SECONDARY SCHOOLS AS LEARNING ORGANIZATION: A COMPARATIVE STUDY OF RURAL AND URBAN AREAS

BY

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By

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Candidate of **Master of Philosophy** at the National University of Modern Languages do hereby declare that the thesis **"Student Perception About Electronic learning in Research Skill Development at Post Graduate level"** submitted by me in partial fulfillment of MPhil degree, is my original work, and has not been submitted or published earlier. I also solemnly declare that it shall not, in future, be submitted by me for obtaining any other degree from this or any other university or institution.

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ABSTRACT

Title: Secondary Schools as learning organization: A Comparative Study of Rural and Urban Areas

The purpose of this research study was to assess the functioning of urban and rural secondary schools as learning organization and to compare the rural and urban secondary school's functioning as learning organization. To achieve the objectives of present research study researcher used descriptive research design within quantitative approach. Peter Senge's five discipline model of learning organization was used as theoretical framework of the study. The respondents of the this research study was teachers teaching at rural and urban public sector secondary schools working under Federal Directorate of Education, Government of Pakistan. The sample of the study was drawn by using proportionate stratified random sampling technique where two strata's were formed (rural and urban schools). Total population of the study was 2072 teachers in both urban and rural secondary schools. Sample size of the present research study was 414 teachers. To collect the data survey questionnaire was adopted by the researcher based on Peter Senge's five discipline model of learning organization. To compare the data of urban and rural secondary schools independent sample T-test was applied using SPSS. The findings of the study shows that both rural and urban public sector secondary schools of Islamabad are functioning as learning organizations. Comparative result of the study shows that there is no significant difference between the functioning of rural and urban secondary schools as learning organization. It is recommended to the teachers and head teachers to create a collaborative learning culture in the school, to reflect on their assumptions regarding schooling, to make a mindset of lifelong learning process, to work in teams where knowledge can be shared and to participate in activities where school goals and objective are planned, it will be helpful in transforming schools into learning organizations. This study may help stakeholders to transform their organizations into learning organizations.

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ACKNOWLEDGEMENTS

I am greatly obliged to my Almighty Allah; he is the one and only who consecrated me with the opportunity to acquire and communicate with the very knowledge to do effort in this field. I will keep on trusting Him for my future. It is merely the consecration of the all-knowing being to give upon us His Holy Prophet (SAW) the last human appearance of his complete information, who has deposited all ground of knowledge.

I express my deepest gratitude and respect to my beloved parents, without whom none of my achievements would have been possible. They instilled in me the belief that I can accomplish anything I set my mind to, and provided unwavering support and encouragement when my own confidence faltered. Their prayers have been a source of strength for me and have carried me this far.

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DEDICATION

I

Dedicate

This piece of research work

To my **beloved parents,**

Who always pray for my success and long life,

I also wish

To dedicate this research work

To my **dear husband** for being support system to complete it

And

I dedicate this research study to **my little daughter**

CHAPTER 1

INTRODUCTION

Education is the intentional and continuous process of transferring and acquiring knowledge and skills (Cremin, Public Education, p. 27). In other words education is a systematic process of having new knowledge and skills required for a successful life. Learning is the process that leads towards change, an activity that is carried out to increase the performance and new knowledge. Learning organizations are particular spaces that are designed to impart that new knowledge and provide the opportunities that lead towards behavioral change. These learning organizations are responsible for providing education and learning experiences.

Additionally, in today's globalized word education is considered as the most powerful weapon to compete with the ever-changing world. However, in the field of education learning organizations are not well studied to fully understand them. The field of education in the twenty-first century is one that requires serious thought, preparation, and commitment. Therefore, a large number of educators and scholars are exploring the concept of schools as learning organization. This concept has implication on education at all levels. However, schools have all the characteristics that define an organization. Brandt, R. (2003) has defined certain characteristics for a school to be a learning organization. According to him a learning organization's incentive system promotes adaptable behavior, shared achievable goals, planning to achieve theses goal, institutional knowledge and being open to the external environment. Since the schools have all these characteristics in common therefore, they can be considered learning organization a bulk of research studies acknowledge this fact.

In today's 21st century world schools have immense importance as learning

organization by having all the required characters organization to fulfill the needs of this technological era. In order to achieve the goal of imparting advanced knowledge and skills, schools are under pressure to complete their journey as learning organizations to meet the new trends and cope with the learning challenges of twenty first century as mentioned by Reese, S. (2020). Moreover, school improvement is also the top priority of school leader to line up with the emerging educational trends and demanding curricular reforms. In this scenario, schools become more important learning organizations to achieve the new educational standards and curricular reforms because the importance of school is undeniable fact for such improvement and conceptualizing schools as learning organizations becomes more crucial.

Education has a vital place in any society for shaping behavior and familiarizing the new generation with the new trends and aligning their abilities with the necessary skills. For this purpose, schools are made responsible to impart these required attributions, skills and knowledge (Marinah, A. 2013). With this responsibility schools are in dire need to align their purpose and goal with the organizational structure and work as learning organizations to cope up with the current educational standards.

1.1 Context of the study

In the early 1990's the notion of learning organization in the arena of psychology, human resource and management literature has become the catching word. Peter Senge originated the term learning organization as a business construct. For the organizational development and change, the conception of learning organization has become a strategy in the arena of trade and commerce. Progressively, the notion of learning organization is used in community institutes like schools, hospitals and military to define its values, structure and perceptions (Park, 2008).Even though there

are number of researches and publications on the conception of learning organization, a consistent conceptual meaning for the term learning organization has not expressed in the writings. It's because researchers personal experiences and perceptions play an important role in their definition of the term learning organization (Park, 2008).

Bratianu, C. (2015). As quoted (Maier, Prange & Von Rosenstiel, 2003, p.14) that "Metaphorical thinking is the foundation of organizational learning and learning organizations. It is based on the comparison that a social structure which has a specific goal to achieve, like an organization, is capable of learning similarly to an organism. According to Haeffner (2012) learning organization is an organization "which possess an improved capability to acquire, adjust and modify. Learning organizations are the organizations where learning processes are evaluated, observed, established, achieved and line up with development and improvement goals".

Number of researchers believe that learning organization is the best process or organization for dealing with the constant change and improvement in an institute (Malik, Danish, & Munir, 2012). Researchers also believe that in future organizations will be systems driven by individuals and learning organizations that repetitively re-invent themselves. Society demands graduates to be prepared for a learning organization model rather than a factor. If this preparation of graduates is for competitive and fruitful partaking in the learning organizations of future we should transmute our schools into learning organizations structurally and culturally (Williams, Brien, & LeBlanc, 2012).

The key purpose of schooling and through which approach it can be best achieved must be aligned together. The aim of schooling is to make learners ready for rapidly changing, more complicated than ever before and independent society.

However, we are stuck to an approach which is more independent, simpler and stable (Williams et al., 2012). Therefore, the greatest method to line up our institute (school) aim with the approach is to transmute schools into learning organizations because we are living in the age of rapid change. This transformation of schools into learning organizations needs continuous efforts. Since last some decade's developments, improvements and modernizations have completely transformed the system of doing work. Unfortunately, in developing countries like Pakistan, a large number of the institutes are suffering because of the destructive approach towards the organization, change and new ideas are not welcome. This research study was an attempt to assess at what extent urban and rural secondary schools are working as learning organizations; it has also compared urban and rural secondary schools as learning organizations in Islamabad Pakistan by using the Senge's five discipline model as theoretical framework.

1.2 Rationale of the study

In today's world of continuous technological advancement, there is a rapid development in every field of life either its health, business or education. In this situation only those organizations are successful and effective which are flexible, responsive and which accept the change according to circumstances. The two key elements of any organization are its individuals and organization itself. Therefore, an organization need to create a culture of learning that occur in that organization, that can help its individuals to progress that is essential to the current situation. Twenty first century society places a great emphasis on the ability of every individual and organization to engage in continuous learning, so that they can deal with rapid changes occurring around them. This is significant to see how educational institutions are working for continues learning to align themselves with the rapid change in the world.

Educational reforms are intended to raise the education quality and standards of teaching and overall educational system through continuous efforts, which strongly demand there change and adaptability to these educational reforms. . This study is an attempt to assess and analyze how schools are putting efforts to be learning organization so, that they can welcome the new educational reforms.

Teachers are considered as the key components of a school because they are the ones who actually perform in the real ground. So, it is important to know how they are working hard to become agents for making schools into learning organizations. Teacher's participations in the school activities, aligning their personal goals with school's overall visions, continuously developing professionally and helping their schools to achieve school desired goals are significant for a school to become learning organizations.

1.3 Statement of the Problem

The twenty first century is the era of technological advancement, in his changing era only the organizations who continue learning and keep on modifying and changing their organizational frameworks. This rapid organizational growth has made schools change their organizational structures and align themselves with the rapidly growing educational trends and standards. Underdeveloped countries like Pakistan are facing problems in coping with such rapid global advancement. The reason is that Pakistani schools have lack of organizational structures because they lack the skill of collaborative learning. Collaborative learning can easily occur when the individuals in school work for common goal within the institutional environment. Since we lack such collaborative learning in school, so there is a gap between goals school have and the goal that the teacher work for in the classroom.

This situation has made it undeniable fact, that schools are required to be

restructured and redesigned as leaning organizations. Therefore, educational institutions have started working as learning organizations and a lot of research has been done to study this need for schools as learning organizations in foreign contexts. In Pakistan, there have been insufficient studies conducted to evaluate and analyze the effectiveness of schools to transform them into learning organizations, despite fact that these schools are encouraged to function as such. Therefore, this study was carried out to assess rural and urban secondary schools as learning organizations. For this purpose a comparative qualitative study has been carried out to compare how secondary schools in rural and urban Pakistan are functioning as learning organizations and how this organizational working assist them to achieve the twenty first century advancement.

1.4 Research objectives

The study objectives were as follows:

1. To assess the functioning of urban secondary schools as learning organization
2. To evaluate the performance of Rural secondary schools as learning organization
3. To compare the rural and urban secondary school's functioning as learning organization

1.5 Research Questions

According to the study's objective one and two, these research questions were developed:

1. What is the level of 'System Thinking' of teachers teaching at urban secondary public sector schools?
2. What is the level of 'Mental Model' of teachers teaching at urban secondary public sector schools?

3. What is the level of 'Personal Mastery' of teachers teaching and urban secondary public sector schools?
4. What is the level of 'Team Leaning' of teachers teaching at urban secondary public sector schools?
5. What is the level of 'Shared Vision' of teachers teaching at urban secondary public sector schools?
6. What is the level of 'System Thinking' of teachers teaching at rural secondary public sector schools?
7. What is the level of 'Mental Model' of teachers teaching at rural secondary public sector schools?
8. What is the level of 'Personal Mastery' of teachers teaching and rural secondary public sector schools?
9. What is the level of 'Team Leaning' of teachers teaching at rural secondary public sector schools?
10. What is the level of 'Shared Vision' of teachers teaching at rural secondary public sector schools?

1.6 Hypothesis of the study

In order to achieve objective three, following hypothesis were designed.

1. H^o1 The mean level of *learning organization* among secondary school teachers in rural and urban areas is not significantly different.
2. H^o2 The mean level of *System Thinking* among secondary school teachers in rural and urban areas is not significantly different.

3. H^o3 The mean level of *Mental Models* among secondary school teachers in rural and urban areas is not significantly different.
4. H^o4 The mean level of *Personal Mastery* among secondary school teachers in rural and urban areas is not significantly different.
5. H^o5 The mean level of *Team Learning* among secondary school teachers in rural and urban areas is not significantly different.
6. H^o6 The mean level of *Shared Vision* among secondary school teachers in rural and urban areas is not significantly different.

1.7 Theoretical Framework

1.7.1 Learning Organization

Peter Senge defined learning organization as; "It's an organization where individuals frequently improve ability to generate outcomes they really want to achieve, where original and vast patters of thinking are cultivated, where joint goal is set unrestricted and where individuals are constantly learning how to learn in team". Learning organization model of five disciplines was introduced by Peter Senge in 1990. He wrote a book "the fifth discipline" which for the first time popularized the term learning organization. The five disciplines of learning organization introduced by Senge are; 1) System thinking, 2) Team Learning, 3) Personal mastery, 4) Mental Model and 5) Shared vision. (Senge, 1990).

1.7.2 Discipline

Peter Senge defined a discipline as the set of practices and rules that we master, study and incorporate in our lives. Each discipline is important and necessary to the one another for an organization to learn (Senge, 1990).

1.7.3 System Thinking

System thinking is the most central of all the five disciplines Senge discovered

for a learning organization because this discipline is specifically considered as the foundation of an organization. System thinking integrates other disciplines and combines them into a rational body of theory and its application. The ability of having system thinking is to understand and to discourse the whole. It also examines the interconnection among the parts (the incentives and the ways to incorporate the disciplines) provided by Senge. System thinking asks for a collaborative learning culture in an organization or institution because this supports for a successful learning organization (Peter, 1990). Organizations are made up of smaller parts however; learners must understand the system as whole. Peter Senge argues that we incline to emphasize on the chunks of an organization rather than looking at it as whole, and ultimately we see organizations as a static process rather than dynamic (Senge, 1990).

1.7.4 Mental Model

These are the deeply in-built assumptions, generalization or imaginations that influence our understanding about the world and how we take any action. This assumption has a strong impact on our lives and most of the times we are even not aware of it. So it's important to reflect on our actions while doing any task. Senge (1990) explains that the discipline of mental models involves reflecting on our personal perceptions of the world, bringing them to light, and subjecting them to rigorous scrutiny. It also includes the skill of engaging in productive communication which help to balance advocacy and inquiry, where individuals effectively communicate their thoughts and remain open to influence from others. The mental model is actually the dual attribute of the learning organization. First, the individuals should be capable to evaluate their selves and to assess their selves for current cognition through self-reflection. This is how every learner will be capable to look at where they are appropriate in and organization as whole and how they can give their 100 percent for

the betterment of the organization. Second, the individuals should be motivated to acquire new knowledge and theories. (Senge, 1990).

1.7.5 Personal Mastery

Individuals are the key components of any organization if they keep a continuous learning process then organizations also learn. Though individuals' knowledge does not assure the learning of organization however learning organization can never become without individual learning and organization can never become a learning organization. This discipline focuses on frequently deepening and clarifying personal vision of individual's, concentrating on individual capacities, objectively seeing reality and developing patience. Although, skills and competence involve in it but personal mastery is beyond just them. Personal mastery is the unique kind of mastery and proficiency. Personal mastery is lifelong continuous process. Learning organizations require a forward-thinking mind set on an individual level. The learners in a learning organization should possess a lifelong learning mindset. Individual must understand and value importance of constant growth. The focus of personal mastery is on the acquired knowledge and practical skills that can be applied to actual situation. In a learning organization individuals must be committed and dedicated to personal goals and organizations objectives (Senge, 1990).

1.7.6 Team learning

Team learning is the practice of fostering a cohesive team that can work together to achieve common goals. This process is based on two key disciplines: Personal Mastery and Shared Vision, which form the foundation for effective team learning. People really need to learn how to behave and work as a team. Team learning is about sharing the knowledge with other members of the team and learning together. It is essential for every individual in an organization to be familiar with the

organization's objectives and desired outcomes. They should work together as a team to solve problems collectively and achieve the set goals. The benefit of team learning is that everyone will learn from an expert and secondly everyone will get a chance to share knowledge with others and this is how they can have a chance to deepen their understating on a particular concept. Peter Senge suggests when teams learn together it's not only beneficial to the organizations but also individuals grow more rapidly (Senge, 1990).

1.7.7 Shared vision

Shared vision is an important factor of leadership. This has encouraged the organizations to create a shared picture of future. When organizations work for a genuine vision, there is maximum chance that people will excel and learn with their own interest instead they are asked to do. Most of the times leaders in the organizations have their own vision which they never translate and define into shared vision of overall organization. The leaders and the top-level management of an organization should be dedicated and accountable to the development and have shared vision. Leaders must have self-reflection skill in order to reflect on their activities and be role model for their team members. Leaders should let learners do the mistakes and learn from their own real life experience (Senge, 1990).

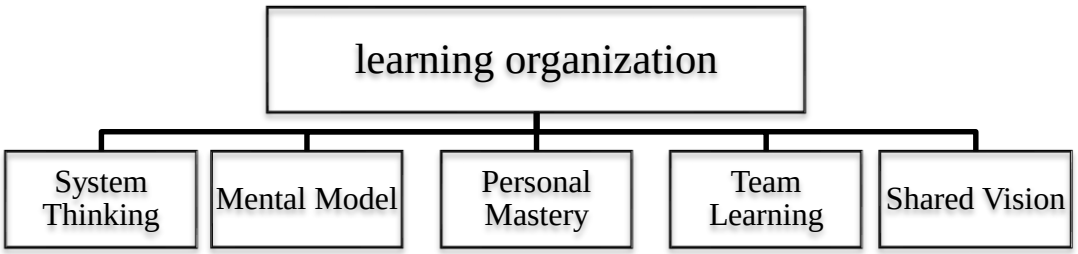

Fig 1.1 Theoretical Framework of the study

This learning organization model was developed by Senge (1990) to assess the organaizations as learning organizations. He developed his model based on five dimention including system thinking, mental models, shared vision, team learning and personel mastery.

1.8 Significance of the study

In this era of development and technology only those organizations can survive which are the learning organizations; flexible and adaptable to change, promote a culture of continuous learning and individuals of those organizations keep growing and improving. Schools are the fundamental units of all the other fields and organizations. As a result, it is crucial that schools function as learning organization. This study is an attempt to know to what extent schools in the context of Pakistan are working as learning organizations. In this regard, this research study will be very beneficial to evaluate our schools functioning as learning organization.

A large population of Pakistan lives in rural areas. Thus, it is very important to

evaluate the schools in the rural areas. As this study is a comparative study of rural and urban areas, so it will be useful to know the functioning of rural schools in comparison with urban schools as learning organizations. This research study will also be beneficial for novice researchers in a way, it will be an addition to the available literature in the context of Pakistan and overall, at global level. While this study will be useful for stakeholders, policymakers, and especially for the teachers who participated as respondents, it is important to note that there are certain limitations to the research that should be considered.

This study will help teachers for their self-reflection of their own performance and perceptions in the school's premises. This will also be helpful for the teachers in their professional development as they can analyze and evaluate their performance through the self-reflection thus, their professional development can also be led by it. For the future researchers, this study will be beneficial because this will help them know that this research area is already studied. Overall this study will be fruitful for the improvement of education system of the Pakistan.

This research study can add to the knowledge base already available about the educational leadership. This study can bring stakeholders' attention towards the need for making schools learning organizations. It cannot only support stakeholders to train and develop teachers and school leaders to redesign schools as learning organizations, but can also help school leaders to see the importance making schools earning organization. Besides this, this study can also aid school leaders to revisit their roles as leaders and can contribute in driving their practices towards conceptualizing schools as learning organizations. This study may also serve scholars and students of learning organizations to have insights about the role of organization for the improvement of

educational system.

1.9 Methodology

1.9.1 Research Approach

The present study adopted a quantitative research methodology. The purpose of choosing quantitative method was to collect data from large sample so that the validity of data can be maintained and analyzed numerically.

1.9.2 Study design

To carry out present research study, researcher have chosen descriptive research design by nature and comparative research design by method as it describes situations that are based on the facts and figures within the quantitative approach. The objective of present research study was to assess at what extant rural and urban secondary schools are functioning as learning organizations. Specifically, the study intends to compare between rural and urban secondary schools as learning organizations. For this purpose, Researcher has selected Senge's five discipline model of learning organization as a theoretical framework to measure the functioning of secondary schools as learning organizations. As this is a comparative research study so it has provided the comparative data of urban and rural secondary schools working under federal directorate of education, government of Pakistan.

1.9.3 Population

The population for this research study comprised of teachers who are currently employed in public sector secondary schools located in both rural and urban areas of Islamabad. There are over-all 97 public sector secondary schools in Islamabad both urban and rural which includes 2072 teachers. Thus, these all teachers are the population of this research study.

1.9.4 Sampling

The sample of the study was drawn by using proportionate stratified random sampling technique. Over-all in the population there were 2072 teachers both urban and rural and the sample was N=414 of the complete population.

1.9.5 Instrument

The instrument researcher adapted for this research study was developed by (Park, 2008) for his study "*validation of Senge's learning organization model with teachers of vocational high schools at the Seoul Megalopolis*". The instrument was established on the base of theoretical framework of the study which was based on Senge's five discipline model of learning organization.

1.9.6 Data collection procedure

To gather the data a survey questionnaire was adapted built on the Senge's five discipline learning organization model. The instrument was developed by (Park, 2008) for the "*validation of Senge's learning organization model with teachers of vocational high schools at the Seoul Megalopolis*".

1.9.7 Data Analysis

Statistical Package of Social Sciences (SPSS) version 22 was used to analyze the numeric (quantitative) data. The independent sample T-test was applied to compare the results of rural and urban secondary schools working under federal directorate of education (FDE). All the Null hypothesis were tested using SPSS. The results of each hypothesis were shown in graphs and tables along with the description of the tables. To answer the questions based on the research objective 1 and 2 mean value was also computed using SPSS.

1.10 Delimitations of the study

- The research was conducted through participation of the teachers teaching in

public sector urban and rural secondary schools in Islamabad.

- The study has included schools of Islamabad only
- The researcher has only selected secondary school level.

1.11 Operational Definition of Terms

1.11.1 Learning Organizations

Peter Senge defined learning organization as; "It's an organization where individuals frequently improve their ability to generate results they really want to achieve, where original and vast patters of thinking are cultivated, where joint goal is set unrestricted and where individuals are constantly learning how to learn in team". Learning organization model of five disciplines was introduced by Peter Senge in 1990. He wrote a book "the fifth discipline" which for the first time popularized the term learning organization. Five disciplines of learning organization model developed by Senge are; 1) System thinking, 2) Personal Mastery 3) Shared Vision , 4) Team Learning and 5) Mental Model (Senge, 1990).

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Peter Senge defined a discipline as the set of practices and rules that we master, study and incorporate in our lives. Each discipline is important and necessary to the one another for an organization to learn (Senge, 1990).

1.11.3 System Thinking

System thinking is the most central of all the five disciplines Senge discovered for a learning organization because this discipline is specifically considered as the foundation of an organization. System thinking is known as the conceptual cornerstone of learning organization theory by Peter Senge. System thinking integrates other disciplines and combines them into a rational body of theory and its application. The

ability of having system thinking is to understand and to discourse the whole. It also examines the interconnection among the parts (the incentives and the ways to incorporate the disciplines) provided by Senge. System thinking asks for a collaborative learning culture in an organization or institution because this supports for a successful learning organization (Peter, 1990). Organizations are made up of smaller parts however; learners must understand the system as whole. Peter Senge argues that we incline to emphasize on the chunks of an organization rather than looking at it as whole, and ultimately we see organizations as a static process rather than dynamic (Senge, 1990).

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1.11.5 Personal Mastery

Individuals are the key components of any organization if they keep a continuous learning process then organizations also learn. Though individuals knowledge does not assure the learning of organization however learning organization can never become without individual learning and organization can never become a learning organization. This discipline focuses on frequently deepening and clarifying personal vision of individual's, concentrating on individual capacities, objectively seeing reality and developing patience. Although, skills and competence involve in it but personal mastery is beyond just them. Personal mastery is the unique kind of mastery and proficiency. Personal mastery is lifelong continuous process. Learning organizations require a forward thinking mind set on an individual level. The learners in a learning organization should possess a lifelong learning mindset. Individual must understand and value importance of constant growth. The focus of personal mastery is on the acquired knowledge and practical skills that can be applied to actual situation. In a learning organization individuals must be committed and dedicated to personal goals and organizations objectives (Senge, 1990).

1.11.6 Team learning

Team learning is the process of developing and aligning a team which is able to achieve the set goals. Personal mastery and shared vision are the two disciplines that provide base for team learning. People really need to learn how to behave and work as a team. Team learning is about sharing the knowledge with other members of the team and learning together. Every individual in an organization should be well known of the objectives and desired outcomes, and they should work as a collective problem-solving team to accomplish the set goals. The benefit of team learning is that everyone will learn from an expert and secondly everyone will get a chance to share knowledge with

others and this is how they can have a chance to deepen their understating on a particular concept. Peter Senge suggests when teams learn together it's not only beneficial to the organizations but also individuals grow more rapidly (Senge, 1990).

1.11.7 Shared vision

Shared vision is an important factor of leadership. This has encouraged the organizations to create a shared picture of future. When organizations work for a genuine vision, there is maximum chance that people will excel and learn with their own interest instead they are asked to do. Most of the times leaders in the organizations have their own vision which they never translate and define into shared vision of the organization. The leaders and the top level management of an organization should be dedicated and accountable to the development and have shared vision. Leaders must have self-reflection skill in order to reflect on their activities and be role model for their team members. Leaders should let learners do the mistakes and learn from their own real life experience (Senge, 1990)

CHAPTER 2

LITERATURE REVIEW

2.1 Learning Organization

The terminology ‘learning organization’ emerged as a business construct, however, gradually the notion of learning organization is also being used in schools, colleges and universities (Park, 2008; Williams, Brien, & LeBlanc, 2012). The term learning organization was initially introduced by Peter Senge in his book “Fifth Discipline”. Senge. In his book, he suggests five basic disciplines of learning organization, which are; mental model, system thinking, personal mastery, shared vision and team learning. Senge's (1990) five discipline learning organization model was developed for a project, which was held through the Center for Organizational Learning at MIT's Sloan School of Management.

Senge (1990) defined a learning organization as an organization where people continuously increase their ability to achieve the objectives they genuinely wish, where novel and extensive forms of thoughts are cultivated, where combined ambition is unleashed, and where individuals are constantly learning how to learn together. (Senge, 1990)

Extensive researches have been conducted on the concept of learning organization which are accessible in the literature, however a consistent conceptual definition for the term learning organization has not been articulated in the literature (Williams et al., 2012). This is for the reason that researcher’s personal experiences and perceptions hold an important role in their definition of the term ‘learning

organization’ (Moh'd Al-adaileh, 2012). With reference to Watkins and Marsick (1993), the concept of the term learning organization is "an organization which continuously transforms itself and continue learning process" (Marsick & Watkins, 1996). In a different study, a learning organization is described as an organization that has an improved ability to change, adapt, and learn. Learning organizations are the organizations where learning process are evaluated, observed, established, achieved and line up with the development and improvement goals” (Marsick & Watkins, 1996). Most of the researchers believe that learning organization is the best process of organization for dealing with the constant change and improvement in an institute/organization (Malik, Danish, & Munir, 2012).

Senge’s purpose of creating such organizations (learning organization) is that he believes in the situation of rapid change and development only those organizations can survive which are productive, flexible and adaptive. Senge (1990) emphasizes that to transform organizations into learning organizations, it is crucial to recognize and utilize commitment of the people and their ability to learn, regardless of their position in the organization. Such organizations must continuously enhance its ability to shape future, which necessitates a ultimate shift in thinking between all fellows of the organization.

Senge (1990) emphasizes in his book, 'The Fifth Discipline’ that when individuals are asked about their experience of being a member of an excessive team, the utmost prominent aspect is the importance of the practice. People express a sense of belonging to something bigger than themselves, feeling interconnected and creative. It is evident that for many individuals, their experiences as a part of an exceptional team remain a unique period of their lives, where they feel they have lived their life to the fullest. Senge (1990) suggests that in order for an organization to become a learning

organization, adaptive learning must be combined with "generative learning" - a type of learning that enhances an organization or individual's capacity to create. To make an organization as a learning organization Senge (1990) suggests five key disciplines in his book ‘fifth discipline’, which are; personal mastery, system thinking, mental model, team learning and shared vision.

2.2 Learning Organization Model by Peter Senge

Peter Senge defines that a discipline is the set of practices and rules that we master, study and incorporate in our lives. Each discipline is important and necessary to the one another for an organization to learn (Senge, 1990).

2.2.1 Espousing System Thinking

System thinking is the most central of all the five disciplines because this discipline specifically is considered as the foundation of an organization. System thinking integrates other disciplines and combine them into a rational structure of theory and its application. The ability of system thinking is to understand and to discourse the whole. It also examines the interconnection among the parts (the incentives and the ways to incorporate the disciplines) provided by Senge. System thinking asks for a collaborative learning culture in an organization or institution (Peter, 1990). Organizations are made up of smaller parts however learners must understand the system as whole. Peter Senge argues that we incline to emphasize on the chunks of an organization rather than looking at it as whole, and ultimately we see organizations as a static process rather than dynamic (Senge, 1990).

2.2.2 Incorporating Mental Model

These are the deeply in-built assumptions, generalization or imaginations that influence our understanding about the world and how we take any action. These assumptions has a strong impact on our lives and most of the times we are even not

aware of it. Therefore, it's important to reflect on our actions during any task. Senge (1990) explains that the discipline of mental models involves reflecting on our personal perceptions of the world, bringing them to light, and subjecting them to rigorous scrutiny. It also includes the skill of engaging in productive communication that help to make a balance between advocacy and inquiry, where individuals effectively communicate their thoughts and remain open to influence from others. The mental model is actually the dual attribute of the learning organization. First, the individuals should be capable to assess evaluate and themselves for present cognition by doing self-reflection. This is how every learner will be capable to look at where they see themselves effective as whole and how they can give their 100 percent for the betterment of the organization. Second, the individuals should be motivated to acquire new knowledge and theories. (Senge, 1990).

2.2.3 Attaining Personal Mastery

Individuals are the key components of any organization if they keep a continuous learning process then organizations also learn. Though individuals knowledge does not assure the learning of organization however learning organization can never become without individual learning and organization can never become a learning organization. This discipline focuses on frequently deepening and clarifying personal vision of individual's, concentrating on individual capacities, objectively seeing reality and developing patience. Although, skills and competence involve in it but personal mastery is beyond just them. Personal mastery is the unique kind of mastery and proficiency. Personal mastery is lifelong continuous process. Learning organizations require a forward thinking mind set on an individual level. The learners in a learning organization should possess a lifelong learning mindset. Individual must understand and value importance of constant growth. The focus of personal mastery is

on the acquired knowledge and practical skills that can be applied to actual situation. In a learning organization individuals must be committed and dedicated to personal goals and organizations objectives (Senge, 1990).

2.2.4 Encompassing Team learning

Team learning is defined as a course of developing and aligning a team which is able to achieve the set goals. Personal mastery and shared vision are the two disciplines that provide base for team learning. People really need to learn how to behave and work as a team. Team learning is about sharing the knowledge with other members of the team and learning together. Every individual in an organization should be well known about the goal and objectives, and they should work in a team to accomplish the set goals. The benefit of team learning is that everyone will learn from an expert and secondly everyone will get a chance to share knowledge with others and this is how they can have a chance to deepen their understating on a particular concept. Peter Senge suggests when teams learn together it's not only beneficial to the organizations but also individuals grow more rapidly (Senge, 1990).

2.2.5 Developing Shared vision

Shared vision is an important factor of leadership. This has encouraged the organizations to create a shared picture of future. When organizations work for a genuine vision, there is maximum chance that people will excel and learn with their own interest instead they are asked to do. Most of times leaders in the organizations have their own vision which never get translated into organizations shared vision. The leaders and the top level management of an organization must be dedicated and accountable for the effectiveness of the organization and must poses forward-thinking leadership. Leaders must have self-reflection skill in order to reflect on their activities and be role model for all other members of their team .Leaders must allow learners do

the errors and learn from their own real life experience (Senge, 1990).

2.3 Functioning of School as learning Organization

Schools as learning organization incorporates certain unique features in its culture that leads to the attainment of the specific goals and objectives pertaining to ensure the quality of education (Hulu et al., 2020). School as learning organization operates on the philosophical foundations where every individual supposed to equally respond to and thrive for the overall common good of school community along with the extended emphasis on individual learning and adjustment to the culture (Benoliel, 2020). Schools who claim to be learning organization in their nature holds the sophisticated yet productive course of action that accelerates the dynamism in terms of driving individuals towards autonomy of attempting to the desired practices without compromising to their self-values (Belinski et al., 2020). The role of school as learning organization supports the decentralized and shared power systems within school where the social support goes along with the norms of accountability (Hulu et al., 2020; Schechter, 2008). This enables the idea of in lining school practices with its mission by integrating the process-oriented or output-led approach which usually have more promising and the cooperative environment and support than the traditional schools (Scribner et al., 1999; Sebastian et al., 2019). It is worthy to highlight in its core that teachers and students' performance significantly tends to improve in such schools who follow the traditions of collaborative learning practices and provide sound opportunities to its members in terms of continuous professional growth (Lim, 2013). School as learning community serves this purpose of occasioning and involving the school community to work together and take responsibility of each other's' learning by extending support and sustenance. To them, learning is not bound to and depends on the involvement in or being part of a systematic and formal activity such as trainings,

continuous professional development programs or workshops rather it can be occurred by interacting to each other, peer-teaching and providing critical feedback for improvement and strength (Welsh et al., 2020).

Nevertheless to mention that the schools who thrive to be the learning organization face certain challenges as the shift from traditional to constructivist approach of functioning seems restructuring of the entire system and the existing practices. Unsurprisingly, research suggest that the concept of transforming the school as learning communities remained alienated and abstract for many schools because of lack in proper guidance and context specific framework and evaluation (Belinski et al., 2020; Sheng & Watkins, 2021). There exist poor or ambiguous definitions of school as learning organization and the tools for diagnosing and assessing that whether the practitioners or implementers have the sophisticated insights on what they are required to mold their actions and rethink of their values against expected roles and responsibilities (Benoliel, 2020).

Excitingly, the idea of school as learning organization adopts the mechanism of fostering the elements of creativity and innovation and the demonstrative leadership practices to ensure the necessary change that school needs to undergo for accomplishing its objectives in its core (Sheng & Watkins, 2021). The schools who strive to be learning organization espoused the idea of building and developing the ways to which the individuals seek change and respond it collaboratively. It also prioritize the individuals' personal growth accelerated through extended support mechanism and by realizing the sense of responsibility (Hulu et al., 2020; Sebastian et al., 2019).

The fundamental and authentic view of school as learning organization has been

derived from the work of Scribner et al. (1999) who proposed the comprehensive insights on what school as learning organization do or flourish to do. According to his work, school as learning organization possesses the core set of process-oriented values that provide the vision, mission and the focused goals to institute for uplifting its standards. The planning, executing and evaluating the goals and objectives in favor of institutional growth is regarded as the core function of schools who want to become the learning organization that serve to overall society and especially to its associated members (Yuan & Chayanuvat, 2021). One of the sophisticated aspect of this sort of functioning is that it gives significant values of both the actions and the sentiments of individuals attached to it (Asghar et al., 2015).

2.4 Characteristics of School as Learning Organization

Nevertheless, to mention that school as learning organization has certain characteristics which make it effective and unique from traditional school practices. These features are driven through and depends on certain actions including setting up diverse team having diverse experience in multiple domains, breaking up the broader goals in small achievable tasks, developing strong communication system for effective information flow, involvement of every member of school in school improvement as per their potential and expertise, acknowledging innovation and creative practices to bring desired change, allowing trail and errors for better learning outcomes, allocating shared responsibilities and emphasizing on process to bring productive results (Benoliel, 2020; Welsh et al., 2020).

One of the significant features that school as learning organization holds, is the decentralized approach towards management which means the power and decisions are not transferred from top management rather all the stakeholders of school community

have say in decision making process (Sebastian et al., 2019). When each individual tends to be included in decision making, the extended sense of belongingness and accountability increased in such schools which leads towards target achievement (Sheng & Watkins, 2021). In such schools, teachers given spaces for sharing their ideas while developing school policies and procedures, they build stronger sense of inclusion and driving towards desired performance turns quite easy. Most importantly, the decentralized approach towards managing school affairs is effective as it allows the flexibility and prioritize the tasks as per the needs of school (Yuan & Chayanuvat, 2021). It also helps in developing congruence of the teachers' practices with school goals. It also acknowledges the element of self-responsibility among teachers and other stakeholders. School as learning organization identifies purpose of work for each individual where the sense of direction and ultimate goals are acknowledged and appreciated by each individual (Sheng & Watkins, 2021).

The school as learning organization incorporates value system where mutual respect and care, sincerity and dedication, collaboration and cooperation and ownership and responsibility are the key indicator of performance (Kools et al., 2020). These values allow individuals to learn and grow in a professional environment and enjoy the trust of community and parents who provide the necessary support and considered as part of school community (Hulu et al., 2020). The extended involvement of parents and community in school leads to better power relation and results in joint efforts to improve students learning outcomes (Belinski et al., 2020).

To sum up the existing literature on school as learning organization, it is indicated that school reforms must be revolved around the acknowledging and putting larger emphasis on developing ways of school functioning and practices where the

individuals learn to work together. They need to consider themselves as the co-constructor of the efforts being placed to uplift the quality standard of school by achieving its aims and objectives through equipping the teachers with necessary knowledge, skills and attitude that is needed for the attainment of professional environment (Kools et al., 2020). Excitingly, it is derived from the existing empirical evidences which are relevant to the overall efforts of educators that the transformation of schools from conventional and traditional institute to being learning organization is very much associated to and is result of altering the school culture from passive to productive learning commodity, from competition to cooperative learning practices and from compliance to facilitation for the overall good of individual members of school community and the overall school (Kools & George, 2020; Sebastian et al., 2019). The idea that has been put forwarded by the majority of researcher who have worked on similar domain that has highlighted that the focus of efforts are not only on providing students with enough opportunity to learn in classroom but also on providing them overall supportive culture which incorporates productivity and innovation (Yuan & Chayanuvat, 2021). The focus in such schools is on building problem solving attitude instead of highlighting the problem. Moreover the initiation of efforts is also been acknowledge instead of waiting for instructions to come from the top authority because of the decentralized nature of power and authority (Welsh et al., 2020). The most important aspect of transforming school as learning organization which has been postulated by various researchers is the consideration of school as part of a larger community and not in the isolation. Therefore, the school efforts must be organized around involving all of the relevant stakeholders even out of the school such as district administration, local community and the schools surrounded in the vicinity to promote the collaboration and cooperative learning mechanism for school betterment (Sheng &

Watkins, 2021). The process of transformation of passive school practices to positive productive strategies must be guided by the string evaluation and monitoring mechanism to have a deeper check on whether the practices are in lined to the goals of school (Kools & George, 2020). The continuous support and appreciation and celebration of little success has been counted essential in fostering the change in school (Kools et al., 2020; Yuan & Chayanuvat, 2021).

2.5 Previous work on Schools as Learning Organization

Education is an important element, which plays key role in human capital development. Education helps to enhance the efficiency and productivity of the individuals. Therefore, education is helpful in producing the skilled and knowledgeable manpower, and this skilled workforce is capable of guiding the country's economy towards sustainable development (Tayyaba, 2012). The state of education system in Pakistan is not very promising as compared to other developing nations. There are number of factors which indicates the poor performance of education system in Pakistan like poor infrastructure, lack of quality staff, low enrollment rate at the primary level, differences between gender and region, lake of teaching learning resources, and low performance of enrolled students (Memon, 2007).

The literature in education holds many evidences about the efforts of the schools in creating a culture that encourage the teachers/staff development and learning takes place in a climate of collaboration, and self-reflection (Field, 2019).

Schools transforming into learning organizations is not only beneficial for the students and management but also equally significant for the teachers or staff. Literature shows that the schools performing as learning organizations have a positive impact on its employees(Bowen, Ware, Rose, & Powers, 2007). Schechter and Feldman (2010) found that the implementation of a learning organization culture in

schools has a positive impact on the efficiency of employees in working with students, their personal well-being, and their perception of the school as a high-performance organization. They observed that in such schools, teachers engage in continuous deliberation with each other to solve problems related to teaching and learning. However, implementing a learning organization culture in schools poses three significant challenges for those in leadership and management positions, which will be discussed in the remaining sections of this paper.

2.6 Related Studies

Park (2008) conducted a research study on learning organizations. Purpose of conducting research study was to "measure and apply Senge's five discipline model of learning organization with a culturally dissimilar population; which in his study was High School Vocational Teachers. The term learning organization was initially being used in the field of business and management, so this was a different study to see the applicability of learning organization model of Peter Senge with teachers and in a public sector institution (Park, 2008).

The researcher used the Senge's five discipline model of learning organization as a theoretical outline. The approach of the study was quantitative. A self-administered survey was used as the medium of gathering the data. The data was collected from 976 (100% population) full time teachers. Researcher applied random numbers table sampling technique for the schools and factor analysis for the sample size. As the questionnaire was self-administered so researcher also conducted pilot study with 147 teachers of three vocational high schools. The findings of the study suggested that this theory is applicable in the South Korean School perspective exhibiting the Asian culture though this theory was first developed for the western culture, (Park, 2008).

Pakistani literature is also rich in research studies conducted on the learning

organizations but these studies largely it contribute to higher educational institutes and non-government organizations. A research study was conducted to assess higher education intuitions as learning organizations by (Malik et al., 2012). The researcher's objective of conducting this study was 'to evaluate that to what extant higher education institutes work as learning organizations'. For conceptual framework the researcher selected three main constructs of learning organization which are further divided into sub-constructs; i) supportive learning environment which includes appreciation of differences and psychological safety , ii) concrete learning process which includes time for reflection, openness to new ideas, information collection and experimentation and the last is iii) leadership that reinforce learning includes analysis, education and training, information transfer & leadership. 200 self-administered questionnaires were distributed among all the higher education institutes of Sialkot and Daska region Pakistan (Malik et al., 2012). The technique of simple random sampling was used to estimate and analyze data for the population. The results of the study suggests that there is strong need of transforming higher education institutes into learning organizations by resolving some hindrances. Data analysis also shows that leadership that reinforces learning in higher education institutes perform a highly significant role in transforming institutes into learning organizations and our heads are not ready to change their old techniques (Malik et al., 2012).

Schools are the fundamental units of making all the organizations. It is primarily for school to function as learning organization. Where all the stakeholders can learn how to learn, and be flexible and adaptable to change. For the functioning of any organization as learning organization it faces number of barriers. "*Transforming schools into learning organizations: support and barriers to educational reforms*" is a research study conducted by (Williams et al., 2012).

The aim of the study was to evaluate the preparedness of schools to adopt the professional learning community approach. The article also analyzes the strengths and weaknesses to implement PLC approach. The researcher used four key measures to see schools' willingness to adopt professional learning community(PLC)approach as conceptual framework; school culture, teaching, school leadership and professional growth & development. It is again a quantitative case study where data was collected through survey questionnaires from 50 schools across the districts. An action research approach was used for the development of the tool consisting 20 statements and three to four items for each statement. Data was collected from school teachers (Williams et al., 2012).

Bui and Baruch conducted a research study titled as "*learning organizations: a systems perspective*" in UK 2010. The researchers' purpose of conducting this study was 'to suggest a theoretical support to explain the different indicators and dimensions that effect five disciplines of learning organization and their outcomes' by Peter Senge. Bui and Baruch (2010) developed a formal conceptual framework to analyze the antecedents and outcomes of Senge's five discipline model of learning organizations. The data was gathered through survey questionnaires. The study resulted in a proposed model that connects variables in the learning organization, which can assist organizations in achieving competitive benefits.

Another study conducted in the context of Pakistan was to compare public and private higher education institutions as learning organizations by Mushtaq & Malik (2018). The purpose of this research study was to examine the role of private and public universities as learning organizations, specifically focusing on four key constructs: the nature of the organization, the development of individuals, the quality of knowledge, and the use of technology at the university level. Based on the constructs

the study was based on the four hypothesis (Malik et al., 2012).

The population of the study was six universities in Islamabad city out of which 3 were public universities and rest of the 3 were private universities. The sample was consist of 147 teachers and 456 students which were selected by convenient sampling technique. The data was collected through survey questionnaires and was analyzed by applying T-test. The results showed noteworthy variance between the public and private sector universities as learning organizations (Mushtaq & Malik, 2018).

There are different factors which affects the implementation of learning organization, a study was conducted regarding this in 2012. The objective of the study was to examine the effect of knowledge conversion processes (KCP) on the successful implementation of a learning organization (LO) strategy. As theoretical framework four constructs of knowledge conversion process were used; internalization, socialization, combination and externalization (Moh'd Al-adaileh et al., 2012).

This was a quantitative case study where data was collected through survey questionnaires which was consist of thirty items. The data was analyzed through SPSS. For the sampling of population non-purposive judgment sampling technique was applied. The result of the study showed that combination, internalization and socialization have significant effect on the accomplishment of a learning organization strategy. The researcher found that the major influential factor was socialization that has the strongest effect on learning organization. However, no statistical significant impact of externalization was found on learning organization (Moh'd Al-adaileh et al., 2012).

A study conducted in Pakistan to see the effect of learning organizations in developing women managers by (Alam, 2009). The purpose of the study was to disclose how far place of work settings retain the features of learning organization, to

show and analyze the effectiveness and efficacy of continuing approaches of the training and development for women and to evaluate the attitudes and feelings of female managers to their position in their organization, human resource management performs and the factors affecting development and work environment. For the theoretical framework the researcher used the five discipline model of learning organization by Peter Senge (Alam, 2009).

The mix-method approach was applied and data was collected through questionnaires comprises of close ended and open ended questions. Data was analyzed by applying simple statistical technique. The result of the study found female managers relatively insignificant in Pakistan. The study also showed that workplace environment is unsafe, unequal, inappropriate and discriminatory. (Alam, 2009).

A study was conducted by (Mishra & Bhaskar, 2010) in India entitled "*the learning enabling structure: validating a measuring instrument*". As mentioned in the title, the aim of the research study was to validate the measuring instrument. This study is basically an extension of a previous study conducted in 2006 in IT sector related to the construction of 'learning enabling structure scale' (LESS). This study validates the instrument by getting data from non-IT sectors. This study was an attempt to better understand the indicator structure and content of the constructs. In the scale there were total 13 number of items and tested among 213 respondents (Mishra & Bhaskar, 2010).

A study titled as "*Dutch primary schools and the concept of learning organizations*" aims to explore how far learning organization's theoretical framework is being applied to daily practices of primary schools. The research study also identified the concept of learning organization in the field of education. For this purpose ten experts of educations were interviewed as it was a qualitative research study. These experts were asked questions related to the obstacles, stimuli and conditions or

organizational learning. In the article organizational learning is defined as it certify that individual learning enriches and enhances the organization as the whole and encourage a culture of learning (Karsten, Voncken, & Voorthuis, 2000).

A recent study on schools as learning organization was conducted by L. Field (2019) titled as "schools as learning organizations: hollow rhetoric or attainable reality". His objective behind conducting this research study was to assess the desirability and attainability of schools becoming learning organizations. This study was actually a critical analysis which is based on the huge number of reviews of literature on "schools as learning organizations". The findings of the review article suggests that the nation of learning organization in schools is basically flawed, another finding is that the schools as learning organizations is conceptualized in so many different ways, resultantly, it can claim anything. Many scholars and educationists suggested that for a school, a learning organization is desirable goals and achievable end results. This review study critically examined claims about schools operating as learning organizations and found them to be hollow rhetoric rather than a feasible reality. (Field, 2019)

The study revealed that even though the concept of schools being learning organizations is a fascinating intention it should be recognized that schools still have to overwhelmed many hindrances. The results of the study shows that there are some important features for schools readiness to be learning organizations. Like, expand the mechanism for gaining the data from the surroundings and choosing, handling and allocating it inside the organization, receiving stakeholders wishes and connecting it to the schools strong points, refining the inside communication and chances to interchange experience and thoughts, bringing attention in the innovative ideas and inspiring corporation and innovation, repeatedly exploring hindrances to learning and

discus the norms and values (Karsten et al., 2000).

Bowen et al. (2007) conducted a research study titled "Assessing the functioning of schools as learning organizations," which aimed to examine the validity and reliability of new assessment tools for evaluating schools as learning organizations. The researchers used the SSP-LO (school success profile-learning organizations) to collect data from 11 public middle schools. The participants included teachers, teacher assistants, specialists, administrators, and other school employees. The data was collected through a survey questionnaire consisting of 44 items/statements. The study aimed to contribute to the literature by providing a reliable and valid tool for assessing the functioning of schools as learning organizations.

This research study shows that unfortunately, the concept of schools as learning organizations is commonly unclear. The schools are not fully privileged with the tools to support the assessment of schools as learning organizations and to know the intervention strategies. According to the study by Bowen et al. (2007), the results of the data analysis were consistent with the conceptual model used to develop the measure for assessing schools as learning organizations. The study found support for the two hypothesized components of a learning organization: actions and sentiments. This suggests that the SSP-LO measure may be a valid and reliable tool for assessing schools as learning organizations.

There are number of researches conducted to see the rural and urban gap in performance and the condition of the schools. A research study titled as “Rural-Urban gaps in academic achievement, schooling conditions, student and teachers characteristics in Pakistan”. The purpose of conducting this research study was to seek the differences among the rural and urban schools in terms of their

performance/achievement, student, teachers' characteristics and school conditions. The data was collected from the grade four students belonging to the four provinces of the Pakistan. The primary source of the data was the National assessment survey of four core subjects of grade four students from four province of the Pakistan. For sampling the two stages, stratified random sampling technique was applied to select the schools as well as to select the students/participants (Tayyaba, 2012).

The study aimed to examine the academic achievement of rural and urban students in four provinces of Pakistan, and the factors that contribute to the differences in achievement levels. The study found that while there were some differences in achievement levels between rural and urban students, the differences varied across provinces and subjects. The study also found that factors such as schooling conditions, students' home background, and teachers' characteristics contributed to the differences in achievement levels. In particular, the study found that teachers' training was a significant factor in determining students' achievement. Overall, the study provides important insights into the factors that contribute to rural-urban disparities in academic achievement in Pakistan.

2.7 Theoretical foundation of Research Study

Theoretical framework of a research study works as backbone of the overall study, because it play key role in structuring a research (Newman, Benz, & Ridenour, 1998). The literature available on the concept of learning organization has not clearly addressed one theory or model for learning organization. There is a notion in literature that organizational theory and learning theory both are inserted in the concept of learning organization. For this research study the researcher has chosen Senge's five discipline model of learning organization as the theoretical framework. Senge

introduced this model of learning organization model in his book “Fifth discipline, the art and practice of the learning organization”. This model of learning organization suggest that there five key disciplines which make an organization as learning organization, these includes; system thinking, personal mastery, mental model, team learning and shared vision (Senge, 1990). The disciplines of learning organization are already discussed in detail.

2.8 Summary

The increasing demand of student’s performance in schools has been discussed in various forums which led by teachers and school researchers to pay attention to schools and consider schools as learning organization. However, the idea of learning organization is not discussed clearly in the literature due to its vague meaning and dearth of tools to assess it. That is why, many researchers defined learning organization based on their own personal experiences and perceptions and not supported by any theory (Mishra & Bhaskar, 2010).The idea of learning organization has been seen as helpful in school improvement , Nevertheless, there is no clear agreement among the researchers about what constitutes the concept of learning organization. Furthermore, it has been found through literature review that school as learning organization has ignored the political aspect of organization. Overall, the term or concept “learning organization” has been reported poorly. Therefore, the current study was carried to identify the functions of schools as learning organization in the setting of Pakistan.

CHAPTER 3

RESERCH METHODOLOGY

3.1 Introduction

In this chapter, researcher has thoroughly discussed research design which has been chosen to carry out this research study. This chapter also includes, research population, sampling technique and sample size taken from the overall population. Further, this chapter discussed in detail about research instrument adapted by the researcher to collect the data. Research instrument was also validated by the research experts which is highlighted in this chapter. This chapter also includes data collection process and data analysis procedure. At last, chapter concludes with research ethics, delimitations and limitations of the present study.

3.2 Research Approach

The current study has used quantitative research approach as purpose of the research study was to assess the functioning of secondary schools as learning organization and to compare the functioning of urban and rural secondary schools as learning organizations. Quantitative research approach allowed researcher to collect numeric analysis of the data that at what extant secondary schools are functioning as learning organizations and to compare urban and rural secondary school's functioning as learning organizations. According to the Williaim (2011) quantitative research approach use statistical techniques to analyze and quantify the numerical data gathered through survey questionnaire. This approach is also helpful in understanding research problem and to use self-developed questionnaire. The reason of selecting quantitative research approach was to gather data from huge population so that results can be generalized in a specific context and to maintain the validity of the data. Another

purpose of choosing quantitative research approach was that there were less chances of subjectivity in the data analysis and within the time constraints data was easily collected and analyzed (Kumar, 2019)

3.3 Research Design

Selecting an appropriate research design is very essential for a researcher, as it takes the research study in the right direction. The choice of research design is important as it can impact the type of data collected, the methods of analysis used, and ultimately, the conclusions drawn from the study. The research design should be aligned with the research objectives and questions, as well as consider ethical considerations, available resources, and feasibility. In this way, researcher can minimize the excess of time, decreases inaccuracy of the data. Moreover, choosing appropriate research design also benefits to gain maximum efficacy and consistency in research study.

To carry out present research study, researcher have chosen descriptive research design by nature and comparative research design by method as it describes situations that are based on the facts and figures within the quantitative approach. The purpose of present research study was to assess at what extant urban and rural secondary schools are functioning as learning organizations. Specifically, the study intends to compare between rural and urban secondary schools as learning organizations. For this purpose, Researcher has selected Senge's five discipline model of learning organization as a theoretical framework to measure the functioning of secondary schools as learning organizations. As this is a comparative research study so it has provided the comparative data of public sector urban and rural secondary schools situated in Islamabad.

3.4 Population of the Study

According to Newman, Benz, and Ridenour (1998), the population of a research study is the complete group of individuals or objects that share certain mutual features well-defined by sampling criteria of the researcher. For present research study all the teachers who were working in public secondary schools located in both rural and urban areas of Islamabad were the population of this study..

There is no gender wise category of the teachers both female and male teachers were the population of this research study. According to Academy of Educational Planning & Management, Government of Pakistan, there were over-all 97 public sector secondary schools in Islamabad both urban and rural which includes 2072 teachers. Therefore, all teachers were considered as the targeted population of current study (Government of Pakistan, 2018).

Table 3.1

Total Population of the study

Total Public Sector secondary schools in Islamabad	Geographical location of the schools	Number of Teachers	Over-all population (Teachers)
97	Urban 38	1003	2072
	Rural 59	1069	

Source: *http://www.library.aepam.edu.pk/ (Pakistan Education Statistics 2017-18)*

3.5 Sampling Technique

The group of individuals or objects that share certain common characteristics and are defined by the sampling criteria is known as the population in a research study. In this particular study, the population consisted of teachers who teach at public secondary schools in both rural and urban areas of Islamabad. However, due to practical limitations, it was not feasible to gather data from the all-inclusive population. Hence, sample had to be selected for the study. This is a common practice in research as it allows researchers to collect data efficiently within a given timeframe (Kumar, 2019). In the present research study researcher had applied proportionate stratified random sampling technique as this research study was a comparison of the urban and rural secondary schools and the population was heterogeneous. At first stage the researcher did stratification; a process of dividing heterogeneous population into homogeneous sub groups. Teachers of urban schools in one group and teachers of rural schools in another group. The two strata's in the present research study are urban secondary school and rural secondary schools of Islamabad. This sampling technique was applied to make two groups of the schools (urban and rural).

3.6 Sample Size

The population of the present research study was teachers teaching at urban and rural public sector secondary schools of Islamabad. Researcher chosen 20% of the overall population as sample for data collection. According to the Gay (2012) if sample size is 10% of the overall population, the results can be generalized. This is the reason for choosing 20% of overall population as sample size so that if researcher even get 50% response rate still than the results of 10% sample size of the overall population can be generalized. There were total 2072 teachers in both urban and rural public sector secondary schools situated in Islamabad, which was the population of this research study. Out of which 414 teachers were chosen as 20% sample size. The return rate was 295 teachers, which is 71% of the sample

School Region	**20% sample (Teachers**
Rural	213
Urban	201
Total Sample	414

3.7 Research Instrument

The instrument used to conduct present research study was adapted by the researcher. The instrument researcher adapted for this research study was developed by Park (2008) for his study "*validation of Senge's learning organization model with teachers of vocational high schools at the Seoul Megalopolis*". The instrument was established on the basis of Senge's five discipline model of learning organization. The tool determines the teachers' perceptions towards psychological factors of Senge (1990) learning organization. Park (2008) developed the final version of the instrument which is consists of 34 items. The five-point Likert scale has been adopted in current study.

Table 3.2

List of Items of Learning Organization Scale (LOS)

Sections	Constructs	Number of Items	Coding range
1	System Thinking	6	ST1-ST6
2	Mental Models	8	MM1-MM8
3	Personal Mastery	6	PM1-PM6
4	Team learning	7	TL1-TL7
5	Shared Vision	7	SV1-SV7
	Total Number of Items	34	

3.8 Validation of the Research Instrument

Validation of the research instrument is a very important step of a research study before collecting the data by using that instrument. This process of validation help researcher in knowing either the items of the tool are relevant and authentic with according to research aim or not. Validity of a research instrument tells that weather it is measuring, what researcher actually wants to measure. Validation is about checking the sequence of the items mentioned in the tool, relevance of the items with research objectives, demographic information asked in the tool and language of the items with respect to the context where tool will be used.

The research instrument used in the present research study was validated by three of the experts of education/educationists. Final tool for the data collection was developed with the help of comments, suggestions and amendments given by the experts. For the validation process researcher personally contacted and visited the experts. Researcher briefly explained the research objectives and research tool to the experts who were requested to validate the research instrument. The researcher has used construct validity in this study to ensure the correct way of measuring a construct that matches with the constructs that researcher wants to measure (i.e Learning Organization).In order to achieve construct validity; the researcher has ensured that the study measures the particular dimensions based on existing knowledge. The survey questionnaire was consisting of the dimensions that measures learning organization.

3.9 Pilot Testing

To check the reliability of the tool it is very important for researcher to conduct a pilot study before going for actual data collection process. Pilot study is a small scale study which helps in assessing tool's reliability in researcher's particular context and population. To conduct the pilot study researcher converted the research tool in Google

Form and shared the link of that Form with the heads/Principals of public sector secondary schools with a request letter to get these Forms filled by the teachers of your schools. After receiving 40 responses from the teachers of both the sectors Urban and Rural areas a reliability test was computed through SPSS version 22 to find the results.

3.10 Reliability

Reliability helps to measure the uniformity of results when tool is administered through multiple times. (Sürücü, & MASLAKÇI, 2020). In present study, internal consistency was calculated to see the uniformity of the items included in the questionnaire. According to Kimberlin & Winterstein (2008), the questionnaire is said to be reliable if each item of the construct measures the same results which serve the purpose of the study. During pilot testing, the data was collected from 40 teachers who have same characteristics and teaching at same level. One of the methods used to assess the reliability of the learning organization scale (LOS) was the computation of the Cronbach's Alpha coefficient, which was also conducted using SPSS. This coefficient helps determine the internal consistency or stability of the scale. The results of reliability revealed that the questionnaire used in this study has significant reliability of $\alpha = .945$

Table 3.3

Reliability *of the Tool (Cronbach's Alpha Coefficient)*

Variable/Construct	Number of Items	Cronbach's Alpha Coefficient
Learning Organization	34	0.945
System Thinking	6	0.671
Mental Model	8	0.809
Personal Mastery	6	0.852
Team Learning	7	0.845
Shared Vision	7	0.799

The above table shows the value of Cronbach's Alpha for each construct of learning organization scale. The Cronbach's Alpha Coefficient was used to measure the internal consistence of the questionnaire items. Except system thinking the reliability of all other constructs was greater than 0.7. The value of Cronbach's Alpha Coefficient for system thinking was 0.671, mental model was 0.809, personal mastery was 0.852, team learning was 0.845 and shared vision was 0.799, which is indicated in the table. The value of reliability for each construct was excellent however because of the low reliability value of system thinking its items were rephrased for the better results in actual study.

3.11 Inter-item correlation of learning organization scale

Inter-item correlation of all items of learning organization scale was also calculated. On average, Inter-item correlation depicts good result as the values of correlation were in between 0.15 to 0. 50. Following Table shows the inter-item correlation of Learning Organization Scale.

Table 3.4

Inter-item correlation

S/No	Item	Correlation	S/No	Item	Correlation
1	ST1	.296	18	PM4	.447
2	ST2	.510	19	PM5	.524
3	ST3	.262	20	PM6	.134
4	ST4	.378	21	TL1	.025
5	ST5	.775	22	TL2	.356
6	ST6	.026	23	TL3	.425
7	MM1	.572	24	TL4	.416
8	MM2	.608	25	TL5	.329
9	MM3	.849	26	TL6	.329
10	MM4	.464	27	TL7	.306
11	MM5	.406	28	SV1	.312
12	MM6	.507	29	SV2	.429
13	MM7	.377	30	SV3	.461
14	MM8	.555	31	SV4	.300
15	PM1	.492	32	SV5	.544
16	PM2	.513	33	SV6	.212
17	PM3	.216	34	SV7	1.000

3.12 Data Collection

Administration of questionnaire was a complicated step which requires researchers to employ their efforts, effective communication and interpersonal skills, and adequate period of time for data collection. The data was collected through an adopted questionnaire from 295 secondary school teachers teaching in Islamabad.

According to the sample size 414 questionnaires were distributed to the teachers out of which 295 were returned back as properly filled. It calculates around 71% response rate.

3.13 Permission for data collection

Considering the research ethics researcher first get the permission from school administration and teachers who were research participants. The researcher initiated the request through the head of department, which was then forwarded to the Federal Directorate of Education, Government of Pakistan. The data collected from schools with the approval of Federal Directorate of Education (FDE), Government of Pakistan. After receiving of letters data collection process was started.

3.14 Data Collection procedure

Researchers formally set the time from school management and teachers for gathering data through survey questionnaires and visit the schools for the data collection. The researcher mainly collected data through direct administration. The questionnaires were distributed among participant and researcher was present all time during the process of data collection. However, in some cases due to Covid-19 the researcher was not able to collect data through direct administration from schools therefore, in this situation data was collected through web-based Google-forms. Data was collected within a period two months in both urban and rural areas of school in Islamabad.

3.15 Data Analysis

After the process of data collection, a data template was developed on Statistical Package for Social Sciences (SPPS version 22) ‘variable view’ sheet by defining variable type (e.g. numeric), values (e.g. 99 = missing value) and label (e.g. rural/urban). Each variable was coded and labelled accordingly. First the data was

collected through direct administration was directly entered in SPSS. After that, data gathered through web-based Google from was coded and entered into Google sheets by researcher. Later, the coded data was imported from Google sheets and transferred to “data view” sheet of SPSS.

3.16 Computing new variables

The “data view” was presenting data of items independently. Therefore, it was important to define and compute new variables of all selected statements in the construct to assess at what extant secondary schools are functioning as learning organizations. Specifically, the study intends to compare two groups; urban and rural secondary schools as learning organization. For this purpose, in the first step overall mean of all statements was computed and coded with LO (Learning Organization). In the second step means of each construct was separately computed and coded to define each construct. For the construct 1 the code was ST (System Thinking), for construct 2 the code was MM (Mental Model), for construct 3 the code was PM (Personal Mystery), for construct 4 the code was TM (Team Learning) and for the construct 5 the code was SV (Shared Vision). Besides these codes, context rural and urban were also coded as 1 and 2 respectively.

3.17 Research Ethics

Following ethical standards is crucial for researchers at all stages of their studies to minimize risks to research participants. To ensure ethical considerations were met, the researcher in this study kept confidentiality and anonymity of the participants as advised in ethical guidelines by their research supervisor and department. First, permission has been taken from the principal of school and from Federal Directorate of Education (FDE), Government of Pakistan. For Agreement of head teachers and teachers, consent forms were developed and get it filled from all of the research

participants before data collection. The information provided by the participants has been kept confidential and the data has been used solely for the objectives of the study. To maintain anonymity, all the data has been coded accordingly. Researcher has ensured that the collected data is saved in secure laptop folders (folders and sub folders in hard drive of laptop) which are only accessed by the current researcher.

3.18 Delimitations of the study

The research participants of this study are only the teachers teaching in public sector urban and rural secondary schools in Islamabad. However, it could have added more value to the study if other stakeholders (head teachers & students) were also selected as participants of the study. Moreover, the study has only included schools of Islamabad because of limited resources as well as time. The researcher selected only secondary school level of teachers as it is difficult to approach schools of all level within the period of time allocated for the study. Moreover, the findings of the study are based on the questionnaire collected from the teachers.

CHAPTER 4

RESULTS AND FINDINGS OF THE STUDY

This chapter is divided into 4 main sections. Section 1 would be describing the demographic information of whole data in both statistical tables and description of the tables in the word form. Section 2 defines the first objective of the study which is to assess the functioning of urban secondary schools as learning organizations. First five research questions based on first research objective are answered this section in the form of tables and description of the tables. Mean values of all the five disciplines of the learning organization model are described in this section to see either urban secondary schools are functioning as learning organization or not. Section 3 defines the second objective of the study which is to assess the functioning of rural secondary schools as learning organizations. Last five research questions based on second research objective are answered this section in the form of tables and description of the tables. Mean values of all the construct of the learning organization model are described in this section to see either rural secondary schools are functioning as learning organization or not. Section 4 presents the third objective of this research study that presents the comparative results of rural and urban secondary school's functioning as learning organization. Independent sample T-test was applied to find the comparative results of two groups (urban and rural secondary schools). Results of all the Null hypothesis are presented in this section in the tabular form with description.

4.1 Introduction

This chapters adds the data interpretation and analysis into the whole study. The conducted study is quantitative, and descriptive in nature. It is a comparative study, which compared the functioning of urban and rural secondary schools as a learning

organization. The data was collected from teachers on "Secondary Schools as Learning Organizations: A Comparative Study of Rural and Urban Areas". The questionnaire consisted of 34 items in total. Additionally, a demographic section was also added in order to have the important personal information from the participants; gender, school region, professional qualification and work experience. The questionnaire of this study was designed on the 5 point Likert scale; Strongly Disagree (SD) whose value was indicated as 1. Disagree (D) whose value was indicated as 2. Neutral (N) whose value was indicated as 3. Agree (A) whose value was indicated as 4 and Strongly Agree (SA) whose value was indicated as 5. Moreover, in this chapter, the researcher has thoroughly discussed results of the research that has been produced after the analysis of the data collected by the researcher during the collection of the data. The researcher has used the SPSS (*Statistical Package for Social Sciences*) version 23.0 for the analysis of the data. This chapter reports findings on the basis of the questionnaire used for the data collection for the current research study. Since, the questionnaire was adopted, it was based on the main scale of Learning organization and was further divided into the five constructs (1) System Thinking (2) Mental Model (3) Personal Mastery (4) Team Learning and (5) Shared Vision, based on Senge's (1990) five discipline model of learning organization.

The current research study used four demographic variables (1) Gender, (2) Professional Qualification (3) Work Experience and (4) School Region. The Participants of the current research study varied on the basis of above variables and therefore the researcher analyzed the responses accordingly. Following analysis of the variables have been observed and tables have shown the descriptive and frequencies analysis, as shown in the following tables.

Section I

4.2 Frequencies of Demographic Variables

Table 4.1

Gender wise Distribution of the Sample (N=295)

Demographic	Categories	Frequency	Percentage
Gender	Boys	116	39.3%
	Girls	179	60.7%
	Total	295	100%

Frequency table for gender (Table No. 4.1) shows that the participation of the female participants, who took part in the current study, were greater, which was 60.7%, than the participation of the male participants which was 39.3%. The total number of the participants in the current research study were N = 295, out of which 179 were female and the number of the male participants was 116.

Table 4.2
Professional Qualification wise distribution of the Sample (N=295)

Demographic	Categories	Frequency	Percentage
Professional Qualification	B.Ed	78	26.4%
	M.Ed.	185	62.7%
	Other	32	10.8%
	Total	295	100%

Frequency table for professional qualification (Table No. 4.2) shows the participation of the participants' Professional Qualification, who took part in the current research study. Total number of the participants is N = 295, out of which 78, which is the 26.4% (percentage) of total responses, participants has marked B.Ed as their professional qualification. Table shows that 185 participants of the current research study possess the M.Ed (Masters of Education) degree, which is 63.7% (percentage) of the total responses. The table above also shows that 32 of the participants which is around 10.8% (percentage) have been found nil or empty for the professional qualification cell in the questionnaire that was used for the data collection for the current research study.

Table 4.3

Work Experience wise distribution of the Sample (N=295)

Demographic	Categories	Frequency	Percentage
Work Experience	1-5 years	53	18%
	6-10 years	28	9.5%
	11-15 years	84	28.5%
	16-20 years	52	17.6%
	20+	78	26.4%
	Total	295	100%

The number of the participants with 1-5 (one to five) years of work experience in the current organization is 53 which is the 18% (percent) of the total number of the participants. Participants with the experience 6-10 (six to ten) years of the work experience in the current organization is 28 which is 9.5% (percent) of the total number of the participants. The table shows that the 84 participants have mentioned their work experience in the current organization as 11-15 (eleven to fifteen) years, which number is the 28.5% (percent) of the total number of the participants. As for as the proportion of the participants having work experience of 16-20 (sixteen to twenty) years in the same institution or organization is concerned, the table (Table No. 4.3) demonstrates that fifty two (52) participants in the current research study were the ones who possess the above mentioned work experience in the current organization which consequently makes the seventeen point six percentage (17.6 %) of the total sample or the participants. Furthermore, the table displays that the seventy eight (78) participants of the current research study were those, who mentioned their experience in the current research study as the 20+ (twenty plus) years in the current organization which makes the 26.4% (twenty six point four percentage) of the total sample or the participants.

Table 4.4
School Region wise distribution of the Sample (N=295)

Demographic	**Categories**	**Frequencies**	**Percentage**
School Region	Urban	155	52.5%
	Rural	140	47.5%
	Total	295	100%

There were two categories selected in the demographic of school region i.e. Urban and Rural regions. The total number of participants from both the regions were 295. With the follow-up of 155 number of respondents from urban region and 140 from the rural region respectively. The urban region draws the 52.5% of the total population and rest 47.5% is contribute by the rural region. And this in total draws the 100% of the total participants.

Section II

4.3 Analysis of Objective 1

Objective 1: To assess the Functioning of urban Secondary Schools as Learning Organization

Research Question 1: What is the level of 'System Thinking' of teachers teaching at urban secondary public sector schools?

Table 4.5

Level of teachers' System Thinking in Urban Schools

Construct	Mean	Remarks
System thinking	3.92	Agree

Table 4.5 shows that the mean score of the respondents who were teachers teaching at public sector secondary schools of urban areas is 3.92 regarding system thinking. This mean score is round up to 4, which at the five point likert scale is agree. Table indicates that most of the teachers have system thinking. This means majority of the teachers were aware of school system and their role and responsibilities in it. This also indicates that teachers consider the impact of their teaching on the overall school system.

Objective 1: To assess the Functioning of urban Secondary Schools as Learning Organization

Research Question 2: What is the level of 'Mental Model' of teachers teaching at urban secondary public sector schools?

Table 4.6

Level of teachers' Mental Model in urban schools

Construct	**Mean**	**Remarks**
Mental Model	3.91	Agree

Table 4.6 shows that the mean score of the respondents who were teachers teaching at public sector secondary schools of urban areas is 3.91 regarding Mental Model. This mean score is round up to 4, which at the five point likert scale is agree. Table indicates that most of the teachers were agree on mental model. It can be analyzed from the mean score that teachers continuously keep reflecting upon their assumptions about schooling and engage in their own tasks with flexibility.

Objective 1: To assess the Functioning of urban Secondary Schools as Learning Organization

Research Question 3: What is the level of 'Personal Mastery' of teachers teaching at urban secondary public sector schools?

Table 4.7

Level of teachers' personal Mastery in urban schools

Construct	**Mean**	**Remarks**
Personal Mastery	4.02	Agree

Table 4.7 indicates the mean score of the construct personal mastery responded by the teachers teaching at public sector secondary schools of urban areas is 4.02. This mean score is round up to 4, which at the five point likert scale is agree. Mean score shows that most of the teachers were agree when it comes to personal mastery. It is analyzed from the mean score that teachers have strong desire to improve professionally by expanding personal growth and capacity. Teachers keep them engage in continuous learning process.

Objective 1: To assess the Functioning of urban Secondary Schools as Learning Organization

Research Question 4: What is the level of 'Team Learning' of teachers teaching at urban secondary public sector schools?

Table 4.8

Level of teachers' Team Learning in urban schools

Construct	**Mean**	**Remarks**
Team Learning	4.02	Agree

Table 4.8 indicates the mean score of the construct team learning responded by the teachers teaching at public sector secondary schools of urban areas is 4.02. This mean score is round up to 4, which at the five point likert scale is agree. Mean score shows that most of the teachers were agree on their approach towards team learning. Based on the mean score analysis, it was found that teachers are committed to developing their skills and engaging in collaborative tasks. The school encourages various group activities to address schooling issues and teachers' professional work.

Objective 1: To assess the Functioning of urban Secondary Schools as Learning

Organization

Research Question 5: What is the level of 'Shared Vision' of teachers teaching at urban secondary public sector schools?

Table 4.9

Level of teachers' Shared Vision in urban schools

Construct	**Mean**	**Remarks**
Shared Vision	3.99	Agree

Table 4.9 indicates the mean score of the construct shared vision responded by the teachers teaching at public sector secondary schools of urban areas is 3.99. This mean score is round up to 4, which at the five point likert scale is agree. Mean score shows that most of the teachers were agree on their approach towards shared vision. Based on the mean score analysis, it can be inferred that teachers agree that their personal vision is aligned with the vision and goals of the school. The school's vision is formulated through a collaborative process that involves the active participation and consensus of all school stakeholders, emphasizing shared commitment and participatory activities.

It is concluded from the mean score which is around 4 for all the constructs of learning organization model that majority of the teachers are agree that urban secondary schools are functioning as learning organizations. The result of objective 1 is analyzed that public sector secondary schools of urban areas of Islamabad are functioning as learning organizations.

Section III

4.4 Analysis of Objective 2

Objective 2: To assess the Functioning of rural Secondary Schools as Learning Organization

Research Question 6: What is the level of 'System Thinking' of teachers teaching at rural secondary public sector schools?

Table 4.10

Level of teachers' System Thinking in rural schools

Construct	Mean	Remarks
System thinking	3.92	Agree

Table 4.10 shows that the mean score of the respondents who were teachers teaching at public sector secondary schools of rural areas is 3.92 regarding system thinking. This mean score is round up to 4, which at the five point likert scale is agree. Table indicates that most of the teachers have system thinking. This means majority of the teachers were aware of school system and their role and responsibilities in it. This also indicates that teachers contemplate the impact of their teaching on the overall school system.

Objective 2: To assess the Functioning of rural Secondary Schools as Learning Organization

Research Question 7: What is the level of 'Mental Model' of teachers teaching at rural secondary public sector schools?

Table 4.11

Level of teachers' Mental Model in rural schools

Construct	**Mean**	**Remarks**
Mental Model	3.91	Agree

Table 4.11 shows that the mean score of the respondents who were teachers teaching at public sector secondary schools of rural areas is 3.91 regarding Mental Model. This mean score is round up to 4, which at the five point likert scale is agree. Table indicates that most of the teachers were agree on mental model. It can be analyzed from the mean score that teachers continuously keep reflecting upon their assumptions about schooling and engage in their own tasks with flexibility.

Objective 2: To assess the Functioning of rural Secondary Schools as Learning Organization

Research Question 8: What is the level of 'Personal Mastery' of teachers teaching at rural secondary public sector schools?

Table 4.12

Level of teachers' personal Mastery in rural schools

Construct	**Mean**	**Remarks**
Personal Mastery	4.02	Agree

Table 4.12 indicates the mean score of the construct personal mastery responded by the teachers teaching at public sector secondary schools of rural areas is 4.02. This mean score is round up to 4, which at the five point likert scale is agree. Mean score shows that most of the teachers were agree when it comes to personal mastery. It is analyzed from the mean score that teachers have strong desire to improve professionally by expanding personal growth and capacity. Teachers keep them engage in continuous learning process.

Objective 2: To assess the Functioning of rural Secondary Schools as Learning Organization

Research Question 9: What is the level of 'Team Learning' of teachers teaching at rural secondary public sector schools?

Table 4.13

Level of teachers' Team Learning in rural schools

Construct	**Mean**	**Remarks**
Team Learning	4.02	Agree

Table 4.13 indicates the mean score of the construct team learning responded by the teachers teaching at public sector secondary schools of rural areas is 4.02. This mean score is round up to 4, which at the five point likert scale is agree. Mean score shows that most of the teachers were agree on their approach towards team learning. Based on the mean score, the analysis shows that teachers are committed to improving their skills and participating in collaborative tasks. The school encourages various group activities to address educational issues or professional development for teachers.

Objective 2: To assess the Functioning of rural Secondary Schools as Learning

Organization

Research Question 10: What is the level of 'Shared Vision' of teachers teaching at rural secondary public sector schools?

Table 4.14

Level of teachers' Shared Vision in rural schools

Construct	**Mean**	**Remarks**
Shared Vision	3.99	Agree

Table 4.14 indicates the mean score of the construct shared vision responded by the teachers teaching at public sector secondary schools of rural areas is 3.99. This mean score is round up to 4, which at the five point likert scale is agree. Mean score shows that most of the teachers were agree on their approach towards shared vision. It is analyzed from the mean score that teachers are agree at the point that their personal vision is aligned with the school vision and goals. This suggests that the schools have a collaborative and participatory approach towards the development of their vision. All stakeholders including teachers, administrators, and other members work together to create a shared vision that aligns with the goals of the school. This approach ensures that everyone is on the same page and working towards a common goal, which ultimately contributes to the success of the school.

It is concluded from the mean score which is around 4 for all the constructs of learning organization model that majority of the teachers are agree that rural secondary schools are functioning as learning organizations. The result of objective 2 is analyzed that public sector secondary schools of rural areas of Islamabad are functioning as learning organizations.

Section IV

4.5 Analysis of Objective 3

Objective 3: To compare the rural and urban secondary school's functioning as learning organization.

Hº1: There is no significant difference in the level of mean for *learning Organization* among secondary school teachers of urban and rural areas.

Table 4.15

Rural and urban comparison of Learning Organization (N=295)

Variable	**School Region**	**N**	**Mean**	**S.D**	**t.value**	**df**	**Sig**
Learning Organization	Urban	155	3.97	18.31	-0.115	293	0.909
	Rural	140	3.98				

Table 4.15 shows that t-value (-0.115) is not statistically significant at the level of 0.909 which is higher than (0.05) p value. There was no difference found between the mean value of urban (3.97) and rural (3.98) secondary schools. This mean values shows that urban schools and rural secondary schools are functioning at same level of learning organization. Therefore, it is concluded that there is no significant difference between mean score for learning organization between urban and rural secondary schools. So, the Null Hypothesis 1 is accepted.

Objective 3: To compare the rural and urban secondary school's functioning as learning organization.

Hº2: There is no significant difference in the level of mean for *System Thinking* among secondary school teachers of urban and rural areas.

Table 4.16

Rural and urban comparison of teacher's System Thinking (N=295)

Construct	**School Region**	**N**	**Mean**	**S.D**	**t.value**	**df**	**Sig**
System thinking	Urban	155	3.96	3.33	1.103	293	0.271
	Rural	140	3.87				

Table 4.16 shows that t-value (1.103) is not statistically significant at the level of 0.271 which is higher than (0.05) p value. There was no difference found between the mean value of urban (3.96) and rural (3.87) secondary schools. This mean values shows that teachers of urban schools and rural secondary schools express almost same level of System Thinking. Based on the analysis, the conclusion drawn is that there is no significant difference between the mean scores of system thinking among secondary school teachers in both urban and rural areas. So, the Null Hypothesis 2 is accepted.

Objective 3: To compare the rural and urban secondary school's functioning as learning organization.

H⁰3: There is no significant difference in the level of mean for *Mental Model* among secondary school teachers of urban and rural areas.

Table 4.17

Rural and urban comparison of teacher's Mental Model (N=295)

Construct	**School Region**	**N**	**Mean**	**S.D**	**t.value**	**df**	**Sig**
Mental Model	Urban	155	3.88	4.77	-0.983	293	0.327
	Rural	140	3.95				

Table 4.17 shows that t-value (-0.983) is not statistically significant at the level of 0.327 which is higher than (0.05) p value. There was no difference found between the mean value of urban (3.88) and rural (3.95) secondary schools. This mean values shows that teachers of urban schools and rural secondary schools express almost same level of Mental Model. Therefore, it is concluded that there is no significant difference between mean score for Mental Model among secondary school teachers of urban and rural areas. So, the Null Hypothesis 3 is accepted.

Objective 3: To compare the rural and urban secondary school's functioning as learning organization.

Hº4: There is no significant difference in the level of mean for *personal mastery* among secondary school teachers of urban and rural areas.

Table 4.18

Rural and urban comparison of teacher's Personal Mastery (N=295)

Construct	**School Region**	**N**	**Mean**	**S.D**	**t.value**	**df**	**Sig**
Personal Mastery	Urban	155	4.03	3.77	0.095	293	0.924
	Rural	140	4.02				

Table 4.18 shows that t-value (0.095) is not statistically significant at the level of 0.924 which is higher than (0.05) p value. There was no difference found between the mean value of urban (4.03) and rural (4.02) secondary schools. This mean values shows that teachers of urban schools and rural secondary schools express almost same level of Personal Mastery. Therefore, it is concluded that there is no significant difference between mean score for Personal Mastery among secondary school teachers of urban and rural areas. So, the Null Hypothesis 4 is accepted.

Objective 3: To compare the rural and urban secondary school's functioning as learning organization.

H⁰5: There is no significant difference in the level of mean for *team learning* among secondary school teachers of urban and rural areas.

Table 4.19

Rural and urban comparison of teacher's Team Learning (N=295)

Construct	**School Region**	**N**	**Mean**	**S.D**	**t.value**	**df**	**Sig**
Team Learning	Urban	155	4.02	4.76	-0.006	293	0.995
	Rural	140	4.02				

Table 4.19 shows that t-value (-0.006) is not statistically significant at the level of 0.995 which is higher than (0.05) p value. There was no difference found between the mean value of urban (4.02) and rural (4.02) secondary schools. This mean values shows that teachers of urban schools and rural secondary schools express almost same level of Team Learning. Therefore, it is concluded that there is no significant difference between mean score for Team Learning among secondary school teachers of urban and rural areas. So, the Null Hypothesis 5 is accepted.

Objective 3: To compare the rural and urban secondary school's functioning as learning organization.

H^o6: There is no significant difference in the level of mean for *Shared Vision* among secondary school teachers of urban and rural areas.

Table 4.20

Rural and urban comparison of teacher's Shared Vision (N=295)

Construct	**School Region**	**N**	**Mean**	**S.D**	**t.value**	**df**	**Sig**
Shared Vision	Urban	155	3.98	4.34	-0.401	293	0.689
	Rural	140	4.01				

Table 4.20 shows that t-value (-0.401) is not statistically significant at the level of 0.689 which is higher than (0.05) p value. There was no difference found between the mean value of urban (3.98) and rural (4.01) secondary schools. This mean values shows that teachers of urban schools and rural secondary schools express almost same level of Shared Vision. Therefore, it is concluded that there is no significant difference between mean score for Shared Vision among secondary school teachers of urban and rural areas. So, the Null Hypothesis 6 is accepted.

4.6 Overall Hypothesis Testing

All the Null hypothesis has been accepted. Thus findings of objective 3 revealed that there is statistically no significant difference between the functioning of urban and rural secondary schools as learning organization.

Table 4.21

Overall hypothesis testing

Hypothesis	**Decision**
$H_0$1 There is statistically no significant difference of *Learning Organization* in the secondary schools of urban and rural areas.	**Accepted**
$H_0$2 There is statistically no significant difference of *System Thinking* in the secondary schools of urban and rural areas.	**Accepted**
$H_0$3 There is statistically no significant difference of *Mental Models* in the secondary schools of urban and rural areas.	**Accepted**
$H_0$4 There is statistically no significant difference of *Personal Mastery* in the secondary schools of urban and rural areas.	**Accepted**
$H_0$5 There is statistically no significant difference of *Team Learning* in the secondary schools of urban and rural areas.	**Accepted**
$H_0$6 There is statistically no significant difference of *Shared Vision* in the secondary schools of urban and rural areas.	**Accepted**

4.7 Summary

The chapter four has described the results and findings of the present quantitative research study. Data was analyzed through SPSS by finding out mean value for each construct to see schools functioning as learning organization and by applying Independent Sample T-test to find out the comparative results of rural and urban secondary schools. Findings of the present research study revealed that both urban and rural secondary schools are functioning as learning organizations and comparative results of this research study shows that there is no significant difference between the functioning of urban and rural secondary schools as learning organization. All the Null hypothesis were accepted. Teachers of urban secondary schools as well as teachers of rural secondary schools are well aware about their role and responsibilities within the school and teachers also have understanding regarding school system. Finding also shows that teachers consider impact of their teaching performance on overall school system. Teachers keeping reflecting upon their assumptions regarding schooling and develop knowledge about each other's assumptions. It is also noted from the findings that teachers have strong desire to improve professionally and for this purpose they keep engaged them in continuous learning process. At the school teachers get opportunities to professionally grow in the form of team activities. These collaborative work help teachers develop their skills and keep committed. As for as School vision and goals are concerned, these are planned with the consensus of teachers through a process of shared commitment and participatory activities. Keeping all above findings it is concluded that both urban secondary schools as well as rural secondary schools are functioning as learning organizations and there is no difference found in

the working of these schools as learning organizations.

CHAPTER 5

DISCUSSION, CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

5.1 Summary

This chapter includes discussions founded on the literature, recommendations based on the findings of the study and limitations to conduct this research study. The chapter also includes conclusion of the present study. The aim of this research study was to assess the functioning of secondary schools as learning organization and compare the functioning of rural and urban secondary schools as learning organization. This research study was conducted in the context of Islamabad where rural and urban secondary schools working under Federal Directorate of Education, Islamabad were assessed and compared as learning organizations. To assess schools as learning organizations Peter Senge's five discipline model of learning organization was used as theoretical framework of the present research study. The model of learning organization consists of five disciplines which are system thinking, mental models, personal mastery, team learning, and shared vision.

The approach used to carry out this research study was quantitative and the design of the study was descriptive in nature and comparative by method. The population selected for the study was the teachers employed in public sector secondary schools of rural and urban areas of Islamabad. There were total 97 secondary schools working under Federal Directorate of Education, out of which 38 were urban secondary schools and 59 were the rural secondary schools. Within these 97 schools there were 1003 teachers teaching in the urban

secondary schools and 1069 teachers teaching in the rural secondary schools. There were total of 2072 teachers teaching in both urban and rural schools of Islamabad, which was the total population of the present research study. Researcher used proportionate stratified random sampling technique. Two strata's were formed of two heterogeneous groups; urban secondary schools and rural secondary schools. Further to select teaches from the selected schools researcher applied random sampling technique. To generalize the results 20% teachers were selected as sample size, which were around 414 teachers. However, return rate of the survey was 71%, 295 teachers properly filled the questionnaires.

To gather the data to achieve the objectives of the present research study survey questionnaire was adapted. The instrument researcher adapted for this research study was developed by Park (2008). The instrument was developed on the basis of Senge's five discipline model of learning organization for the teachers. The survey questionnaire was based on 34 items, 6 items on system thinking, 8 items on mental model, 6 items on personal mastery, 7 items on team learning and 7 items on shared vision. The structure of the survey questionnaire was five point likert scale. Researcher also checked the validity and reliability of the tool in the context of this research study. The gathered data from the teachers in the form of survey questionnaire were then entered and analyzed in the SPSS (Statistical Package of Social Sciences) 21.0 version. To achieve objective 1, researcher found the answers of research questions by getting the mean value of each construct by using SPSS and to achieve objective 2, results of urban secondary schools and rural secondary schools were compared by applying independent sample T-test. The findings of the study

revealed that public sector secondary schools of Islamabad are functioning as learning organizations and there is no significant difference in the functioning of rural and urban secondary schools of Islamabad as learning organizations. Functioning of schools as learning organization means in these schools teachers got opportunities to improve professionally so that schools goals and objectives can be achieved. These schools are welcoming to the new changes in the system and are flexible enough to mold them in the current schooling.

10.2 Findings

Overall findings of the study are discussed below in detail:

There were total four demographical variables asked from the respondents; Gender, Professional Qualification, Work Experience and School Region. The main demographic variables was School Region, as study is based on the comparison of rural and urban secondary schools. Researcher have not used other demographics in the present research study, however, to write the articles from this piece of work these variable will be useful.

1. Table 4.1 shows the gender wise distribution of the sample. There were 39.3% male teachers who responded to this research study which were 116 teachers. 60.7% (179) teachers were females who were research participants of this research study. Male teachers were from the Islamabad Model Schools for boys (IMSBs) and female teachers were from Islamabad Model Schools for girls (IMSGs).

2. Table 4.2 shows Professional Qualification wise distribution of the sample. There were three categories of Professional Qualification; B.Ed, M.Ed & Other. Results shows that most of the teachers had M.Ed. which is 62.7% (185 teachers) of overall participants. Then

comes teachers who had B.Ed, these teachers were 26.4% of overall research participants, 78 in number. 32 teachers had other qualification then M.Ed. or B.Ed, which was 10.8%.

3. Table 4.3 shows the work experience of the teachers in current schools. 28.5% (85) teachers had 11 to 15 years of work experience. 26.4% (78) teachers had more than 20 years of experience. 18% (53) teachers had 1 to 5 years of work experience in the current organization. 17.6% (52) teachers 16 to 20 years of experience of teaching in the current organization and 9.5% (28) teachers had 6 to 10 years of teaching experience in the researched secondary schools.

4. Table 4.4 shows the School Region wise distribution of the sample. This is the most important demographic variable as research is based on the comparison of rural and urban secondary schools. Researcher tried to keep the percentage same for both the groups to get the balanced data, still then there is little difference. Teachers from urban schools were 155 which makes 52.5% and teachers from rural secondary schools were 140 which makes 47.5% of the sample.

Objective 1 of the present research study was to assess the functioning of secondary schools as learning organization. Based on this research objective five research questions were formulated. Each of the research question was based on one of the learning organization discipline. Five disciplines of learning organization model given by Peter Senge (1990) were; system thinking, mental model, personal mastery, team learning and shared vision.

5. Tables 4.5 shows that level of teacher's level of system thinking.

This tables shows the results of research question 1 which was what is the level of ‘System Thinking’ of teachers teaching at both rural and urban secondary public sector schools? Mean score of system thinking was 3.92, this mean score is round up to 4, which at the five point likert scale is agree. Table indicates that most of the teachers have system thinking.

6. Tables 4.6 shows that level of teacher’s level of mental model. This tables shows the results of research question 2 which was what is the level of ‘Mental Model’ of teachers teaching at both rural and urban secondary public sector schools? Mean score of Mental Model was 3.91, this mean score is round up to 4, which at the five point likert scale is agree. Table indicates that most of the teachers Poses Mental Model.

7. Tables 4.7 shows that level of teacher’s level of Personal Mastery. This tables shows the results of research question 3 which was what is the level of ‘Personal Mastery’ of teachers teaching at both rural and urban secondary public sector schools? Mean score of personal mastery was 4.02, this mean score is round up to 4, which at the five point likert scale is agree. Table indicates that most of the teachers have personal mastery.

8. Tables 4.8 shows that level of teacher’s level of Team Learning. This tables shows the results of research question 4 which was what is the level of ‘Team Learning’ of teachers teaching at both rural and urban secondary public sector schools? Mean score of Team learning was 4.02, this mean score is round up to 4, which at the five point likert

scale is agree. Mean score shows that most of the teachers were agree on their approach towards team learning.

9. Tables 4.9 shows that level of teacher's level of Shared Vision. This tables shows the results of research question 5 which was what is the level of 'Shared Vision' of teachers teaching at both rural and urban secondary public sector schools? Mean score of Shared Vision was 3.99, this mean score is round up to 4, which at the five point likert scale is agree. It is analyzed from the mean score that teachers are agree at the point that their personal vision is aligned with the school vision and goals.

Second objective the present research study was to compare the functioning of rural and urban secondary schools. Based on this research objective six Null hypothesis were formulated. Null Hypothesis 1 was formulated on the main variable of the study which was learning organization and other five null hypothesis were developed on the basis of five learning organization disciplines.

10. Table 4.10 indicates rural and urban school's comparison of learning organization. It is found from the results that there is no significant difference between the functioning of urban and rural secondary schools as learning organizations. Significant value of learning organization was 0.909 which is higher than 0.05. Hence, null hypothesis one was accepted.

11. Table 4.11 indicates rural and urban secondary school teacher's comparison of System Thinking. It is found from the results that teachers of urban schools and rural secondary schools express same level of System Thinking. Significant value of System Thinking was

0.271 which is higher than 0.05. Hence, null hypothesis two was accepted.

12. Table 4.12 indicates rural and urban secondary school teacher's comparison of Mental Model. It is found from the results that teachers of urban schools and rural secondary schools express same level of Mental Model. Significant value of Mental Model was 0.327 which is higher than 0.05. Hence, null hypothesis three was accepted.

13. Table 4.13 indicates rural and urban secondary school teacher's comparison of Personal Mastery. It is found from the results that teachers of urban schools and rural secondary schools express same level of Personal Mastery. Significant value of Personal Mastery was 0.924 which is higher than 0.05. Hence, null hypothesis Four was accepted.

14. Table 4.14 indicates rural and urban secondary school teacher's comparison of Team Learning. It is found from the results that teachers of urban schools and rural secondary schools express same level of Team Learning. Significant value of Team Learning was 0.995 which is higher than 0.05. Hence, null hypothesis five was accepted.

15. Table 4.15 indicates rural and urban secondary school teacher's comparison of Shared Vision. It is found from the results that teachers of urban schools and rural secondary schools express same level of Shared Vision. Significant value of Shared Vision was

0.689 which is higher than 0.05. Hence, null hypothesis six was accepted.

16. Table 4.16 shows the overall result of all the null hypothesis. All the Null hypothesis of the present research study were accepted. It is found from these findings that there is no significant difference between the functioning of secondary schools as learning organizations. Both the schools are functioning at the same level of learning organization.

5.3 Discussions

A shared vision plays a vital role in directing a school as a learning organization and serves as a driving force for continuous efforts to achieve individual and institutional objectives. It involves engaging all stakeholders, including staff members, students, parents, and others, in a process that leads to a common understanding of the school's mission and goals. One of the most significant challenges faced by societies today is the integration of individuals with learning disabilities who may feel excluded from the education system and suffer from a lack of self-confidence. The exclusion of such individuals is not only a waste of human potential, but it also poses a serious threat to democracy. Therefore, it is crucial for stakeholders in education to feel that a school's vision and goals incorporate a moral dimension. It is essential to have an inspiring and motivational vision statement that is dedicated to enhancing the lives of all learners. All students can achieve academic success if given the right support and resources. Many schools and education systems across the world have realized their goal of drastically improving the learning results of the poorest students.

Creating a learning organization that truly makes a difference in the lives of all students, particularly those who are disadvantaged, requires a firm commitment. This commitment should center on promoting teaching and learning that leads to a wide range of cognitive and social/emotional outcomes, not only in the present but also in the future. It should also focus on the idea that learning is a lifelong process, where individuals can enhance their knowledge, abilities, and attitudes, and adapt to the constantly changing, complex, and interconnected world. A shared vision must drive this commitment to promote a learning environment that fosters growth and development for everyone. Today's education necessitates instructors who are continually expanding their own and their profession's professional expertise. An increasing amount of data suggests that teacher professional development can improve student achievement as well as instructors' practice. As a result, academics, educators, and policymakers all over the world are increasingly supporting the idea of investing in high-quality, career-long professional development programmers and assuring continuous, active professional learning.

In a learning organization, the culture is supportive and invests in high-quality professional development opportunities for all employees, including teachers, school leaders, and support personnel, from the very beginning of their careers. The organization integrates work-based learning with external learning opportunities, such as workshops or university courses, and ensures that the former is planned in a way that professional learning is embedded in everyday practice in a sustainable manner. In a school that functions as a learning organization, the staff are actively involved in determining the goals and priorities for

their own professional development that align with the school's objectives and student learning needs, as outlined in the school's development plan. Furthermore, the staff's professional development is supported by continuous assessment and feedback, which is integrated into their daily routine.

To come with and integrate new innovation and change in educational system, reflective thinking, inquiry, and challenging of existing thought patterns are required. Staff members are encouraged to segment the perspectives on teaching and learning with their colleagues in a learning organization. They meet regularly to discuss ways to address obstacles and solve problems, as well as ways to improve student learning and/or staff practice. As a result, school frameworks promote staff cooperation and communication.

Argyris and Schon (1978) developed a relationship between management theory and learning organizationy, which was later popularized by Senge (1990). The definition of a learning organization varies depending on the author, with many different interpretations. It is important to acknowledge the names and key terms associated with the concept. The terms ‘knowledge-based organization' and ‘learning organization also have a lot of overlap and association. I'll propose three definitions that, when combined, capture the core qualities of a learning organization.

Senge (1990) defined a learning organization is an organization in which individuals continuously learn together, fostering original and vast ways of thinking. In such organizations, shared ambitions are encouraged, and individuals are empowered to reach their full potential and achieve their desired outcomes. A learning firm is one that encourages all of its employees to learn and is always evolving (Pedler et al., 1991).

Organizational learning theory suggests that schools are self-motivated systems that are self-organized and self-created. Therefore, the process of learning organization takes place within the school itself.

Organizational learning theory emphasizes the importance of motivation among the system's agents such as individuals, teams, and departments in the learning process. The theory also highlights the significance of sharing the output of the learning process, which includes evidence and information, between the mediators to improve information course and facilitate change. The degree of information flow is influenced by the level of knowledge generation and the relational structure and communication culture within the system. In order for organizational learning to happen, agents must be motivated, the system must have a high degree of connectedness, and learning opportunities must be available.

The preceding sections begin with tracing the origins of the learning organization idea. The five disciplines of learning organizations are then described. Personal mastery and mental models are two disciplines practiced by people in the organization; team learning and shared vision are two disciplines practiced by the organization as a whole. Individuals in groups (teams) or the entire organization practice it. Systems thinking connects the previous four disciplines into a coherent whole that allows for change.

The five disciplines must be adopted and implemented by schools in order for them to become learning organizations. They have the potential to be very effective approaches for changing educational procedures and raising student achievement.

The behaviors required for mastery in each of the five disciplines are

discussed in this section. Organizations with greater learning capacity are those that have mastered these practices. Individuals and groups within organizations that learn boost their ability for development, change, and progress.

Personal Mastery

Personal mastery entails learning to increase one's personal potential to achieve desired outcomes. Individuals inside an organization who improve their own mastery create an organizational climate that enables other members of the organization to grow and accomplish their objectives. As a result, organizations should establish settings that promote and assist people who want to improve their own mastery. Individuals in an organization should also be encouraged to improve their own mastery, according to their leaders.

"No one can improve someone else's personal mastery," according to Senge, Kleiner, Roberts, Ross, and Smith (1994). Only by creating situations that allow individuals to improve their own mastery can inspire them to do so. Senge (1990) outlined three aspects of personal mastery discipline.

The following are the prerequisites for gaining personal mastery:

1. Personal Perspective: The majority of teachers within school have goals and ambitions, but no sense of direction is provided to them to draw a true vision. The distinction between vision and purpose is important. A person's vision is a clear image of what they see.

The intended future is more concrete, whereas the aim is more abstract. "If individuals don't have their own vision, all they can do is work for someone else," Fullan (1993) remarked else's. Compliance, not commitment, is the end consequence."

2. Maintaining a State of Creative Tension Between one's ideal and

existing reality: there are inescapable gaps. Individuals are discouraged by gaps, but gaps themselves are a source of creative energy. It creates a sense of creative tension. The conflict between reality and vision can only be resolved in one of two ways. Either vision or reality pulls vision upward or below (you lower your vision). Teachers frequently opt for the second option because it is simple to "declare victory" and walk away from a problem.

But these are the dynamics of mediocrity and compromise. True creative individuals produce energy for change by bridging the gap between what they want and what is. They don't stray from their original idea.

3. A dedication to the truth: This criterion is a never-ending desire to discover how people limit and deceive themselves. It's also a readiness to question how things are done by individuals who have a high level of skill. Within school organization, teachers trying to develop their own personal capacity, which in turn raises the capacity of the entire professional journey, is a goal that occurs throughout learning organizations. "It is becoming obvious that learning does not occur in any lasting manner unless it is inspired by people's own intense interest and curiosity,"

When there isn't a spark, individuals will willingly accept training in a topic" (Senge et al., 1994, p. 193). Organizations must develop an atmosphere that stimulates and supports personal mastery if they are to adapt in a rapidly changing world. Personal mastery denotes a high level of competence that can consistently produce the desired outcomes. Individuals who seek personal mystery clarify and expand their vision, focus their energies, learn patience, and, in general, approach life in the same way as an artist approaches the production of a piece of art. People who claim they lack a personal vision for

themselves require a plan. Additionally, individuals consider what their definition of greatness is. Their inability to express their vision reflects their pessimism and unwillingness to accept responsibility for their own lives, units, and organizations. A vision statement is an expression of hope, and it is difficult to construct one if people do not have hope.

Organizations can only learn if the people inside them are also learning. The majority of people have goals and objectives, but no clear vision. A cornerstone of personal mastery is the capacity to focus on ultimate desires. Those personal mastery have a feeling of purpose in their aims; vision is a calling for them, not merely a nice idea. When people in an organization want to improve their own mastery, they should do two things. Individuals experience "creative tension" (p. 195) as a result of the gap between existing reality and personal vision. Moving closer to what is sought is the most natural way to resolve an individual's stress. Increased personal mastery is the result of this trend. Teachers need to create their own visions. If you don't have a strong sense of your own vision as a teacher, you won't be able to persuade others to develop their own or consider yours. Similarly, if you can't accurately express contemporary reality, you'll lose credibility when you advise that others do so as well. In schools, personal mastery practice generates a totally distinct paradigm. Whereas the principal was originally seen as the organization's leader, the job today demands the principal, along with the rest of the staff, to take on the role of learner.

In conclusion, personal mastery is a discipline that individuals in an organization practice. Individuals must grasp the existing truth and have a idea of the future they wish to enhance personal mastery. Individuals must decide

on the criteria that will be used to assess growing mastery. The gap between an individual's reality and their vision causes a tension that is best eased by the individual coming closer to their desired vision. In education, increasing personal mastery is a vital topic. To expand their own ability, teachers must broaden their perspective, focus their energies, and cultivate patience.

Mental Model

Mental models, the second discipline, is concerned with the creation of mental images of a desired (shared) vision. Mental models is a field that defines the procedure of reflecting on, constantly descriptive, and enhancing our mental representations of the world, as well as observing how they influence our behaviors and decisions. These mental models, according to Argyris, Putnam, and McLain-Smith (1985), are the "pictures, expectations, and tales which we convey in our thoughts about ourselves, other people, institutions, and every element of the universe."

People who have mastered this discipline have a high degree of proficiency in two areas. "Reflection (slowing down our thinking processes to become more conscious of how we create our mental models) and enquiry (having dialogues where we freely share perspectives and acquire knowledge about each other's assumptions)," according to Senge et al. (1994).

Teachers' knowledge of the discipline of mental models is limited, but study findings explain some of the circumstances that must be met in order for the discipline to be implemented. "meaning it a teachers chances for continuous thinking about what they do," Crandall (1982) stated, "teachers tend to work instinctively and rarely spend time arguing about how they carry out their tasks" (p. 29). "Substantial change will not occur unless teachers begin talking about

it," Fullan (1993) observed.

Examining teaching and learning, sharing excellent practices, and measuring the consequences of these practices on student success were among the first steps taken by the schools that transformed. Teachers, according to Darling Hammond, require chances to communicate what they know, confer with peers about teaching and learning issues, and observe peers teaching. Teachers' engagement in professional learning communities, according to Darling-Hammond (1993), increases their professional understanding. The learning organization concept of mental models has a lot of support. Mental models entail the creation of mental images of a desired future for each person. Individuals must reflect on their own views in order to build these mental representations. According to the experts, these models have an impact on our views and behaviors, and they have the ability to propel or hold individuals back. When mental models are shared with others, they allow members of a learning organization to form a common vision. They must also engage in open discussions in which they openly share their perspectives and learn about the assumptions of others.

Mental models might constrain educators to thinking and responding in predictable ways. Educators are stuck into habitual patterns of conduct without continual questioning, which helps them modify their mental models.

Shared Vision

Successful organizations, including schools, require their leaders to create a common vision for the group. One of the traits of a transformative leader, according to Leithwood (1998), is the ability to articulate a vision. These acts help to maintain the momentum for change by reminding everyone of the

importance of their job. This "visioning" is a continuous process that involves both personal visions and a feeling of a common vision. Successful schools have been identified as having a shared vision, but these visions must be established and maintained through time. Inattention does not lead to a common vision (Louis & Miles, 1990; Fullan, 1995; Darling-Hammond, 1997). This facet of leadership is described by Senge (1990b) as being a designer of an organization. While Senge does not directly mention schools, he suggests that a single person dubbed "in charge" of an institution is insufficient to handle the expectations imposed on it. The job of leadership must shift from that of an organization's director to that of a learning organization's designer. Senge compares his perspective to that of a big ship. The captain or navigator may have been recognized as the leader in the past. The most essential job for this ship is played by the person who planned the ship, how it would be built out, and its key processing operations.

The discipline of shared vision focuses on creating common meaning. A communal perception of what is significant and why it is important is referred to as shared meaning. The creation of a common vision may be a powerful tool for communicating an organization's driving principles.

People need to know that they have complete freedom to speak whatever they want about purpose, meaning, and vision, without fear of retaliation. The discipline of shared vision is also the development of a group's feeling of commitment. Sharing the visions of the future they want to create, as well as the principles and guiding practices they expect to apply to accomplish those images, builds a feeling of commitment to a shared vision.

Shared visions provide a feeling of purpose and consistency to all of the

actions that the organization does. Shared vision is one of the most powerful factors in life and business. Learning companies that seek to offer focus and enthusiasm to their staff need to have a shared vision. People learn best when they are working toward goals that are important to them. Without a unified vision, learning organizations cannot exist. Not only does the vision define an overarching purpose, but it also inspires new ways of thinking and performing. It encourages taking risks and experimenting. It also supports a long-term commitment. To master the discipline of shared vision, you must let go of the notion that visions emerge from the top or via a formalized planning process. Teachers must express their own visions with their school and urge that they follow them. It's not enough to give speeches and inspire the stakeholders to be a visionary leaders. It's about finding solutions to everyday challenges while keeping the individual's vision in mind.

Developing a shared vision, establishing principles, having a common mission or purpose, and creating organizational goals are all part of shared vision. Individuals develop common commitment and significance via shared vision. Members of the organization gain a sense of purpose and coherence when they share a common vision. Top management leadership and individual participation in an environment that allows for free and candid dialogue help to create a shared vision.

Team learning

Conversational and collective thinking abilities are being transformed through team learning, allowing groups to build intellect and ability that is larger than the sum of individual members' gifts (Senge et al., 1994). In contrast to team learning, much has been written on team building. Individual talents of

team members are frequently improved as part of team building. This training is most commonly focused on communication skills, although it is not restricted to that. Alignment of team members, communication, cooperation, and inquiry are all part of team learning. Team learning is about alignment rather than strengthening team member abilities. The process of aligning a team to avoid wasting energy and get the results its member's desire is known as team learning.

Findings indicating that teachers' possibilities for collaborative inquiry and associated learning resulted in a corpus of knowledge about teaching that could be broadly shared by experienced instructors. Darling Hammond (1996) added to the conversation by citing collaborative decision-making in schools as a factor in curricular reform and changing teacher responsibilities. Teachers in such institutions were given scheduled time to work together on professional matters. Planning lessons, observing in colleagues' classrooms, and providing comments were all part of these collaborative efforts. The most important aspect in a successful school is connection, with the best learning taking place when instructors not only teach well in their own classes, but also collaborate to solve problems. Teachers at these schools work as a team, have common goals, and schedule time for professional collaboration on a regular basis. Teachers are more likely to be constantly well educated, professionally rejuvenated, and motivated as a result of these settings, allowing them to inspire pupils.

The importance of team learning in the learning organization cannot be overstated. Team alignment, dialogue, cooperation, and inquiry are all part of it. Individuals can communicate their mental models with others in a group

setting, resulting in a shared vision. Within the team, values and beliefs are passed down, allowing for the establishment of similar goals. Through dialogue and reflection, their peers encourage and deepen their personal mastery. Individuals operating in groups work smarter and generate more than they do while working alone.

System Thinking

Another crucial asset for leaders will be the capacity to see their organization as a part of a bigger system. Internal and external factors will have an impact on the organization's operations, resource availability, and the demands and expectations of customers. A systems view is practiced by a leader who can see the big picture and use that knowledge to make decisions. According to Senge, this viewpoint has specific archetypes or patterns that recur throughout organizations. In addition to seeing schools as part of a wider system, understanding these archetypes may help a leader recognize when his or her organization is headed in the wrong direction. One motif, for example, is that of deteriorating goals. In this trend, a company that is unable to satisfy high standards lowers them in order to look more successful. According to Senge (1990b), such a pattern does not lead to really improved work processes or outcomes.

The preceding four disciplines work as part of a larger system. Systems thinking is defined as a knowledge of the system's interrelationships.

Systems thinking is a means of considering, characterizing, and comprehending the dynamics and interconnectedness that determine system behaviour. This field teaches people how to adapt more successfully and operate in a way that is more in sync with the natural and educational world's

greater processes. Teachers must understand their roles in assisting members of the organization in thinking in a systemic manner. "Simultaneous top-down/bottom-up methods must coexist and encourage one other," this suggests. Understanding their roles in the other four disciplines allows them to develop "the rarest, yet most important, element in effective transformation: top executives ready to suffer and change themselves." "Change is a journey, not a blueprint," organizations must realize. Members of the organization must understand that "change is required, growth is optional" in order to enhance their capacity to develop and change. Teachers must understand their roles in assisting members of the organization in thinking in a systemic manner. "Simultaneous top-down/bottom-up methods must coexist and encourage one other," this suggests.

The importance and effect of the campus administrator (principal, and occasionally assistant principal) on whether or not change occurs in the school is clearly recognized in the literature on educational leadership and school transformation. Fullan (1993) thought it was obvious that turning a school into a learning organization could only be accomplished with a great leaders' approval and energetic fostering of the every individuals growth as a community. As a result, seeing the principle of a school with a professional learning community on staff appears to be a good place to start when discussing what these learning communities may look like and how they work. In essence, systems thinking is a technique of thinking about and describing a perceived whole whose pieces "hang together" because they interact with one another through time and work toward a shared goal. Over time, the interactions of a system's constituents form patterns. Every person of the company must apply

abilities from the other four disciplines to change these relationships and behaviours. Individuals must adjust their habits in order to create new work flows and procedures.

Teachers plays a crucial role in a learning organization. They must encourage members of the organization's activities and develop democratic means to change. Change necessitates that teachers as leaders evolve alongside the rest of the organization's members. Because they are in a unique position in the education to view the broad picture, they must assist others in thinking systematically.

The preceding sections begin with tracing the idea from where the concept of learning organization was originated. The five disciplines of learning organizations were then described. Personal mastery and mental models are two disciplines that people in the organization practice; team learning and shared vision are two disciplines that groups of individuals (teams) or the entire company practice. Systems thinking connect all other four disciplines into a logical whole that allows for change. The five disciplines must be adopted and implemented by schools in order for them to become learning organizations. They have the potential to be very effective approaches for changing educational procedures and raising student achievement.

Apart from these essential disciplines contributing in schools as learning organizations. Leadership is a crucial aspect of a learning organization as it brings together the various components of the organization. Learning leadership is accountable for guiding learning, making learning process the primary focus of the school, and translating the shared vision into a strategy that aligns with the organization's goals and values. Learning leadership plays a central role in

the day-to-day activities happening inside school as a learning organization. School leaders model professionalism and support professional development, acting as "lead learners" and creating opportunities for the team. They extend their influence beyond the school's boundaries, promoting learning and development in the wider community.

According to organizational learning theory, leaders in the schools have an essential role in generating a learning environment and fostering organizational learning within the school. They are responsible for developing the necessary structures and systems that promote professional discourse, collaboration, and knowledge sharing, which are fundamental to school-based organizational learning. School leaders must also ensure that learning is at the heart of the purpose of the school and align its activities with its values, goals and vision. By participating in professional development as "lead learners" and providing opportunities for the members of the team, school leaders can model and support professionalism across the school and outside its limits. They must establish a secure and trusting atmosphere in which individuals may modify their behavior, take initiative, experiment, and realize that challenging the status quo is expected.

Leaders in the schools have a central role in fostering a culture of facilitating organizational learning. This involves not only structuring administration and other activities to promote proficient discourse, cooperation, and information sharing but also questioning ways of acting and thinking and habits. Being a learning organization requires flexibility and innovation, and school leaders need to be mindful of how they engage with their employees, particularly when there is resistance to change.

While dedicated leaders in the schools are critical to schools' performance as learning organizations, policymakers, and others are also essential. These leaders support professional growth, innovation, and school-to-school collaboration, as well as helping to communicate best practices. Schools functioning as learning organizations will endure to function in segregation (if at all) without government help for cooperation and collaborative learning.

5.4 Conclusion

Based on the results of the present research study following conclusions are extracted;

1. Present research study mainly aimed to compare urban and rural secondary schools functioning as learning organization. The reason for comparing urban and rural schools of Islamabad was that it is commonly considered that schools in the urban areas are more privileged as compare to the schools in the rural schools terms of quality teachers, infrastructure and other resources. Despite of these common assumptions this research study found interesting results. The Findings of the present research study revealed that there is no significant difference between the functioning of rural and urban secondary schools working under Federal Directorate of Education.

2. Another objective of the present research study was to assess the functioning of secondary schools as learning organizations. The reason of selecting secondary schools was that there was no study conducted in the context of Pakistan to assess secondary schools as learning organizations, however, studies have been conducted to see higher institutions as learning organizations. Public sector secondary schools of Islamabad were

specifically selected for the reason that being capital of Pakistan, Islamabad represents overall country. Schools under Federal Directorate of Education were worthy of study because of being in the Capital City of Pakistan.

3. As for as demographics of the study are concerned it is concluded that professional Qualification of most of the teachers was M.Ed. Female participants were more in numbers as compare to the male participants. A big ratio of teachers poses 11 to 15 years of work experience in the current schools. Teachers from urban secondary schools were 52.5% and teachers from rural secondary schools were 47.5% who participated in the present research study. .

5.5 Limitations

This research study has following limitations

I. To gather the data for the pilot testing of the present research study researchers converted the survey questionnaire into the Google form and shared it with the teachers in the urban and rural secondary schools working under federal directorate of Education. As due to the COVID-19 pandemic it was not possible for researcher to personally visit the schools for data collection. Pilot testing was done on around forty respondents.

II. The findings of this quantitative research study are contextualized as data was collected only from schools working federal directorate of education. So, these findings are only generalized and relevant to the above secondary schools.

III. Findings of the present research study shows that there is no

significant difference between the functioning of rural and urban secondary schools, as all the schools are working under federal directorate of education and getting same kind of facilities. Therefore, this limits the contradictory analysis.

5.6 Recommendations

Founded on the results of the present research study following recommendations are suggested by the researcher.

5.6.1 Recommendations for the stakeholders of education;

1. The findings of the present research study shows that both urban and rural secondary schools of Islamabad working under federal directorate of education are functioning as learning organizations. It is recommended to the stakeholders of education to maintain these results and keep transforming secondary schools into learning organizations.
2. It is recommended to the teachers to keep expressing their system thinking where they know their role and responsibilities in the school and also understand school system as whole. Teachers must keep it as priority that their teacher performance impact the overall system.
3. It is recommended to the teachers that they must keep reviewing their mental models. Where teachers continuously keep reflecting upon their actions. Teachers must keep assessing their selves through self-reflection. This is how teachers will be able to know how far they are appropriate for the current job and how they can give their hundred percent to the organization.
4. Teachers are the key components of any school system if they keep continuous learning process schools also keep continuously learn and become up to date. Without the continuous learning process of teachers, schools can never become

learning organizations. So it recommended to the teachers to understand the importance of personal mastery for schools to transform into learning organizations and keep lifelong learning process. The key focus of personal mastery is on the acquired knowledge and skills which can be applied to an actual situation.

5. It is recommended to the teachers that they must keep working in the teams and understand the importance of team learning. Where teachers share knowledge with the other team members and learn together. All the teachers must work as a team to achieve the school objectives and goal. The team learning of the teachers will help their schools to transform into learning organizations.
6. Every teacher is also a leader of his/her team so it is recommended to the teachers to keep reflecting upon them as a leader. Teachers are suggested to participate in the process of creating school goal and vision. Teachers are also suggested to align their personal goals with the school vision and goal. Teachers must understand the importance of school vision and work accordingly to achieve the school goal and objectives.
7. Head teachers of the schools are recommended to provide opportunities to the teachers to play their role in transforming schools into learning organizations as teachers are the key elements of overall school system. Teachers must be provided opportunities to professionally grow, to master the abilities and information obligatory for their job, to work in the team activities and to participate in the planning activities of school vision.

5.6.2 Recommendations for the future researchers;

1. To conduct present research study researcher limited its participants only to the teachers teaching in the public sector urban and rural secondary schools of Islamabad due to resources and time constraints. However, future researches can include other stakeholders of school education as well.
2. This research study was conducted in only public sector secondary schools of Islamabad. Future researchers can conduct similar study in the private sector secondary schools.
3. Findings of this research study revealed that the functioning of rural and urban secondary schools as learning organizations is very much similar to each other. This means that rural and urban secondary schools are functioning at same level of learning organization. So, future researchers can conduct similar kind of research to compare the functioning of public and private secondary schools as learning organizations.
4. To carry out present research study researcher used quantitative approach, as participants of this research study was only teachers teaching in both urban and rural secondary schools of Islamabad and data was collected from them using a survey questionnaire. Similar study can be conducted with mixed method approach, including head teachers as research participants by conducting interviews from them. This will make research richer in data.
5. Future researchers can conduct similar study in another context instead of Islamabad. Similar research study can be conducted to compare the functioning of urban and rural schools as learning organization in any of the province in the Pakistan. This will also help us know how far provisional schools of Pakistan are functioning similar to the schools of Islamabad working under federal directorate of education in terms of learning organization.

6. The present research study was conducted by choosing five disciplines model of learning organization developed by Peter Senge (1990) as theoretical framework of the study. Because the concept of learning organization was introduced by Peter Senge for the first time in 1990. However, future researchers can conduct similar study using another learning organization model as theoretical or conceptual framework of their research study.

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Appendix-A

NATIONAL UNIVERSITY OF MODERN LANGUAGES
FACULTY OF SOCIAL SCIENCES
DEPARTMENT OF EDUCATION

M.L.1-3/Edu/2021 Dated: 02-07-2021

To: Nadia Zameer Chang,
1786/MPhil/Edu/F-19

Subject: **APPROVAL OF M.PHIL THESIS TOPIC, AND SUPERVISOR**

1. Reference to Letter No, M.L.1-3/Edu/2021/, dated 16-02-2021, the Higher Authority has approved the topic and supervisor on the recommendation of Faculty Board of Studies vide its meeting held on 11 February 2021 & Board of Advanced Studies and Research dated 02-06-2021

a. **Supervisor's Name & Designation**
Dr. Saira Nudrat,
Assistant Professor,
Department of Education NUML, Islamabad.

b. **Topic of Thesis**
Secondary Schools as Learning Organization: A Comparative Study of Rural and Urban Areas

2. You may carry out research on the given topic under the guidance of your Supervisor and Submitted the thesis for further evaluation within the stipulated time. It is to inform you that your thesis should be submitted within described period by **31st July 2022** positively for further necessary action please.

3. As per policy of NUML, all MPhil/PhD Thesis is to be run on turnitin by QEC of NUML before being sent for evaluation. The university shall not take any responsibility for high similarity resulting due to thesis run from own sources.

4. Thesis is to be prepared strictly on NUML's format that can be taken from Coordinator, Department of Education

Telephone No: 051-9265100-110 Ext: 2090
E-mail: hod-edu@numl.edu.pk

Dr. Wajeeha Shahid
Head,
Department of Education

CC:

Dr. Saira Nudrat

Ms. Nadia Zameer Chang

Appendix-B

Academics Wing

F.1-107/2008 (Academics) FDE
Government of Pakistan
Federal Directorate of Education
****

Islamabad, the 15th September 2021.

All the Heads
Islamabad Model School (VI-X) (Boys/Girls),
Urban and Rural area, Islamabad.

Subject: **Request for Collection of Data For MPhil Thesis From Secondary School Teachers.**

I am directed to refer on the captioned subject and to say that Ms. Nadia Zameer Chang a student of M. Phil, National University of Modern Languages, Islamabad is doing research study on the topic **"Secondary Schools as Learning Organizations: A comparative study of rural and Urban areas"** requesting to visit your institution. In this regard you are requested to extend your cooperation regarding her research study.

2. The research scholar is required to forward a copy of thesis to Federal Directorate of Education after completion of the project.

3. This is issued with the approval of Director (Academics & Quality Assurance).

(ANJUM ZAHEER)
Deputy Director (Academics)
Phone #. 051-9261146

Copy to:
- **All Area Education Officer**
  Urban and Rural area, Islamabad.

Appendix-C

Certificate for Tool Validation

SECONDARY SCHOOLS AS LEARNING ORGANIZATIONS: A COMPARATIVE STUDY OF RURAL AND URBAN AREAS

By
Nadia Zameer Chang
M. Phil Scholar
National University of Modern Languages, Islamabad.

This is to certify that the Questionnaire for teachers (learning organization scale LOS) adapted by the Scholar to achieve her research objectives have been assessed and found appropriate for the data collection process. The learning organization scale is based on five dimensions of learning organization given by Peter Senge which are; System Thinking, Mental Model, Personal Mastery, Team Learning and shared Vision. All the 34 items in the tool are meeting the research objectives and addressing the research questions and research hypothesis. Face and content validity are also assured, the tool can be used by the researcher for the data collection process.

Validated by: _____
Designation: _____
Institute: _____
Date of Validation: _____

Appendix-D

Request for the Adaptation of Instrument used in the article "Validation of Senge's learning organization model with teachers of vocational high schools at the Seoul Megalopolis"

Add label

Nadia Zameer D/O... Jan 22

to joonho.park47

Greetings

Respected Sir,
I am Nadia Zameer Chang from Pakistan, doing Mphil Education from the National University of Modern Languages (NUML). Dear sir when I was going through the literature related to "learning organizations", I found your study titled "Validation of Senge's learning organization model with teachers of vocational high schools at the Seoul Megalopolis". The questionnaire and Model you used in your study is very informative and useful, and I think it could help me to complete my research study that is also related to "schools and learning organizations".
I hereby Request you to grant me permission to adapt your research instrument for the complition of my research study. I will be very thankful to you.

Kind Regards
Nadia Zameer Chang
MPhil Scholar
National University of Modern Languages, Islamabad

Appendix-E

Secondary Schools as Learning Organizations: A Comparative Study of Rural and Urban Areas

(Questionnaire for Teachers)

This is ***Nadia Zameer Chang*** M. Phil Scholar NUML Islamabad. I am conducting a research study titled as "**Secondary Schools as Learning Organizations: A Comparative Study of Rural and Urban Areas".** For the completion of this research study your participation is very important. I ensured you that the data collected from you will only be used for this research purpose and your identity will not be disclosed.

Part A: Demographic Information

1. **School Name: _____**

2. **School** | | | **Region:**

3. **Gender:**

4. **Professional**

	2		
			_____

Qualification:

5. **Work Experience in current organization: (years)**

	2			

Part B: learning Organization Scale (LOC)

Strongly Disagree: 1 Disagree: 2 Neutral: 3 Agree: 4 Strongly Agree: 5

S/n	Code	Statements	SD 1	D 2	N 3	A 4	SA 5
System Thinking: System thinking includes teachers understanding about school system and his/her role in it. It also includes teacher's consideration about impact of their teaching performance on the system.							
1	ST1	I attentively link my teaching practices with student's career development.	1	2	3	4	5
2	ST2	When I deal with different challenges occurred in school, I consider the effect on students.	1	2	3	4	5
3	ST3	When I suggest any change for organization, I prefer to align it with policies of government and the organization.	1	2	3	4	5
4	ST4	When I deal with the students discipline problem, I consider its impact on the organization.	1	2	3	4	5
5	ST5	When I change teaching practices, I consider its results on the organization.	1	2	3	4	5
6	ST6	When I develop lesson plan, I consider the different needs and abilities of students.	1	2	3	4	5
Mental Model: At the school, teachers continually reflect on assumptions about schooling; openly dialogue, share views and develop knowledge about each other's assumptions; and engage in their own work with flexibility.							
7	M1	I change old teacher center approach to new teaching and learning approaches such as student center approach.	1	2	3	4	5

8	M2	I actively explore assumptions and discuss ideas with each other about teaching practices.	**1**	**2**	**3**	**4**	**5**
9	M3	I am highly aware of how my own believes and perceptions affect my teaching practices	**1**	**2**	**3**	**4**	**5**
10	M4	I learn and change my teaching practices according to academic performance of students.	**1**	**2**	**3**	**4**	**5**
11	M5	I often use my previous experiences of the school or classroom to think about my own believes about education	**1**	**2**	**3**	**4**	**5**
12	M6	I often reflect on assumption about school activities with other teachers to insure that they are in-line with educational principles	**1**	**2**	**3**	**4**	**5**
13	M7	I am allowed to share my perceptions about teaching at the school.	**1**	**2**	**3**	**4**	**5**
14	M8	I reflect and inquire about appropriateness of my teaching to the teaching standards given by the organization.	**1**	**2**	**3**	**4**	**5**
Personal Mastery: At the school, teachers expand personal growth and capacity by having a strong desire to improve professionally, engaging in continual learning, and focusing on the future vision in order to make choices about their development.							
15	P1	I continuously work to achieve professional goals at the school	**1**	**2**	**3**	**4**	**5**
16	P2	I engage myself in continuous learning and reflective activities as to achieve professional & personal growth.	**1**	**2**	**3**	**4**	**5**
17	P3	I keep assessing myself as a teacher in the light of organizational goals.	**1**	**2**	**3**	**4**	**5**
18	P4	At the school, I continually learn the strategies/techniques to fill the gap between my current professional status and the desired future goals.	**1**	**2**	**3**	**4**	**5**
19	P5	I make efforts to achieve required skills and knowledge in my teaching subject area.	**1**	**2**	**3**	**4**	**5**
20	P6	I have learning opportunities of professional development at my school.	**1**	**2**	**3**	**4**	**5**

Team learning: At the school, various group or team activities are encouraged to address schooling issues or teacher's professional work; teachers become committed to, skilled at, and involved in collaborative work.							
21	T1	I share information of course, subject and grade levels with other colleagues.	1	2	3	4	5
22	T2	I participate in open and honest conversation to share my best teaching practices.	1	2	3	4	5
23	T3	I am treated equally in team or comity activities.	1	2	3	4	5
24	T4	I believe that sharing information and knowledge through team activities is useful for solving complex school problems.	1	2	3	4	5
25	T5	I respect other colleagues ideas and opinions by viewing them from my colleagues perspective	1	2	3	4	5
26	T6	I feel free to ask questions from other teachers or staff regardless of gender, age, and professional status at the school.	1	2	3	4	5
27	T7	At the school, group or team tasks are being used for the professional development of teachers.	1	2	3	4	5
Shared Vision: Vision and goals of school are planned and created through a process of shared commitment, participatory activities, and consensus of all school members including students and parents; and a teacher's personal vision is aligned with the school vision and goals.							
28	V1	I along with my colleagues together built the school vision and goals	1	2	3	4	5
29	V2	I develop my professional goals to align with the whole school vision or goals	1	2	3	4	5
30	V3	I am committed to share vision/goal for the future of school	1	2	3	4	5
31	V4	I align personal class or teaching goals with the school vision and goals	1	2	3	4	5
32	V5	I agree on the principles necessary to achieve the school vision	1	2	3	4	5
33	V6	I feel comfortable in sharing ideas with other teachers about the school vision	1	2	3	4	5
34	V7	When changing teaching practices I consider its impact on the school vision and goal	1	2	3	4	5

STAY BLESSED