the school culture will be studied.

The dimensions for school effectiveness are given as: 1.Quality of product,

2.Quantity of Product, 3.Efficiency, 4.Adaptability, 5.Flexibility

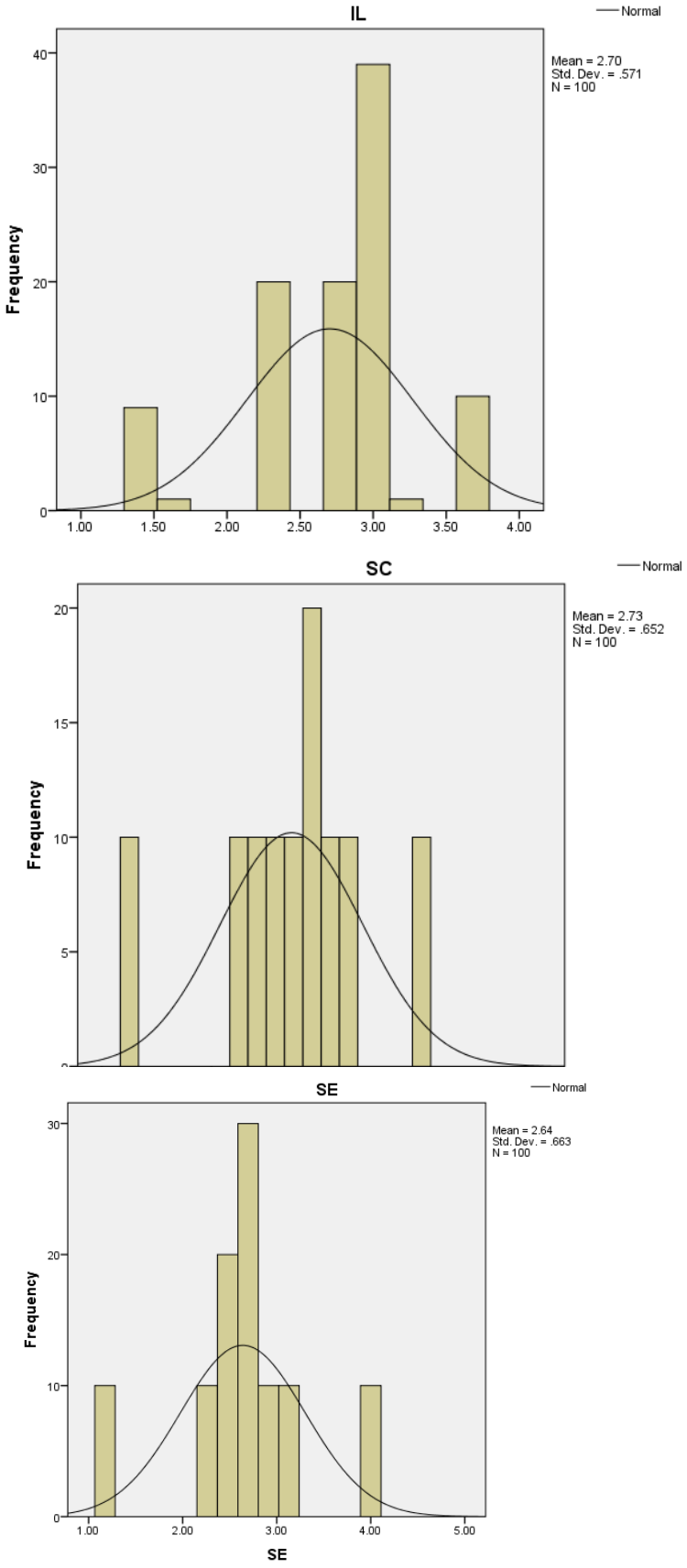
But my supervisors told me you should take the dimensions for school effectiveness only from Pakistan that may check the effectiveness of school in Pakistan and you may not take the above as they are from developed countries. Sir in nutshell the question is that what things we check in schools that show the effectiveness of schools in Pakistan? as education policy 2009 of Pakistan says

"A key deficit is absence of clearly articulated minimum standards for most educational Interventions and their outcomes. Even where these are established, there is no measurement or structured follow up. As a result, impact of the interventions remains subject to anecdotes or speculation and the true picture never emerges. Since standardization has not been part of the governance culture, relevant indicators have not been developed. Only recently the National Education Management Information System (NEMIS) has begun the process of computing indicators. Though even these indicators are those that have been internationally identified and developed by UNESCO or some of the donors for cross-cutting international programmemes like Dakar Framework of Action for EFA and Fast Track Initiative (FTI) for EFA, indigenous requirements on a scale have not been assessed" (NEP 2009: P.12)

So therefore I request you to provide me the stated dimension to evaluate school effectiveness. Thanks sir and I will wait for your kind reply.

Appendix-O

Graphical illustration of data normality for pilot study



Appendix-P

List of schools visited for final data collection

S/No	S/No For this stratum	Boys' Schools	Division	No. of Respondents Taken
1	1	GHS ALO	Rural	4
2	2	GHS BABUZAI	Rural	4
3	3	GHS BADAR BANDA	Rural	4
4	4	GHS BAKHSHALI	Rural	4
5	5	GHS BALA GARHI	Rural	4
6	6	GHS BARINGAN	Rural	4
7	7	GHS DAKI GUMBAT	Rural	4
8	8	GHS GADDAR	Rural	4
9	9	GHS GARHI DOWLAT ZAI	Rural	4
10	10	GHS GARHI KAPURA	Rural	4
11	11	GHS GARYALA	Rural	4
12	12	GHS GHALA DHER	Rural	4
13	13	GHS KATLANG	Rural	4
14	14	GHS GULI BAGH	Rural	4
15	15	GHS GUJARAT	Rural	4
16	16	GHS GUMBAT	Rural	4
17	17	GHS IBRAHIM KHAN KELLE	Rural	3
18	18	GHS IKRAM PUR	Rural	3
19	19	GHS JALALA	Rural	3
20	20	GHS JAMAL GARHI	Rural	3
21	21	GHS JEHANGIR ABAD	Rural	3
22	22	GHS KANDAR	Rural	4
23	23	GHS KATA KAHT	Rural	4
24	24	GHS KATI GARHI	Rural	4
25	25	GHS KHADI KELLE	Rural	4
26	26	GHS KHAIR ABAD	Rural	4
27	27	GHS KHAN PUR	Rural	4
28	28	GHS SHAMOZAI	Rural	4
29	29	GHS KOT TAKHT BHAI	Rural	4
30	30	GHS KUNJ	Rural	4
31	31	GHS LUND KHWAR	Rural	4
32	32	GHS MACHI	Rural	4
33	33	GHS MAZDOOR ABAD	Rural	4
34	34	GHS MIAN KHAN	Rural	4
35	35	GHS MUHIB BANDA	Rural	4
36	36	GHS NASEER KELLE	Rural	4
37	37	GHS NAWAN KELLE	Rural	4
38	38	GHS NODEH TORO	Rural	4
39	39	GHS PARKHO DERI	Rural	4
40	40	GHS PATI KALAN TAKHT BHAI	Rural	4
41	41	GHS PUBLIC PARK TAKHT BHAI	Rural	4
42	42	GHS QASIM TORU	Rural	4
43	43	GHS QASMI MARDAN	Rural	4
44	44	GHS RUSTAM	Rural	3

45	45	GHS KOPAR	Rural	4
	TOTAL			**173**
	Boys Urban			
46	1	GHS GULI BAGH HOTI	Urban	5
47	2	GOVT. CENTENNIAL MODEL SCHOOL No.2	Urban	5
48	3	GOVT. CENTENNIAL MODEL SCHOOL No.3	Urban	5
49	4	GHS FARM KOROONA	Urban	5
50	5	GHS SIKANDARI	Urban	5
51	6	GHS KHAZANA	Urban	5
52	7	GHS LABOUR COLONY	Urban	5
53	8	GHS MUHABBAT ABAD	Urban	5
54	9	GHS BICKET GUNJ No.1	Urban	5
55	10	GHS BICKET GUNJ No.2	Urban	6
56	11	GHS SHARQI HOTI	Urban	6
57	12	GHS KAS KOROONA	Urban	6
	TOTAL			**63**
	Girls' Rural			
58	1	GGHS ALO	Rural	3
59	2	GGHS GHALA DHER	Rural	3
60	3	GGHS AKBAR ABAD	Rural	3
61	4	GGHS BABOZAI	Rural	3
62	5	GGHS BAGHICHA DERHI	Rural	3
63	6	GGHS BAKHSHALI	Rural	3
64	7	GGHS BHAI KHAN	Rural	3
65	8	GGHS CHAMRANG	Rural	3
66	9	GGHS CHARGULLI	Rural	3
67	10	GGHS DERHI KATLAN	Rural	3
68	11	GGHS GANJAI	Rural	3
69	12	GGHS GARHI DOWLAT ZAI	Rural	3
70	13	GGHS GARHI ISMAIL ZAI	Rural	3
71	14	GGHS GUMBAT	Rural	3
72	15	GGHS JALALA	Rural	3
73	16	GGHS KALA KHEL TORU	Rural	3
74	17	GGHS KANDARE GARHI KAPURA	Rural	3
75	18	GGHS KATTI GARHI	Rural	2
76	19	GGHS KOHI BARMOL	Rural	2
77	20	GGHS KOPAR	Rural	2
78	21	GGHS KORAGH	Rural	2
79	22	GGHS KOTKI	Rural	2
80	23	GGHS LUND KHWAR	Rural	2
81	24	GGHS MADAY BABA	Rural	2
82	25	GGHS MAHO DERHI	Rural	2
83	26	GGHS MANGA	Rural	2
84	27	GGHS MAYAR	Rural	2
85	28	GGHS MEHMOOD ABAD PARKHO	Rural	2
86	29	GGHS MIAN GULZARA	Rural	2
87	30	GGHS MIAN KHAN	Rural	2
88	31	GGHS MUHMAND MIANA	Rural	2

89	32	GGHS MORCHA KHAN KELLE	Rural	2
90	33	GGHS PALO DERHI	Rural	3
91	34	GGHS PIR SADDI	Rural	2
92	35	GGHS QASMI	Rural	2
93	36	GGHS QURAT KELLE	Rural	2
94	37	GGHS RUSTAM	Rural	3
95	38	GGHS TAKKAR	Rural	2
96	39	GGHS TAMBU LAK	Rural	2
	TOTAL			**97**
	Girls' Urban			
97	1	GOVT. GIRLS' CENTENNIAL MODEL SCHOOL CANAL ROAD MARDAN	Urban	5
98	2	GGHS NO.2 MARDAN	Urban	5
99	3	GGHS GUJAR GARHI MARDAN	Urban	5
100	4	GGHS LABOUR COLONI MARDAN	Urban	5
101	5	GGHS PARHOTI MARDAN	Urban	4
102	6	GGHS SHANKAR MAHAL MARDAN	Urban	5
103	7	GGHS BAGHDADA MARDAN	Urban	5
TOTAL				**34**
G.TOTAL of the respondents (173+63+93+34)				**367**