

INSTRUCTIONAL LEADERSHIP AND ORGANIZATIONAL HEALTH IN  
COMMUNITY SECONDARY SCHOOLS OF THE KATHMANDU VALLEY

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## DECLARATION

I hereby declare that this dissertation has not been submitted for candidature of any other degree to any university.

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## AN ABSTRACT OF THE DISSERTATION OF

*Suman Pande* for the degree of *Master of Philosophy in Education*

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Title: *Instructional Leadership and Organizational Health in Community Secondary Schools of the Kathmandu Valley*

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Instructional Leadership (IL) is the leadership role of head teacher especially focused on developing teaching and learning at school and Organizational Health (OH) is about how well the school members function together to operate the school activities effectively. The IL and OH status of the school, the two important factors of the school effectiveness play a crucial role in the academic achievement of the school. Therefore, the study aimed at identifying the factors of IL and OH of community secondary schools suitable in the local context of Nepal; to measure the level of IL and OH of these schools; and to find out how the school's OH is affected by IL in these schools. For this, a survey research was designed and questionnaire was prepared by conducting classical Delphi process on the original IL model of Hallinger and Murphy (1985) and OH model of Hoy et al. (1991). The reliability of the questionnaire was tested by piloting the questionnaire with 30 head teachers and teachers. The respondents included head teacher and one teacher from 172 community secondary schools out of total 303 community secondary schools selected

randomly for the study from the Kathmandu valley. Factor analysis was employed to identify suitable factors of IL and OH of school. Mean scores of these factors were used to measure the level of IL and OH of school. Then multiple regression analysis was done to find out the strength of different factors of IL and OH of school.

Factor analysis retained 3 factors with 25 items for IL and 3 factors with 14 items for OH of school. The factors retained for IL were 1) planning, managing and supervising instructional program; 2) motivating and developing competence of teachers and students and 3) involving parents. Likewise, the factors retained for OH of school were 1) morale and resource management at school; 2) head teacher's right, power and influence at school and 3) outside pressure at school. The study showed that the school head teachers performed the IL roles of involving parents at the first level; planning, managing, and supervising instructional program at the second level, and motivating and developing competence of teachers and students at the third level. Likewise, among the factors of OH of school, morale and resource management ranked at the first level; head teacher's right, power and influence at the second level and outside pressure at school was almost negligible representing at the third level. The result of multiple regression analysis revealed that the IL factors are the significant predictors for two factors of OH of school (i) morale and resource management at school and (ii) head teacher's right, power and influence at school but instructional leadership factors remained statistically insignificant for the factor (iii) outside pressure at school. It is thought that this study of IL and OH of school in which the factors of IL and OH of school are developed may help in knowledge contribution in the field of IL and OH of school in the context of Nepal.

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## LIST OF ACRONYMS

ANOVA	Analysis of Variance
CEHRD	Centre for Education and Human Resource Development
FA	Factor Analysis
GoN	Government of Nepal
IL	Instructional Leadership
KU	Kathmandu University
OH	Organizational Health
OHI-S	Organizational Health Inventory for School
PCL	Proficiency Certificate Level
HT	Head Teacher
PIMRS	Principal's/HT's Instructional Management Rating Scale
SEE	Secondary Education Examination
SLC	School Leaving Certificate
SPSS	Statistical Package for the Social Science
SSDP	School Sector Development Program
SSRP	School Sector Reform Plan

## CHAPTER I

### INTRODUCTION

The main concern of this study was to find out the factors that determine the Instructional Leadership (IL) and Organizational Health (OH) in community secondary schools of Nepal. In general, IL is the leadership role to be played by a head teacher to improve teaching and learning process in the school and OH is the environment created in the school as a result of overall activities and interaction among head teacher, teachers, students and other staff members of the school. School, as an organization must have good health for its improvement. The study also examined the extent to which the IL and OH of school were practiced in the community secondary schools and how those practices of IL were affecting OH of those schools. Since the focus of this study was to find out influencing factors of IL and OH of school in the context of Nepal, various models of those two constructs proposed by previous researchers were consulted to obtain knowledge on it.

#### **Inception of the Study**

The performance of community schools is not satisfactory in Nepal. It is obvious from the yearly SLC (School Leaving Certificate) results. In the history of the SLC result, this trend has continued for several years. On having a look at the SLC results of few years back, it is found that in the year 2013, the SLC pass rate of students was 28% from community schools and 80% from institutional schools (Parajuli & Das, 2013); in the year 2014, it was 28.19% from community schools and 93.2% from institutional schools (Ghimire, 2014); in the year 2015, it was 28 % from community schools and 93% from institutional schools (Edusanjal, 2015). The SLC was first introduced in Nepal in 1934 AD as the board examination for completing the 10<sup>th</sup> grade and after passing this exam students got permission to join higher

secondary or intermediate level education. This system continued till 2016 AD but with the implementation of new Education Act 2016 (2073 BS), the SLC (School Leaving Certificate) exam is taken in grade XII instead of grade X as national examination and SEE (Secondary Education Examination) is taken in grade X (The Kathmandu Post, 2016). With this Act, the Government of Nepal (GoN) scrapped the system of pass and fail and introduced a new grading system which ranks students from A to D without a failing grade.

The SEE results of recent year, 2018 have shown a continuous downfall in the quality of education provided by community schools with a pass rate of 30% only in the community schools (Dixit, 2019). She added that numerous efforts have been made to improve the quality of community schools over the years but the quality of education refuses to improve as seen in the latest SEE results. Regmi (2017), in his study mentioned the poor performance of community schools for three decades in Nepal. Koirala (2015) stated that despite huge effort of the Government of Nepal to maintain the quality of education in community schools, the performance of community schools is not satisfactory yet. Emphasis was given to collaboration of community schools with institutional schools for the development of educational quality in the community schools in Three Year Interim Plan from 2008 to 2010 (NPC, 2007), School Sector Reform Plan (SSRP) from 2009 to 2016, School Sector Development Plan (SSDP) from 2016 to 2023 of the Government of Nepal as some examples to improve education of community schools in Nepal.

There are several factors which affect school's academic performance. However, these factors vary from country to country. Some of the factors suggested by researchers on the basis of their study or proposed by theory are mentioned here. Crosnoe, Johnsons and Elder (2004) proposed student factors, family factors, social factors and peer factors as the factors to affect quality of academic achievement of

students. These factors include age, gender, geographical belongingness, ethnicity, marital status, socio-economic status, parents' education level, parental profession, language, income and religious affiliations (Farooq et al., 2011). The general system theory suggested socio-economic factor, school leadership, student factor, teacher factor and private tuition as the factors influencing student academic achievement (Atchia & Chinapah, 2019). Among the various factors that affect the academic performance of students at school, this researcher focused on examining the instructional leadership role of head teacher at school and organizational health of school as the literature suggests that these two factors are also the important factors to affect the educational performance of students.

The findings of research on instructional leadership by Hallinger (2011); Hallinger and Murphy (2012) showed that instructional leadership has a great impact on student learning. In a literature review on IL practice among head teachers on managing changes Esa et al. (2017) concluded that the role of instructional leadership in improving the quality of education cannot be ignored. The findings of Aziz and Baba (2011) showed that the instructional leadership role played by head teachers contributes to the quality of education of students. Hoy, Tarter, and Bliss (1990); Hoy and Hannum (1997); Korkmaz (2005); Alqarni (2016) found a strong effect of organizational health on learning achievement of students. Farahani et al. (2014); Rehman et al. (2018) found a positive and significant relationship between organizational health of schools and academic achievement in their research. These findings are enough to argue that the instructional leadership of head teacher at school and organizational health of school are the major factors to affect the academic achievement of students. Further, the researchers have demonstrated that retention and the quality of education depends primarily on the way schools are managed rather than the abundance of available resources (Nokoja & Orodho, 2014). Therefore, this

researcher examined the instructional leadership and organizational health of school with a belief that this study of instructional leadership and organizational health of school in the context of Nepal contributes to improve the academic quality of community schools of Nepal.

The head teacher is the main person to decide the teaching learning activities at school. So, the vision of the head teacher is necessary for the overall performance of the school. In the educational setting, the head teachers of schools are the chief administrators (Apolline, 2015). The success or failure of a school depends on the role played by the head teacher. Lezotte (1991) argued that the head teacher as the chief articulator of the mission of the school is crucial to overall effective performance of the school. Researchers agree that improving schools in the 21<sup>st</sup> century requires that head teachers exhibit strong skills and expertise in instructional leadership (Hallinger, 2011; Hallinger & Heck, 2010; Leithwood et al., 2008).

The quality of education provided by the school shapes the educational background of a person which depends on the vision and leadership role of head teacher. In this sense, the role played by a head teacher in a school makes the foundation of education of a person. So, head teacher should be a strong instructional leader. Therefore, it is necessary to study the instructional leadership role being played by the head teachers in the community schools and verify those which are not suitable in local context of Nepal. By realizing it, the researcher decided to study the variables of instructional leadership proposed by various researchers, examined those which are being practiced in community secondary schools of Nepal and finally developed a suitable model in the context of Nepal through classical Delphi method.

Previously, a head teacher used to be involved in planning, organizing, monitoring and evaluating by fulfilling the task of arranging timetable for teachers, students and staff members; giving orders to teachers and staff members, making

disciplinary rules for the school members, monitoring attendance of teachers and students and dealing with the parents (Al Hosani, 2015). But with the rise of global interest in the educational reform and need of school accountability in the twenty first century, only these roles of head teacher became insufficient (Pan et al., 2015) for effective school performance and students' academic achievement. So, the concept of instructional leadership became important to practice in the school so as to focus on learning outcomes of students. According to De Bevoise (1984), instructional leadership is the pattern of behaviours that school head teachers personally exhibit, or make the staff members to perform in order to ensure students' learning.

Instructional leadership is the leadership concept proposed especially for school leaders. It deliberates specific key functions which a school leader should follow to improve school performance by improving students' learning. The construct of instructional leadership encompasses all those prerequisites which are essential to contribute to students' academic achievement. Therefore, its main focus is on improving teaching and learning as the core business of the head teacher. In the view of Sisman (2011), "the most important aspect of instructional leadership that distinguishes it from the leadership conceptualization is that the focus is on the teaching and learning processes at school" (p.54).

Many previous researchers (Bossert et al., 1982; Leithwood & Montgomery, 1982; De- Bevoise, 1984; Hallinger & Murphy, 1985; Andrew & Soder, 1987; Blank, 1987; Leithwood et al., 1990; Krug, 1992; Robinson, 2010; Tan, 2012) have studied about instructional leadership and proposed the instructional leadership framework. In this research, the researcher's concern was to select a particular model of IL among those as a guide for this study and modify, remove or add the factors and items of it according to the context of Nepali community schools with the help of experienced head teachers and teachers conducting classical Delphi process, and finally verify

those by employing factor analysis on the data to develop appropriate instructional leadership factors in the context of Nepal.

The instructional leadership conceptualization developed by Hallinger and Murphy (1985) is a widely accepted and adopted tool (Hallinger & Murphy, 2008) which is known as Principal's/ Head teacher's Instructional Management Rating Scale (PIMRS). On having a look at the study trend, the scholars' interest is seen on the study of instructional leadership since 1980s. There were 20 studies on instructional leadership in between the time period of 1983 to 1988, 41 studies in between 1989 to 1994, 26 studies in between 1995 to 2000 and 29 studies in between 2001 to 2005 (Hallinger, 2005). This trend demonstrated a consistency of interest on the topic of instructional leadership over 25 years. On reviewing the literature, a number of studies on instructional leadership are found to have been carried out in the later periods as well. Hence, studying the instructional leadership role of head teacher has been an interesting domain since 1980s till date.

Along with the instructional leadership of head teacher at school, the Organizational Health of school is also important to study as it also affects academic achievement of school. The term "organizational health" is used to denote the health condition of school. The concept of organizational health was first used by Miles (1969) who argued that OH is the ability of the school system to realize its development in an effective manner and proposed ten basic characteristics of healthy organizations which are goal focus, communication, adequacy, power equalization, resource utilization, cohesiveness, morale, innovativeness, autonomy, adaptation and effective problem solving.

In a school, team work of teachers with a good communication and interaction is necessary for effective teaching and learning which depends on the organizational structure of the school. Teachers' satisfaction, good behavior and attitude of all staff



members including head teacher, planned and systematic supervision and monitoring of every activity of school by head teacher are key factors that affect organizational health of a school. If all these activities go on smoothly, then the organizational health of school can be said as good and the school can achieve its goal. According to Parlar and Cansoy (2017), constant development of teachers in the professional sense, more human attitudes in relationships, and quick adaptation to change are what make schools healthy organizations. In a healthy school, there is a harmony in between the functioning systems of the school.

The success of a school is determined by the organizational health level of the school. According to Altun (2001), the health level of the organization is related to its ability to achieve instruments and goals. Brookover et al. (1978) identified school health as an important variable related to school effectiveness and Miles (1969) argued that a steadily ineffective organization would not be healthy. So, it seems necessary to maintain good health of school for its success. The organizational health model of school was developed by Hoy, Tarter and Kottcamp in 1991 (Hoye et al., 2001). The key concerns of this study incorporated the factors and items of this Hoy et al. (1991) model of OH of school which are appropriate in the context of Nepali community schools, and the new factors that should be the criteria for improving the organizational health of these schools. The researcher sought to find out the answer of these concerns to develop suitable factors of OH for these schools in the same way as it is mentioned above for the development of instructional leadership factors.

Instructional leadership and organizational health of school are equally important for the success of a school. Mere effort of head teachers alone without good involvement of teachers and other supporting staff cannot give fruitful result to the school. So, the teachers and staff must be motivated to work honestly for the success of a school and it is possible only when there is harmony in the school

environment. By realizing these facts, this researcher carried out this research on the determining factors of instructional leadership and organizational health of schools. This research also found out the level of instructional leadership and organizational health and the extent to which the instructional leadership practiced by head teachers contributes to organizational health of school. The researcher's focus was to study these aspects of school based on the widely accepted theories given by Hallinger and Murphy in 1985 (Lyons, 2010; Peariso, 2011; Al-Hosani, 2015; Vilakaji, 2016; Gurley et al., 2016) for instructional leadership and given by Hoy et al., 1991 (Smith et al., 2001; Cemaloglu, 2007; Alqarni, 2016; Parlar & Cansoy, 2017) for organizational health of school.

### **Problem Statement**

Poor academic performance of community schools of Nepal has been a problem for a long time in the history of Nepal. A large number of children of Nepal study in community schools of Nepal but the academic performance of community schools is not satisfactory (Ghimire, 2014; Koirala, 2015; Parajuli & Das, 2013; Pandey, 2015; Rauniyar, 2017; Thapa, 2015). As reported in Flash 1 Report, 2015/016 in an average 80% students of Nepal study in community schools (Ministry of Education., 2015). It means the poor performance of community schools has adversely affected four- fifth portion of the school children of the country.

Instructional leadership and organizational health of school are the key factors for the success of a school (Hallinger & Murphy, 2012; Hoy et al., 1991). Further, the organizational health of a school highly depends upon the instructional leadership quality of head teachers (Buluc 2014; Parlar & Cansoy, 2017; Recepoglu & Ozdemir, 2013). A few research studies are carried out on (i) instructional leadership of head teacher (ii) head teacher's school leadership practice and also on (iii) head teacher's leadership and school climate so far. Khanal (2017) studied on instructional leadership

of head teacher. Similarly, Singh and Allison (2016) carried out a study on school leadership practices of head teachers in Kathmandu. Subedi (2017) carried out a study on head teacher's leadership and school climate. But, the researchers did not come across any quantitative or qualitative study that touched upon the effect of instructional leadership role of head teacher on the organizational health of school in the Nepali context. This research was carried out to bridge this research gap.

For this, it seemed imperative to explore the factors that explain largely the instructional leadership and organizational health of school in the context of Nepal. With the help of the factors explored, it was intended to see how IL has affected OH and what the status of IL and OH is there in these schools. This study contributes knowledge in the field of IL and OH of schools which helps policy makers in formulating necessary policies to promote academic achievement in community schools of Nepal.

### **Purpose of the Study**

The purpose of this research was to examine the effect of IL roles on OH practices of community schools of Nepal and the status of IL and OH in these schools. In order to pursue this purpose, this research also aimed at examining the factors of instructional leadership and organizational health of school.

### **Research Questions**

RQ 1: What are the determining factors of instructional leadership and organizational health of community schools?

RQ 2: What is the level of instructional leadership and organizational health of community schools?

RQ 3: To what extent does instructional leadership explain organizational health of community schools?

### **Research Hypothesis**

Since the literature suggests that the IL quality affects the OH of school, this study also sought the same in the context of Nepal. Thus, the main research hypothesis is:

Instructional leadership (IL) role played by head teachers contributes to Organizational Health (OH) of school.

### **Rationale of the Study**

This study is significant to head teachers, teachers, students, parents, policy makers or teacher educators. This study gives an idea to the head teachers on what instructional leadership roles are necessary to promote teaching and learning in the community schools and what type of practice can support to create healthy organizational health in these schools. In this way, this study contributes head teachers to develop their professional ability as good instructional leader and also to play an appropriate role to maintain good health of the school. This study will make teachers known of what role they need to play to maintain healthy environment and to boost academic excellence at school. This study further helps to improve the educational standard of students by helping them to enhance learning at school. Parents also get benefit from this study as schools can impart quality education to their children. In this way, this study assists schools in producing educated human capital for family, society and country. Furthermore, the outcome of this study gives a clear picture of present status of IL and OH of school and provides necessary information to policy makers to implement policies for the improvement in the required areas. Above all, this study acts as a source of knowledge on IL and OH of school in the context of Nepal. As there is a research gap in the study of effects of instructional leadership on organizational health of school, especially in the context of Nepal, this study can add to the literature.

### **Delimitations of the Study**

This research focused on the study of the instructional leadership and organizational health of community secondary schools of the Kathmandu valley only. The Hallinger and Murphy (1985) model of IL and Hoy et al. (1991) model of OH were selected as conceptual guide for this study. The reason for selecting Hallinger and Murphy (1985) model of IL is, this model is however, similar in many respects to the other's (Hallinger, 2005) but Hallinger and Murphy could leave a good impact on the field of study of instructional leadership and their IL model could give the insights to head teachers required for improving teaching and learning at school. The reason of selecting Hoy et al. (1991) model of OH was that it was the multidimensional conceptual framework of organizational health of schools (Hoy et al., 2001) which consists of all the criteria for a healthy school.

In an ideal context, for example in country like UK where school governance has very little role to play, there is no problem to head teachers. But in the context of Nepal where there is school governance to control over the school, the job of head teacher is quite challenging. Among the various functions of head teacher such as function related to school governance, managerial function of maintaining rules and regulations, function of enhancing academic condition of school by guiding instruction, curriculum, pedagogy, etc. and the function of maintaining relation with the community, the instructional leadership encompasses only those functions of head teachers which are related to enhancing teaching and learning at school. However, there is no functional autonomy of head teachers in the community schools of Nepal. It is evident that instructional leadership is not affected by it as it is related to only teaching learning process at school.

## CHAPTER II

### LITERATURE REVIEW

The literature review is organized by describing instructional leadership and organizational health related information, knowledge and findings under separate headings in a systematic way. In the first section of the chapter, there is description of instructional leadership and organizational health of school. In the later section, there is relation between instructional leadership and organizational health of school, policy review, research gap and theoretical framework of the study.

#### **Instructional Leadership**

Instructional leadership concept focuses on the role of school head teachers related to teaching and learning. According to Hallinger and Murphy (1987), instructional leadership is concerned with teaching and learning, including the professional learning of teachers as well as students' growth. They (1987) stated that instructional leadership be defined in terms of observable practices and behaviours that head teachers can implement. Hallinger and Murphy (2012) further stated “Today, we view instructional leadership as an influence process through which leaders identify direction for the school, motivate staff and coordinate school and classroom-based strategies aimed at improvements in teaching and learning” (p.7). Bush (2007) stated instructional leadership as a type of leadership that puts an emphasis on teaching, and learning as the core activity of educational institutions. Instructional leadership focuses on coordination, control, inspection, and development of teaching and learning (Hallinger & Murphy, 1985). But the research studies have found out that head teachers mostly involve in other activities rather than in instructional leadership. For example, in a study Stronge (1993) found that among the enormous number of tasks performed by a head teacher each day, only 11% of them

relate to instructional leadership. Blase and Blase (2001) noted that school head teachers spend more time on management duties like coordinating local events, logistics and infrastructure matters. Hoadly et al. (2009) found that head teachers do not spend the majority of their time on aspects of instructional leadership but rather on administrative duties and learner discipline. In a study, Demirtas and Ozer (2014) found that school head teachers dealt with the physical conditions of the school and problems other than instruction most of their time.

Jenkins (2009) suggested that instructional leaders should go beyond the role of managers and administrators and place large focus on developing knowledge and implementation of curriculum, instruction, and assessment. So, it is necessary to prioritize the concept of instructional leadership in the schools to make head teachers focus on their core instructional leadership function. Glanz (2006) pointed out that good head teachers focus on instructional leadership because they know that the IL directly affects students' learning than anything else they do. Similarly, Stronge et al. (2008) stated that "nothing in the head teacher's role is more important for ensuring successful student learning than effective instructional leadership" (p.13). Therefore, the study of instructional leadership at schools appeared to be one of the most important issues for school improvement.

Instructional leadership is considered as the key function of a head teacher which entails teaching and learning as the core business of school (Bush & Glover, 2009; Hallinger & Murphy, 2012; Day et al., 2016). Therefore, head teachers must make every effort to improve academic standard of the school. Head teachers need to lead and manage the instruction to make teaching and learning effective in their schools rather than focusing more on administrative duties only. Bush and Glover (2009) suggested that closer the leaders are to the core business of teaching and learning, the more likely they are to make a difference to students' academic

performance. De-Bevoise (1984) defined instructional leadership as the skills which head teachers directly show or enable others to show an interest in the achievement level of students. Research studies have shown a close relationship between instructional leadership of head teachers and school outputs, student achievement and restructuring of schools (Duke, 1987). Instructional leadership model was originated in the 1980s from research in effective schools and was identified as strong, directive leadership focused on curriculum and instruction from the head teacher (Hallinger, 2003).

From the scholars' definitions of instructional leadership and their interpretation on the importance of instructional leadership role for school improvement, it can be concluded that the instructional leadership role is the most important among the various roles to be played by head teachers at school. It is because the goal of a school is to educate its students and in the present context when there is global reform in the school education, the professional practice of instructional leadership by school head teachers is a must. If head teachers do not focus on instructional leadership, the goal of school cannot be achieved. Hallinger and Murphy (1987) stated that if head teachers continue to ignore instructional leadership functions and focus on other activities only, the education will suffer because schooling is all about teaching and learning. There are different forms of leadership mentioned in the literature, such as shared, distributed, transformational leadership and so on. Among the several leadership theories in the literature, the instructional and transformational leadership have received more attention and instructional leadership accounts for higher gain in students' academic achievement than transformational leadership (Robinson et al., 2008, as cited in Shatzer et al., 2013). The fact which distinguishes instructional leadership from transformational leadership is that in instructional leadership, the leader directly engages in teaching and



learning processes (Hallinger & Murphy, 1985) by coordinating, controlling, supervising and developing curriculum and instruction in the school; while in transformational leadership, the leader inspires others to achieve a collective vision of change and in motivating members to develop their capabilities (Leithwood & Jantzi, 2000).

From the study of literature, it is found that the shared leadership is a participative leadership in which many leaders share their ideas and knowledge and their ideas are incorporated. In distributed leadership, the leader does not separate him/herself as leader and works and learns together with followers in a team. In transformational leadership, the leader motivates their employees by articulating vision and mission. The instructional leadership focuses on improving teaching and learning but to achieve this goal, a number of functions need to be operated in the school. It is possible when there is development of a culture of working in a team by sharing individual ideas, knowledge and experiences; the leader working together with employees without showing bossism and respecting individual contribution of each member and; maintaining good environment at school by the the development of good relation among each other. The individuals working together by sharing their ideas, knowledge and experiences and taking their activities into account is a practice of shared leadership (Spillane, 2005); the leader and employees working collectively to achieve a goal is distributed leadership (Halverson, 2007) and; improvement in the school environments and in teacher staff relation is the result of transformational leadership (Leithwood & Jantzi, 2006). In this way, the instructional leadership contributes to improving efficiency and educational performance in the school through shared, distributed and transformational leadership.

From the literature review, it is found that educationalists have been involved in the study of instructional leadership over the past several decades. They

proposed models of instructional leadership with different factors which they thought would support teaching and learning at school. Among the several models proposed for instructional leadership, the researchers' group adopted Hallinger and Murphy (1985) model of instructional leadership as a conceptual anchor to guide the research, data analysis and interpretation because it is the most widely affirmed school leadership terminology for the past quarter of century and has been used most frequently in empirical investigations (Hallinger, 2008; Hallinger & Heck, 1996; Leithwood et al., 2006). The core idea of Hallinger and Murphy (1985) model of instructional leadership is to give insight to head teachers in every area of leadership that is related to teaching and learning at school. The researcher used this instructional leadership model proposed by Hallinger and Murphy (1985) as a guide in this research for the study of instructional leadership of community schools of Nepal as it includes all the insights to head teachers required for improving teaching and learning at school.

The Hallinger and Murphy (1985) model of instructional leadership consists of three factors which are defining the school's mission, managing the instructional program, and promoting a positive learning climate (Al- Hosani, 2015). Defining the school's mission is concerned with setting a clear vision of school goals, coordinating among all school members. Managing the instructional program is concerned with implementation and coordination of curriculum, instruction to teaching learning process and monitoring student's progress. Promoting a positive learning climate is concerned with maintaining the norms of school teachers, students and staff to support teaching learning at school.

These three instructional leadership factors are further divided into 10 functions. There are two functions under the factor, defining the school mission which are framing clear school goals and communicating clear school goals. There are three

functions under the factor, managing the instructional program which include supervising and evaluating instruction, coordinating curriculum and monitoring students' progress. There are five functions under the factor promoting a positive learning climate which are protecting instructional time, providing incentives for teachers, providing incentives for learning, promoting professional development and maintaining high visibility. Under each of these functions, they have put five items forming all together fifty items. The instructional leadership model is also called PIMRS (Principal's/ Head teacher's Instructional Management Raing Scale).

### **Organizational Health of School**

Organizational health is another important aspect of school. Organizational health of school is the general health of a school (Perry, 2014). Cemaloglu (2007) stated that the researchers have seen a similarity between organizations and humans and have suggested that an organization could be ill or healthy just like a person. All the systems should be working in perfect harmony for a body to be healthy, likewise all the sub- systems should be working in a perfect harmony for an organization to be healthy. As school is an organization, its systems must be functioning properly to be healthy. A healthy school promotes high students' academic achievement (Alqarni, 2016; Farahani et al., 2014). By this definition of organizational health, the researcher came to realize that the organizational health is the functioning status of school resulted due to interaction and cooperation among the members of the school. Therefore, the organizational health of a school totally depends on how the members of that school function and behave and among all, the head teacher's attitude and function matter a lot. Head teacher is the key person in the school whose ability and effort affects the health of the school.

Miles (1965) was the pioneer to study the concept of organizational health for the first time. Miles (1969) defined "healthy organizations as one that not only

survives in its environment but continues to cope adequately over the long haul, and continuously develops and extends its surviving and coping abilities” (p.378). Next to Miles, Parson was another person to give the concept of organizational health of school in mid- 1960s. Parsons (1967, as cited in Hoy & Hannum, 1997) stated that the social system should control the activities at institutional, managerial and technical levels to solve the problems. According to Hoy, Smith and Sweetland (2001), in the time of Miles (1969) and Parson (1967), the term health was used to describe the climate of the school and it was meant for the set of internal characteristics of the school that influences the behaviour of its members. Hoy and Hannum (1997) emphasized Parson’s view of social system’s necessity to control the activities at institutional, managerial and technical level so as to reduce the possibility of the problem and to solve the problem if occurs. Likewise, Saeidian and Bahramian (2013) stated that Parson had observed the need of social systems to adapt to their environment to survive and grow for being healthy. Taking the reference of Miles and Parsons; Smith et al. (2001) stated that all organizations must solve the problems of adapting to their environment, attaining their goals and maintaining themselves if they are to survive, grow and prosper, that is, to be healthy. Hoy and Tarter (1997) defined organizational health as the ability for an organization to adapt to its environment, to create harmony among its members, and to achieve its goals.

Many researchers have studied organizational health from different angles and have given their view. Clark and Fairman (1983) regarded organizational health as a significant force in the planning change. Hoy et al. (1990) stated that organizational health is not only about the survival of school in the related community, but also the ability to cope with problems in a long run. Hoy et al. (1991) argued that in a healthy school, the school meets functional needs as it successfully copes with disruptive external forces and directs energy towards its mission. From this argument, it can be

understood that when the organization is unhealthy, a number of problems emerge influencing the organization negatively. According to Hoy, Sabo, and Barnes (1996), healthy schools are those schools where teachers, students and administrators believe in each other's ability, support each other and develop a dynamic interpersonal relationship among each other.

Along with instructional leadership, head teacher must also be able to maintain a healthy organizational health at school to maintain a sound teaching and learning environment. Head teachers must be able to fulfil their instructional leadership duty without creating pressure, aggression, violence, misbehave or any other unpleasant activity at school. It is necessary to maintain harmony and good communication among each other. Hoy and Tarter (1997) stated that in a healthy school, the technical, managerial and personnel institutional levels are in harmony, and the harmony between these three levels should be made for manifesting teaching and student learning. Hoy et al. (1991) and Hoy and Hannum (1997) found fairly robust relationship between the school health and student achievement. According to Hoy and Feldman (1987), protecting the school against possible pressures from the environment, leadership of the school administrator, good communication and interaction between teachers, student achievement, equipment used at school, etc. are some criteria for considering a school as a healthy school. From the study of the literature on the organizational health, the researcher concluded that any organization is said to be healthy only when the members of that organization are happy, satisfied, energetic, protected from unreasonable pressures and fulfil their duty honestly and enthusiastically in the organization leading it towards success continuously.

Literature shows great a contribution of Hoy to collaboration with other researchers in the field of organizational health. Hoy et al. (1991) developed a model for the OH of school (Hoy et al., 2001). The organizational health model is also

called OHI-S (Organizational Health Inventory for School) scale. The researcher used this organizational health model proposed by Hoy et al. (1991) as a guide in this research for the study of organizational health of community schools of Nepal as it includes all the criteria required for making a school a healthy school. The Hoy et al. (1991) model of organizational health consists of seven factors which are morale, resource support, consideration, academic emphasis, institutional integrity, principal influence and initiating structure. Under these seven factors, there are all together 44 items (Hoy et al., 2001).

By the study of factors and items of Hoy et al. (1991) model of organizational health, it is understood that morale refers to the emotional behavior of school family members developed due to satisfaction and happiness in them. Resort support is associated with the availability of materials, equipment, infrastructure and all other requirements of the school. Consideration is about the conduct of head teacher manifested in a friendly, supportive, open and collaborative way. Academic emphasis is related to extent to which head teacher, teachers and students are committed to academic excellence. Institutional integrity is the unity in the school family members to support and protect each other from unreasonable community and parental demands. Head teacher's influence reflects head teacher's ability to convince others, make them obey and to be persuasive to influence higher authority. Initiating structure deals with the clear attitude of head teacher and certain rules and regulations to be followed by the faculty members to achieve the expected performance.

### **Relation between Instructional Leadership and Organizational Health of School**

The literature shows that the concept of instructional leadership and organizational health appeared as important issues to be studied for the development of school and a number of studies have been carried out on these two issues separately or in relation to other variables. From the review of the literature, it is found that the

instructional leadership affects the organizational health of school. The findings of Recepoglu and Ozdemir, (2013); Buluc (2014); Parlar and Cansoy (2017) showed a positive and significant relationship between insructional leadership and organizational health of school. It means when the head teachers play a good instructional leadership role at schools, the organizational health condition of the schools also improves. Saeidian and Bahramian (2013) stated that schools can fulfil their onerous duties only if they happen to be a healthy and dynamic organization. From this relationship between instructional leadership and organizational health of the school, it can be concluded that to achieve the goals of schools, the schools must be maintained as healthy organizations and, for the maintenance of its health, the school also depends upon the instructional leadership role of head teacher. Therefore, a good instructional leader is the key for the success of any school. The ultimate goal of improving instructional leadership and organizational health of school is to improve the academic achievement of school.

### **Policy Review**

The Government of Nepal has introduced some policies to improve the educational quality of community schools. The most important policies for school improvement was formulated by the Government of Nepal in the Education Rules, 2002. The head teacher's function of maintaining academic environment, quality, discipline for maintaining good moral character, politeness, etc. in the school; creating an environment of mutual cooperation among teacher and other working staff members, students and guardians upon coordinating with the teachers and other employees; to prepare programmes for running the classes in the school in consultation with the teachers, and supervise whether or not the classes have been run accordingly; to hold teachers' meeting at least once a month and discuss on the school related matters and to maintain record thereof; to prepare school annual programs and

implement it upon the SMC approval; to prepare monthly, half yearly and annual programs related to teaching and learning activities in the school and implementing such program, implementing the curriculum and textbooks, to prescribe functions and duties of the teachers and other employees are some of the functions mentioned in Education Regulation, 2002, Rule 94 (eighth amendment) (Nepal Law Commission, 2002) which are related to instructional leadership role of head teacher but these functions are not separated as instructional leadership roles. Similarly, mobilization of resources available from government, local bodies, community and others is a function mentioned in Education Rules, 2002, Schedule- 13 A (Nepal Law Commission, 2002) which is related to maintaining organizational health of school but these are not clearly mentioned as instructional leadership role or act to be followed to maintain the good health of the school.

School Sector Reform Plan 2009/10- 2015/16 (MoE, 2009) stressed the quality of education and learning outcomes. The School Sector Development Plan 2016/17-2022/23 (MoE, 2016) has pointed out teacher management and teachers' professional development as key agenda for improving the quality of education at schools. Although it is one of the instructional leadership criteria, it has not been mentioned whether it comes under the instructional leadership role of head teacher. Similarly, the Act Relating to Compulsory and Free Education 2075 (2018) has made legal provisions related to education and one of those is making education competitive and qualitative (NLC, 2018). It is obviously concerned with the improvement of quality of education in school but it is not clarified as instructional leadership role. So, it seems pertinent to allocate instructional leadership roles separately with greater focus in these policy documents and make these roles one of the most important officially expected roles of head teachers.



### **Research Gap**

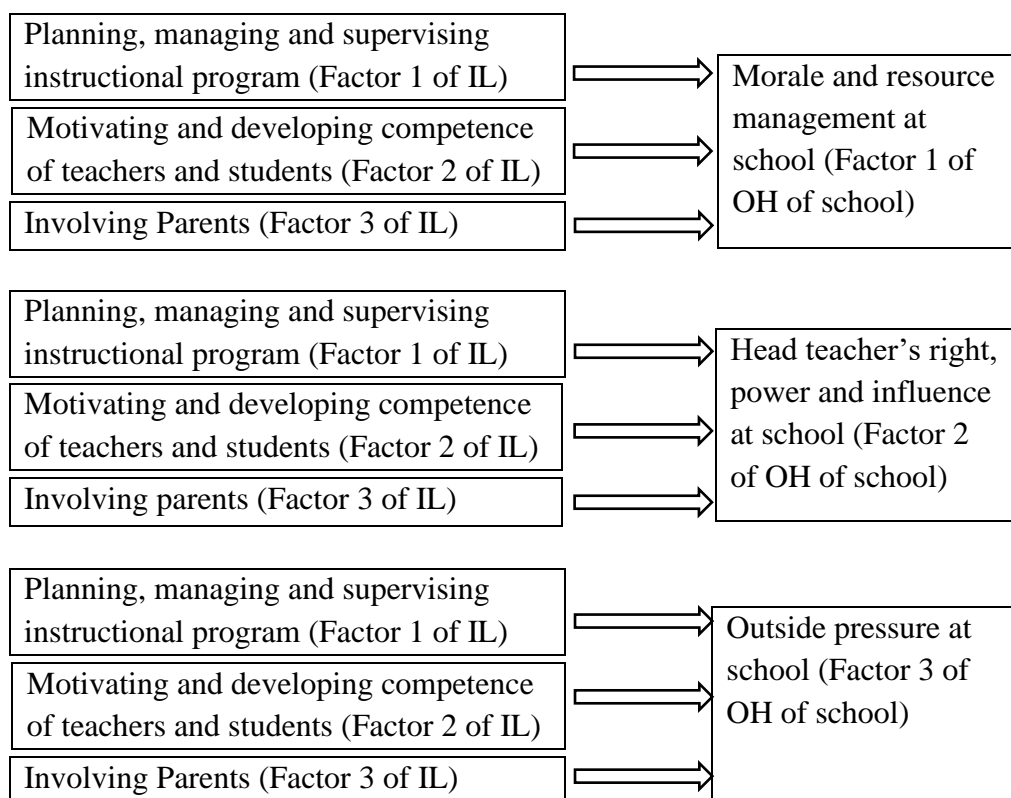
From the review of the literature, it is found that the researchers have carried out research on the perceptions of teachers on their head teacher's instructional leadership at schools, how school head teacher contributes to effective teaching and learning as a core duty of the school, the perception of school head teachers on their own leadership roles, how head teachers practice instructional leadership and what they are doing to manage teaching and learning relationship, the relationship between the use of instructional leadership practices and teachers' use of teaching practices, the relationship between instructional leadership of head teachers and academic achievement of students, the relationship between organizational health and the bullying that teachers experience, the link between organizational health and students' academic achievement, the relationship between instructional leadership and organizational health and so on in the international context.

The study on IL variables in relation to variables of OH of school seems to be scarce in Nepal. However, some studies related to this concept are carried out but the study exactly on the effect IL role on the OH of the school is not found so far in the literature. For example, a study was carried out by Khanal (2017) on instructional leadership which was an ethnographic inquiry into perceptions and practices of teachers and head teachers. Similarly, another study on relationship of head teacher leadership attributes and school climate in community schools of Nepal was carried out by Subedi (2017). Therefore, this research was carried out to study the effect IL role on OH of the school for which the predictors of instructional leadership and organizational health of community schools in the context of Nepal was found out first.

### Conceptual Framework

The theoretical foundation of this study is Hallinger and Murphy (1985) model of instructional leadership and Hoy et al. (1991) model of organizational health. Taking the Hallinger and Murphy (1985)'s framework of instructional leadership (IL) and Hoy et al. (1991)'s framework of organizational health (OH) as a fundamental basis of this study, the new factors of instructional leadership (IL) and organizational health (OH) of school have been developed in the context of Nepal. The conceptual framework is developed based on the concept that the IL variables affect the OH variables as suggested in the literature. As the effect of IL variables was seen on the OH variables, the IL variables are independent variables and OH variables are dependent variables.

Figure 1. Hypothesized Relationship between IL and OH of School



### **Essence of the Chapter**

The concept of instructional leadership and organizational health of school is a common concern for all as they affect the learning outcome of students at school.

Instructional leadership is the leadership role that is associated with teaching and learning at schools, and organizational health deals with the health status of school.

The researchers highlight the importance of instructional leadership and organizational health of school for school effectiveness. The literature also suggests that the instructional leadership role of head teacher affects the organizational health

of the school. But there is research gap in the study of effect of instructional

leadership (IL) on the organizational health (OH) of school in the context of Nepal.

In this context, this study embraced instructional leadership (IL) and (OH) of school

and the effect of instructional leadership (IL) on the organizational health (OH) of school.

## CHAPTER III

### RESEARCH METHODOLOGY

This chapter first describes the research methodology adopted in this research with philosophical ground and then presents the research design. This includes population and sample construction, validity and reliability of the instrument, data collection procedure and statistical methods used in the data analysis. Furthermore, ethical issues are also mentioned in this chapter as a set of moral principles considered while conducting a research. The primary goal of the research was to find out the appropriate factors of instructional leadership and organizational health of community schools in order to find out the effect of instructional leadership (IL) on the organizational health (OH) of the school and status of IL and OH of school.

#### **Philosophical Ground of the Study**

The researcher believed that the instructional leadership (IL) and organizational health (OH) of school were guided by various factors. Such factors were quantifiable and measurable. Following post-positivist's deterministic philosophy of *causes* determine *effects*, the researcher found out the suitable factors of IL and OH of schools by studying the causes that influence IL and OH of school. Thus, researcher's position in this research was guided by post-positivistic research paradigm.

The main intent of the study was to see the effect of IL on the OH of the school. Here, the IL acts as *cause* and OH acts as *effect*. Therefore, this study of *cause- and- effect* relationship followed post-positivistic approach. The researcher comprehends the post positivistic research paradigm as the philosophy that strives to

explore the phenomena beyond the limitation of empiricism (Fischer, 1998) and provides a freedom to use different methods to study IL and OH of school. So, determining the factors of IL and OH of school, finding the effects of IL on the OH of the school and knowing the level of IL and OH of school were obtained by following standard and objective procedures.

### **Ontology**

As Creswell (2011) mentioned that the objective reality already exists “out there”, the researcher believed that the reality about IL and OH of school already exists and the researcher’s job was just to discover that reality using different methods and tools based on post- positivistic assumption. Being guided by the post- positivistic lens, the researcher found out objective reality through careful study and measurement of the reality. Therefore, the researcher’s ontological position in this study is that the reality on instructional leadership and organizational health of school could be expressed objectively by exploring and studying the factors of IL and OH of school.

### **Epistemology**

The various factors (variables) that affect instructional leadership and organizational health of community schools could be examined. The knowledge on instructional leadership and organizational health of community schools could be derived by examining these variables. In line with Kivunja and Kuyini (2017), the researcher explained epistemology as the answer of the question, how we know what we know. On post-positivistic ground, the researcher’s epistemology was that this research would identify the factors that affect IL and OH of school. The philosophical stance of this study was post-positivism by which the researcher was guided.

## **Methodology**

Taking the reference of Sarantakos (2005), the researcher came to realize methodology as guidelines developed on the basis of ontological and epistemological principles which show how research is to be conducted. This gave an idea to the researcher that the research design, methods and procedures based on above mentioned ontological and epistemological position encompassed the methodology for this research. Taking three research questions of this research into consideration and by understanding ontological and epistemological perspective and assumptions of the study, the researcher adopted survey method to collect the data from the respondents. The survey design was used because it is an appropriate procedure to collect data in a quantitative study in which the questionnaire is administered to a small group of people called sample to identify the trends in attitudes, opinions, behaviours or characteristics of a large group of people called population (Creswell, 2012). A well-structured questionnaire was developed for collecting data and appropriate statistical technique according to each research question was employed for analyzing data and drawing conclusion. This educational research explained phenomena according to numerical data and analyzed mathematically by using statistics, therefore, the approach to this research was quantitative (Yilmz, 2013).

## **Research Design**

Research design incorporates the plans and the pcedures for research which involves the selection of design to be used to study a topic (Creswell, 2008). The philosophical assumption of this study was post- positivism. The strategy of inquiry in this study was quantitative and research methods included preparation of questionnaire, data collection, data analysis and interpretation. Therefore, the study was descriptive. The researcher drew conclusion by analyzing numerical data, so the study was analytical. Further, the main goal of this study was to explore the factors

that predict instructional leadership and organizational health of schools. Hence, the study was explanatory.

### **Population and Sample**

The study area covered all the community secondary schools of the Kathmandu valley. The Education Act 2016 (Eighth Amendment) has categorized grade I to VIII as basic education and grade IX to XII as secondary education (Bajracharya, 2016). Thus, all the community schools of the Kathmandu valley with grade upto IX and above until XII were the population of this study. The total number of community secondary schools in the Kathmandu valley is 303 including 78 from Lalitpur district, 46 from Bhaktapur district and 179 from Kathmandu district (Flash I Report, 2015/16) (Ministry of Education., 2015) constituted the population of this study. The rationale for selecting the Kathmandu valley as the study area was the highest number of community secondary schools situated here than in any other particular place of the country.

The unit of analysis in this research was school because it was the study of IL and OH of the schools. The total population for this study was 303 community secondary schools of the Kathmandu valley. By using the formula, sample size= $\frac{N}{1+N\alpha^2}$  given by Yamane (1969) sample size was found out.

$$N_0 = \frac{N}{1 + N \times \alpha^2}$$

Where,

$N_0$  = Sample size

$N$  = Total population = 303

$\alpha$  = Level of significance = 0.05

$$N_0 = \frac{303}{1 + 303 \times 0.05^2}$$

$N_0$  = 172 Schools

The sample size for this study was 172 community secondary schools. The study compared the view of head teacher with the view of the teacher of the respective schools. Therefore, the view of head teacher and one teacher from each of the 172 community secondary schools was taken through a well-constructed questionnaire. The researcher selected a teacher as a respondent from each school by lottery process, therefore it was believed that the opinion of one teacher is also sufficient to rate the IL role played by the head teacher at school and OH of school as the teacher was selected without any bias. In line with Creswell (2012), the researcher believed that “in quantitative research the focus is on random sampling” (p. 206). Further, simple random is the most popular and rigorous form of probability sampling from a population (Creswell, 2008). So, the simple random sampling method was used to select 172 community secondary schools out of total 303 such schools of the Kathmandu valley. After selecting 172 schools for the data collection by random sampling, Delphi and pilot testing of the questionnaire was conducted with the head teachers and teachers of the remaining schools. A default sample size of 30 is recommended for the pilot testing of the questionnaire (Perneger et al., 2014). Therefore, the sample size for piloting the questionnaire for study was 30.

### **Development of Research Instrument**

For this, the model of Hallinger and Murphy (1985) on Instructional Leadership and the model of Hoy et al. (1991) on Organizational Health of school were consulted by the researcher and modified them by conducting classical Delphi to prepare the tool for this study. These two models individually were widely accepted models and a number of studies had been carried out based on these models. Many researchers studied IL based on Hallinger and Murphy (1985) model of IL (Lyons, 2010; Peariso, 2011; Al Hosani, 2015; Owens, 2015; Vilakaji, 2016; Gurley et al., 2016; Hao, 2017; Ghavifekr et al., 2019). Similarly, most of the researchers like



Alqarni (2016); Parlar and Cansoy (2007); Hoy et al. (2001) used Hoy et al. (1991) model of Organizational Health for their study. Hallinger and Murphy's (1985) model consists of three factors under which there are 10 sub- scales and 50 items. Similarly, Hoy et al. (1991) model consists of 7 factors and 44 items.

### **Delphi as a Method of Tool Development**

The researcher conducted Delphi on the original Hallinger and Murphy's tool for IL and Hoy et al.'s tool for OH of school. Hallinger and Murphy's PIMRS and Hoy et al.'s OHI-S were modified by conducting three round meeting with the experienced head teachers and teachers of community secondary schools of the Kathmandu valley. In the first-round meeting, Hallinger and Murphy's PIMRS and Hoy et al.'s OHI-S were presented to experienced head teachers and teachers to seek their judgement and opinion on them. The researcher also put some points on them as she also had worked as a head teacher and teacher both for a long time and got those points judged by those head teachers and teachers.

Based on their opinion, some items for example, (i) draw upon the results of class wise testing when making curriculum decisions, (ii) participate actively in the review of curricular materials, (iii) acknowledge teachers' exceptional performance by writing memos for their personal files, (iv) recognize superior students' achievement or improvement by seeing in the office the students with their work, (v) review student work products when evaluating classroom instruction were unselected from Hallinger and Murphy (1985)'s PIMRS and (vi) select citizen groups are influential from the board, (vi) head teacher is able to work well, so the superintendent was unselected from Hoy et al. (1991)'s OHI-S as these items were not found practical in context of Nepali schools.

On the other hand, some items for example (i) head teacher announces mandatory presence of parents during terminal report card distribution, (ii) head

teacher meets the parents of poor-performing students and shares with them what roles the school and parents may together take for their improvements, (iii) head teacher learns students' family problems and talks to their parents to resolve them, (iv) head teacher is transparent about every financial detail of the school to all stakeholders were added in new PIMRS and (v) there is a pressure from political parties in this school was added in new OHI-S as the participants of Delphi suggested these items important to include in the context of Nepali schools.

Likewise, some items such as (i) monitor the classroom curriculum to see that it covers the school's curricular objectives was changed to head teacher checks teachers' log books regularly to see if they are going in accordance with the syllabus, (ii) limit interruption of instructional time by public address announcements was changed to head teacher tries his best to ensure uninterrupted instruction time, (iv) lead or attend teacher in- service activities concerned with instruction was changed to head teacher seeks to provide trainings to teachers during vacations or so as not to interrupt daily classes, (v) conduct informal observations in classrooms on a regular basis was changed to head teacher regularly monitors activities of teachers and students while they are in class from Hallinger and Murphy (1985)'s PIMRS and (vi) head teacher's decisions to school improvements are not impeded by higher authorities was changed to head teachers can change the duty/responsibility of teachers and staff members where necessary, (vii) head teacher gets what he/ she asks for from superior was changed into head teacher can ask local government for help to make school better from Hoy et al. (1991)'s OHI-S to contextualize to fit our context. In this way, the tool was developed.

In the second round, the tool developed was returned to the participants to reconsider on their initial opening. This time the tool was slightly modified again. In the third round, the tool was again returned to the participants to have their response

on it once again. This time collective agreement of all participants was obtained on the tool. Thus, a scale was constructed by conducting Delphi on the original IL model of Hallinger and Murphy (1985) and OH model of Hoy et al. (1991). In line with Keeney et al. (2011), this process was a classical Delphi in which a scale/tool (questionnaire) was presented to a panel of experienced head teachers and teachers to seek their opinion and judgement on it. Based on their view, a new scale/questionnaire was designed and again their opinion was sought on the newly prepared one and the process was repeated until the consensus of the opinion was obtained.

In this way, a new PIMRS (Principal's/Head teacher's Instructional Management Rating Scale) and OHI-S (Organizational Health Inventory for Schools) was developed finally and a questionnaire was prepared with three sections. In the first section, there were some questions about respondents' information like sex, qualification, age of experience, etc. In the second section, there was newly developed PIMRS with 11 factors and 33 items which asked the respondents to rate their view on 5-point Likert- scale with the descriptors, 1= almost never, 2= seldom, 3= sometimes, 4= frequently and 5= almost always at which head teacher was engaged in those particular activities of the school. In the third section, there was newly developed OHI-S with 7 factors and 21 items which asked the respondents to rate their view on 5-point Likert- scale with the descriptors, 1= almost never, 2= seldom, 3= sometimes, 4= frequently and 5= almost always at which the mentioned activities for good organizational health of the school occur there.

### **Reliability and Validity of the Study**

Reliability is the consistency and validity is the accuracy of a measure (Middleton, 2019). The reliability of this study was established by pilot testing the questionnaire, carrying out factor analysis with the variables of instructional

leadership and organizational health of schools and by calculating the Cronbach alpha Coefficient of individual factor of both IL and OH construct. All the criteria for factor analysis and multiple regression analysis were also met. Factor analysis was conducted in the data to select valid factors and items only. The items in the factors of both the constructs were retained with item loading 0.50 and KMO value and average communality value of both the constructs were  $>0.5$ .

On piloting the questionnaire, mean score of most of the items was found more than four times of standard deviation. As stated by Kate (2017), a low standard deviation means most of the numbers are very close to the average which showed that the distribution tends to be normal. Hence, it was acceptable. The inter-item correlations examine the extent to which scores on one item are related to scores on all other items in a scale (Piedmont, 2014). The corrected item- total correlation shows the correlation of each one item with the summated score for all other items. This value should be at least 0.40 (Gliem & Gliem, 2003). This criterion was met for most of the items. In average, the result obtained was satisfactory.

However, in case of questions 1) there is a pressure from political parties in this school 2) community demands are accepted even if they are inconsistent with educational programs and 3) the school policy is compromised if there is a pressure from even minority of guardians related to outside pressure in institution, the inter-item correlation was negative and corrected item- total correlation for few questions was also less than 0.40. The mean score of these three items was also less in comparison to other items. The researcher reviewed these three questions and found that these questions were set with negative connotation. The negative result could be due to problem in the construction of the question. Further, these questions were set based on the views expressed by the head teachers and teachers of community secondary schools while conducting classical Delphi to develop the tool for this study.

In addition, in case of newly democratic country, pressure in institution is a common issue. For example, if a teacher is fired or transferred to a place he does not like, there is a great political pressure to reverse the decision (Runiyar, 2017). Most of the community school teachers are affiliated with the unions which politicize the school and affect the teaching learning activities (Parajuli & Das, 2013). These three questions were guided by head teachers' experience and context of democratic country. Thus, the researcher did not think of eliminating these questions, instead were adjusted by changing them in positive connotation.

The Cronbach's alpha value of IL and OH factors as a whole and that of individual factor of both the constructs was found out for the reliability of the study. Cronbach's alpha reliability coefficient for the whole IL factors was found to be 0.95 and that for whole OH factors was found to be 0.75. The Cronbach's alpha is one of the most widely used measures of "internal consistency" reliability. The literature has suggested an alpha value of 0.70 to 0.95 as acceptable (Cortina 1993; Tavacoli & Dennick, 2011) without any doubt and this rule has been followed by all researchers, however, there are some researchers (Panayides, 2013; Bonett, 2014; Cho & Kim, 2015) who have suggested that a high value of alpha is not necessarily good always and a low value of alpha is not always subjected to reject the scale or instrument or test because it also depends upon the type of research and also on the conditions in a research. Further, alpha value is interpreted as excellent, strong and so on based on the ranges of alpha values in between 0.70 to 0.95 (Taber, 2017). Cronbach's alpha is a statistic to demonstrate that the tests and scales that have been constructed or adopted for the research are appropriate or not as per the purpose.

Table 1

*Cronbach's Alpha Values of Instructional Leadership (IL) Factors*

Factors	Cronbach's alpha
1. Planning, managing and supervising instructional program	0.929
2. Motivating and developing competence of teachers and students	0.903
3. Involving parents	0.757

Table 2

*Cronbach's Alpha Values of Organizational Health (OH) Factors*

Factors	Cronbach's alpha
1. Morale and resource management at school.	0.863
2. Head Teacher's right, power and influence at school.	0.609
3. Outside pressure at school	0.629

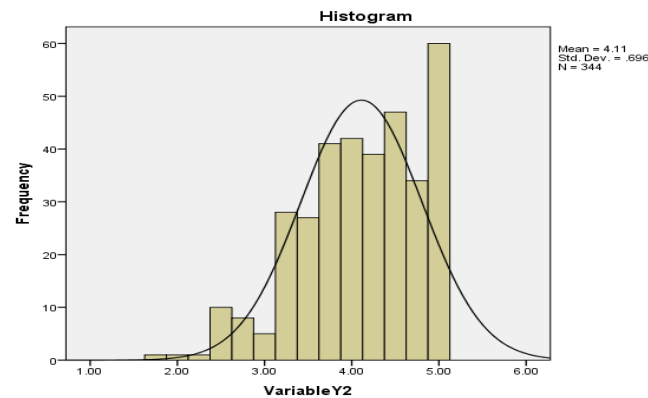
On testing the cronbach's alpha value of individual factor of both the constructs, it was found to be ranked from 0.75 to 0.92 for the factors of IL and from 0.60 to 0.86 for the factors of OH of school. The cronbach's alpha value of two factors of OH of school was 0.6 and above but less than 0.7 which is slightly less than the highly acceptable range, 0.7. But while reading the literature, it was found that the international researchers who conducted similar studies accepted the organizational health factors with cronbach's alpha value below 0.7 and above 0.6. For example, Gunes and Kale (2015) studied relationship between instructional leadership and organizational climate using the organizational climate inventory developed by Hoy et al. (1991) in which the Cronbach's alpha value of OH factors was found between 0.69 and 0.88. Similarly, Parlar and Cansoy (2017) examined the relationship between IL and OH using the Hoy et al. (1991) inventory of

organizational health in which the Cronbach's alpha value of OH factors ranged in between 0.60 to 0.92.

Moreover, taking the reference of Sijtsma (2009), who argued that the alpha value which is the average degree of interrelatedness of the items also depends upon the number of items and depending on view of Cortina (1993) and Schmitt (1996) who claimed the alpha tends to increase with the size of an instrument and it is possible to increase alpha by increasing the number of items, the researcher believed that the cronbach's alpha value of two factors of OH might have gone slight less due to less number of items (3 and 4 items only) within those factors. In the same line, Griethuijsen et al. (2014) considered Cronbach's alpha value .60 in his study by arguing the reason of it as small number of items that contributed to the factor. He claimed it by testing the normality of the factors which were with low alpha value in his study. Therefore, following the above researchers, this researcher also considered these two factors  $Y_2$  and  $Y_3$  of OH of school with cronbach's alpha value .609 and .629 respectively. Thus, the reasons for accepting this value of alpha for these two factors are (i) the data was normally distributed in these factors separately and (ii) previous researchers doing similar research also accepted alpha value in between .60 to .70 for some factors of OH of school.

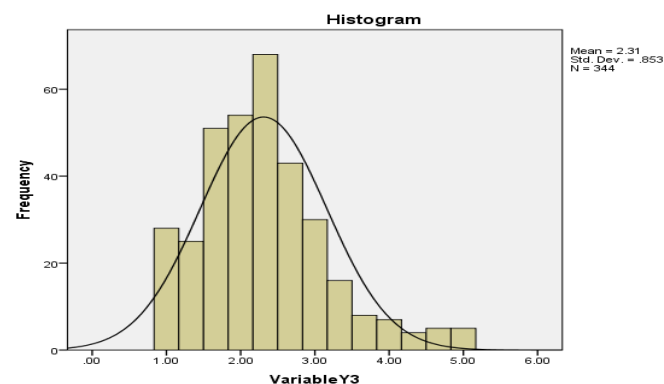
The data was normally distributed means the maximum number of respondents' view was towards average. The normality of those two factors of OH of school separately ( $Y_2$  and  $Y_3$ ) was checked by plotting the histogram and normal curve. The figures suggested that the distribution was normal.

Figure 2. Normality Test of Dependent Variable Y<sub>2</sub> (Factor two of OH of school)



### Distribution of Head Teacher's Right, Power and Influence at School

Figure 3. Normality Test of Dependent Variable Y<sub>3</sub> (Factor three of OH of school)



### Distribution of Outside Pressure at School

Since this research explored the levels of instructional leadership and school's organizational health, the responses were surveyed with two major stakeholders: the head teachers and the school teachers. These two stakeholders are the best and informed witness who can assess the school situation and the average of self-rating (by head teacher) and peer-rating (by teacher) would help to assess a more realistic status of the school environment.

The validity of the study was also ensured. There were altogether 25 items under 3 factors of IL and 14 items under 3 factors of OH of school selected by factor analysis. As the sample size (172) was more than three times of the items, and at least three or more items were under a factor, the sample size was



sufficient. It ensured content validity. The study variables were determined on the basis of already accepted and adopted tool by conducting classical Delphi process (Cohen et al., 2018) which ensured construct validity. The factor analysis further confirmed the construct validity. As the result of the study, it was found to be of similar nature while comparing it to other similar studies conducted in the international arena. So, it ensured criterion validity of this study.

### **Data Collection and Analysis Method**

This research was conducted by developing the numeric measures of information about instructional leadership and organizational health of community schools. The information was obtained through survey questionnaire in which the questions were developed in a 5-point Likert- scale seeking the information on instructional leadership and organizational health of the community secondary schools. The information collected through questionnaire was analyzed by using descriptive and inferential statistics.

The researcher visited 172 community schools of the Kathmandu valley as selected by random sampling process and got the questionnaire filled up with the head teacher and a teacher from each school. Since some places were very difficult to reach and the researcher had to wait for a suitable time after spring season to ensure that the ways are not flooded and obstructed, sometimes schools had holidays (about one-month holidays during Dashain and Tihar in Nepal) and somewhere head teacher was not available throughout the school time and the researcher had to visit twice or thrice in a school. It took about 6 months (from the end of August 2019 to the beginning of February 2020) to collect data from all 172 schools. The researcher always requested the respondents to check if any question remained unanswered to reduce the possibility of missing value. The collected data was inserted in SPSS

software for the statistical analysis and the following statistical tools were used for different research questions.

Table 3

*Research Questions and Statistical Techniques*

SN	Research Questions	Statistical Techniques
1.	What are the determining factors of instructional leadership and organizational health of community schools?	Factor analysis
2.	What is the level of instructional leadership and organizational health of community schools?	Mean and standard deviation
3.	To what extent does instructional leadership contribute to organizational health of community schools?	Multiple linear regression analysis

### **Ethical Considerations**

The researcher considered all five ethics of a researcher as mentioned by Creswell (2009). The first ethic as mentioned by him was that the researcher should study problems which benefit all the respondents besides the researcher. In this study, the researcher considered it as it benefits the head teachers and teachers of community secondary schools who were the respondents of this study. This researcher also met the second ethical aspect by making the respondents known about the actual purpose of the study for which the researcher distributed cover letter with questionnaire to all the respondents. For the third ethical consideration, the researcher took permission from the concerned person to collect data, allowed the respondents to answer the questionnaire in their own without any pressure. The researcher introduced herself among the respondents and assured them that data was collected only for the purpose of research. Similarly, considering the fourth ethics (Cresswell, 2012), the researcher maintained the privacy of the respondents while analyzing the data and the findings

were presented as obtained without any dishonesty. Finally, considering the fifth ethical issue, the information and the identity of respondents were kept confidential. Further, consent was taken from the scholars, Hallinger and Murphy and Hoy to use their research instrument.

### **Essence of the Chapter**

The paradigm of this research is post-positivism and research design is quantitative. Hallinger and Murphy (1985) PIMRS (Principal's/ Head teacher's Instructional Management Rating Scale) and Hoy et al. OHI-S (OH inventory of school) were modified through Delphi process and a new scale to study IL and OH of school was constructed. Finally, the questionnaire was prepared in the 5- point Likert scale. The data were collected from head teacher and one teacher of 172 community secondary schools of the Kathmandu valley. The schools for the data collection were selected by random sampling method and one teacher from each school was selected by lottery process to reduce the possibility of biasness while selecting one teacher from each school. Factor analysis was employed on the data to explore the factors that affect IL and OH of community secondary schools.

CHAPTER IV  
INSTRUCTIONAL LEADERSHIP AND ORGANIZATIONAL HEALTH OF  
SCHOOL: FACTORS AND LEVEL

This chapter consists of demographic characteristics such as district, gender and post in school, years of experience and educational status of the respondents. It also mentions decision making criteria for factor analysis and results of safety check. After that, it presents the three valid factors for IL and three for OH construct obtained by employing factor analysis on the data with their nomenclature. Further, the levels of IL and OH of school obtained by analyzing the response of 172 head teachers and 172 teachers on instructional leadership (IL) and organizational health (OH) of community secondary schools of the Kathmandu valley are also presented in this chapter. For this, the IL roles and OH practices of schools were studied in statistical terms by calculating the mean values of the responses of head teachers and teachers on IL and OH factors of school.

**Demographic Characteristics of Respondents**

The background information of the respondents (172 head teachers and 172 teachers of community secondary school running in the Kathmandu valley) with corresponding frequency tables is presented below. The inquiry was done about district where the school is located, gender of the respondents, years of experience of respondents, post and qualification of the respondents.

Table 4

*Respondents' District*

Category	Frequency	Percentage
Kathmandu	213	61.9
Lalitpur	73	21.2
Bhaktapur	58	16.9
Total	344	100.0

The above table shows that the highest number of respondents were from Kathmandu district and then from Lalitpur and Bhaktapur district respectively.

Table 5

*Respondents' Gender*

Category	Frequency	Percentage
Male	271	78.8
Female	73	21.2
Total	344	100.0

The above table reveals that the female participation is very low in comparison to male participation in teaching field in community schools.

Table 6

*Respondents' Experience*

Category	Frequency	Percentage
1 yr.	34	9.9
2 to 4 yrs.	67	19.5
5 to 9 yrs.	74	21.5
10 to 14 yrs.	58	16.9
15 yrs. and above	111	32.3
Total	344	100.0

The result shows that majority of head teachers and teachers of community secondary schools are highly experienced. Almost 50% of them had experience of 10 years or more.

Table 7

*Respondents' post in School*

Category	Frequency	Percentage
Head Teacher	172	50.0
Teacher	172	50.0
Total	344	100.0

There were 50 % head teachers and 50 % teachers among the respondents as the head teacher and a teacher from each school were the respondents of the study.

Table 8

*Respondents' Qualification*

Category	Frequency	Percentage
SLC or PCL	11	3.2
Bachelor's	71	20.6
Master's	251	73.0
MPhil or PhD	11	3.2
Total	344	100.0

Surprisingly, 3.2% of the respondents were found with SLC or PCL degree only teaching in secondary level including one head teacher.

### **Deciding the Factors of IL and OH of School**

Factor analysis was conducted in SPSS to finalize the factors of IL and OH of schools in community secondary schools. But before running factor analysis whether the conditions were met for the factor analysis was checked.

The first criterion is that scale data should be in five to seven point likert-scale. Likert scale is most suitable for factor analysis (Pillai, 2015) and 5 or 7 point likert scale provides more variety of options which increases the reliability of the

response from the respondents in a survey (Joshi et al., 2015). A smaller number of categories cannot provide more options and cannot help to get more reliable response, on the other hand too wide range of scale affects the response of the respondents and limits their chances of giving correct answer on particular item (Tarka, 2015). This criterion was met as 5-point likert- scale was used in this study. The recommended sample size is at least 300. A sample size of 300 is good, 500 is very good, and 1000 or more is excellent (Comrey & Lee, 1992). However, the sample size for this study was 172 community schools of the Kathmandu valley but as the head teacher and one teacher from each school filled up the questionnaire, it became 344 altogether.

Generally, a sample size minimum of more than three times of variables is found recommended. Regarding this, Cattell (1978) recommended the ratio of sample size and the number of variables in the range of 3 to 6 and Gorsuch (1983) recommended this ratio of minimum of 5. So, the sample size of this study was found justifiable as the total number of variables was 39 and sample size was 344 which shows a sample size of more than 6 times of the variables. Third condition that the retention of item loading should be greater than 0.30 (Field, 2013; Tabachnick & Fidell, 2014) was also satisfied as the item loading was 0.50 in this study. Floyd and Widaman (1995) stated that "in exploratory factor analysis, factor loadings are generally considered to be meaningful when they exceed .30 or .40. (p.294)." The fourth condition, the retention of factor having Eigenvalues greater than 1 is one of the most widely used conditions (Field, 2009; Maskey et al., 2018). In this study, the factors were with Eigenvalues greater than 1, hence the fourth condition was also satisfied.

Likewise, the fifth criterion is that the average communalities or extraction value of items should exceed 0.5 (Tabachnick & Fidell, 2007). The average extraction value of items for IL was 0.593 and that for OH of school was 0.557. Hence, this criterion was also met. The sixth criterion is about the Kaiser-Meyer

sampling adequacy. If the KMO measure is greater than 0.50, it can be assumed that the factor ability exists in the data set (Kaiser, 1974; Field, 2009; Zulkepli et al., 2017). The Kaiser-Meyer sampling adequacy was 0.896 for IL and 0.877 for OH of school. This criterion was also found above the acceptable limit. The seventh criteria is that there should be at least three items in a factor to consider that factor a valid factor (Kline, 1994; Tabachnick & Fidell, 2007). This condition was also satisfied as there were three to fourteen items under each factor of IL and three to seven items under each factor of OH of school. In this way, the reliability of factor analysis was tested.

All the prerequisites for factor analysis were fulfilled in this study retaining twenty five items under three factors for IL construct and fourteen items under three factors for school's OH construct. The items under specific factor of both the constructs are as shown in the rotated component matrix tables below.

### **Nomenclature of New Factors Formed by Factor Analysis**

An appropriate and meaningful name was given to each of these factors of IL and OH of school with the help of literature and my knowledge which I developed during Delphi process of this study. The new name of the factors of IL construct and OH construct are as follows:

#### **Factor One of IL: Planning, Managing and Supervising Instructional Program**

All the items of this factor are shown in the rotated component matrix below.

Table 9

*Rotated Component Matrix of Factor One of IL*

Components			
	1	2	3
1.1 Head teacher analyses students' performance of the last year while planning for the new academic session	.610		
1.2 Head teacher specifies school's whole year educational plan in the presence of all concerned people	.652		



1.3 Head teacher seeks to incorporate teachers' inputs in planning during his formal or informal meetings.	.588
2.1 Head teacher shares academic plans with everyone involved and discusses how those plans may be effectively implemented.	.651
2.2 Head teacher displays school's whole year plan on the notice boards and communicates them to students during assembly	.639
2.3 Head teacher reports educational planning of school to the local government and Province/Local level education offices.	.604
3.1 Head teacher regularly monitors activities of teachers and students while they are in class.	.634
3.2 Head teacher makes sure that students' every class work/home work is completed timely and all notes are marked by assigned teachers at least a month prior to terminal examinations.	.695
3.3 Head teacher seeks to find out teachers' areas of improvements in instructional practices.	.711
4. Head teacher gets every subject department heads to implement the syllabus of all subjects in each class.	.653
4.2 Head teacher checks teachers' log books regularly to see if they are going in accordance with the syllabus.	.630
4.3 Head teacher reviews whether the curriculum goal is achieved or not through students' terminal examination results, their discipline and overall change indicators	.664
5.2 Head teacher regularly discusses with subject teachers regarding each student's progress	.530
6.2 Head teacher instructs teachers to ensure no student has bunked classes.	.528

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The rotated component matrix of factor one of IL shows that this factor was loaded with fourteen items. The fourteen items under the factor one were related to five specific instructional leadership roles of head teacher which were determining and managing school activities, supervising and evaluating teaching, coordinating curriculum and other goals of school, monitoring students' progress and utilizing instructional time. These specific instructional leadership functions of head teacher

except a last item, the head teacher instructs teachers to ensure no student has bunked the class were similar to the items in Hallinger and Murphy framework of IL (1985) falling under their two factors, defining the school mission and managing instructional program (Lyons, 2010; Peariso 2011; Al- Hosani, 2015 Vilakaji, 2016). Therefore, by including the sense of those three leadership functions, i.e., defining school mission, managing instructional program and ensuring no student has bunked the class, a suitable name planning, managing and supervising instructional program was given to this factor.

Each factor of IL specifically describes a set of functions of the head teacher as an instructional leader. The factor planning, managing and supervising instructional program is about making educational plan for the school, coordinating curriculum, sharing plans, monitoring teachers for better teaching practice, communicating with teachers to know students' progress and putting efforts to develop that. For these specific functions of instructional leadership, Hallinger and Murphy (1985) formed two factors, framing and communicating school goals and supervising and evaluating instruction. As stated by them it is about communicating and developing the goals, coordinating with teachers and staff members and controlling teaching process and educational program. Krug (1992) mentioned that it is about forming school goals, purposes and mission and informing teachers that teachers need to plan their classes effectively. A school without a planning how it will go about the process of education has no criteria to judge whether it is successfully achieving that. In the view of Hallinger (2005), this factor is concerned with determining the central purposes of the school and coordination and control of instruction and curriculum. He stated that "the management of instructional program includes three leadership functions which are supervising and evaluating instruction, coordinating curriculum and monitoring student's progress" (p.6). According to

Sisman (2012, as cited in Erdogan & Sarikaya, 2016) this factor of IL points out the vision and mission of the school which directs all the educational and instructional activities in the school. In the view of Ghavifekr et al. (2019), the planning, managing and supervising instructional program is about framing and communicating the school goals, coordinating curriculum, monitoring and managing instructional program by supervising and evaluating instruction.

### **Factor Two of IL: Motivating and Developing Competence of Teachers and Students**

All the items of this factor are shown in the rotated component matrix below.

Table 10

#### *Rotated Component Matrix of Factor Two of IL*

Components	1	2	3
8.1 Head teacher publically praises teachers' superior performance but meets them in private for correction.		.608	
8.2 Head teacher tries to manage opportunity for sincere teachers to work in a higher position as a reward for their good work.		.668	
8.3 Head teacher provides letter of appreciation or honor certificates to teachers for their contribution.		.725	
9.1 Head teacher seeks to provide training to teachers during vacations or so as not to interrupt daily classes.		.735	
9.2 Head teacher actively supports teachers to use those learnt skills in the classrooms.		.695	
9.3 Head teacher sometimes provides opportunities for observation or educational tour.		.719	
10.1 Head teacher publically honors students for their excellent performance or discipline.		.489	
10.2 Head teacher learns students' family problems and talks to their parents to resolve them.		.549	

The rotated component matrix of the factor two of IL shows eight items loaded in this factor. The purpose of those eight items of factor two was similar to the purpose of the items of Hallinger and Murphy Framework of IL (1985) which they had placed under the sub-factors providing incentives for teachers; providing incentives for learning; and promoting professional development under the factor creating a positive school climate (Lyons, 2010; Peariso 2011; Hosani, 2015; Vilakaji, 2016). As the obtained eight items of this factor were also related to the same intention of motivating teachers and students for their development, a suitable name motivating and developing competence of teachers and students was given to this factor.

The factor motivating and developing competence of teachers and students is about praising and honoring teachers and students for their good deeds, guiding teachers for their professional development and helping students to build up their confidence and focus on study. In Hallinger and Murphy (1985) model of instructional leadership, this instructional leadership function is associated with promoting professional development of teachers and developing incentives for teachers and students which are concerned with motivating teachers and students. Krug (1992) mentioned the need of supporting teachers and students for their achievement to make learning exciting. According to Sisman (2012, as cited in Erdogan & Sarikaya, 2016) this factor is related to continuous assessment, monitoring and evaluation of the development of teachers and students according to the development and changes in education. In the view of Ghavifekr, Radwan and Velarde (2019), this factor is concerned with motivating and developing competence of teachers and students. It is about improvement of teachers and students.

### **Factor Three of IL: Involving Parents**

All the items of this factor are shown in the rotated component matrix below.

Table 11

*Rotated Component Matrix of Factor Three of IL*

	Components		
	1	2	3
11.1 Head teacher calls class wise parents' meeting and discusses student's progress.			.553
11.2 Head teacher announces mandatory presence of parents during terminal report card distribution.			.839
11.3 Head teacher meets the parents of poor performing students and shares with them what roles the school and parents may together take for their improvements.			.653

The rotated component matrix of the factor three of IL shows three items loaded in this factor. The intention of all these three items retained under this factor was to increase participation of parent/guardians in their students' progress. The parents' role had not been mentioned in IL framework of Hallinger and Murphy (1985) but the researcher included it in the newly prepared model as parents' role was found important in the Nepali context while conducting Delphi process. By capturing the meaning of these items, a suitable name involving parents was given to this factor.

The factor involving parents is concerned with head teacher's role to make parents active and responsible along with the school for their children's academic performance. Strengthening the cooperation between school and parents for students' academic development is the gist of this factor. Parental involvement is seen as an important strategy for students' improvement in the context of Nepal. This act of involving parents is not mentioned as a factor of instructional leadership by the other researchers who developed the model for instructional leadership, however there are studies (Dahie et al., 2018; Sapungan & Sapungan, 2014) which have shown the positive relationship between parental involvement and students' academic achievement.

### Factor One of OH of School: Morale and Resource Management at School

All the items of this factor are shown in the rotated component matrix below

Table 12

*Rotated Component Matrix of Factor One of OH of school*

	Components		
	1	2	3
13 Teachers accomplish their job with enthusiasm	.583		
2.1 The teaching materials such as marker, duster, register, etc. are available at school.	.730		
2.3 Necessary materials are available for extra- curricular activities.	.745		
3.1 Head teacher treats every teacher alike.	.806		
3.2 Head teacher respects teachers' suggestions and executes them where appropriate.	.768		
3.3 Head teacher also works for the welfare of teachers.	.735		
4.1 Positive learning environment is maintained in the class	.696		

Seven items were loaded in factor one of OH of school which is shown in the rotated component matrix. Among the seven items of factor one, some items were related to enthusiasm, confidence, trust and discipline of head teacher and teachers while some items were related to resource support and environment maintenance at school. In the OH model of school proposed by Hoy et al. (1991), the items giving the sense of keenness, trust and friendliness among teachers were kept under the factor morale; the items related to availability of physical facilities and teaching materials in the school were kept under the factor resource support; items revealing head teacher's friendly and supportive behavior were kept under the factor consideration and the items that were related to school's effort for maintaining learning environment in the school were kept under the factor academic emphasis (Smith et al., 2001; Cemaloglu, 2007; Alqarni, 2016; Parlar & Cansoy, 2017).

Covering the essence of all these words, a suitable name morale and resource management at school was given to this factor which is the gist of all seven items loaded under this factor.

Each factor of organizational health describes a set of functions that determines the organizational health of the school. The morale and resource management is necessary for maintaining good health of the school. According to Hoy et al. (1991), morale is collective sense of friendliness, openness and enthusiasm among members of teaching staff and resource support/management is the ability of head teacher to obtain classroom materials and supplies needed by teachers. In the view of Hoy and Hannum (1997), resource management refers to availability of classroom supplies and instructional materials and extra materials readily available if necessary. Cemaloglu (2007) stated that the morale refers to trust, confidence, enthusiasm and friendliness among teachers and resource management refers to adequate classroom supplies, instructional materials and extra materials in the school. Perry (2014) defined resource support as it is the degree to which the teachers have necessary instructional materials and can readily acquire additional supplies as needed. According to Parlar and Cansoy (2017), this factor refers to a positive learning climate resulted due to collaboration and functioning of individuals loving their job, making physical conditions available for the school and accessing materials when needed. In a simple language, morale and resource management is about a good relationship among the members of school and availability of required materials and its proper utilization in the school.

### **Factor Two of OH of School: Head Teacher's Right, Power and Influence at School**

All the items of this factor are shown in the rotated component matrix below.

Table 13

*Rotated Component Matrix of Factor Two of OH of school*

Components			
	1	2	3
6.1 Head teacher can ask local government for help to better school.		.665	
6.2 Head teacher can change the duty/ responsibility of teachers and staff where necessary.		.807	
6.3 Head teacher's decision to school improvement is not impeded by higher authorities.		.567	
7.2 Head teacher does not hesitate to take necessary decision for the betterment of school.		.527	

The rotated component matrix of the factor two of OH of school shows four items loaded in this factor. The four items were related to head teacher's right and ability to influence superiors and confidence to demonstrate independence in thought and action. The items covering such similar sense were kept under the factor head teachers' influence in Hoy et al. model of OH of school (Smith et al., 2001; Cemaloglu, 2007; Alqarni, 2016; Parlar & Cansoy, 2017). Therefore, following the literature an appropriate name the head teacher's right, power and influence at school was given to this factor which summarizes the meaning of all those items.

The head teacher's right, power and influence in the school refers to head teachers' ability of approaching and convincing other stakeholders to take necessary decisions and actions for the improvement of the school. The factor, head teacher's right, power and influence at school is somewhat similar to the factor head teacher's influence in Hoy et al. (1991) model of organizational health. Hoy et al. (1991) stated that the head teacher's influence describes the head teacher's ability to influence superiors. In the view of Hoy and Hannum (1997), it is head teacher's ability to influence the actions of superiors and proceed the plan being undisturbed by the



hierarchy. According to Cemaloglu (2007), head teacher's influence refers to the head teacher's ability to affect the action of superiors. Perry (2014) defined head teacher's influence as it is the ability of head teacher to influence the action of superiors to aid teachers' acquisitions of additional resources. According to Parlar and Cansoy (2017), it is about head teacher influencing superiors, preventing the hierarchical structure from blocking the activities to be implemented and become effective models in the development of the school. Thus, head teacher's right, power and influence at school is all about head teacher's ability to influence all stakeholders of the school and keep them in favor of decisions related to school improvement.

### **Factor Three of OH of School: Outside Pressure at School**

All the items of this factor are shown in the rotated component matrix below.

Table 14

*Rotated Component Matrix of Factor Three of OH of School*

	Components		
	1	2	3
5.1 There is a pressure from political parties at school.			.745
5.2 Community demands are accepted even if they are inconsistent with educational programs.			.713
5.3 The school policy is compromised if there is a pressure from even minority of guardians.			.799

The rotated component matrix of the factor three of OH of school shows three items loaded under this factor. The three items explained the possible pressure at school from parents/guardian, community people and political parties. An organization needs to be able to cope with outside forces. However, these outside forces may vary with respect to country depending upon its social, cultural and political practices but in general community and parental demands are common in a school. With respect to Nepal, some political forces were also experienced by the

head teachers at times. It was found from the version of head teachers during Delphi process and there is some literature as well to support it (Rauniyar, 2017). Therefore, an item, pressure from political parties was also included in the new OH model developed for this study. A suitable name outside pressure at school was given to this factor which included all kinds of possible pressure at school.

However, outside pressure at school is not a factor of organizaonal helath in the internationally proposed models of organizational health but it is similar to institutional integrity, one of the factors of organizational health model proposed by Hoy et al. (1991). According to Hoy et al., it is the extent to which the school is able to manage its constraints from the environment. In the view of Hoy and Hannum (1997), institutional integrity is the degree to which the school can cope with its environment to maintain its programs. Cemaloglu (2007) described it as it is the condition of school in which school is not vulnerable to outside demands and is able to cope successfully with destructive external forces. Perry (2014) defined institutional integrity as it is the ability of school to cope with external destructive forces. According to Parlar and Cansoy (2017), institutioanal integrity refers to school curriculum being adopted as a whole by staff, interaction with different groups outside the school and protecting teachers against unreasonable requests from outside the school. Thus, the factor outside pressure in the school is all about possible interferences in the school from outside and the ability of the school to cope with it for protecting school from unreasonable disturbance.

### **Level of Instructional Leadership**

To see the level of IL in responses of head teachers and teachers, the mean values obtained for the factors of IL in the responses of head teachers and teachers were calculated separately and based on the mean values of the factors, the level was found out. The head teachers and teachers assessed the IL activities on a 5-point

Likert- scale (where 1= almost never, 2= seldom, 3= sometimes, 4= frequently and 5= almost always).

Table 15

*Different Level of Response between Head Teachers and Teachers on IL*

Variables	Head Teachers' Average	Teachers' Average	t-Test's P- value	
Variable X <sub>1</sub>	4.28	3.83	.000	Significant
Variable X <sub>2</sub>	4.25	3.73	.000	Significant
Variable X <sub>3</sub>	4.36	4.06	.000	Significant

The Table 15 shows the result of independent samples t-Tests. On t-Test, the response of head teachers and teachers is found significantly different on IL which proves that the head teachers and teachers are different. Therefore, the response of the head teachers and teachers can be analyzed separately.

The response level of head teachers and teachers was categorized based on the theory of Polit and Hungler (1997). According to this theory, the level of responses can be categorized by dividing the result of highest possible mean score minus the lowest mean score by the total number of Likert-scale. In this study, the responses were taken in 5-point Likert scale, therefore the difference of highest and lowest mean score is divided by 5. It gives an interval of 0.8 (Polit & Hungler, 1997). The scoring guideline for the category of response is presented in the following Table 16.

Table 16

*Scoring of Response Level*

S. No	Mean Score	Category of response
1	1.00 – 1.80	Almost never
2	1.81 – 2.60	Seldom
3	2.61 – 3.40	Sometimes
4	3.41 – 4.20	Frequently
5	4.21 – 5.00	Almost always

Table 17

*Mean and Std. Deviation of Head Teachers' and Teachers' Responses on IL Factors*

Factors	Head Teachers' Response		Teachers' Response	
	Mean	SD.	Mean	SD.
Planning, managing and supervising instructional program	4.28	.439	3.83	.809
Motivating and developing competence of teachers and students	4.25	.544	3.73	.921
Involving parents	4.36	.542.	4.06	.834

The Table 17 shows that the mean value of head teachers' response on instructional leadership factors is in between 4.21 to 5.00. This interval shows that the head teachers have practiced the IL role at the rate of almost always in head teachers' response. On the other hand, the mean value of teachers' response on instructional leadership factors is in between 3.41 to 4.20. It shows that the head teachers have practiced IL role at the rate of frequently in teachers' response. The mean scores for each factor of IL is slightly higher in the head teachers' response than in teachers' response. This difference in the response of head teachers and teachers has proved that the self- rating differs with peer rating.

On this basis of mean score value and its scoring level, the IL is found to have practiced at the first level at involving parents, second level at planning, managing and supervising instructional program and third level at motivating and developing competence of teachers and students. This finding proved that the head teachers regarded parents' interaction as one of the most important tasks of their leadership activities. The standard deviations ranged from 0.44 to 0.55 among the head teachers' response and 0.81 to 0.93 among the teachers' response indicating convergence in their response on IL.

### Level of Organizational Health of School

To see the level of OH practice of school, the mean values of the responses of head teachers and teachers on OH factors were calculated separately and based on the mean values of the factors, the ranking was done. The responses of the teachers and head teachers were taken on the OH of school based on five-point Likert scale with the descriptors, 1= almost never, 2= seldom, 3= sometimes, 4= frequently and 5= almost always.

Table 18

*Different Level of Response between Head Teachers and Teachers on OH of school*

Variables	Head Teachers' Teachers'		t-Test's	
	Average	Average	P- value	
Variable Y <sub>1</sub>	4.64	4.22	.000	Significant
Variable Y <sub>2</sub>	4.20	4.01	.010	Significant
Variable Y <sub>3</sub>	2.25	2.36	.239	Not Significant

The Table 18 shows the result of independent samples t-Tests. On t-Test, the response of head teachers and teachers is found significantly different for the OH of school except for one factor, i. e. outside pressure at school.

To see the level of responses on the OH of school also, the response level of head teachers and teachers was categorized based on Polit and Hungler (1997) theory. Thus, the scoring guideline for the category of response on the OH of school is also same as for IL.

Table 19

*Mean and Std. Deviation of Head Teachers and Teachers Responses on OH Factors*

Factors	Head Teachers' Response		Teachers' Response	
	Mean	SD	Mean	SD
1. Morale and resource management at school	4.64	.327	4.22	.693
2. Head teacher's right, power and influence at school	4.20	.605	4.01	.766
3. Outside pressure at school	2.25	.794	2.36	.907

The Table 19 shows that the mean scores of the response of head teachers and teachers on the factor, morale and resource management at school is in between 4.20 to 5.00; on the factor head teacher's right, power and influence at school is in between 3.41 to 4.20 and; on the factor outside pressure at school is in between 1.81 to 2.60. This interval reveals that the OH of school is practiced at the rate of almost always at morale and resource management at school; at the rate of frequently at head teacher's right, power and influence at school and; at the rate of seldom at outside pressure at school. However, the scoring level is same in the response of both head teachers and teachers but the mean score is comparatively higher in head teachers' response than in teachers' response for each factor of OH of school. The outside pressure at school practiced at the rate of seldom is a good result because it shows the outside pressure at school seldom occurs.

On this basis of mean score value and its scoring level the OH of school is found to have practiced at the first level at morale and resource management at school, second level at head teacher's right, power and influence at school and third level at outside pressure at school. The standard deviations ranged from 0.33 to 0.8

among the head teachers' response and 0.7 to 0.91 among the teachers' response indicating convergence in their response on the factors of OH of school.

### **Essence of the Chapter**

Three factors were identified for IL and three factors for OH of school. The factors for IL were 1) planning, managing and supervising instructional program, 2) motivating and developing competence of teachers and students and 3) involving parents and the factors for OH of school were 1) morale and resource management at school, 2) head teacher's right, power and influence at school and 3) outside pressure at school. Regarding the level of IL, involving parents ranked at the first level; planning, managing and supervising instructional program at the second level and motivating and developing competence of teachers and students at the third level. And among schools' OH factors, morale and resource management at school ranked at the first level, head teacher's right, power and influence at school at the second level and outside pressure at school at the third level.

CHAPTER V  
EFFECTS OF INSTRUCTIONAL LEADERSHIP ON ORGANIZATIONAL  
HEALTH OF SCHOOL

This chapter contains the analysis about how the instructional leadership affects the OH of a school. The regression models developed to see the relationship between the independent variables (factors of IL) and the dependent variables (factors of OH) along with the result obtained from each of those models are presented in the chapter.

**Dependent and Independent Variables for Regression Analysis**

The three factors obtained from factor analysis for IL were 1) planning, managing and supervising instructional program, 2) motivating and developing competence of teachers and students and 3) involving parents. There were fourteen items in the factor one, eight items in the factor two and three items in factor three of IL. The average value of all fourteen items of factor one was denoted by  $X_1$ , eight items of factor two by  $X_2$  and three items of factor three by  $X_3$ . Thus, these three factors of IL activities denoted by  $X_1$ ,  $X_2$  and  $X_3$  have been used as independent variables for the regression analysis.

Likewise, the three factors obtained for organizational health of school were 1) morale and resource management at school, 2) head teacher's right, power and influence at school and 3) outside pressure at school. There were seven items under the factor one, four items under the factor two and three items under the factor three of OH of school. The average of seven items of factor one was denoted by  $Y_1$ , the average of four items related to factor two by  $Y_2$  and the average of three items related to factor three by  $Y_3$ . Thus, these three factors of OH of school denoted by  $Y_1$ ,



$Y_2$  and  $Y_3$  respectively have been used as dependent variables for the regression analysis.

### **Regression Models: Relationship between OH of School and IL**

Regression analysis was conducted to see the relationship of three different factors ( $Y_1$ ,  $Y_2$  and  $Y_3$ ) of OH of school separately with those three factors of the IL ( $X_1$ ,  $X_2$  and  $X_3$ ) taking all independent variables at a time. In addition to this, the relationship between OH of school (the main dependent variables) and three factors of IL activities ( $X_1$ ,  $X_2$  and  $X_3$ ) have been established to see their cause and effect relationship.

#### **Regression Model 1: Relationship of Morale and Resource Management at School with Instructional Leadership Related Three Variables ( $X_1$ , $X_2$ and $X_3$ )**

To find the relationship between morale and resource management at school (variable  $Y_1$ ) of OH of school with variable  $X_1$ , variable  $X_2$  and variable  $X_3$  (variables of IL), regression model one was fitted by considering morale and resource management at school (variable  $Y_2$ ) of OH of school as dependent variable and  $X_1$ ,  $X_2$  and  $X_3$  as independent variables.

#### **Regression Model 2: Relationship of Head Teacher's Right, Power and Influence at School with Instructional Leadership Related Three Variables ( $X_1$ , $X_2$ and $X_3$ )**

To find the relationship between head teacher's right, power and influence at school (variable  $Y_2$ ) of OH of school with variable  $X_1$ , variable  $X_2$  and variable  $X_3$  (variables of IL), regression model two was fitted considering head teacher's right, power and influence at school (variable  $Y_2$ ) of OH of school as dependent variable and  $X_1$ ,  $X_2$  and  $X_3$  as independent variables.

**Regression Model 3: Relationship of Outside Pressure at School with Instructional Leadership Related Three Variables (X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub>)**

To find the relationship between outside pressure at school (variable Y<sub>3</sub>) of OH of school with variable X<sub>1</sub>, variable X<sub>2</sub> and variable X<sub>3</sub> (variables of IL), regression model three was fitted considering outside pressure at school factor (variable Y<sub>3</sub>) of OH of school as dependent variable and X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> as independent variables.

**Regression Model 4: Relationship of Average of OH Variables (Y) of School with Instructional Leadership Related Three Variables (X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub>)**

To find the relationship between average of OH variables of school (variable Y) with variable X<sub>1</sub>, variable X<sub>2</sub> and variable X<sub>3</sub> (variables of IL), regression model four was fitted considering average of OH factors of school (variable Y) as dependent variable and X<sub>1</sub>, X<sub>2</sub> and X<sub>3</sub> as independent variables.

Therefore, the possible models, establishing the relationship between IL and OH of schools for the study were:

$$Y_1 = a_1 + b_{11}X_1 + b_{12}X_2 + b_{13}X_3 + e_1$$

$$Y_2 = a_2 + b_{21}X_1 + b_{22}X_2 + b_{23}X_3 + e_2$$

$$Y_3 = a_3 + b_{31}X_1 + b_{32}X_2 + b_{33}X_3 + e_3$$

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Where,

Y<sub>1</sub>= Morale and resource management at school (factor one of OH)

Y<sub>2</sub> = Head teacher's right, power and influence at school (factor two of OH)

Y<sub>3</sub>= Outside pressure at school (factor three of OH)

Y = Overall Organizational Health (OH) of school. This has been calculated by finding the weighted average of Y<sub>1</sub>, Y<sub>2</sub> and Y<sub>3</sub>

$X_1$  = Planning, managing and supervising instructional program (factor one of IL)

$X_2$  = Motivating and developing competence of teachers and students (factor two of IL)

$X_3$  = Involving parents (factor three of IL)

$a$  = Constant (Slope of the regression equation)

$b_{11}, b_{12}$  &  $b_{13}$  = Regressions Coefficient in model one associated with the variables  $X_1, X_2$  &  $X_3$  respectively.

$b_{21}, b_{22}$  &  $b_{23}$  = Regression Coefficients in model two associated with the variables  $X_1, X_2$  &  $X_3$  respectively.

$b_{31}, b_{32}$  &  $b_{33}$  = Regression Coefficients in model three associated with the variables  $X_1, X_2$  &  $X_3$  respectively.

$b_1, b_2$  &  $b_3$  = Regression Coefficients in model four associated with the variables  $X_1, X_2$  &  $X_3$  respectively.

And  $e_1, e_2, e_3$  and  $e$  are the error terms or the residuals of the models one, two, three and four respectively.

### **Assumptions of Multiple Regression Analysis**

It is necessary to test following assumptions in order to develop regression models (Osborne & Waters, 2002; Foster et al., 2006; Huitema & Laraway, 2006; Alexopoulos, 2010; Fox, 2016).

- |    |  |    |
|----|--|----|
| 1. | ormal distribution of dependent variable.  | N  |
| 2. | near relationship between dependent and independent variables.   | Li |
| 3. | on- existence of auto correlation: Many parametric statistical procedures assume that the errors/residuals of the models used in the | N  |

analysis are independent of one another, (that means errors/residuals not correlated). When this assumption is not met, the outcome of these analyses and conclusion drawn from them are likely to be misleading.

4. N

on- existence of multi- collinearity: Multicolliniarity means how far the independent variables are correlated with each other. In other words, it is the influence of one independent variable on other independent variables. If mulicollinearity exists, it gives different relation with the dependent variable which misleads the result.

5. N

ormal distribution of residuals, and

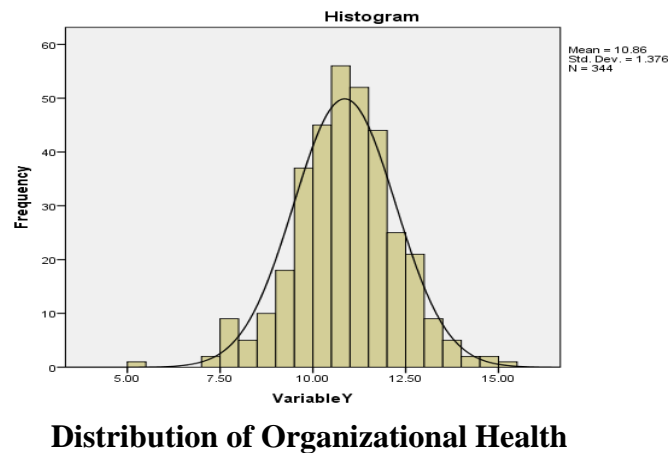
6. N

on- existence of heteroscedasticity: For homoscedasticity, residuals should not be changed with the change in the independent variable.

The assumptions of multiple regression analysis for rereession models one, two, three and four was tested stepwise.

*Normal Distribution of Dependent Variable:* The dependent variables were normally distributed.

Figure 4. Normality Test of Dependent Variables (Average of school's OH variables)



*Linear Relationship between Dependent and Independent Variables:* It can be tested by drawing scatter plots (Osborne & Waters, 2002; Burton, 2020). The scatter plots drawn for models one, two and four showed good linear relationship between dependent and independent variables. But for model three, the scatter plots showed weak linear relationship between the dependent and independent variables, suggesting not to run regression analysis in the model three.

Figure 5, 6 and 7. Scatter Plots between Dependent Variable  $Y_1$  and Independent Variables  $X_1$ ,  $X_2$  and  $X_3$  Respectively of Model One

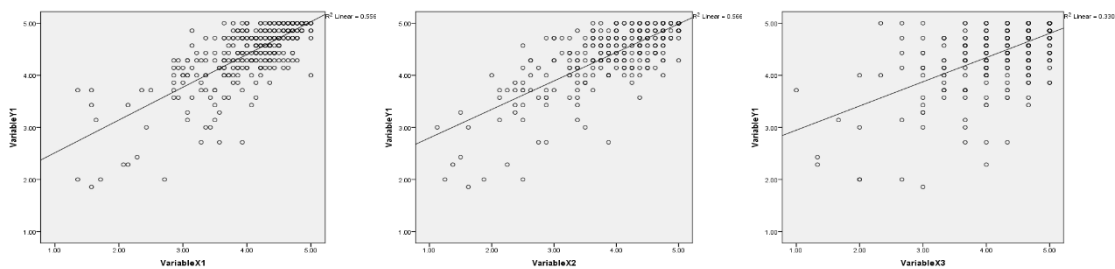


Figure 8, 9 and 10. Scatter Plots between Dependent Variable  $Y_2$  and Independent Variables  $X_1$ ,  $X_2$  and  $X_3$  Respectively of Model Two

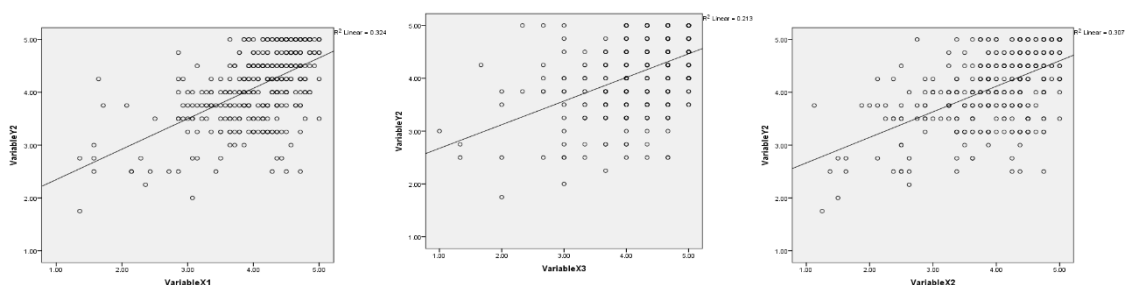
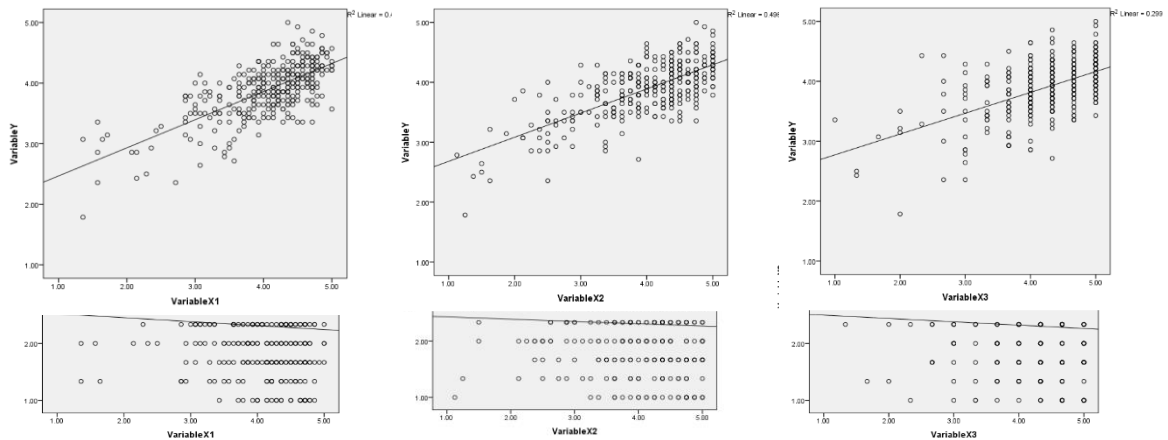


Figure 11, 12 and 13. Scatter Plots between Dependent Variable  $Y_3$  and Independent Variables  $X_1$ ,  $X_2$  and  $X_3$  Respectively of Model Three

Figure 14, 15 and 16. Scatter Plots between Dependent Variable  $Y$  and Independent Variable  $X_1$ ,  $X_2$  and  $X_3$  respectively of Model Four



*Non- existence of Auto correlation:* The regression model for autocorrelation can be tested with Durbin-Watson test. Durbin-Watson's  $d$  tests the null hypothesis that the residuals are not linearly auto-correlated. If the Durbin- Watson value lies in between 1.5 to 2.5, it shows there is no autocorrelation in the data (Bogoro & Usman, 2019, Karadimitriou & Marshall, 2019). The Durbin- Watson value for all the four models was found in the accepted range of 1.5 to 2.5 which is shown in the following tables developed to see the model summary of each model. It indicated that there is no autocorrelation in the samples.

However, it is not the time series data but the autocorrelation is used here to see whether the response taken from the respondents is independent. It is because the autocorrelation can also occur in the cross-sectional data when the observations are related in some other ways other than time factor (Shalabh, 2014). For example, the respondents from similar location may give similar answers, causing autocorrelation. The autocorrelation can also occur in the data when the relationship between the dependent and independent variables is not specified correctly (Shalabh, 2014).

Table 20

*Model Summary of Model One*

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Durbin-Watson
0.794	0.630	0.627	0.35480	1.999
a. Variable X <sub>2</sub>		Predictors: (Constant), Variable X <sub>3</sub> , Variable X <sub>1</sub> ,		
b.		Dependent Variable: Variable Y <sub>1</sub>		

Table 21

*Model Summary of Model Two*

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Durbin-Watson
0.601	0.361	0.355	0.55900	1.843
a. Predictors: (Constant), Variable X <sub>3</sub> , Variable X <sub>1</sub> , Variable X <sub>2</sub>				
b. Dependent Variable: Variable Y <sub>2</sub>				

Table 22

*Model Summary of Model Three*

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Durbin-Watson
0.062	0.004	-0.005	0.85548	1.587
a. Predictors: (Constant), Variable X <sub>3</sub> , Variable X <sub>1</sub> , Variable X <sub>2</sub>				
b. Dependent Variable: Variable Y <sub>3</sub>				

Table 23

*Model Summary of Model Four*

R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. Error of the Estimate	Durbin-Watson
0.745	0.555	0.551	0.30576	1.698
a. Predictors: (Constant), Variable X <sub>3</sub> , Variable X <sub>1</sub> and Variable X <sub>2</sub>				
b. Dependent Variable: Variable Y				

In the model summary, the R value 0.794 for model one and 0.601 for model two indicates that the multiple correlation of the predictors to the dependent variables (i) morale and resource management at school and (ii) head teacher's right, power and influence at school was strong and positive. But, the R value 0.062 for model three indicates that the multiple correlation of the predictors to the dependent variable (iii) outside pressure at school is very weak or almost not. A correlation coefficient of less than 0.1 indicates negligible relationship (Schober et al., 2018). The R value 0.745

for model four indicates that the multiple correlation of the predictors to the dependent variable (iv) overall organizational health of the school is again strong and positive.

The  $R^2$  is the proportion of the variance in the dependent variable that is predictable from the independent variable.  $R^2$  value 0.630 for model one indicates that the change in the value of dependent variable (i) morale and resource management at school (factor one of OH of school) was contributed by 63.0 % due to change in the independent variables (factors one, two and three of IL). The  $R^2$  value 0.361 for model two indicates that the change in the value of dependent variable (ii) head teacher's right, power and influence at school (factor two of OH of school) was contributed by 36.1 % due to change in the independent variables (factors one, two and three of IL). The  $R^2$  value 0.004 for model three is very low which indicates that it is very weak to describe the relationship between the dependent variable (iii) outside pressure at school (factor three of OH of school) and independent variables (factors one, two and three of IL). So, there is no need to explain the relationship between the dependent and independent variables of this model three. Thus, the value of  $R^2$  suggested to discard this model. The  $R^2$  value 0.555 for model four indicates that the change in the value of dependent variable (OH of school) was contributed by 55.5 % due to change in the independent variables (factors of IL).

From the values of coefficient of determination ( $R^2$ ) for models one, two, three and four, it is found that the models one, two and four good fit for the data as the  $R^2$  values for models one, two and four are 0.630, 0.361 and 0.555 respectively. It has shown that the dependent variable of model one is predictable by 63.0 %, that of model two by 36.1 % and that of model four by 55.5 % by the independent variables. This percentage of predictive ability of independent variables to the the dependent variable of these three models seems good fit for the data. Among these, the models



one and four show even better fit for the data because as stated by Burton (2020), the  $R^2$  values of .40 or larger is considered robust in the social sciences. But the model three is able to explain only 0.4 % of the variance indicating a rather poor fit.

Therefore, the model three is discarded.

*Non- existence of Multi-collinearity:* The existence or non-existence of multicollinearity in regression model can be tested from the value of Variance Inflation Factor (VIF) for regression coefficients. If VIF value is less than 10, the level of multicollinearity can be accepted to develop the multiple regression model (Uyanik & Guler, 2013; Burton, 2020; Kadoya et al., 2018). In addition, the tolerance values higher than .10 is preferred to run multiple regression in the models (Carney & Surles, 2002; Daoud, 2017). The models one, two and four are tested for multicollinearity. But the model three is discarded due to very low  $R^2$  value, so there is no need to test this model for multicollinearity and for any other assumptions of multiple regression analysis.

Table 24

*VIF and Tolerance Value of Regression Coefficients of Model One*

Unstandardized Coefficients	Standardized Coefficients		Collinearity Statistics				
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
Model							
(Constant)	1.690	.127		13.311	.000		
Variable X <sub>1</sub>	.314	.047	.373	6.654	.000	.346	2.887
Variable X <sub>2</sub>	.288	.042	.396	6.923	.000	.333	3.005
Variable X <sub>3</sub>	.076	.035	.094	2.147	.000	.565	1.771

a.

D

ependent Variable: Variable Y<sub>1</sub>

Table 25

*VIF and Tolerance Value of Regression Coefficients of Model Two*

Unstandardized	Standardized	Collinearity
----------------	--------------	--------------

Coefficients	Coefficients				Statistics		
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
Model							
(Constant)	1.525	.200		7.626	.000		
Variable X <sub>1</sub>	.317	.074	.313	4.255	.000	.346	2.887
Variable X <sub>2</sub>	.195	.066	.224	2.977	.003	.333	3.005
Variable X <sub>3</sub>	.123	.056	.127	2.205	.028	.565	1.771

a. Dependent Variable: Variable Y<sub>2</sub>

Table 26

*VIF and Tolerance Value of Regrewssion Coefficients of Model Four*

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
(Constant)	1.847	.109			16.881	.000		
Variable X <sub>1</sub>	.232	.041	.349		5.686	.000	.346	2.887
Variable X <sub>2</sub>	.207	.036	.361		5.762	.000	.333	3.005
Variable X <sub>3</sub>	.065	.031	.103		2.141	.033	.565	1.771

a. Dependent Variable: Variable Y

The Tables 24, 25 and 26 show that the Variance Inflation Factor (VIF) for each regression coefficient of models one, two and four are less than 10 and tolerance value for each is more than .10 and less than one. So, taking the reference from Carney and Surles (2002); Daoud, (2017); Grant, (2002); Fox, (2016), it could be predicted that the multi-collinearity among the independent variables does not exist in any of these models. This means that all the explanatory variables in each model are significantly independent as the p-value for each corresponding t- value is less than 0.05.

Table 27

*ANOVA Table of Model One*

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	72.903	3	24.301	193.043	.000
Residual	42.480	340	.126		
Total	115.703	343			

- a. Dependent Variable: Variable Y<sub>1</sub>  
 b. Predictors: (Constant), Variable X<sub>3</sub>, Variable X<sub>1</sub>,  
 Variable X<sub>2</sub>

Table 28

*ANOVA Table of Model Two*

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	60.057	3	20.019	64.064	.000
Residual	106.245	340	.312		
Total	166.302	343			

a. Dependent Variable: Variable Y<sub>2</sub>

b. Predictors: (Constant), Variable X<sub>3</sub>, Variable X<sub>1</sub> and Variable X<sub>2</sub>

Table 29

*ANOVA Table of Model Four*

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	39.707	3	13.236	141.577	.000
Residual	31.785	340	.092		
Total	71.492	343			

a. Dependent Variable: Variable Y

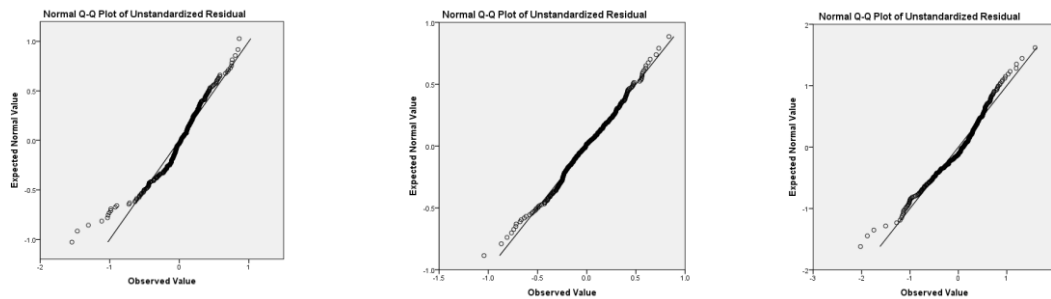
b. Predictors; (Constant), Variable X<sub>3</sub>, Variable X<sub>1</sub>, Variable X<sub>2</sub>

The ANOVA tables developed for models one, two and four (Table 27, 28 and 29) indicate that the overall regression model is good fit for the data because p-value is 0.000 (< 0.05) for each model indicating that there is statistical significance of the models (Bogoro & Usman, 2019). A significant F- statistics implies that the model is significantly good fit for the data (Burton, 2020).

*Normal Distribution of Residuals:* It is also called multivariate normality. It can be checked by drawing Q & Q plot of the residual of dependent variable (Bobbitt, 2020; Burton, 2020). Thus, it is checked by drawing Q & Q plot of the residual for the dependent variable of each model. The Q & Q plot of the residual of dependent variable Y<sub>1</sub> (morale and resource management at school) of model one, Y<sub>2</sub>

(head teacher's right, power and influence at school) of model two and Y (organizational health of school) of model four shows normal distribution because the values are mostly along with the straight line.

Figure 17, 18 and 19. Normality Test (Q & Q Plot) of Residuals of Model One, Two and Four Respectively.



*Non- existence of Heteroscedasticity:* There should be homoscedasticity

(constant variance) of residuals (Fox, 2016). It can be tested by Glejser test of heteroscedasticity (Rmanathan, 1998; Silva & Machado, 2000). Glejser test of heteroscedasticity for models two, three and four (Table 30, 31 and 32) shows that the coefficient of none of the explanatory variables are significant. Hence, it can be said that the change in independent variables do not bring change in residuals which means there is no heteroscedasticity.

Table 30

*Glejser Test of Heteroscedasticity for Model One*

Unstandardized Coefficients			Standardized		
	B	Std. Error	Beta	T	Sig.
(Constant)	1.899E-016	.127		.000	1.000
Variable X <sub>1</sub>	.000	.047	.000	.000	1.000
Variable X <sub>2</sub>	.000	.042	.000	.000	1.000
Variable X <sub>3</sub>	.000	.035	.000	.000	1.000

a. Dependent Variable: Unstandardized Residual

Table 31

*Glejser Test of Heteroscedasticity for Model Two*

Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	2.834E-016	.200		.000	1.000
Variable X <sub>1</sub>	.000	.074	.000	.000	1.000
Variable X <sub>2</sub>	.000	.066	.000	.000	1.000
Variable X <sub>3</sub>	.000	.056	.000	.000	1.000

a. Dependent Variable: Unstandardized Residual

Table 32

*Glejser Test of Heteroscedasticity for Model Four*

Unstandardized Coefficients			Standardized Coefficients		
	B	Std. Error	Beta	T	Sig.
(Constant)	2.390E-015	.109		.000	1.000
Variable X <sub>1</sub>	.000	.041	.000	.000	1.000
Variable X <sub>2</sub>	.000	.036	.000	.000	1.000
Variable X <sub>3</sub>	.000	.031	.000	.000	1.000

a. Dependent Variable: Unstandardized Residual

Further, from the test of endogeneity it became clear that there is no significant correlation between residual of each model and its explanatory variables. It indicated that there is no issue of endogeneity, which means residuals do not change with the change in independent variables. The same result was found for each model. It can be seen in the table below (Table 33). So, almost all conditions were met for multiple regression analysis.

Table 33

*Result Obtained from the Test of Endogeneity for Model One, Two and Four*

Factors	Residual		
	Pearson Correlation	Sig. (2-tailed)	N
Variable X <sub>1</sub>	.000	1.000	344

Variable X <sub>2</sub>	.000	1.000	344
Variable X <sub>3</sub>	.000	1.000	344

---

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

### **Mathematical Relationship of Dependent and Independent Variables of the Models**

Mathematically, the relationship of predictor variables with the dependent variable of each model can be expressed as follows.

#### **Model 1**

$$Y_1 = a_1 + b_{11}X_1 + b_{12}X_2 + b_{13}X_3 + e_1$$

Morale and resource management at school (factor Y<sub>1</sub> i.e. factor one of OH) = 1.690 + 0.314 × (factor X<sub>1</sub>) + 0.288 × (factor X<sub>2</sub>) + 0.076 × (factor X<sub>3</sub>).

This relationship of morale and resource management at school with the three predictor variables is obtained from the coefficient table of model one which is presented below.

Table 34

*Coefficient Table of Model One*

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
(Constant)	1.690	.127			13.311	.000		
Variable X <sub>1</sub>	.314	.047	.373		6.654	.000	.346	2.887
Variable X <sub>2</sub>	.288	.042	.396		6.923	.000	.333	3.005
Variable X <sub>3</sub>	.076	.035	.094		2.147	.000	.565	1.771

a.

D

ependent Variable: Variable Y<sub>1</sub>

The value of slope of regression (constant) was 1.690 (p-value 0.000). Among the three factors, the factor X<sub>1</sub> seemed to be more influencing to the factor Y<sub>1</sub> as its coefficient was the highest among all which was 0.314. This indicated that the unit change in planning, managing and supervising instructional program (factor one of IL) brings 0.314 units change in morale and resource management at school (factor one of OH of school). Secondly, the factor X<sub>2</sub> influenced the factor Y<sub>1</sub> by its coefficient 0.288. This indicated that the unit change in motivating and developing competence of teachers and students (factor two of IL) brings 0.288 units change in morale and resource management at school (factor one of OH of school). The least affecting factor of IL was factor X<sub>3</sub> with its coefficient 0.076. This indicated that the unit change in involving parents (factor three of IL) brings 0.076 units change in morale and resource management at school (factor one of OH of school).

The coefficient table developed for model one shows that the slope of regression equation (the constant) taking all three factors of instructional leadership into consideration was significant with p-value 0.000 (< 0.05). This signified that the model can be described on the basis of these three factors. Considering the regression

coefficient values ( $b_{11}$ ,  $b_{12}$  and  $b_{13}$ ) of model one, it was concluded that change in planning, managing and supervising instructional program can cause a large change in the morale and resource management at school.

Thus, on the basis of this study, it was found that among the three factors of IL, planning, managing and supervising instructional program affects highly the morale and resource management at school. Secondly, motivating and developing competence of teachers and students affects the morale and resource management at school and lastly involvement of parents affects the morale and resource management at school. Hence, IL influences the morale and resource management at school (factor one of OH of school).

### Model 2

$$Y_2 = a_2 + b_{21}X_1 + b_{22}X_2 + b_{23}X_3 + e_2$$

Head teacher's right, power and influence at school (factor  $Y_2$  i.e. factor two of OH) =  $1.525 + 0.317 \times (\text{factor } X_1) + 0.195 (\text{factor } X_2) + 0.123 \times (\text{factor } X_3)$

This relationship of head teacher's right, power and influence at school with the three predictor variables is obtained from the coefficient table of model two which is presented below.

Table 35

*Coefficient Table of Model Two*

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.	Collinearity Statistics	
	B	Std. Error	Beta				Tolerance	VIF
(Constant)	1.525	.200			7.626	.000		
Variable $X_1$	.317	.074	.313		4.255	.000	.346	2.887
Variable $X_2$	.195	.066	.224		2.977	.003	.333	3.005
Variable $X_3$	.123	.056	.127		2.205	.028	.565	1.771

a. Dependent Variable: Variable  $Y_2$



The value of slope of regression (constant) was 1.525 (p-value 0.000).

Among the three factors, the factor  $X_1$  seemed to be more influencing to the factor  $Y_2$  as its coefficient was the highest among all which was 0.317. This indicated that the unit change in planning, managing and supervising instructional program (factor one of IL) brings 0.317 units change in head teacher's right, power and influence at school (factor two of OH of school). Secondly, the factor  $X_2$  influenced the factor  $Y_2$  by its coefficient 0.195. This indicated that the unit change in motivating and developing competence of teachers and students (factor two of IL) brings 0.195 units change in head teacher's right, power and influence at school (factor two of OH of school). The least influencing factor of IL was factor  $X_3$  with its coefficient 0.123. This indicated that the unit change in involving parents (factor three of IL) brings 0.123 units change in head teacher's right, power and influence at school (factor two of OH of school).

The coefficient table developed for model two shows that the slope of regression equation (the constant) taking all three factors of instructional leadership was significant with p-value 0.000 ( $< 0.05$ ). This signified that the model can be described on the basis of these three factors. Considering the regression coefficient values ( $b_{21}$ ,  $b_{22}$  and  $b_{23}$ ) of model two, it was concluded that the change in planning, managing and supervising instructional program can cause the largest change in the head teacher's right, power and influence at school.

Thus, on the basis above analysis, it was found that, among the three factors of IL planning, managing and supervising instructional program affects highly the head teacher's right, power and influence at school. Secondly, motivating and developing competence of teachers and students affects the head teacher's right, power and influence at school and eventually involvement of parents affects the head teacher's

right, power and influence at school. Hence, IL influences the head teacher's right, power and influence at school (factor two of OH of school).

**Note:** The regression model three was discarded because the scatter plots drawn for model three, and  $R^2$  value in the model summary of model three showed very weak relationship between the dependent and independent variables of this model. Hence, there is no effect of instructional leadership on the outside pressure at school (factor three of OH of school).

#### Model 4

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$$

Organizational health of school =  $1.847 + 0.232 \times (\text{factor } X_1) + 0.207 \times (\text{factor } X_2) + 0.065 \times (\text{factor } X_3)$ .

This relationship of organizational health (OH) of school as a whole with the three predictor variables is obtained from the coefficient table of model four which is presented below.

Table 36

*Coefficient Table of Model Four*

Model	Unstandardized Coefficients		Standardized Coefficients			Collinearity Statistics	
	B	Std. Error	Beta	T	Sig.	Tolerance	VIF
(Constant)	1.847	.109		16.881	.000		
Variable X <sub>1</sub>	.232	.041	.349	5.686	.000	.346	2.887
Variable X <sub>2</sub>	.207	.036	.361	5.762	.000	.333	3.005
Variable X <sub>3</sub>	.065	.031	.103	2.141	.033	.565	1.771

a. Dependent Variable: Variable Y

The value of slope of regression (constant) was 1.847 (p-value 0.000). Among the three factors, the factor X<sub>1</sub> seemed to be more influencing to the overall OH of the school as its coefficient was the highest among all which was 0.232. This indicated that the unit change in planning, managing and supervising instructional program

(factor one of IL) brings 0.232 units change in the OH of school. Secondly, the factor  $X_2$  influenced the OH of the school by its coefficient 0.207. This indicated that the unit change in motivating and developing competence of teachers and students (factor two of IL) brings 0.207 units change in the OH of school. The least influencing factor of IL was factor  $X_3$  with its coefficient 0.065. This indicated that the unit change in involving parents (factor three of IL) brings 0.065 units change in the OH of school.

The coefficient table developed for model four shows that the slope of regression equation (the constant) taking all three factors of instructional leadership into consideration was found significant with p-value 0.000 ( $< 0.05$ ). This signified that the model could be described on the basis of these three factors. Considering the regression coefficient values ( $b_1$ ,  $b_2$  and  $b_3$ ) of model four, it was concluded that change in planning, managing and supervising instructional program can cause the largest change in the OH of school.

Thus, on the basis of this study, it was found that among the three factors of IL the factor one which is planning, managing and supervising instructional program affects highly the OH of school. Secondly, motivating and developing competence of teachers and students affects the OH of school and lastly involving parents affects the OH of school. Hence, IL influences the OH of school.

Thus, the regression analysis showed significant relationship between IL and OH of school. The three factors of IL accounted for 55.5 % of the total variance in the OH of the school. The regression coefficient values of each model showed that the three different factors of IL has differential predictive effect on the factor one and factor two of OH (morale and resource management at school and head teacher's right, power and influence at school respectively) and also on the overall OH of the

school. But none of the factors of IL showed any predictive effect on factor three of OH of school (outside pressure at school).

### **Essence of the Chapter**

The result of multiple regression analysis employed to see the effect of IL on OH of school showed that these two aspects of school are positively and significantly related. The factors of IL are found to be the important determinants of OH of school which indicates a close relationship between them. These findings helped to reach the conclusion as when the school head teachers exhibit IL roles at the higher level, the OH of school gets positively affected. More specifically, the morale and resource management at school and head teacher's right, power and influence at school are significantly predicted by the IL played by head teachers.

The IL factors have comparatively higher influence on morale and resource management at school (factor one of OH of school) as IL explained 63.0 % of the total variance in this factor of OH than on the head teacher's right, power and influence at school (factor two of OH of school) as IL explained 36.1 % of the total variance in this factor of OH. But the IL factors have negligible influence on outside pressure at school (factor three of OH of school) as IL explained only 0.4 % of the total variance in this factor.

## CHAPTER VI

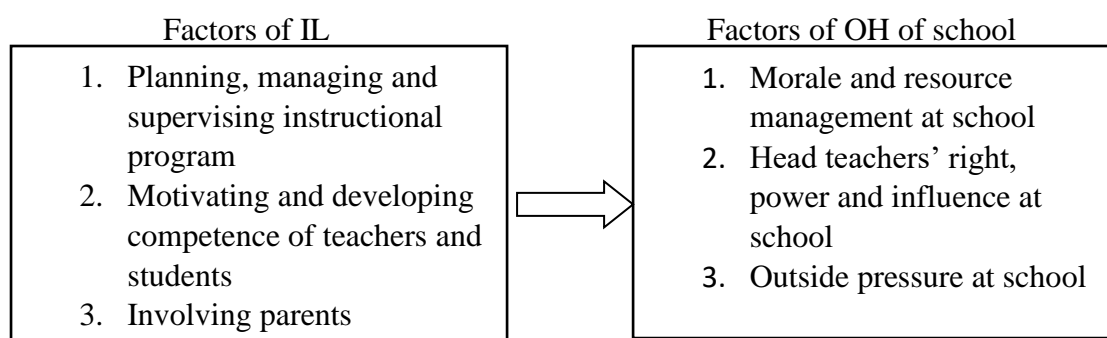
### FINDINGS AND DISCUSSIONS

This chapter explains the determining factors of instructional leadership and organizational health of community schools as resulted in this study, present status of instructional leadership and organizational health of community secondary schools of the Kathmandu valley. Further, the chapter also explains the effect of instructional leadership on organizational health of community secondary schools as shown by this study and the discussion, comparison and interpretation of these findings with the findings of similar research studies carried out by other researchers in the international arena.

#### **Determining Factors of Instructional Leadership and Organizational Health of School**

In relation to the research question one, the questionnaire consisting of different items accessing IL and OH of school was constructed through Delphi and analyzed using factor analysis. From this statistical analysis, the following model is found in the context of Nepali schools of the Kathmandu valley. Further, it is also found that there is effect of instructional leadership on organizational health of schools. It can be presented diagrammatically as follows. This model of IL and OH of school can be used in similar context of Nepali schools.

Figure 20. Factors of Instructional Leadership and Organizational Health of School



### **Instructional Leadership and Organizational Health of School**

In relation to the research question two, the present status of instructional leadership and organizational health of school was studied by employing descriptive statistics (mean value analysis) and their level was found out. The head teachers' response showed that they exhibit instructional leadership role at the rate of almost always at all factors of IL, but teachers' rating showed that their head teachers practice it at the rate of frequently at all factors of IL. The findings obtained this way have shown that the instructional leadership role is satisfactorily performed by head teachers at the schools. Similarly, both the response of head teachers and teachers towards schools' OH factors showed that the morale and resource management is practiced at the rate of almost always; head teachers' right, power and influence at the rate of frequently and; outside pressure at the rate of seldom. The outside pressure at school exhibited at the rate of seldom is a good result because it shows school seldom faces any problem from outside. The overall finding on OH of school has indicated that there is no problem in the organizational health of these schools. The intention of taking the response of both head teachers and teachers was to reach near the reality by taking the average of self rating by head teachers and peer rating by teachers. The level of instructional leadership and organizational health factors of school is obtained as follows.

Level of Instructional leadership:

1. First level: Involving parents
2. Second level: Planning, managing and supervising instructional program
3. Third level: Motivating and developing competence of teachers and students

Level of Organizational Health of School:

1. First level: Morale and resource management at school
2. Second level: Head teacher's right, power and influence at school

### 3. Third level: Outside pressure at school

The head teachers' involvement at the highest level at involving parents and lowest level at motivating and developing competence of teachers and students are the main findings to be pointed out. The fact that the IL role played by head teacher towards involving parents obtained at highest level can be seen as a positive result because regular communication of head teacher with parents makes parents more responsible for their children's progress and pay much attention towards that. Furthermore, the increased involvement of parents and community members in educational processes requires school leaders/head teachers to develop stronger relationships (Stronge et al., 2008) and according to Northouse (2015), every situation involving school leaders/head teachers requires some degree of relational behaviour. It also protects head teachers from the unnecessary nagging and complaints from parents as they remain informed about their children's condition and work together with the school for their children's improvement.

But other two IL factors are rather more important to improve teaching learning at schools and a head teacher needs to pay more attention to those areas. The IL role of planning, managing and supervising instructional program exhibited by the head teachers at the second level in this study differed from the result obtained in a number of similar studies of secondary schools in which the researchers found the IL roles similar to this factor practiced by head teachers at the highest level (Buluc, 2014; Erdogan & Sarikaya, 2016; Gunes & Kale 2015; Parlor & Cansoy, 2017; Recepoglu & Ozdemir, 2013). But the finding of this study regarding motivating and developing competence of teachers and students, exhibited by the head teachers at the lowest level concurred with these above researchers' findings in which they also found the IL role played by head teachers at the lowest level at supporting and developing teachers.

OH practices of schools at the first level under the factor morale and resource management at school can be evaluated as a positive result because it indicated that the head teachers and teachers are honest towards their duties, behave well with each other, maintain discipline and there is adequate resource to fulfil requirements of the school which are necessary to maintain a positive learning environment at schools. The finding of adequate availability of resources in the Nepali community schools differed with the findings of similar studies conducted in other countries. For instance, in a study Owens (2015) found head teachers' rating at the lowest level and teachers' rating at second lowest level for resource support of OH practice. Similarly, in a study of linking organizational health in Jeddah secondary schools to students' academic achievement, Alqarni (2016) found least level of OH practice at resource support. Parlar and Cansoy (2017), on examining the relationship between instructional leadership and organizational health in Turkish school, found resource support to be at the lowest level of OH practice. The OH practice at school under the factor head teachers' right, power and influence is at second level in this study. Alquari (2016); Parlar and Cansoy (2017) found the level of similar factor, principal influence in between highest and lowest level factors and Owens (2015) found it at the lowest level along with resource support in the the response of both head teachers and teachers.

OH practices of schools at second level under the factor head teacher's right, power and influence at school seems to be a natural result because maintaining right, power and influence by the leaders in any institution is not an easy task as all members in any institution are not always positive towards the leader. However, to improve it further a head teacher needs to develop persuasive power, behave in a friendly manner rather than behaving restrictively and should also be able to exercise personal influence to motivate and gain the collaboration of stakeholders at school. It



helps to maintain a positive relationship between each other and leads every member to respect each other's opinion which ultimately helps in achieving targeted objectives and maintaining a healthy organizational health of school. Likewise, the OH of schools at the lowest level under the factor outside pressure at school is a positive result as it proved that there is least possibility of any problem to schools from political parties, community people and parents/ guardians.

Regarding OH condition of community secondary schools, this finding of morale and resource management at schools obtained at the highest level and outside pressure at school at lowest level is noteworthy. Until a few years ago, the community schools of Nepal were facing difficulty due to lack of sufficient resources at school and unnecessary interference and pressure from outside. The literature (Parajuli & Das, 2013; Dhungel, 2018) explained inadequate resource support as one of the problems of the community schools and some other literature (Pherali, 2012; Dangol et al., 2013) explained about outside pressure in the community schools. This is a positive change in the community schools of Nepal in the recent years.

### **Relationship between Instructional Leadership and Organizational Health of School**

In relation to research question three, the effect of instructional leadership on organizational health of school and relationship between them was studied by employing appropriate statistical analysis, the regression analysis. This study of relationship between IL and OH of school done by employing multiple regression analysis showed statistically significant relationship between instructional leadership and overall organizational health of school. This result suggested that when the IL roles of school head teachers are at a higher level, the organizational health of schools is positively affected. There are similar findings reported in the literature (Buluc, 2014; Parlor & Cansoy, 2017; Recepoglu & Ozdemir, 2013). The analysis of the

relationship between individual factors of IL and overall OH of school showed highest relationship between planning, managing and supervising instructional program and head teacher's right, power and influence (regression coefficient,  $b_{21}=0.317$ ) and lowest relationship between involving parents and morale and resource management (regression coefficient,  $b_{13}=0.076$ ). The IL factors which are the predictor variables showed differential predictive effect on OH factors. The result of the multiple regression analysis test for the significance of IL factors with the OH factors proved the IL factors to be the significant predictors of two factors of OH of school, i.e. morale and resource management at school and head teacher's right, power and influence at school. But the IL factors did not show any predictive effect on one factor of OH of school, i.e. outside pressure at school.

Buluc's (2014) investigation to see whether or not the IL role of head teacher is the significant predictor of OH of school in primary schools of Turkey showed a statistically significant relationship between IL and OH in the multiple regression analysis as in this study, but on testing for the relationship of individual factors of both the constructs only some factors of IL proved to be the significant predictors of OH while some factors did not show significant predictive effect on OH. Another researcher, Parlar and Cansoy (2017) in a study of relationship between IL and OH of elementary, middle and high schools of Turkey also found statistically significant relationship between instructional leadership and OH of school, but on testing the relationship between individual factors of IL and OH they found only two factors of IL as significant predictor of OH. The result of the present study showed a significant relationship between IL and overall OH of school, but IL factors did not show any relation with one factor of OH of school. Given these findings, it is possible to argue that the IL is one of the significant predictors of OH of school but the relationship

between the individual factors of IL and OH of school differs with respect to specific context of the country and practice inside the school.

### **Effect of IL Variables on the Overall OH of School**

When the effect of IL variables was checked with the overall OH practice of school, it was found significant. The result of multiple regression analysis between the average of school's OH factors and IL factors showed that more than half of the effect is of IL on the organizational health of the school as IL explained 55.5% total variance in OH of school. It revealed that the IL and OH practices of school are positively and significantly related. This finding corroborated with Buluc (2014)'s finding. In his finding, the IL had an effect on the OH of school where the IL explained 59 % of the total variance in OH of school. Parlar and Cansoy (2017)'s study also showed parallel finding, where the predictor variables belonging to IL explained 49% of the variance in the OH of school. Hence, it is internationally proved that the IL has predicting effect on the overall OH of school.

### **Effect of Planning, Managing and Supervising Instructional Program**

The findings of this study showed that planning, managing and supervising instructional program is the most important predictor to predict head teacher's right, power and influence at school; and secondly to predict morale and resource management at school. From this, it can be inferred that the head teacher's function of planning, managing and supervising instructional program is a major factor which helps to maintain head teacher's right power and influence at school; and secondly to maintain morale and resource management at school. The IL role of planning, managing and supervising instructional program is vital as it is concerned with determining the central purposes of school (Hallinger, 2005) depending on which the entire school community works to achieve success. Dantnow and Castellano (2001) also stated that head teacher has a major influence on the direction of decision making

towards reforming the school which increases focus on teaching and learning. On the other hand, the head teacher's right, power and influence at school; and morale and resource management at school are the core factors of school's OH to maintain healthy environment at school because the former is associated with head teacher's ability to influence and control others and become a role model to lead all in a direction to success and latter is about individuals loving their job, respecting and cooperating with each other and maintaining a positive learning environment at school with the fulfilment of requirements. So, it must not be affected by the poor planning, managing and supervising of the instructional program. But in this study, this important predicting factor of IL was found to have practiced at the second level in the response of both head teachers and teachers. It indicated the necessity of training to head teachers on the proper practice of instructional leadership roles. The international findings of studies on IL have indicated that the strong instructional leader is a key for providing educational quality and promoting a systematic development at schools (Camburn et al., 2003). Instructional leaders should be goal oriented and focused on improving the student achievement (Hallinger, 2003). In a study in primary and secondary schools in England, Day, Gu and Samon (2016) noted the necessity of employing IL strategies for school head teachers in the specific context of their school. Regarding the effect of instructional leadership role of planning, managing and supervising instructional program on the factor, outside pressure at school, it did not show any effect on this particular factor of OH of school.

### **Effect of Motivating and Developing Competence of Teachers and Students**

The second important predictor to predict morale and resource management; and head teacher's right, power and influence at school is motivating and developing competence of teachers and students. But among all the IL factors, motivating and developing competence of teachers and students is found to have practiced at the

lowest level in the response of both head teachers and teachers. Recepoglu and Ozdemir (2013); Buluc (2014); Gunes and Kale (2015); Erdogan and Sarikaya (2016); Parlar and Cansoy (2017) reported a similar scenario in their studies where the head teachers were found to have exhibited lowest level of IL role at the factor, supporting and developing teachers. It indicated that the specific IL role of head teachers is lagging behind which is a must to enhance teaching learning at schools and is the core aim of the IL (Hallinger & Murphy, 1987; Bush & Glover, 2009; Day et al., 2016). In this study, this IL factor is found as the second important predictor to influence OH of the school positively. This implies that the head teachers must give priority to support, encourage and improve teachers. It is necessary for various reasons such as to maintain good organizational health of school, to improve the academic achievement of the students and to boost school performance to a higher level. Marks and Printy (2003) noted the significance for school head teachers to work closely with teachers to improve students' learning outcomes. Hallinger and Murphy (1986) argued that in order to increase the teachers' performance, they should be supported and encouraged through compliments and other forms of reinforcement ways. In a study of Malaysian high performing schools, Musa and Noor (2017) found the teachers' professional development, resource management and students' performance at schools as the reflection of IL roles at schools. Regarding the effect of instructional leadership role of motivating and developing competence of teachers and students on the factor, outside pressure at school, it did not show any effect on this particular factor of OH of school.

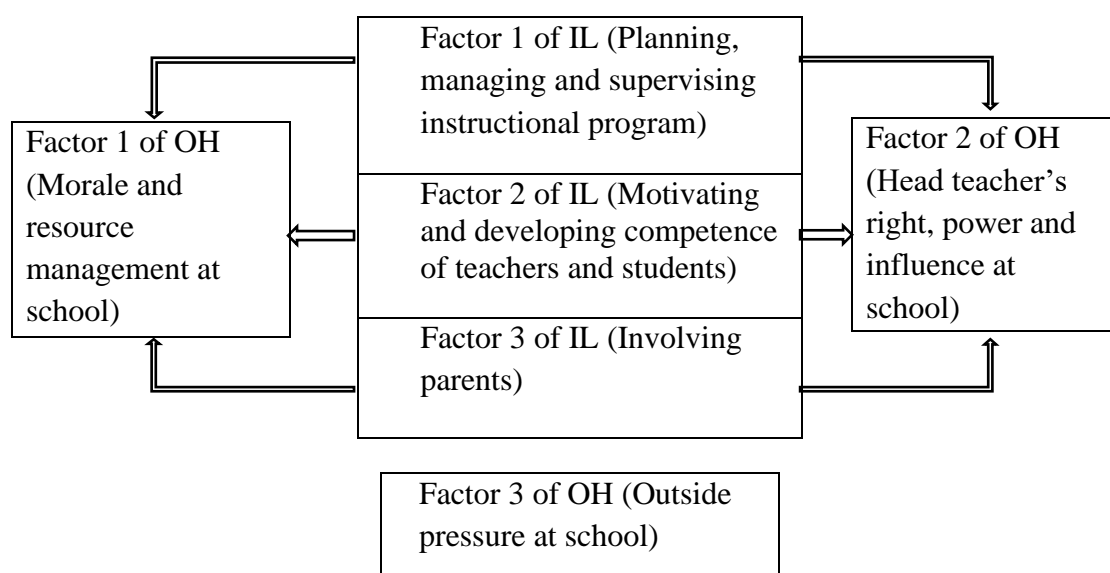
### **Effect of Involving Parents**

Among the three factors of IL mentioned in this study, involving parents showed least predictive capacity on morale and resource management at school; and on head teacher's right, power and influence at school. The head teacher's right,

power and influence at school was found to have influenced comparatively higher than the morale and resource management at school by involving parents. The result of this study showed that the parents' involvement at school helps to strengthen head teacher's right, power and influence to some extent and even to less extent to improve morale and resource management at school. The involvement of parents has small but significant predictive effect on these two factors of OH of school. On the other hand, the head teachers are found to have exhibited the IL role of involving parents at the highest level. This analysis indicated that the IL roles which have a high influencing effect on OH of school are practiced less by the school head teachers and which have less influencing effect are practiced more, demonstrating the need of training for school head teachers on the practice of IL roles. The instructional leadership role of involving parents did not show any effect on one factor of OH of school, i.e. outside pressure at school.

The effect of IL factors on the OH factors of school as obtained in this study can be presented diagrammatically as follows.

Figure 21. Obtained Relationship between IL and OH of School



## CHAPTER VII

### CONCLUSION AND IMPLICATIONS

This chapter provides a synopsis of the background, findings and inferences of this study. Besides these, the chapter also sheds light on the implications of the study for head teachers and teachers; policy makers and; future researchers conducting research in the field of IL and OH of school.

#### **Synopsis of the Study**

The purpose of this study was to find out the determining factors of instructional leadership, analyze the current situation of IL and OH of school in the community secondary schools of the Kathmandu valley and to test the extent to which the IL predict the OH of these schools. The concept of this kind of study developed in researcher's mind due to the history of poor performance of community schools of Nepal for a long run with a view to find out whether there is problem in instructional leadership and organizational health aspects of these schools. Despite the fact that, obtaining actual information on head teacher's practice of instructional leadership and organizational health of the school is a more challenging job, this researcher tried to dig out what IL roles are practiced there by head teachers as instructional leaders and what is the health status of these schools.

This study has found out (i) the factors of instructional leadership and organizational health of school, (ii) the level of instructional leadership and organizational health of school and (iii) the effect of instructional leadership variables on organizational health variables. The factors of instructional leadership and organizational health of school were found out by conducting factor analysis on the data obtained by using newly prepared tool. The new tool for the study was developed by conducting classical Delphi on original Hallinger and Murphy (1985)'s

model of IL and Hoy et al. (1991)'s model of OH of school. The level of IL and OH of school was found out by analyzing the responses of head teachers and teachers on the instructional leadership practice and organizational health of school using descriptive statistics. The effect of instructional leadership on organizational health of school was studied by employing multiple regression analysis taking the IL variables as predictor/ independent variables and OH variables as predictive/ dependent variables.

Three factors were selected by factor analysis under each of these two constructs. Factors developed for IL were planning, managing and supervising instructional program; motivating and developing competence of teachers and students; and involving parents. Planning, managing and supervising instructional programs represent all those activities of the head teachers which are related to making plan for the instructional activities at school, allocating the duty of teachers and staff and other stakeholders and running day to day activity of the school according to the plan. The instructional activities include implementing curriculum, supervising, monitoring and evaluating students' progress and checking frequently whether the goal is achieved according to the plan. So, this factor refers to IL role of making plan for the whole academic year of the school focusing on students' achievement, emphasizing those among the stakeholders and playing a pioneer role in achieving them. The factor, motivating and developing competence of teachers and students represents all those efforts that a head teacher makes to improve the performance of the teachers and students. Those efforts include praising teachers and students for their good doings, rewarding them for their excellent performance, pointing out teachers' weakness and suggesting to them for improvement in a friendly manner and giving them an opportunity to attend trainings for the development of their professional ability. The factor, involving parents is about head teacher's effort



and policy to make parents interact with the school to know about their children's performance and play a necessary role to improve their children's academic performance.

The factors developed for organizational health were morale and resource management at school; head teacher's right, power and influence at school; and outside pressure at school. The factor, morale and resource management at school reflects the status of the school with respect to teachers' moral, cooperation among each other, availability of resources at school and proper utilization of resources. The head teacher's right, power and influence at school is related to head teacher's ability to control the school management by their personal influence, right and power. The outside pressure at school is about unreasonable requests and interferences that a school may face from parents/ guardians, community people or political parties.

The major findings of the study include that the instructional leadership roles are at the highest level pertaining to involving parents; second level at planning, managing and supervising instructional program; and the lowest level at motivating and developing competence of teachers and students. Likewise, the organizational health of the school is at the highest level at morale and resource management at school; second level at head teacher's right, power and influence at school; and lowest level at outside pressure at school. Similarly, on examining the effect of IL factors on the overall OH of the school and OH factors, the highest effect is shown by planning, managing and supervising instructional program, secondly by motivating and developing competence of teachers and students and thirdly by involving parents on overall OH of the school but IL factors individually did not show any effect on one factor of OH of school, i. e. outside pressure at school.

## Conclusion

This study of instructional leadership and organizational health of school has added new insight into the factors of instructional leadership and OH of school in the context of Nepal, the level at which these factors are practiced at school, organizational health factors affected by instructional leadership factors and to what extent they affect the organizational health of the school. Although this study was carried out by conducting classical Delphi on the instructional leadership model of Halinger and Murphy (1985) and organizational health model of Hoy et al. (1991) some of the added variables in both the constructs were completely new. A totally new factor was developed in IL construct which is involving parents. In this way, this research study has assisted in investigating the slight differences in the IL roles and OH practices of Nepali community secondary schools with that of Halinger and Murphy (1985)'s model of IL and Hoy et al. (1991)'s model of OH of school. The reasons of such variance are Nepal's own culture, societal structure and its democratic arrangement.

The core finding of this study is that the instructional leadership role is practiced at the rate of almost always in head teachers' response and at the rate of frequently in the teachers' response. Likewise, the response of the head teachers and teachers on OH of school is almost always for one factor, frequently for another factor and seldom for the factor outside pressure at school indicating no any notable problem in the OH of these schools. But the result shows that the IL role is not played appropriately by head teachers of community secondary schools because the responses of both head teachers and teachers show that the IL roles which are practiced by head teachers at high level have less effect on OH of school and ultimately on overall school performance, and those which are practiced at low level

have more effect on OH of school and ultimately on overall school performance. Such practice does not help to improve schools. Therefore, there seems to an urgent need for implementing the strategies with a view to train the community secondary school head teachers to distribute their efforts appropriately in different IL roles. Along with this, timely inspection from the concerned educational officers seems necessary. Head teacher's skill on appropriate practice of instructional leadership and implementing those effectively at school enables the entire school faculty to maintain healthy environment at school which ultimately supports the goal of enhancing learning at schools. As the research studies have proved that the instructional leadership and organizational health of school are two mandatory aspects for improving teaching and learning at schools, the federal and central government's special attention toward it can be instrumental for school's success.

### **Implication of Research for School Head Teachers and Teachers**

The findings of this study suggest that the IL roles are significant to improve OH of school. The knowledge on current status of IL focusing on individual IL roles helps the head teachers to strengthen their quality at that specific IL roles in which they are weak. The improvement in the IL roles ultimately improves the OH condition of the school as these two aspects of the school are positively and significantly related. The improvement in these two aspects of the school has a significant positive effect on the overall effective performance of the school. Relevant professional development of head teachers in IL supports teachers as well. It is necessary to inculcate moral characters and develop understanding, cooperation and harmony among the faculty members to establish sustainable healthy learning environment at school. In this regard, the head teachers need to focus on instructional leadership roles of motivating and developing competence of teachers and students as this role is found to have practiced at third level by the head teachers and then in the

role of planning, managing and supervising instructional program as this role is practiced at second level.

### **Implication of Research for Policy Makers**

This study helps to reach near the answer of the queries related to instructional leadership and organizational health of community schools of Nepal. The findings of this study help the policy makers to understand how instructional leadership role played by head teacher affects the organizational health of the school. It also gives them idea about what kind of policies are necessary to implement to ensure good instructional leadership and good environment in community schools of Nepal. Thus, it can act as guide to policy makers to decide strategies to be implemented for the development of community schools of Nepal.

### **Implication of Research for Future Researchers**

Many scholars have studied about IL and OH of school, either analyzing the variables of IL and OH of school separately or by analyzing the variables of IL or OH of school in relation to variables of other construct, but there is dearth of study pertaining to the relationship between the variables of IL and OH of school. Turkey's scholars are found to have contributed more to this kind of research. In the Nepali context, this study may appear to be the first to address this issue. In this regard, this study can contribute to the development of literature for the future researchers. This study of relationship between IL and OH of school can help to enhance educational performance at schools. Similarly, this study of examining the current situation of IL and OH at community schools is of great significance in improving schools. Further, the analysis and the interpretation of the findings of this study with the findings of the similar research studies conducted by other researchers is of great importance to realize the influence of the context of the country in the educational system.

This study is not adequate to investigate all facets of instructional leadership and organizational health of school. Considering this fact, some suggestions are made.

1. Future researchers can redesign the PIMRS (Principal's/ Head teacher's Instructional Management Rating Scale) and OHIS (Organizational Health Inventory for School).
2. They can use mixed methods approach to address the qualitative responses as well for deeper analysis of the responses.
3. They can design the study by considering the studies conducted in various countries.
4. They can expand the study by including a larger study area.
5. They can enlarge the study by including community schools of all levels.
6. They can conduct research to test the hypothetical entities, factors of instructional leadership and organizational health of school developed through this research to ensure its stability. It seeks further research studies to establish it as a model in the context of secondary schools of Nepal.
7. They can revise the variables to address the changes in educational system which may be caused due to advancement in the society and culture in the long run.

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## ANNEXES

**Annex I: Permission Letter to use the “PIMRS Scale”**

Dec. 19, 2018

Dear Suman

I have waived the usual fee of \$135 for your use of the PIMRS. Note however, that all conditions of use still apply to you (i.e., supplying me with your final soft copy of the study and raw data file). If you need any assistance, please contact me directly.

Best of Luck

*Prof. Hallinger*

Dr. Philip Hallinger

TSDF Chair Professor of Leadership

College of Management, Mahidol University

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Distinguished Visiting Professor

University of Johannesburg, South Africa

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[www.researchgate.net/profile/Philip\\_Hallinger/contributions](http://www.researchgate.net/profile/Philip_Hallinger/contributions)

"Teachers live on and on through the lives of their students.

Good teaching is forever and the teacher is immortal."

Jesse Stuart, 1937, *The Thread That Runs So True*

**Annex II: Permission Letter to use the “OHI-S Scale”**

Dec.30, 2018

Dear Suman Pande,

You have my permission to use the Organizational Health Inventory in your research. The measure and its psychometric properties are found on my webpage [[www.waynekhoy.com](http://www.waynekhoy.com)].

Best wishes.

*Wayne*

Wayne K. Hoy

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**Annex III: Factors and Items of Instructional Leadership Finalized by  
Experienced Head Teachers and Teachers**

Factors	Items
Setting schools' annual academic plans	Head teacher analyses students' last year's performance while planning for the new academic session.
	Head teacher specifies school's whole year educational plan in the presence of all concerned people.
	Head teacher seeks to incorporate teacher's inputs in planning during his or her formal or informal meetings.
Sharing plans/expectations among the team members	Head teacher shares academic plans with everyone involved and discusses how those plans may be effectively implemented.
	Head teacher displays school's whole year plan on the notice boards, school calendar and communicates them to students during assembly.
	Head teacher reports school's educational planning to the local government and District/Local level education offices.
Monitoring and supervision	Head teacher regularly monitors activities of teachers and students while they are in class.
	Head teacher makes sure students' every class work/home work is completed timely and all notes are marked by assigned teachers at least a month prior to terminal examinations.
Implementing curriculum	Head teacher seeks to find out teachers' areas to improvements in instruction practices and makes appropriate suggestions.
	Head teacher gets every subject department heads to implement the syllabus of all subjects in each class.
	Head teacher checks teachers' log books regularly to see if they are in going in accordance with the syllabus.
	Head teacher reviews whether the curriculum goal is achieved

	<p>or not through students' terminal examination results, their discipline and overall change indicators.</p> <p>Head teacher regularly discusses with subject teachers about each student's progress.</p>
Monitoring students' progress	<p>Head teacher conducts monthly meetings with all teachers to review the achievement versus goals.</p> <p>Head teacher communicates whole school's terminal results to teachers after each term.</p>
Avoiding interruptions/promoting smooth teaching learning	<p>Head teacher tries his best to ensure uninterrupted instruction time.</p> <p>Head teacher instructs teachers to create a fear-free learning environment in class.</p> <p>Head teacher visits classrooms sometimes to discuss with teacher and students on issues like admission, fee etc.</p> <p>Head teacher is transparent about every financial detail of the school to all stakeholders.</p>
Maintaining transparency	<p>Head teacher calls immediate teachers' meeting to communicate notices received from higher authorities.</p> <p>Head teacher publically praises teacher's superior performance but meets them in private for correction.</p>
Motivating teachers	<p>Head teacher tries to manage opportunity for sincere teachers to work in a higher position as a reward for their good work.</p> <p>Head teacher provides letters of appreciation or honor certificates to teachers for their special contribution.</p> <p>Head teacher seeks to provide trainings to teachers during vacations or so as not to interrupt daily classes.</p>
Promoting teachers' professional development	<p>Head teacher actively supports teachers to use those learnt skills in the classrooms.</p> <p>Head teacher sometimes provides opportunities to teachers for observation or educational tours.</p>
Motivating students for learning	<p>Head teacher publically honors students for their excellent performance or discipline.</p> <p>Head teacher learns students' family problems and talks to their parents to resolve.</p>

	Head teacher instructs teachers to evaluate students' performance regularly and help them for improvements.
Involving parents	Head teacher calls class-wise parents' meeting and discusses about students' progress. Head teacher announces mandatory presence of parents during terminal report card distribution. Head teacher meets the parents of poor-performing students and shares with them what roles the school and parents may together take for their improvements.

**Annex IV: Factors and Items of Organizational Health of School Finalized by Experienced Head Teachers and Teachers**

Factors	Items
Morale	The morale of teachers is high in this school. The teachers are helpful to each other.
Resource support	Teachers accomplish their job with enthusiasm. The teaching materials such as marker, duster, register, etc. are available. Appropriate subject-wise teaching materials are provided to all subject teachers. Necessary materials are available for extra-curricular activities.
Justice and responsiveness	The Head teacher treats every teacher alike. The Head teacher respects teachers' suggestions and executes them where appropriate. The Head teacher works for the welfare of teachers.
Learning activities	Necessary school rules are timely made, communicated and executed strictly. The peers appreciate best performers in class and learn from them.
External interference in institution	Positive learning environment is maintained in the class.

There is a pressure from political parties in this school.

Community demands are accepted even if they are inconsistent to educational program.

Head teacher's rights and decision making power The school policy is compromised if there is pressure from even minority of guardians.

Head teacher can ask local government for help to better school.

Head teacher can change the duty/responsibility of teachers or staffs where necessary.

Head teacher's decisions to school improvements are not impeded by higher authorities.

Establishing system and order Head teacher gets the teachers and staffs to obey school rules and to do their duty.

The Head teacher does not hesitate to take necessary decision for school's good.

The Head teacher always prepares a 'to- do' list and works accordingly.

**Annex V: Questionnaire for the Study**

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	k =c=siff sf]7fdf lgoldt ?kdf cgf}krf]/s c]nf]sg u5{g h:t} siff aflx/af6 lgl/lf0f u5{g\.	!	@	#	\$	%
	k =c=x/]s q]df];s kl/lffsf] Ps dlxgf klxn] lzlfxs?n] ljwfyL{x?nfO{ slt u[xsfo{ u/fPsf 5g\ / hfFr]sf 5g\ hfFr u5{g\.	!	@	#	\$	%
	k =c=lzlfxs?sf]] lzlf0fdf yk ;'wf/ ug'{ kg[] klfx? kQf nufp5g\ / pgLx?nfO{ ;Nnfx lbG5g\.	!	@	#	\$	%
<b>kf7\os d sfof{Gjo ug}{</b>						
	k =c=x/]s ljifosf ljefluo k d'v Dfkm{t kf7\os dsf] ?k/]vf x/]s slffdf atfpg nufp5g\.	!	@	#	\$	%



	k = c= kf7\os dn] lgwf{/Of u/]sf] laifo a:t'df cfwfl/t eP/ k9fOPsf] 5 ls 5}g eg]/ x]g{ lzlfxs?sf] nu a's -8fo/L_ a/fa/ hfFr u5{g\ .	!	@	#	\$	%
	k = c= kf7\os d ;DaGwL p4]Zo k fKt ePsf] 5 ls 5}g eGg] s'/f x/]s q]df];s kl/lffsf] kl/lffkmn x]/] / laBfyL{sf] g]ltstf, cg'zf;g tyf ;du  Aojxf/df cfPsf] kl/jt{g x]/] ;ldlff u5{g\ .	!	@	#	\$	%
<b>laBfyL{sf] k utLsf] n]vfhf]vf ug}{</b>						
	k = c= s'g laBfyL{sf] slt k utL ePsf] 5 eg]/ 5nkmg ug{ lzlfxs?;+u ljifout ?kdf x/]s dlxgf 5nkmn u5{g\ .	!	@	#	\$	%
	k = c= :s"nsf] z}lifs nlolt/ slt pGglt eO/x]sf] 5 eg]/ hfGgsf] nflu lzlfxs?;+u x/]s dlxgf a}7s u5{g\ .	!	@	#	\$	%
	k = c= x/]s q]df];s kl/lffsf] /LhN6 kl5 lzlfxs?nfO{ :s'nsf] z}lifs ;kmntfsf] hfgsf/L u/fp5g\ .	!	@	#	\$	%
<b>lzlf0fsf] ;donfO{ ;'/lft ug}{</b>						
	k = c= lzlf0fsf] ;dodf s'g} klgl;l;dsf]] cj/f]w gxf];\ eGg] oyf ;Dej sf]lzz u5{g\ .	!	@	#	\$	%
	k = c= lzlfxs?nfO{ slffdf uPk15 klxn] slffdf cfPsf laBfyL{x?df s'g} klgl laBfyL{ cg'kl:yt 5}g eGg] s'/f lglZrt ug{ nufp5g\ .	!	@	#	\$	%
	k = c= lzlfxs?nfO{ ljBfyL{x?nfO{ gt;f{Osg eo/lxt / ;'/lft jftfj/Ofdf k9fpg] lgb]{zg lbG5g\ .	!	@	#	\$	%
<b>:ki6tf sfod ug}{</b>						

	k = c= slxn]sflx lzlf / laBfyL{x?;+u :s"n;+u ;DalGwt laifodf -h:t} egf{ ;DalGw, lkm; ;DalGw OToflb_ s'/f ug{sf] nflu slff sf]7fdf hfG5g\ .	!	@	#	\$	%
	k = c= :s"nsf] cfo Aooof] laj/0fsf] af/]df ;DalGwt lgsfo / lzlf sx? aLr kf/bzL{ x'G5g\ .	!	@	#	\$	%
	k = c= n] ;DalGwt lgsfoaf6 cfPsf] va/ jf ;"rgf 5 eg] lzlf sx?;+u 5f]6f] a}7s u/] / p;} lbg hfgsf/L lbG5g\ .	!	@	#	\$	%
<b>lzlf sx?nfO{ xf];nf lbg]</b>						
	k = c= a}7sx?df lzlf sn] u/]sf] pTs[i6 sfdsf] k z+;f u5{g\ t/ s]lx ulNt u/]df PsfGtdf af]nfP/ dfq ;Demfp5g\ .	!	@	#	\$	%
	k = c= kl/>dL lzlf sx?nfO{ k'/:sf/ :j?k pgLx?nfO{ pgLx?sf] Ifdtf cg';f/ :s"nn] Aoj:yf ug{ ;Sg] pkNnf] kbdf sfd ug]{ df}sf lbG5g\ .	!	@	#	\$	%
	k = c= lzlf sx?nfO{ pgLx?n] :s"nsf] nflu u/]sf] ljz]if of]ubfgsf] nflu k z+;f kq, ;Ddfg kq, OToflbsf] Aoj:yf u5{g\ .	!	@	#	\$	%
<b>k]zfut blftf a[l4 ug]{</b>						
	k = c= lzlf sx?sf] k]zfut blftf a[l4 ug{ pgLx?nfO{ labfsf] a]nf kf/] / jf sf];{ cj?4 gx'g] Aoj:yf ldnfP/ a]nfa]nfd f lzlf 0f ;DalGw tflnd lbnfp5g\ .	!	@	#	\$	%
	k = c= tflnds] a]nf lzlf sn] l;]sf ;Lk jf blftfnfO{ slff sf]7fdf pkof]u ug{sf] nflu ;ls o eP/ ;fy lbG5g\ .	!	@	#	\$	%

	k = c= lzlfsv?nfO{ a]nfa]nfd f c]nf]sg / e d0fsf] df}sf klg lbG5g\ .	!	@	#	\$	%
<b>laBfyL{x?nfO{ k9\gsf] nflu k f]T;flxt ug}{</b>						
	k = c= laBfyL{n} k9fO{df /fd f] u/] jf /fd f] cg'zf;g k :t't u/] pgLx?nfO{ k fy{gfsf] a]nf k'/:sf/ lbP/ jf pgLx?sf] ;Ddfg u]/ lrgfpg nufp5g\ .	!	@	#	\$	%
	k = c= laBfyL{sf] AolQmut jf kfl/jfl/s u'gf;f]x? ;'G5Gg\ / kl/jf/;+u cfjZos 5nkmn u5{g\ .	!	@	#	\$	%
	k = c= lzlfsv?nfO{ laBfyL{x?sf] lg/Gt/ d"NofFsg u]/ cfjZos ;'wf/sf] nflu ;xof]u ug{ eG5g\ .	!	@	#	\$	%
<b>cleefjsnfO{ ;ls o u/fpg]</b>						
	k =c= a]nfa]nfd siff lkR5] cleefjs e]nf u/fO{ laBfyL{sf af/]df 5nkmn u5{g\ .	!	@	#	\$	%
	k = c= x/]s q]df];s kl/lffsf] /LhN6 af9\g] lbg kqfrf/ dfkm{t cleefjssf] pkl:ylt clgjfo{ u5{g\ / Tof] lbg cfpg g;s] csf]{ lbg klg /LhN6 lng cleefjs g} cfpg' kg]{ clgjfo{ u5{g\ .	!	@	#	\$	%
	k = c= kl5 k/]sf laBfyL{x?sf nflu cleefjsn] s] ug}{ jf cleefjs / :s"n ldn]/ s] ug{ ;lsG5 eGg] s'/f cleefjsaf6} cg'df]bg u/fp5g\ .	!	@	#	\$	%
	<b>;d"x v</b> :s"nsf] :jf:Yo	> ]OfL dfkg s[kof cfkm"n] 5fGg' ePsf] c+sdf uf]nf] 3]/f nufpg'xf]nf				
		slxNo} klg	la/n}	slxn]s fxL	k foh ;f]	;w}   %
		!	@	#		%

					\$	
<b>g}ltstf</b>						
	o; :s"ndf lzlfsv?sf] g}ltstf pRr 5 .	!	@	#	\$	%
	o; :s"ndf lzlfsv? Ps csf]{ k lt ;xof]usf] efjgf /fV5g\ .	!	@	#	\$	%
	o; :s"ndf lzlfsv? pd+un] cfkm\gf] sfd k'/f u5{g\ .	!	@	#	\$	%
<b>; f]t tyf ;fwgsf] ;xfotf</b>						
	lzlfsv?nfO{ slffdf cfjZos kg]{ s'/fx? h:t} dfs{/, 8:6/ /lh:6/ O{Toflb pknAw 5g\ .	!	@	#	\$	%
	lzlfsv?nfO{ cfkm\gf] ljifo cg';f/ lzlf0df cfjZos kg]{ lzlf0f ;fdu Lx? pknaw 5g\ .	!	@	#	\$	%
	rflxPsf] v08df cltl/Qm ls ofsnkdf cfjZos kg]{ ;fdfgx? pknAw 5g\ .	!	@	#	\$	%
<b>cfbz{ / Jojxf/</b>						
	k wfgfwofks ;a} lzlfsv?;+u ;dfg Joxaf/ u5{g\ .	!	@	#	\$	%
	lzlfsv?n]] lbPsf] ;NnfxnfO{ k wfgfwofksn] Joxjf/df Nofp5g\ .	!	@	#	\$	%
	k wfgfwofks lzlfsv?sf] ;'v ;'lawfsf] Vofn u5{g\ .	!	@	#	\$	%
<b>;LsfO ls ofsnk</b>						
	:s"nn] z}lifs ;kmntfsf] nflu gLlt lgodx? agfp5 / To;nfO{ sfof{Gjo u5{ .	!	@	#	\$	%
	ljwfyL{x? c? /fd f] >]OfL Nofpg] ljwfyL{x?nfO{ cfb/ u5{g\ / pgLx?;+u l;S5g\ .	!	@	#	\$	%

	:s"ndf l;Sgsf] nflu pko'Qm jftfj/Of ldnfO{Psf] 5 .	!	@	#	\$	%
<b>;+:yfdf kg]{ bafj</b>						
	o; :s"ndf /fhg]]ts bnx?sf] bafj k5{ .	!	@	#	\$	%
	o; :s"ndf z}lifs of]hgf;+u d]n gvFP klG ;d'bfosf dfux?nfO{ :jLsf/ ul/G5 .	!	@	#	\$	%
	o; :s"ndf cleefjsx?sf] cgfjZos bafjn] :s"nsf] sfo{gLlt abINfG5 ..	!	@	#	\$	%
<b>k wfgfWofkssf] clwsf/ jf zIQm</b>						
	:s"nsf] lxtsf] nflu k =c=n] :yflgo lgsfoaf6 ;xof]u dfUg ;S5g\ .	!	@	#	\$	%
	cfjZos k/] k =c=n] lzlfs tyf sd{rf/Lx?sf] sfd tyf st{Aodf df x]/km]/ ug{ ;S5g\ .	!	@	#	\$	%
	k =c=n] :s"ndf z}lifs pGg]tsf] nflu lnPsf] lgOf{odf :s"n;+u ;DalGwt lgsfox?af6 k ltaGw jf /f]s nufOb}g .	!	@	#	\$	%
<b>Aojl:yt ;+oGqsf] lgdf{Of</b>						
	k wfgfWofks lzlfsx?nfO{ / sd{rf/Lx?nfO{ :s"nsf] lgod / Aoj:yfleq /x]/ sfd ug{ nufp5g\ .	!	@	#	\$	%
	k wfgfWofks ljBfnosf] lxtsf] nflu s'g} klG lgOf{o lng 8udufpb}gg\ .	!	@	#	\$	%
	k wfgfWofks ug{' kg]{ sfdsf] of]hgf jf tflnsf agfp5g\ .	!	@	#	\$	%

### Annex VI: Reliability Analysis of the Tool

Items	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlati on	Cronbac h's Alpha if Item Deleted
Head teacher analyses students' last year's performance while planning for the new academic session	216.90	730.92	.843	.966
Head teacher specifies school's whole year educational plan in the presence of all concerned people	217.06	732.13	.758	.966
Head teacher seeks to incorporate teachers' inputs in planning during his formal or informal meetings.	216.90	736.99	.623	.967
Head teacher shares academic plans with everyone involved and discusses how those plans may be effectively implemented.	216.96	732.37	.771	.966
Head teacher displays school's whole year plan on notice boards and communicates them to students during assembly	217.03	726.65	.833	.966
Head teacher reports school's educational planning to the local government and Province/Local level education offices.	217.30	739.39	.577	.967
Head teacher regularly monitors activities of teachers and students while they are in class.	217.26	741.30	.619	.967
Head teacher makes sure students' every class work/home work is completed timely and all notes are marked by assigned teachers at least a month prior to terminal examinations.	217.66	731.40	.759	.966
Head teacher seeks to find out teachers' areas of improvements in instruction practices.	217.53	719.84	.778	.966
Head teacher gets every subject department heads to implement the syllabus of all subjects in each class.	217.93	747.16	.404	.967
Head teacher checks teachers' log books regularly to see if they are going in accordance with the syllabus.	217.20	736.71	.661	.967
Head teacher reviews whether the curriculum goal is achieved or not through students' terminal examination results, their discipline	217.13	735.15	.752	.966

and overall change indicators.

Head teacher regularly discusses with subject teachers about each student's progress	217.33	733.95	.714	.966
Head teacher conducts monthly meetings with all teachers to review the achievement verses goals.	216.90	739.05	.609	.967
Head teacher communicates whole school's terminal results to teachers after each term.	217.53	728.39	.629	.967
Head teacher tries his best to ensure uninterrupted instruction time.	216.70	751.32	.497	.967
Head teacher instructs teachers to ensure no students have bunked classes.	217.23	736.11	.653	.967
Head teacher instructs teachers to create a fear-free learning environment in class.	217.03	739.68	.651	.967
Head teacher visits classrooms sometimes to discuss with teachers and students on issues like admission, fee etc.	217.80	747.33	.292	.968
Head teacher is transparent about every financial detail of the school to all stakeholders.	217.96	733.82	.737	.966
Head teacher calls immediate teachers' meeting to communicate notices received from higher authorities.	217.06	726.82	.800	.966
Head teacher publically praises teachers' superior performance but meets them in private for correction.	217.10	725.88	.868	.966
Head teacher tries to manage opportunity for sincere teachers to work in a higher position as a reward for their good work.	217.46	721.91	.757	.966
Head teacher provides letter of appreciation or honor certificates to teachers for their contribution.	217.60	715.76	.817	.966
Head teacher seeks to provide training to teachers during vacations or so as not to interrupt daily classes.	217.40	735.83	.641	.967
Head teacher actively supports teachers to use those learnt skills in the classrooms.	216.93	734.34	.763	.966
Head teacher sometimes provides opportunities for observation or educational tour.	218.06	745.92	.345	.967
Head teacher publically honors students for their excellent performance or discipline.	217.20	730.99	.638	.967

Head teacher learns students' family problems and talks to their parents to resolve them.	217.10	743.26	.677	.967
Head teacher instructs teachers to evaluate students' performance regularly and help them for improvements.	216.90	734.43	.806	.966
Head teacher calls class wise parents' meeting and discusses about students' progress.	216.90	737.05	.546	.967
Head teacher announces mandatory presence of parents during terminal report card distribution.	216.63	751.27	.598	.967
Head teacher meets the parents of poor-performing students and shares with them what roles the school and parents may together take for their improvements.	217.13	728.74	.778	.966
The morale of teachers is high in this school.	216.76	750.18	.473	.967
The teachers are helpful to each other.	216.96	747.62	.512	.967
Teachers accomplish their job with enthusiasm.	217.13	739.15	.698	.967
The teaching materials such as marker, duster, register etc. are available in the school.	216.43	764.87	.107	.968
Appropriate/ subject wise teaching materials are provided to all subject teachers.	216.76	745.63	.519	.967
Necessary materials are available for extra-curricular activities.	216.90	739.19	.641	.967
The head teacher treats every teacher alike.	216.66	738.71	.713	.967
The head teacher respects teachers' suggestions and executes them where appropriate.	216.93	733.30	.788	.966
The head teacher also works for the welfare of teachers.	216.96	736.24	.770	.966
Necessary school rules are timely made, communicated and executed strictly.	217.10	730.02	.817	.966
The peers appreciate best performers in class and learn from them.	217.20	739.26	.572	.967
Positive learning environment is maintained in the school.	216.83	739.04	.799	.966
There is pressure from political parties in school.	218.46	777.70	.202	.970
Community demands are accepted even if they are inconsistent to educational programs.	218.46	785.60	.129	.969



The school policy is compromised if there is pressure from even minority of guardians.	219.50	763.01	.051	.969
Head teacher can ask local government for help to better school.	217.36	742.58	.483	.967
Head teacher can change the teachers' or staffs' duty/ responsibility where necessary.	217.50	741.77	.466	.967
Head teacher decisions to school improvements are not impeded by higher authorities.	217.23	754.32	.229	.968
Head teacher gets the teachers and staffs to obey school rules and to do their duty.	216.70	749.66	.552	.967
Head teacher does not hesitate to take necessary decision for school's good.	217.00	729.72	.759	.966
Head teacher always prepares a to-do list and works accordingly.	216.86	738.67	.695	.967

### **Annex VII: Method of Random Sampling for Data Collection**

The schools for data collection were selected through random sampling process.

There is a function in excel which generate the random value. That function was followed stepwise.

1. In the first step an excel sheet was opened and serial numbers were inserted in the first column and school code numbers in the second column.
2. In the second step enter was pressed and typed = rand () in the first cell of third column. It is a function in excel that creates or generates random value.
3. In the third step enter was pressed. After clicking enter random value appeared in the cell where = rand () was typed.
4. Then to create random value in each row it was double clicked in the cell where first random value appeared. Doing so the rand formula was repeated down to the very end of the data set and random value was created in each row.

5. Then the entire column with rand value was highlighted by clicking control C. After that it was clicked on paste icon situated on the left upper corner of the computer and clicked on paste values. With this state the value generated from the rand function (excel function) was replaced by the function with the excel value generated by the function.
6. In the next step the entire data was highlighted and clicked on data at the top of the computer. Then it was clicked on sort by, select random and select order i.e. from A to Z or Z to A. Any order can be selected, it does not matter. If A to Z is selected the value is sorted in order from lowest to highest and if Z to A is selected the value is sorted in order from highest to lowest. This completed the process of random sampling.

#### **Annex VIII: List of Schools Selected by Random Sampling for Data Collection**

SN	Code No.	Name of School	Under Province
1	270310190	eQmljBf>d df=lj=	sf7df08f)+ dxfgu/kflnsf
2	270270008	lhtk'/ df=lj=	tf/s]Zj/ gu/kflnsf
3	250110004	af3 e}/j df=lj=	sf]GHof];f]d ufpFkflnsf
4	270390002	Hfgljsf; df=lj=	rGb flu/L gu/kflnsf
5	270330039	ljZj /fli6«o df=lj=	lstL{k'/ gu/kflnsf
6	260180005	UfOf]Zf df=lj=	rGb flu/L gu/kflnsf
7	270310549	kb\dsGof ljWof>d df=lj=	sf7df8f)+ dxfgu/kflnsf
8	250170006	Hfgs df=lj=	Affudlt ufpFkflnsf
9	270310083	;/:jtL lgs]tg df=lj=	sf7df8f)+ dxfgu/kflnsf
10	250270076	k ult lzlff ;bg df=lj=	nlntk'/ dxfgu/kflnsf
11	250270049	>dlht lszf]/ df=lj=	nlntk'/ dxfgu/kflnsf
12	270310480	gGbL df=lj=	sf7df8f)+ dxfgu/kflnsf
13	260170008	;/:jtL df=lj=	RffFu'g/foOf gu/kflnsf
14	270310202	ljho :df/s df=lj=	sf7df8f)+ dxfgu/kflnsf
15	270570002	lji0f'b]jL df=lj=	rGb flu/L gu/kflnsf
16	250250005	Aff3 e}/j df=lj=	dxFfsfn ufpFkflnsf
17	270330016	6}bx /fli6«o df=lj=	lstL{k'/ gu/kflnsf
18	270330010	lstL{k'/ df=lj=	lstL{k'/ gu/kflnsf
19	250210005	xl/l;çL df=lj=	nlntk'/ dxfgu/kflnsf

20	250290013	;/:jtL df=lj=	Uff]bfj/L gu/kflnsf
21	250010006	ljBflwZj/L df=lj=	AffudtL ufpFkflnsf
22	250270087	k eft df=lj=	nIntk'/ dxfgu/kflnsf
23	270450001	efUof]bo df=lj=	;Fv/fk'/ gu/kflnsf
24	270310481	gGbL /fqL df=lj=	sf7df8f)+ dxfgu/kflnsf
25	270070005	Affnaf]w df=lj=	Gffufh'{g gu/kflnsf
26	270310382	sflGt O{Zj/L df=lj=	sf7df8f)+ dxfgu/kflnsf
27	260020009	dx]Gb  zflGt df=lj=	; 'o{ ljgfos gu/kflnsf
28	270310024	u'x]Zj/L df=lj=	sf7df8f)+ dxfgu/kflnsf
29	250220005	;f/bf lzlff ;bg df=lj=	Affudlt ufpFkflnsf
30	270470003	;f <sup>a</sup> nf afns'df/L df=lj=	Tff/s]Zj/ gu/kflnsf
31	270310060	gjhfu[tL df=lj=	sf7df8f)+ dxfgu/kflnsf
32	270030001	pu tf/f df=lj=	;+v/fk'/ gu/kflnsf
33	270300001	l>1dlt df=lj=	a'9flgns07 gu/kflnsf
34	250140005	s[if0f df=lj=	nIntk'/ dxfgu/kflnsf
35	250130005	b]jL df=lj=	uf]bfj/L gu/kflnsf
36	270220003	Hffn'kf df=lj=	6f]vf gu/kflnsf
37	250030002	Affn]Zj/L df=lj=	sf]GHof];f]d ufpFkflnsf
38	270090001	rDkf b]jL df=lj=	blIf0fsfnL gu/kflnsf
39	270520013	;Ltf kfOnf df=lj=	Gffufh'{g gu/kflnsf
40	270360010	k eft df=lj=	rGb flu/L gu/kflnsf
41	270310558	kz'klt ldq df=lj=	sf7df8f)+ dxfgu/kflnsf
42	270310368	Hfgky df=lj=	sf7df8f)+ dxfgu/kflnsf
43	270310036	h'cf]bo df=lj=	sf7df8f)+ dxfgu/kflnsf
44	270310037	gd'gf dlxfn df=lj=	sf7df8f)+ dxfgu/kflnsf
45	270050002	b]jL afn ;'wf/ df=lj=	uf]sOf]{Zj/ gu/kflnsf
46	270310099	6+ufn df=lj=	sf7df8f)+ dxfgu/kflnsf
47	270330023	cflbgfy df=lj=	lstL{k'/ gu/kflnsf
48	270060004	cfbz{ df=lj=	sfu]Zj/L gu/kflnsf
49	270310011	afF;af/L df=lj=	sf7df8f)+ dxfgu/kflnsf
50	250270032	dx]Gb  e[s'6L df=lj=	nIntk'/ dxfgu/kflnsf
51	270460009	l;tf/fd df=lj=	Gffufh'{g gu/kflnsf
52	270560003	d+unf]bo df=lj=	rGb flu/L gu/kflnsf
53	250090002	JffOfL ljnf; df=lj=	Uff]bfj/L gu/kflnsf
54	270200003	;xof]uL df=lj=	Uff]s{Of]Zj/ gu/kflnsf
55	270110003	k~rsGof df=lj=	blIf0fsfnL gu/kflnsf
56	270450003	eujtL df=lj=	;+v/fk'/ gu/kflnsf
57	270500001	cd/Hof]lt df=lj=	Gffufh'{g gu/kflnsf
58	270130002	hg pcf/ df=lj=	a'9flgns07 gu/kflnsf
59	260100008	cfhfb df=lj=	RffFu'gf/foOf gu/kflnsf

60	260030043	Uf0f]z df=lj=	eQmk'/ gu/kflnsf
61	250270072	>L r08L cfbz{ df=lj=	nIntk'/ dxfgu/kflnsf
62	250330001	u'Kt]Zj/ df=lj=	sf]GHof];f]d ufpFkflnsf
63	260150003	Uf0f]z df=lj=	; 'o{ ljgfos gu/kflnsf
64	250270081	Affn ljgf]b df=lj=	nIntk'/ dxfgu/kflnsf
65	260030071	Hffu[tL df=lj=	eQmk'/ dxfgu/kflnsf
66	270310613	;lxb z's  df=lj=	sf7df8f)+ dxfgu/kflnsf
67	270020004	Rfl08sf b]jL df=lj=	rGb flu/L gu/kflnsf
68	270330036	j]i0fjL df=lj=	lstL{k'/ gu/kflnsf
69	250300007	dxfnldL df=lj=	dxfnldL gu/kflnsf
70	270130005	Gff}lng df=lj=	a'9flgns07 gu/kflnsf
71	260030060	;f/bf df=lj=	eQmk'/ gu/kflnsf
72	270270007	Gffufh'{g 7'nf ufFp df=lj=	Tff/s]Zj/ gu/kflnsf
73	260170009	dx]Gb  u fd df=lj=	rfFu'gf/foOf gu/kflnsf
74	270310731	1fg Hof]lt dlxfn df=lj=	sf7df8f)+ dxfgu/kflnsf
75	260120046	cfbz{ df=lj=	dWok'/ l7dL gu/kflnsf
76	270200005	Uff]s0f{ df=lj=	Uff]s0f]{Zj/ gu/kflnsf
77	270330013	Hfghfu[tL{ df=lj=	a'9flgns07 gu/kflnsf
78	260030069	Affu]Zj/L df=lj=	eQmk'/ gu/kflnsf
79	270310493	u'x]Zj/ afnlziff df=lj=	sf7df8f)+ dxfgu/kflnsf
80	270160003	Wffkf;L df=lj=	6f]vf gu/kflnsf
81	260030024	zflGt lgs]tg df=lj=	eQmk'/ gu/kflnsf
82	270020002	Rf08L e}/j df=lj=	rGb flu/L gu/kflnsf
83	270560005	r'gL b]jL df=lj=	rGb flu/L gu/kflnsf
84	270310012	eLd;]guf]nf df=lj=	sf7df8f)+ dxfgu/kflnsf
85	270310729	6\of}8 df=lj=	sf7df8f)+ dxfgu/kflnsf
86	270310656	l;çL uOf]z df=lj=	sf7df8f)+ dxfgu/kflnsf
87	260180006	b]jL df=lj=	rGb flu/L gu/kflnsf
88	270300004	u fd lziff dlGb/ df=lj=	a'9flgns07 gu/kflnsf
89	270140008	sflGt e}/j df=lj=	sfu]Zj/L gu/kflnsf
90	270470001	s'~rLKjfsn df=lj=	Tf/s]Zj/ gu/kflnsf
91	260170007	k~rsGof df=lj=	RffFu'gf/foOf gu/kflnsf
92	270310044	sGof df=lj=	sf7df8f)+ dxfgu/kflnsf
93	270050003	; 'Gtfvfg df=lj=	Uff]s0f]{Zj/ gu/kflnsf
94	270370002	>L dxFsf n hghfu[tL df=lj=	a'9flgns07 gu/kflnsf
95	270250002	/fli6«o lgdf{0f df=lj=	; +vf/fk'/ gu/kflnsf
96	260120038	hgs l;çsfnL df=lj=	dWok'/ l7dL gu/kflnsf

97	260120074	cfbz{ dlxnf df=lj=	dWok'/ l7dL gu/kflnsf
98	250040005	dxFfsfnL b]jL df=lj=	afudtL ufpFkflnsf
99	270310090	lzk'/L df=lj	sf7df8f)+ dxfgu/kflnsf
100	270110004	>L s[iOf df=lj=	blIf0fsfnL gu/kflnsf
101	260120049	jf]8] df=lj=	dWok'/ l7dL gu/kflnsf
102	250340003	Rf08]Zj/L df=lj=	afudtL ufpFkflnsf
103	250360005	Dfu/ ufpF df=lj=	sf]GHof];f]d ufpFkflnsf
104	270550008	sfdw]g' df=lj=	blIf0fsflng gu/kflnsf
105	270310625	zflGt lgs'~h df=lj=	sf7df8f)+ dxfgu/kflnsf
106	250270013	Gfd'gf dl5Gb   df=lj=	nIntk'/ dxfgu/kflnsf
107	260030061	ljBfyL{ lgs]tg df=lj=	eQmk'/ gu/kflnsf
108	270300030	led df=lj=	rGb flu/L gu/kflnsf
109	270210009	k'/f0ff] u'x]Zj/L df=lj=	Tff/s]Zj/ gu/kflnsf
110	270310021	lutf dftf df=lj=	sf7df8f)+ dxfgu/kflnsf
111	250280004	>[au]/L ;fd'bflos df=lj=	dxfnld gu/kflnsf
112	260150008	zflGt lgs]tg df=lj=	;'o{ ljgfos gu/kflnsf
113	270340006	sflnsf z/Of df=lj=	;+vf/fk'/ gu/kflnsf
114	270270001	sflnsfz/Of df=lj=	Tff/s]Zj/ gu/kflnsf
115	260030068	Tff/f df=lj=	eQmk'/ gu/kflnsf
116	250410006	Dfx]Gb   df=lj=	dxFfsfn ufpFkflnsf
117	270480007	c?0ff]bo df=lj=	blIf0fsfnL gu/kflnsf
118	270480006	Vff]sgf hg df=lj=	blIf0fsfnL gu/kflnsf
119	250390006	km'nrf]sL df=lj=	Uff]bfj/L gu/kflnsf
120	270230007	uflGw cfbz{ df=lj=	sfu]Zj/L gu/kflnsf
121	270310716	ljZj lgs]tg df=lj=	sf7df8f)+ dxfgu/kflnsf
122	250080004	;/:jtL ljwf>d df=lj=	dxFfsfn gu/kflnsf
123	270310193	Effg'eQm df=lj=	sf7df8f)+ dxfgu/kflnsf
124	250310008	sfnL b]jL df=lj=	AfudtL ufpFkflnsf
125	270310363	Hfghfu[lt 1fg /:dL df=lj=	sf7df8f)+ dxfgu/kflnsf
126	250170007	Gff/fo0fL df=lj=	afudtL ufpFkflnsf
127	260140009	;/:jtL df=lj=	;'o{ ljgfos gu/kflnsf
128	270310088	zflGt ljwf u[x df=lj=	sf7df8f)+ dxfgu/kflnsf
129	250180001	ljzFfv' gf/fo0f df=lj=	Uff]bfj/L gu/kflnsf
130	270100002	Uf0f]z df=lj=	a'9flgns07 gu/kflnsf
131	270310005	Affn Jofj;foL s]Gb   df= lj=	sf7df8f)+ dxfgu/kflnsf
132	270310556	k/f]ksf/ df=lj=	sf7df8f)+ dxfgu/kflnsf
133	270440012	Affn ;'wf/ df=lj=	Uff]s[0f]Zj/ gu/kflnsf
134	270410005	Gfljg u   fd lzlff dlGb/	;+vf/fk'/ gu/kflnsf

		df=lj=	
135	270240005	xnrf]s df=lj=	Gffufh'{g gu/kflnsf
136	250380004	Affns'df/L df=lj=	nIntk'/ dxfgu/kflnsf
137	270310331	1fgf]bo df=lj=	sf7df8f)+ dxfgu/kflnsf
138	270310774	zflGt lzlff dlGb/ df=lj=	sf7df8f)+ dxfgu/kflnsf
139	270240004	Affn ljsf; df=lj=	Gffufh'{g gu/kflnsf
140	270310028	lxdfn0 df=lj=	sf7df8f)+ dxfgu/kflnsf
141	270310491	Hfg ljsf; df=lj=	sf7df8f)+ dxfgu/kflnsf
142	270330321	d+un df=lj=	lstL{k'/ gu/kflnsf
143	270290002	sfe  ]:ynL df=lj=	Tff/s]Zj/ gu/kflnsf
144	270590001	;/:jtL df=lj=	6f]vf gu/kflnsf
145	260030038	;dfh ;'wf/ df=lj=	eQmk'/ gu/kflnsf
146	270260005	Aff}8]Zj/ df=lj=	6f]vf gu/kflnsf
147	270310401	sf]6]Zj/ ;/:jtL df=lj=	sf7df8f)+ dxfgu/kflnsf
148	260160005	l;?6f/ df=lj=	; 'o{ ljgfos gu/kflnsf
149	250090003	ah\ af/fxL df=lj=	Uff]bfj/L gu/kflnsf
150	250100004	5DKL b]jL df=lj	Uff]bfj/L gu/kflnsf
151	260090003	Hof]lt df=lj=	; 'o{ ljgfos gu/kflnsf
152	260010001	s[if0f df=lj=	rfFu'gf/fo0f gu/kflnsf
153	270310366	Hfg k eft df=lj=	sf7df8f)+ dxfgu/kflnsf
154	270210003	k[YjL gf/fo0f df=lj=	Tff/s]Zj/ gu/kflnsf
155	260140005	e'jg]Zj/L df=lj=	; 'o{ ljgfos gu/kflnsf
156	270220042	r]tgf dlxnf df=lj=	F6f]vf gu/kflnsf
157	270190006	l;çL u0f]z df=lj=	sfu]Zj/L gu/kflnsf
158	270080004	k~rsGof df=lj	a'9flgns07 gu/kflnsf
159	250270079	Kff6g df=lj=	nIntk'/ dxfgu/kflnsf
160	270170004	u fd;]jf df=lj=	Tff/s]Zj/ gu/kflnsf
161	260030087	Kfb\d df=lj=	eQmk'/ gu/kflnsf
162	270330027	hg;]jf df=lj=	lstL{k'/ gu/kflnsf
163	270310697	t?0f df=lj=	sf7df8f)+ dxfgu/kflnsf
164	270230006	t]h ljgfos df=lj=	sfu]Zj/L gu/kflnsf
165	270310567	k eft df=lj=	sf7df8f)+ dxfgu/kflnsf
166	270310624	;+:s[t df=lj=	sf7df8f)+ dxfgu/kflnsf
167	270310773	l;tnf df=lj=	sf7df8f)+ dxfgu/kflnsf
168	260120042	Affn k ]dL df=lj=	dWok'/ l7dL gu/kflnsf
169	250280009	l;:g]/L df=lj=	dxfnldL gu/kflnsf
170	250130004	>L led;]g cfb{z df=lj=	Uff]bfj/L gu/kflnsf
171	250130004	dxfFsn df=lj=	sf7df8f)+ dxfgu/kflnsf
172	250300004	n'e' df=lj=	dxfFnldL gu/kflnsf

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**Annex IX: List of Community Secondary Schools of Kathmandu Valley**

SN	Code No.	Name of School	Under Province
1	260030018	cfb{z chfb df=lj=	eQmk'/ gu/kflnsf
2	260030021	Aff;' df=lj=	eQmk'/ gu/kflnsf
3	260030023	;/:jtL ljBf u[x df=lj=	eQmk'/ gu/kflnsf
4	260030024	zflGt lgs]tg df=lj=	eQmk'/ gu/kflnsf
5	260030038	;dfh ;'wf/ df=lj=	eQmk'/ gu/kflnsf
6	260030043	UfOf]z df=lj=	eQmk'/ gu/kflnsf
7	260030060	;f/fbf df=lj=	eQmk'/ gu/kflnsf
8	260030061	ljBfyL{ lgs]tg df=lj=	eQmk'/ gu/kflnsf
9	260030064	d]wf df=lj=	eQmk'/ gu/kflnsf
10	260030068	Tff/f df=lj=	eQmk'/ gu/kflnsf
11	260030071	Aff3]Zj/L df=lj=	eQmk'/ gu/kflnsf
12	260030087	Hffu[lt df=lj=	eQmk'/ gu/kflnsf
13	260010001	Kfbdf df=lj=	eQmk'/ gu/kflnsf
14	260010004	s[iOff df=lj=	RffFu'gf/foOf gu/kflnsf
15	260040007	Affu]lxlG df=lj=	RffFu'gf/foOf gu/kflnsf
16	260050004	bf]nflu/L df=lj=	RffFu'gf/foOf gu/kflnsf
17	260080011	UfOf]z df=lj=	RffFu'gf/foOf gu/kflnsf
18	260100008	RffFu'gf/foOf df=lj=	RffFu'gf/foOf gu/kflnsf
19	260100008	chfb df=lj=	RffFu'gf/foOf gu/kflnsf
20	260130004	Sflnsf df=lj=	RffFu'gf/foOf gu/kflnsf
21	260130005	r'gfb]jL df=lj=	RffFu'gf/foOf gu/kflnsf
22	260170006	Affnlds]Zj/ df=lj=	RffFu'gf/foOf gu/kflnsf
23	260170007	Kf~r sGof df=lj=	RffFu'gf/foOf gu/kflnsf
24	260170008	;/:jtL df=lj=	RffFu'gf/foOf gu/kflnsf
25	260170009	Dfx]Gb   u   fd df=lj=	RffFu'gf/foOf gu/kflnsf
26	260180005	UfOf]z df=lj=	RffFu'gf/foOf gu/kflnsf
27	260180006	b]jL df=lj=	RffFu'gf/foOf gu/kflnsf
28	260120030	cfb{z df=lj=lydL	DfWok'/ l7dL gu/kflnsf
29	260120038	Hfgs l;çsfN df=lj=	DfWok'/ l7dL gu/kflnsf
30	260120042	Affn k   ]dL df=lj=	DfWok'/ l7dL gu/kflnsf
31	260120046	cfb{z df=lj=;fgf]l7dL	DfWuk'/ l7dL gu/kflnsf
32	260120049	Aff]8] df=lj=	DfWok'/ l7dL gu/kflnsf
33	260120054	UfOf]z df=lj=	DfWok'/ l7dL gu/kflnsf
34	260120074	cf:yf dlxfn df=lj=	DffWok'/ l7dL gu/kflnsf
35	260020009	Dfx]Gb   zflGt ljBfno	; 'o{ljgfos gu/kflnsf
36	260070005	bflwsf]6 ljxfGL df=lj=	; 'o{ljgfos gu/kflnsf
37	260070010	c/lgsf] df=lj=	; 'o{ljgfos gu/kflnsf
38	260090003		
39	260140005		
40	260140006		
41	260140009		
42	260150003		
43	260150008		
44	260160005		
45	270080004		

46	270080019	Hof]lt df=lj=	;o{ljgfos gu/kflnsf
47	270080048	Ef'afg]Zj/L df=lj=	;o{ljgfos gu/kflnsf
48	270080049	Hff]/kf6L df=lj=	;o{ljgfos gu/kflnsf
49	270100002	;/:jtL df=lj=	;o{ljgfos gu/kflnsf
50	270130002	Uf0f]Zf df=lj=	;o{ljgfos gu/kflnsf
51	270130005	zflGt lgs]tg df=lj=	;o{ljgfos gu/kflnsf
52	270300001	l;?6f/ df=lj=	;o{ljgfos gu/kflnsf
53	270300004	k~r sGof df=lj=	a'9flgns07 gu/kflnsf
54	270300009	a'9flgnsf07 df=lj=	a'9flgns07 gu/kflnsf
55	270300013	a'9flgnsf07 dlxnf df= lj=	a'9flgns07 gu/kflnsf
56	270370002	;j{zlQm dlxnf df= lj=	a'9flgns07 gu/kflnsf
57	270020002	Uf0f]z df=lj=	a'9flgns07 gu/kflnsf
58	270020003	Hffg pBf/ df= lj=	a'9flgns07 gu/kflnsf
59	270020004	gjnLg df=lj=	a'9flgns07 gu/kflnsf
60	270040003	>L o1dtL df=lj=	a'9flgns07 gu/kflnsf
61	270120004	u fd lzlff dlGb/ df=lj=	a'9flgns07 gu/kflnsf
62	270350003	Affn pcf/ df= lj=	a'9flgns07 gu/kflnsf
63	270360002	Hffg hfu[lt df=lj=	a'9flgns07 gu/kflnsf
64	270360010	>L dxFsfn hfu[lt df=la=	a'9flgns07 gu/kflnsf
65	270390002	Rfl08 e}/j df=lj=	rGb flu/L gu/kflnsf
66	270420003	led df=lj=	rGb fu/L gu/kflnsf
67	270430002	rGbL e}/j df=lj=	rGb flu/L gu/kflnsf
68	270430003	afnDj' df=lj=	rGb flu/L gu/kflnsf
69	270490001	s[i0ff df=lj=	rGb flu/L gu/kflnsf
70	270560003	Gff/fo0f hg df=lj=	rGb flu/L gu/kflnsf
71	270560005	hgsNof0f df=lj=	rGb flu/L gu/kflnsf
72	270570002	k eft df=lj=	rGb flu/L gu/kflnsf
73	270090001	Hffgf ljsf; df=lj=	rGb flu/L gu/kflnsf
74	270110003	d+un df=lj=	rGb flu/L gu/kflnsf
75	270110004	s+sfnL df=lj=	rGb flu/L gu/kflnsf
76	270150005	ljBf dlGb/ df=lj=	rGb flu/L gu/kflnsf
77	270480003	lji0f' b]jL lzlff ;bg	rGb flu/L gu/kflnsf
78	270480006	d+unf]bo df=lj=	rGb flu/L gu/kflnsf
79	270480007	Rf'gLb]jL df=lj=	rGb flu/L gu/kflnsf
80	270510002	lji0f' b]jL df=lj=	rGb flu/L gu/kflnsf
81	270550004	rDkf b]jL df=lj=	blIf0fsfnL gu/kflnsf
82	270550007	k~r sGof df=lj=	blIf0fsfnL gu/kflnsf
83	270550008	l> s[i0f df=lj=	blIf0fsfnL gu/kflnsf
84	270050002	km/lkË df=lj=	blIf0fsfnL gu/kflnsf
85	270050003	;]6L b]jL df=lj=	blIf0fsfnL gu/kflnsf
86	270200003	Vff]sgf hg df=lj=	blIf0fsfnL gu/kflnsf
87	270200005	c?0ff]bo df=lj=	blIf0fsfnL gu/kflnsf
88	270200011	c?0ff]bo df=lj=-k'/fgf]_	blIf0fsfnL gu/kflnsf
89	270280004		
90	270280012		
91	270280020		
92	270300030		
93	270440012		
94	270530004		
95	270010004		
96	270060004		
97	270140008		



98	270190005	;]tL b]jL df=lj=	bllf0fsfnL gu/kflnsf
99	270190006	lgËdf kNo'n df= lj=	bllf0fsfnL gu/kflnsf
100	270230006	sfdw]g' df=lj=	bllf0fsfnL gu/kflnsf
101	270230007	b]jL afn ;'wf/ df=lj=	Uff]s0f]{Zj/ gu/kflnsf
102	270400002	;'Gtfvfg df=lj=	Uff]s0f]{Zj/ gu/kflnsf
103	270400004	;xof]uL df=lj=	Uff]s0f]{Zj/ gu/kflnsf
104	270010013	Uff]s{0f=df=lj=	Uff]s0f]{Zj/ gu/kflnsf
105	270080039	sflGte}/j u'?s'n ljBfno	Uff]s0f]{Zj/ gu/kflnsf
106	270310005	Vfu]Gb  Go" nfOkm ljwfno	Uff]s0f]{Zj/ gu/kflnsf
107	270310011	Rfd'Gbf df=lj=	Uff]s0f]{Zj/ gu/kflnsf
108	270310012	c?0ff]bo df=lj=	Uff]s0f]{Zj/ gu/kflnsf
109	270310021	8fkmkmf]8Ln df=lj=	Uff]s0f]{Zj/ gu/kflnsf
110	270310024	Affn ;'wf/ df=lj=	Uff]s0f]{Zj/ gu/kflnsf
111	270310028	cf]v/]gL df=lj=	Uff]s0f]{Zj/ gu/kflnsf
112	270310031	Afn ljsf; df=lj=	sfu]Zj/L dfgf]x/f
113	270310034	cb{zf df=lj=	sfu]Zj/L dfgf]x/f
114	270310036	sflGt e}/j df=lj=	sfu]Zj/L dfgf]x/f
115	270310037	Affn pçf/ df=lj=	sfu]Zj/L dfgf]x/f
116	270310044	l;çL u0f]z df=lj=	sfu]Zj/L dfgf]x/f
117	270310053	t]h ljgfos df=lj=	sfu]Zj/L dfgf]x/f
118	270310054	uflGw cfbz{ df=lj=	sfu]Zj/L dfgf]x/f
119	270310056	cfgGb e}/j df=lj=	sfu]Zj/L dfgf]x/f
120	270310058	g]kfn /fli6«o lgdf{0f df=lj=	sfu]Zj/L dfgf]x/f
121	270310060	j]i0fjL cN6/g]l6e df=lj=	sf7df08' dxfgu/kflnsf
122	270310063	dGh'l> j]slNks df=lj=	sf7df08' dxfgu/kflnsf
123	270310065	Affn Jofj;fxL s]Gb  df=lj=	sf7df08' dxfgu/kflnsf
124	270310068	AffF;jf/L df=lj=	sf7df08' dxfgu/kflnsf
125	270310079	led;]guf]nf df=lj=	sf7df08' dxfgu/kflnsf
126	270310083	uLtfdf]t df=lj=	sf7df08' dxfgu/kflnsf
127	270310088	u'x]Zj/L df=lj	sf7df08' dxfgu/kflnsf
128	270310090	lxdfno df=lj=	sf7df08' dxfgu/kflnsf
129	270310092	huggfy df=lj=	sf7df08' dxfgu/kflnsf
130	270310094	Hffg sNof0f df=lj=	sf7df08' dxfgu/kflnsf
131	270310096	h'Bf]bod df= lj.	sf7df08' dxfgu/kflnsf
132	270310156	gd'gf dlxnf df= lj=	sf7df08' dxfgu/kflnsf
133	270310099	sfGof df= lj=	sf7df08' dxfgu/kflnsf
134	270310183	dfxfGsf]n df=lj=	sf7df08' dxfgu/kflnsf
135	270310190	Dfx]Gb  af]ç df= lj=	sf7df08' dxfgu/kflnsf
136	270310193	dx]Gb  /fli6«o df=lj=	sf7df08' dxfgu/kflnsf
137	270310202	d+unf b]jL df=lj=	sf7df08' dxfgu/kflnsf
138	270310264	gj hfu]lt df=lj=	sf7df08' dxfgu/kflnsf
139	270310331	gj o'u df=lj=	sf7df08' dxfgu/kflnsf
140	270310363	lgn af/fxL df=lj=	sf7df08' dxfgu/kflnsf
141	270310366		
142	270310368		
143	270310382		
144	270310386		
145	270310401		
146	270310480		
147	270310481		
148	270310488		

149	270310491	k~r sGof df=lj=	sf7df08' dxfgu/kflnsf
150	270310492	;f/bf df=lj=	sf7df08' dxfgu/kflnsf
151	270310493	;/:jtL lgs]tg df=lj=	sf7df08' dxfgu/kflnsf
152	270310501	zflGt ljBf u[x df=lj=	sf7df08' dxfgu/kflnsf
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**Annex X: Mean and Standard Deviation of Head Teachers' Response on Factor**

**One of IL**

Factor	Mean	SD
1.1 Head teacher analyses students' last year's performance while planning for the new academic session	4.55	.623
1.2 Head teacher specifies school's whole year educational plan in the presence of concerned people	4.36	.700
1.3 Head teacher seeks to incorporate teacher's inputs in planning during his formal or informal meetings	4.65	.555
2.1 Head teacher shares academic plans with everyone involved and discusses how those plans may be effectively implemented	4.45	.633
2.2 Head teacher displays school's whole year plan on notice boards, school calendar and communicates them to students during assembly	4.51	.653
2.3 Head teacher reports school's educational planning to the local government and Province/Local level education offices	4.22	.765
3.1 Head teacher regularly monitors activities of teachers and students while they are in class	4.20	.751
3.2 Head teacher makes sure student's every class work/home work is completed timely and all notes are marked by assigned teachers at least a month prior to terminal examinations	3.93	.784
3.3 Head teacher seeks to find out teachers' areas of improvements in instruction practices and makes appropriate suggestions	4.26	.716
4.1 Head teacher gets every subject department heads to implement the syllabus of all subjects in each class	3.89	.955
4.2 Head teacher checks teachers' log books regularly to see if they are in going in accordance with the syllabus	3.80	.944

4.3 Head teacher reviews whether the curriculum goal is achieved or not through students' terminal examination results, their discipline and overall change indicators	4.35	.746
5.2 Head teacher conducts monthly meetings with all teachers to review the achievement verses goals	4.49	.671
6.2 Head teacher instructs teachers to ensure no students have bunked classes	4.28	.827
Total	4.28	.439

### **Annex XI: Mean and Standard Deviation of Head Teachers' Response on Factor**

#### **Two of IL**

Factor	Mean	SD
8.1 Head teacher publically praises teachers' superior performance but meets them in private for correction	4.55	.650
8.2 Head teacher tries to manage opportunity for sincere teachers to work in a higher position as reward for their good work	4.33	.781
8.3 Head teacher provides letters of appreciation or honor certificates to teachers for their special contribution	4.02	.967
9.1 Head teacher seeks to provide trainings to teachers during vacations or so as not to interrupt daily classes	3.83	.863
9.2 Head teacher actively supports teachers to use those learnt skills in the classrooms	4.31	.768
9.3 Head teacher sometimes provides opportunities to teachers for observation or educational tours	4.04	.932
10.1 Head teacher publically honors students for their excellent performance or discipline	4.41	.801
10.2 Head teacher learns students' family problems and talks to their parents to resolve them	4.48	.679
Total	4.25	.544

### **Annex XII: Mean and Standard Deviation of Head Teachers' Response on**

#### **Factor Three of IL**

Factor	Mean	SD
11.1 Head teacher calls class-wise parents' meeting and discusses about students' progress	4.15	.749

11.2 Head teacher announces mandatory presence of parents during terminal report card distribution	4.66	.604
11.3 Head teacher meets the parents of poor performing students and shares with them what roles the school and parents may together take for their improvements	4.26	.732
<b>Total</b>	<b>4.36</b>	<b>.542</b>

### **Annex XIII: Mean and Standard Deviation of Teachers' Response on Factor**

#### **One of IL**

<b>Factor</b>	<b>Mean</b>	<b>SD</b>
1.1 Head teacher analyses students' last year's performance while planning for the new academic session	4.20	.956
1.2 Head teacher specifies school's whole year educational plan in the presence of concerned people	3.97	1.10
1.3 Head teacher seeks to incorporate teacher's inputs in planning during his formal or informal meetings	4.25	.872
2.1 Head teacher shares academic plans with everyone involved and discusses how those plans may be effectively implemented	3.99	.994
2.2 Head teacher displays school's whole year plan on notice boards, school calendar and communicates them to students during assembly	4.08	1.02
2.3 Head teacher reports school's educational planning to the local government and Province/Local level education offices	3.86	1.04
3.1 Head teacher regularly monitors activities of teachers and students while they are in class	3.59	1.04
3.2 Head teacher makes sure student's every class work/home work is completed timely and all notes are marked by assigned teachers at least a month prior to terminal examinations	3.48	1.08
3.3 Head teacher seeks to find out teachers' areas of improvements in instruction practices and makes appropriate suggestions	3.72	1.11
4.1 Head teacher gets every subject department heads to implement the syllabus of all subjects in each class	3.35	1.21
4.2 Head teacher checks teachers' log books	3.34	1.22



regularly to see if they are in going in accordance with the syllabus

4.3 Head teacher reviews whether the curriculum goal is achieved or not through students' terminal examination results, their discipline and overall change indicators	3.83	1.16
5.2 Head teacher conducts monthly meetings with all teachers to review the achievement verses goals	4.11	1.04
6.2 Head teacher instructs teachers to ensure no students have bunked classes	3.85	1.16
Total	3.83	0.809

#### **Annex XIV: Mean and Standard Deviation of Teachers' Response on Factor**

##### **Two of IL**

Factor	Mean	SD
8.1 Head teacher publically praises teachers' superior performance but meets them in private for correction	3.91	1.14
8.2 Head teacher tries to manage opportunity for sincere teachers to work in a higher position as reward for their good work	3.53	1.26
8.3 Head teacher provides letters of appreciation or honor certificates to teachers for their special contribution	3.43	1.31
9.1 Head teacher seeks to provide trainings to teachers during vacations or so as not to interrupt daily classes	3.43	1.20
9.2 Head teacher actively supports teachers to use those learnt skills in the classrooms	3.91	1.08
9.3 Head teacher sometimes provides opportunities to teachers for observation or educational tours	3.59	1.16
10.1 Head teacher publically honors students for their excellent performance or discipline	4.00	1.08
10.2 Head teacher learns students' family problems and talks to their parents to resolve them	4.07	.979
Total	3.73	0.921

#### **Annex XV: Mean and Standard Deviation of Teachers' Response on Factor**

##### **Three of IL**

Factor	Mean	SD
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11.1 Head teacher calls class-wise parents' meeting and discusses about students' progress	3.83	1.03
11.2 Head teacher announces mandatory presence of parents during terminal report card distribution	4.38	.926
11.3 Head teacher meets the parents of poor-performing students and shares with them what roles the school and parents may together take for their improvements	3.95	1.04
Total	4.06	0.834

### **Annex XVI: Mean and Standard Deviation of Head Teachers' Response on**

#### **Factor One of OH of School**

Factor	Mean	SD
1.3 Teachers accomplish their job with enthusiasm	4.50	.577
2.1 The teaching materials such as marker, duster, register etc. are available in the school	4.94	.223
2.3 Necessary materials are available for extra-curricular activities	4.61	.575
3.1 The head teacher treats every teacher alike	4.88	.372
3.2 The head teacher respects teacher's suggestions and executes them where appropriate	4.56	.573
3.3 The head teacher also works for the welfare of teachers	4.36	.843
4.3 Positive learning environment is maintained in the school	4.65	.534
Total	4.64	.327

### **Annex XVII: Mean and Standard Deviation of Head Teachers' Response on**

#### **Factor Two of OH of School**

Factor	Mean	SD
6.1 Head teacher can ask local government for help to better school	4.45	.711
6.2 Head teacher can change the duty/responsibility of teachers or staff members where necessary	3.99	.908
6.3 Head teacher decisions to school improvements are not impeded by higher authorities	3.70	1.38
7.2 Head teacher does not hesitate to take necessary decision for school's good	4.67	.620
Total	4.20	.605

**Annex XVIII: Mean and Standard Deviation of Head Teachers' Response on  
Factor Three of OH of School**

Factor	Mean	SD
5.1 There is a pressure from political parties in this school	2.31	1.18
5.2 Community demands are accepted even if they are inconsistent to educational program	2.86	1.18
5.3 The school policy is compromised if there is pressure from even minority of guardians	158	.903
Total	2.25	.794

**Annex XIX: Mean and Standard Deviation of Teachers' Response on Factor One  
of OH of School**

Factor	Mean	SD
1.3 Teachers accomplish their job with enthusiasm	4.26	.882
2.1 The teaching materials such as marker, duster, register etc. are available in the school	4.70	.637
2.3 Necessary materials are available for extra-curricular activities	4.14	.896
3.1 The head teacher treats every teacher alike	4.34	.981
3.2 The head teacher respects teacher's suggestions and executes them where appropriate	4.09	.968
3.3 The head teacher also works for the welfare of teachers	3.73	1.14
4.3 Positive learning environment is maintained in the school	4.31	.753
Total	4.22	.693

**Annex XX: Mean and Standard Deviation of Teachers' Response on factor Two  
of OH of School**

Factor	Mean	SD
6.1 Head teacher can ask local government for help to better school	4.21	.861
6.2 Head teacher can change the teachers' or staffs' duty/responsibility where necessary	3.95	.951
6.3 Head teacher's decisions to school improvements are not impeded by higher authorities	3.74	1.30
7.2 Head teacher does not hesitate to take necessary decision for school's good	4.13	1.13
Total	4.01	.766

**Annex XXI: Mean and Standard Deviation of Teachers' Response on Factor  
Three of OH of School**

Factor	Mean	SD
5.1 There is a pressure from political parties in this school	2.18	1.20
5.2 Community demands are accepted even if they are inconsistent to educational program	3.06	1.10
5.3 The school policy is compromised if there is pressure from even minority of guardians	1.83	1.13
Total	2.36	.907