

**COMMITMENT TO ACHIEVEMENT  
PATH: LINKING SCHOOL LEADERSHIP TO  
STUDENT OUTCOME IN INDIA**

SUBMITTED TO THE NATIONAL INSTITUTE OF EDUCATIONAL  
PLANNING AND ADMINISTRATION, NEW DELHI.

IN PARTIAL FULFILLMENT OF THE REQUIREMENT FOR THE  
DEGREE OF MASTER OF PHILOSOPHY (M.Phil.)

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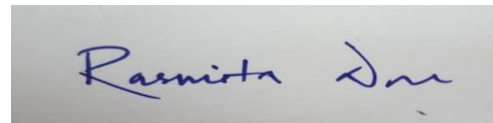
This is to certify that the M.Phil. Dissertation being submitted by me on the topic entitled **“Commitment to Achievement Path: Linking School Leadership to Student Outcomes in India”** has been completed under the guidance of *Dr. Rasmita Das Swain*. It is declared that the present study has not previously formed the basis for the award of any Degree, Diploma, Associate Fellowship or other similar title or recognition to this or any other University.

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## CERTIFICATE OF THE SUPERVISOR

This is to certify that the study entitled “**Commitment to Achievement Path: Linking School Leadership to Student Outcomes in India**” is the work undertaken by Mr. SOMNATH ROY under my supervision and guidance as a part of his M.Phil Dissertation in this Institution. To the best of my knowledge, this is the original work conducted by him and the Dissertation could be sent for evaluation.

A rectangular box containing a handwritten signature in blue ink. The signature appears to be 'Ramita Das'.

Supervisor's Signature

## **ACKNOWLEDGEMENTS**

I express my sincere gratitude to my supervisor Dr. Rasmita Das Swain for her inspiring guidance right from the conceptualization of the research theme to the successful completion of my dissertation work. I am highly indebted to her for her constant support and encouragement. Without her able guidance I would not have been able to steer through the technical intricacies of my research work. She has always been supportive and generous to me. Her understanding, untiring advice, and encouragement have made my M.Phil research endeavor a wonderful learning experience. She helped me in locating answers to this research problem and her positive attitude towards life has always been a source of inspiration during this difficult time of COVID 19 pandemic.

I am grateful for Department and the support and guidance of Prof. Pranati Panda, Head of the School Standard and Evaluation, NIEPA.

Prof. Vineeta Sirohi, Chairperson, Steering Committee, NIEPA has as always provided us students with a stimulating academic environment. Her timely reminders have helped me in completing my dissertation in a time-bound manner.

Most importantly, I would submit my humble gratitude to our Vice-Chancellor, Prof. N.V Varghese whose vision and endeavors for excellence have inspired us all to perform to our best.

I would also like to thank the library staff of for their kind co-operation. I would like thank to Mr. Madan Mohan and Mr. Yatish who helped me a lot to understand the Shaala Siddhi Data set and taught some basic statistic in excel for running some fundamental report of Shaala Siddhi Dataset. Lastly, I would thank my family members, especially my parents and colleagues who have been a pillar of strength at all moments. Without their support this research would have not been possible.

Somnath Roy

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## **List of Abbreviation**

1. SL- School Leadership.
2. SOC- Student Outcome.
3. OUR- Quality & Usability of Resources.
4. MTPP- Managing Teacher Performance & Professional Development.
5. ISH- Inclusion, Health & Safety.
6. PCP- Productive Community Participation.
7. TLA- Teaching-Learning & Assessment.
8. SEM- Structural Equation Modeling.
9. BVSD- Building vision & setting Direction.
10. LCI- Leading change & improvement.
11. LTL- Leading teaching-learning.
12. LMS- Leading management of school.
13. LA- Learners' attendance.
14. LPE- Learners' participation & engagement.
15. LP- Learners' progress.
16. LPD- Learners' personal & social development.
17. LATTA- Learners' attainment.

## CHAPTER-1 INTRODUCTION

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### **1.1 Introduction:**

School leadership is an essential feature in the school effectiveness discourse for creating and sustaining “functional” schools (Robinson, Lloyd, & Rowe, 2008). School leadership focuses on building a school-wide collective emphasis on student learning, high intellectual quality with teaching-learning at the center of dialogue among the entire school community (Newmann & Wehlage, 1995). The School head, who is more committed to the values of school and towards its teachers, is more likely to work harder to achieve school goals. The sustainable learning outcomes are a result of a complex interplay of school leadership, school processes, and the context in which it operates. Learning outcomes, however, is thought to occur as a result of students’ interaction with teachers, other students and the curriculum, but the link between these factors is not established with concrete statistical evidence. The school leaders are playing a role in managing mediating pathways and tried to influence those factors which are being recognized as a means of student fruitful learning outcome. There are several factors like professional learning community, local community, teacher-leadership, conducive learning environment, adequate resource etc. are responsible for learning outcome. When these all sorts of means are well foster by any school leader and make a turnover into their student outcome, are able to summon as a quality school leadership. Therefore, it is well accepted that school leadership is one of the crucial standards of any school to improve and make progress in their students’ outcomes. Many countries are often strived to enhance their school leader’s quality to manage and adjust to the rapidly world-changing demand. Almost in every country, various approaches have been adopted, such as decentralization, making an autonomous decision in school by school heads, and fostering a professional learning community. At the same point of time, it is also required to improve the pupil outcomes. Most of the literature is had been reported that there is no direct relationship between the school leader and student outcome. If the students of any educational institution are failed to achieve higher attainment in their score, then the question arises on school leader and on the teacher that school head or principal is less capable of manage their job or unable to perform his/her leadership effectively.

Therefore, playing a significant role in improving the student outcome is foremost requirement of any school leader. However, school heads are bound with their commitment to achieve their leadership goal. And from the other perspective student learning outcome is not an independent factor; rather, it is the dependent factor on which various input or explanatory variables are playing a role to affect. These explanatory variables are often understood as human resource management and material resource management, which are really accountable for student outcomes; if it is effectively managed otherwise, it leads to poor achievement in student. The school leaders are not only committed to teaching but also committed in their student mastery, study habits, and culminating to the academic results. Therefore, there is a link between school leadership and student outcome. In this study, the researcher aims to examine the different paths that have been adopted by the school head to improve the student outcome.

## **1.2 School Education System in India:**

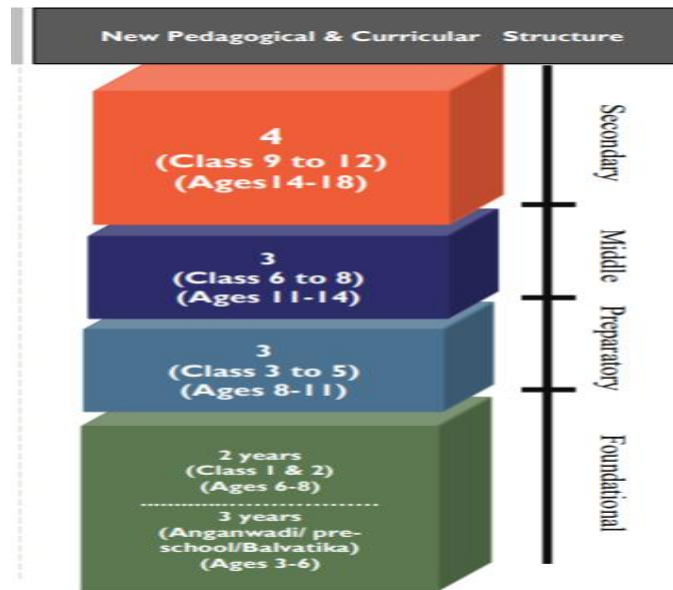
The education system in India is mainly influencing by its demographic variable and its culture. Therefore, the nature of the education system is not uniform. In the ancient period, there were informal resident school, and the formal schools were started from the British period. After the independence, there were educational disparities and imbalance seen in the school education system in rural and urban, male and female. Keeping in view this imbalance in the school education system, the national structure of school education was given by the Education Policy of 1986. Thereafter, the various types of schools and patterns of practicing school education are different in few states of India. There are government management schools, private management schools and central management schools. Among these schools management systems, there are various types of schools seen in India today, such as residential school (Navadaya schools, JNV schools, Ashram Schools, etc.), geographically diversified schools like dessert area schools, schools near factory area, Border area schools, hilly areas schools. There are different various cultural groups in India, like Bangali, Kanada, Telugu, Tribals, etc. Hence, there are multicultural and multilingual groups that influence schooling content, method and structure of the education system. In the Karnataka state, the pattern of a school system is a Sate pattern, and they did not follow the CBSE pattern and they followed class I to IV as a lower primary stage (Shalmani, 2014). The Class, I to IV as lower primary grade is also practice in various states such as West Bengal, Assam, Goa, Gujrat, Kerala, Maharastra, etc. whereas some of the states are practices class I to V as a primary state such as

Andhra Pradesh, Bihar, Himachal Pradesh, Delhi, Orissa, Jammu & Kashmir, etc. The variation in the lower primary school stage is seen in India.

In 1855, there were 2810 primary school, and 281 secondary schools and it crossed 1.5 lakh schools in 2018-19 Schools (Ages, n.d.) The incremental growth in establishment schools catches the attention of management and governance school education. The constitution of India declared that education is the responsibility of both states and central (1976 amendment, under article 42). However, for more transparent management and governance of school education, the local community participation in the school management is made mandatory in RTE (2009). **The constitute of school management committee, according to RTE act (2009)** clause 21(1), shall be established in all school across the country in primary and upper primary school. Formulation of school management committee should be consisting of the elected representative from the local communities, parents of the children admitted in such school, and teachers provided at least three fourth of members of such committee shall be parents and also maintain a proportionate representation of those parents whose children belonging from the disadvantaged group and weaker sections of the society along with that 50 % woman member are should be present in such committee. The RTE act clause no. 21(2) contain some function of SMC in the given below respective manner.

- a) Monitor the working of the school.
- b) Prepare and recommend school development plan.
- c) The grants received from the Government/local authority or any other source should be monitor and utilize accordingly.
- d) As may be prescribed for other function, SMCs should work in that way.
- e) The Indian school education system is widely managed by local communities for ensuring quality education and for maximum student development (Shrivastava, 2019). There is another measure to better governance of school education is that school complex where a group of elementary, secondary, and training school is club together. The management system of Indian school education is very dynamic and needs effective school leadership to cultivate in the upmost manner.
- f) Recently, the Indian school education system received a second wave of change in the academic structure after the existing 10+2+3 academic structure (1986 NEP). According to the New Policy of Education, the new academic structure is five years of foundational stage, three years of preparatory stage, three years of middle stage,

and four years of the secondary stage which 5+3+3+4. This new academic structure is graphically depicted in NEP 2020, and it is paste in given below.



**Fig:1 New Academic structure of Indian education system.**

Source: NEP, 2020

### 1.3 Leadership in Education:

Educational Leaders are the most powerful and precious individuals in an educational setup. Educational leadership is the more complex and challengeable job in this complex world. They encounter multiple challenges arising in different levels of education system and mostly found that many educational leaders found themselves in an increasing stressful vein and fewer seeking ways to lead the organization effectively. The educational leaders are performing their role and responsibilities or devote themselves to lead the organization and achieve desirable outcomes for which educational institutes serve or exist in society. They keep on busy to set learning community, provide and ensure greater practices suitable for student learning, developed professional community and seeking innovation for sustainable learning and for better learning outcome; educational leader takes advice form the parents, teachers, community and from students, and adjust with their cultural, ethical boundaries and engage in collaborative/collective decision-making process and exert instructional leadership to the teachers and other stakeholders to achieve certain goals (Shields, 2004; Bottery, Ping-Man & Nagi, 2018).

Various researches are on the educational leader that includes a wide range of knowledge spectrum and leaders practices across over culture of various countries (Beaudoin, 2003; Bush, 2007; Sellami et al., 2019). The intention and rationale of making these statements prove the nature of educational leader are same across culture. Their scopes of actions are also quite similar to that of other countries and it varies with the given situation in a school context. The contingency leadership theory demands situation and depends on various situational task nature, leaders are enacts different leadership styles such as distributive style, collective, instructional etc. The conceptualization of educational leadership has shows five essential qualities that ensure a good and effective leader: affective qualities, action orientation, mentoring & empowering qualities, teaching excellence, and research and scholarship. In an affective domain, educational leaders show respect and empathy to establishing trust. Action orientation shows taking risk abilities, facilitating long-term transformation, creating and implementing new teaching-learning projects. Helping their colleagues and strengthening teachers teaching and students learning practices, sharing resources, building capacities and growth all are done through leaders mentoring & empowering ability. The teaching excellence is for facilitating student learning means enabling and empowering student and research & scholarship helps to applying & disseminating scholarship in teaching learning and do research (Fields et al., 2019). Another theory of leadership (Transformational Leadership) focuses on how leaders exercise their influences on other colleagues and help to define leader follower relationship. Burns' theory (1978) of transformational leadership, exhibits the leaders' engagement with staff in a way that inspires them (leaders & staff) with new level of energy and with commitment as well as moral purpose. This was often argued that new level of energy and commitment has a base of transforming the organization by developing organization's capacity and promoting a collaborative professional learning environment (Robinson, Lloyd & Rowe, 2008). Therefore, the base of achievement-oriented leadership is hidden in the Burns' theory of transformational leadership because super engagement with staff increases the staff's higher expectations and inspires them to do work passionately. The Path Goal Theory of leadership depicts the four type of leadership style: directive leadership, participated leadership, supportive leadership, and achievement-oriented leadership (Famakin & Abisuga, 2016). Achievement-oriented transformational leadership directed towards excellent performance by motivating staff, seeing encouragement in leaders to set challenging goals to perform and it also depicts the supportive style by developing a team work. By doing research on leaders in



educational setting, researcher establish various theories of leadership but all theories are work together which scholar community will agree. All theories or models of leadership are used by an individual as an adjective leadership model (Leithwood & Louis, 2012). Hence, the simplest definition of educational leadership is an exert influence by an individual over other individual or group of individual in an education set up to thrive against their educational institute upliftment.

#### **1.4 Historical overview of school leadership in India:**

The concept of school leadership is defined as school heads or school principal who occupied a central role in school organization. In India, the school principals appear in the British periods during the Macaulay system of the formal school system (Saravanabhavan, Pushpanadham, & Saravanabhavan, 2016). The school principals are used to perform various responsibilities and are supposed to work under a wide range of diverse contexts where people are coming from different socio-economical & geographical backgrounds. The school heads are in India found that they are mostly indulging themselves in day-to-day administrative affairs and to managing scarce resources to give quality of education. A day of school heads start with guiding & enlisting talented people who are work under the school head, and charges teachers, parents and students energy to achieve a quality of education. Establishing healthy relationships in organization and providing quality education demand to perform so many duties. Therefore, Indian school heads are bearing vast responsibilities (Spillane, 2009). Hence, it is required to train them with adequate skills so that they can handle their job. There is programme of leadership training running by NIEPA, NCL. The programme name is The School Leadership Development Programme and it offered eight foundation courses for school heads. These courses are Perspective on School Leadership, Developing Self, Transforming Teaching-Learning Process, Building & Leading Teams, Leading Innovation, Leading Partnership, Leading School Administration, and Consolidation & Drawing School Development Plan (SLDP, 2021; <http://pslm.niepa.ac.in/> ). In 2014, NIEPA were used to run five courses now it includes three more courses which indicates that school leaders in India still needs greater attention. The Indian school leaders demands systemic training with adequate resources and manpower to transact quality education. From the British period to today, most Indian schools heads are facing so many challenges and work load and strive to pursue their job; these nuances emerge from various policies where initiatives or premises are made like school complex, local governance through community

participation. The NEP (2020) mentions that school heads are burdened with administrative work and in a school like single teacher is very much harder to continue teaching-learning in school. The historical landmarks enlighten us that school leadership in India is still striving to achieve hundred percent training, get each school head good quality, and use of resources to support their student learning.

School leadership comes into existence in 20<sup>th</sup> century when the United States school demanded high level of people outcome. Prior to 20<sup>th</sup> century, various commission and policy mandates accepts the importance of school heads as a prime character in the school but no specification of role and responsibilities were made. The Mudaliar Commission (1952-53) envisioned that effective school organization school heads actions that are practice over teachers, students and communities. It is the school heads capacity to develop an effective organization. The report of Kothari Commission has dictated the same notion. According to 1964-66 commission report, the role of the school head is more significant to enacts influence on newly recruited teachers by planning such suitable activities like staff study and group discussion. The National Policy on Education (1986) mentioned that teacher should have skills to perform multitasking such as teaching, extension and managing schools. The successful school leaders are those who perform their duties beyond their formal boundaries and inspiring their teams with positive vision and work pattern to achieve maximum school output (Sadique, 2016). The research conducted in India and abroad illustrates that school heads can practices instructional, distributive leadership practices (Razavi, 2009; Dutta & Sahney, 2016). More or less school leadership in India on name of school head or principal has no specific guideline of performing their duties and responsibilities except RTE act 2009. The RTE act gave some duties in clause 24 for school teachers which are as

- a. Teacher should maintain regularity and punctuality in attending school.
- b. The Teacher should conduct and complete the whole curriculum within given time period.
- c. Teacher should assess the learning of each child and accordingly plan additional instruction.
- d. Teacher can hold meeting regularly with parents and guardian to apprise them about their children progress, learning, and other relevant information.
- e. A teacher can perform disciplinary action if any teacher found to fail prescribed action.

The RTE rules specifies that in where 150 students, there must be five teacher, and one teacher whereas less than 150 teachers, there senior teacher could take as a head teacher. However, RTE act did not specifies any direct role and responsible for head teacher; entrusts significant power in the hand of head teacher (Shukla, 2016).

The school Heads are enacts their leadership being a secretary in the School Management Committee. The RTE mandates local governance in the school by community members. Hence, school heads are bound to call meeting to discuss tasks like discussing school development plan, managing working condition of teacher and discuss the budgets/grants needed for school improvement. The school leadership in Indian school is seen as a post of school head and being a head of the organization need to provide administrative and instruction leadership. Instructional leadership exhibits framing school goals, setting vision, construct & develop curriculum, and developing teacher capacity. The instructional leadership of school head is strongly associated with school organization and according RTE mandates Indian school heads are culturing organizational climate (Razavi, 2009). But, School heads more busy with administrative work rather than to involve in teaching-learning process (QES, 2011). The National Policy Education (2020), accept teachers work load due to non-teaching activities and expecting from school heads to developing care & inclusive culture in their school. NEP (2020) dictates school principal and school complex leaders have 50 hours of Continuous Professional Development (CPD) modular leadership/management workshops, and online development opportunities. This platforms gives continuously improvement opportunity to school heads for their own leadership skills, and so that they may share best practices with each other. New Policy claimed that new set of guiding national professional standards for teacher will develop by 2022. The school leaders in India are working in a very wide range of context which needs to set in one format for whole nations.

### **1.5 Historical legacy of student outcome in India:**

After independence, the Education Commission (1964-66) was established to formulate a coherent education policy in India, and the focus of learning outcome was a manpower approach to cater to the needs of the industrial and other sectors and eradicate the illiteracy across the nation. Though the pillar of the 1968 policy was the Kothari commission, the same focus of learning was carried out and tried to reduce the prevailing 'wastage' and 'stagnation' in schools and ensure that every child is enrolled in school and successfully completes the

prescribed course. In 1986, the Indian education system was on a crossroad, tried to identify the challenges of education on which they suggested a national system of education (10+2+3) and education system was seen as equality and that time as such learning outcome had not been conceptualized in a holistic manner except language development because they were busy to introduced three-language formula and focusing on quality, equality, and access of education across the nation. And the 1st initiative was POA through which they were intended to implement the 1986 policy's objective. The SSA aims to improve enrollment, retention, and quality of education to enable children to achieve grade-appropriate learning levels. The RMSA was talked about the integrated child development but there is no specific dimension mention about learning. The DPEP is focused on enrolment and retention of the learner because it's a national level initiative. There is various intervention taken by both state and center to enhance the teaching and learning in Indian. The ASER report and NAS report exhibit the learning deficit in India. And its reason for learning deficit was addressed by Rukmini Banerji (2019), she was done extensive student-focused research in 2019; she said the curriculum was not suited to the student skill level, outside school space is not given enough value, discouraged in teachers and parents lead to disinterest in students. Now, New Education Policy (2020) came up with a new structure and emphasized that children will also know 'how to learn,' higher-order cognitive learning, creativity, fundamental capacity.

### **1.6 Operational definitions of the study:**

**Commitment to Achievement Path:** The commitment to achievement path indicates the leader's commitment to leadership roles, responsibilities and vision for learning in the school can affect student outcome. School head lead teaching -learning processes to ensure a quality learning experience and enables students to meet expected learning standards by fitting the school's capacity and resources. When the school leader is able to practice establishing goal, maximum expectation from teacher, resourcing and planning strategically, coordinating and evaluating curriculum, promoting and participating in teacher professional development by involving in teacher learning and ensuing a supportive environment in school then the maximum student learning achieved (Robinson, Lloyd & Rowe, 2008). In Indian schools, the school head are doing school feeding/Midday Meal (Chakraborty & Jayaraman, 2019) for retaining student attendance, managing resources, monitoring teacher in some sort and sometime visiting class room, community participation and administrative work for enhancing student learning outcome. The school leaders are always in treadmill and they are

the change initiator, similarly the behaviour is also changeable from novice school principal to experience principal.

**School Leadership:** According to Katz and Kahn (1978, 528), leadership involves an “influence increment” that goes beyond mechanically complying with one’s role in an organization and routinely applying rewards or coercive power (cited in Lord & Maher, 1993). The main argue is that influence increment is a ability of a leader that go beyond one’s formal role which will determined how a person or individual is perceive by others. This means that if a person is perceived by others as a leader then he or she has exerted more influence on them. Based on this logic, it is clearly define that leadership is the process of being perceive by others as a leader (Lord & Maher, 1993).

The term **school leadership** defines the competencies and skills of a school leader in delivering quality school performance including optimizing learning outcome of students’. The school leadership conceptualized as school head, occupying leadership position, their performance in managing enabling learning environment through diverse path to optimize student outcome. The diverse and dynamic paths can be school related processes can be enabling resources of school: availability adequacy and usability, teaching- learning and assessment, learners’ progress attainment & development, teacher performance & professional development, inclusion, and productive community participation which are used in school campus under the supervision of school leader and through their management.

**Student Outcome:** The term student outcome include not only the academic learning but also student development as the ways, a student grows, progresses, or increases his or her developmental capabilities as a result of enrolment in the school. There are differences between Student outcome and learning outcome. The student outcome as a complex and multi-dimensional construct composed of dimensions- 1. Cognitive outcomes which is includes verbal knowledge, knowledge categorization and cognitive strategies; 2. Skill-based outcomes include skill compilation and automaticity and finally 3. Attitudinal outcome includes attitudinal and motivational outcome (motivational disposition, self-efficacy and goal setting. Learning outcomes cannot be seen as achieved in a linear manner and are also not dependent on the content given in the textbooks but are linked to curricular expectations and process. The School as a formal institution of learning imparts processes of learning to develop skills. The assessment of learning informs the level of learning by taking into consideration learners’ characteristics, learning environment and teaching-learning

experiences. Learning outcomes cannot be achieved in isolation as it is interconnected with the process of learning. The process of teaching and learning requires a dynamic framework of knowledge and an understanding of cultural, social, and linguistic makeup of the learners. The process is neither static nor prescriptive rather it demands flexibility in pedagogical processes embedded in linguistic and cultural diversity for effective learning. Outcome based assessment is indicates a process that must have been aligned with the learning outcomes/ student outcomes.

Learning involve changes involving abilities, attitude, belief, capabilities, knowledge, mental models, skills that tend to be persist over time and learning may not be effective always on achieving desired outcomes, whether continuous, intentional or unintentional (Spector & Davidsen, 2006). Learning outcome is such type of outcome which states what learner knows and understand or able to do after completion of learning process. This covers the spectrum of knowledge, skills and competences of students which flourish through learner process (Crespo et al., 2010, April). Murphy.et.al in 2007 narrate that learning outcome is depends on instruction, curriculum, teaching and learning and then other school factor such as administration, management and finance are able to perform smoothly to enhance the student learning outcome. In this core change, leaders are performing different leadership such as situational, charismatic, transformational and collaborative etc for improving the student learning outcome in their organization (cited in Adams & Yusoff, 2020). Effectively practice leadership in the schools are largely dependent on the awareness of school context (Hallinger & Heck, 2011) and outcome of the leadership is also influenced by school context felt by situational leadership theory (Thompson & Glaso, 2015). Therefore, it is the leader's duty to be aware with their organizational context or dynamics of the situation on which leaders' himself and along with their organizational employees can improve their skills and confidences. Another theory of leadership named transformational leadership is belief in motivate teacher and students by familiar with their organizational goal in one word enhance their consciousness about organization (Sun & Leithwood, 2015), not only that transformational leadership is also cultivate the capacity building and higher level of teachers commitment towards their organization which led to maximum productivity in the organization. The instructional leadership is also widely and deeply indulges in teaching and learning to improve student achievement (cited in Adams & Yusoff, 2020). The school leader as well as teacher are involves transformation of ingrained and required to shift their paradigm to break through and replace their past thinking for understanding of new role

(Shepherd, 2018) means there is room or need to further investigate leader's role in learning outcome by discover or address the factor, challenges in school leadership in 21<sup>st</sup> century. In this study, the specific indicators of learning outcome are conceptualized in the following fashion.

- I. Learner progress.
- II. Learners' participation and engagement.
- III. Learners' personal and social development.
- IV. Learners' attainment.
- V. Learners' attendance.

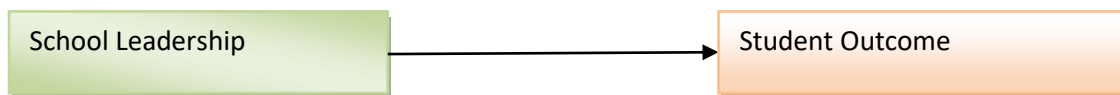
### **1.7 Rational of the study:**

Educational leadership is the process of guiding or influencing other people like teacher, students and parents and manages their energies to achieve certain common institutional goal. The school leadership came into existence in the last 20<sup>th</sup> century to meet the demand on school for higher levels of pupil achievement and school were expected to improve and reform. These expectations were accompanied by calls for accountability. Hence, the *educational or school leadership* have become popular and replaced the *educational administration* because the school leadership conveys dynamism and pro-activity. The school principal and the head master are recognized as a school leader whose responsibility to go beyond their spectrum of work and make the change in their organization by removing the resistance. The effective school principals use teacher leadership to improve the school learning climate and as well as school effectiveness while they work directly on professional development and school program coherence (Sebastian, Allensworth, Huang, 2016, 2017). Therefore, it is necessary to understand that how school principal or school head involve in the leadership system to improve the school process and student learning and how far they are able to remove the learning crisis (ASER report 2019 shows India's learning crisis is continuing in India). It is often seen that principal are heavy work loaded and most of them are getting retired soon and its harder to replace them and new comers are afraid with this workload, less training, less career prospect, inadequate support etc. (Pont, Nusche & Moorman, 2008). Therefore, in a country like India in what extent school principal are ready to influence on student outcome or able to make positive change and improvement in this student learning domain are very much required to understand. So, keeping into consideration

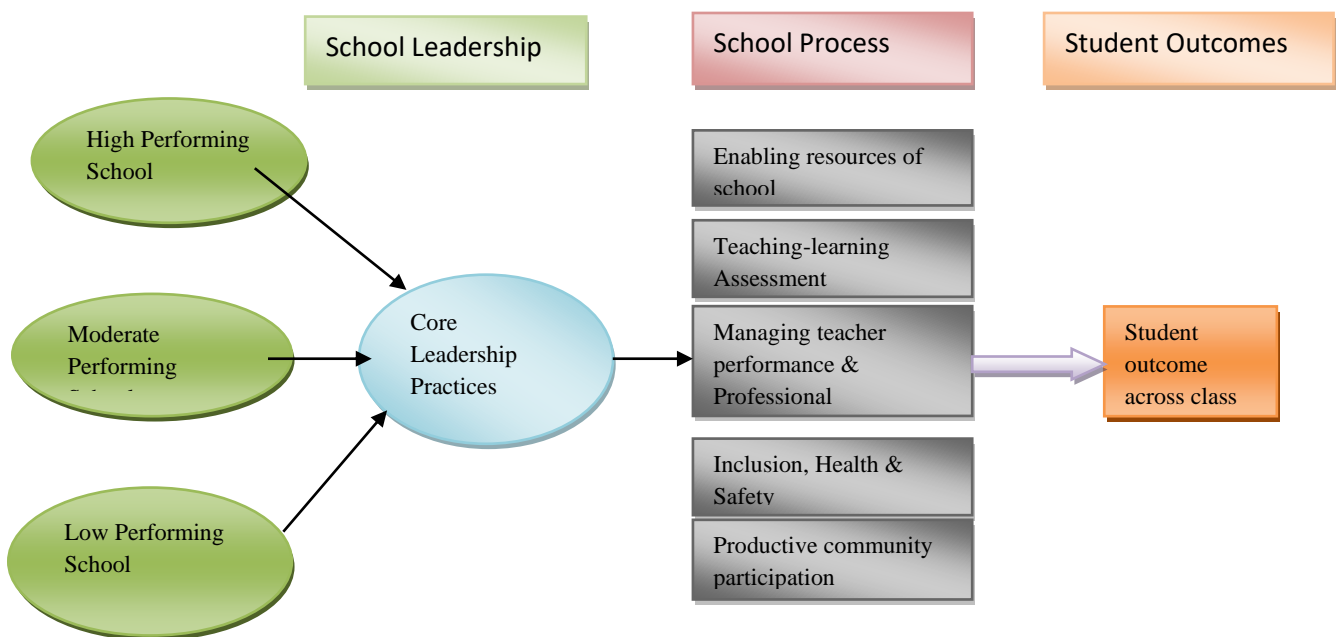
the present scenario, the research would be carried out to explore this domain of knowledge further through my M.Phil research work.

### 1.8 Conceptual Framework for school Leadership and Student outcome:

Much of the studies are had been done as a relationship between school leadership or administrative leadership and student learning outcome. Often sometimes it is seen as bivariate statistical model and results are come out from case study and cross sectional data set but it is not well established in any studies that what different and diverse or dynamic path are adopted by the school leader to influence student learning or for making more student outcome in school. Nevertheless, it is understood from the literature that theoretical and empirical evidence of principal effects on student learning in terms of school context are not studied in a whole and especially in India. As a theoretical framework of this proposed study, the “*effect model of principal on teaching and learning*” is undertaken (Pitner, 1988). She identified five effect among them Direct effect model will be used in this study that is



This effect model is conceptualized in this proposed study in this way.



**Fig: 2 School Leadership and school process as pathways for learning outcome.**



Source: Self Developed by the researcher through extracting the knowledge from literature.

### **1.9 Significance of the study:**

The school leadership is the prime role in school organization to enhance the student learning outcome through various practices and through some school variables. The school leadership is conceptualized in this study as school head who are always found them in a stressful situation because of heavy duty and along with not having any professional development course. This present study has served the exact and most effective practices or path through which school head can improve the student learning. The exact action of school head can build the trust in teacher and help to perceive their leader as an effective school leader. Simultaneously, it is help to promote positive source for student engagement and participation in teaching-learning. It is reported that there is a learning crisis in school and most of school head are not able to come up with a single school development plane. Therefore, core practice of leader can facilitate teacher to establish effective teaching tactics in classroom set up. The status of school in Indian are mostly lies in average state in the domain of school leadership and in student development. The statistic of Shaala Siddhi unit shows that 31.38 percent schools are high performing, 41.80 percent schools are in moderately performing, and 26.82 percent schools are low performing in India. Hence, schools in India are strive to be performing better, and in this vein development of school leader is most crucial factor. This study was done thorough analysis school leadership and student outcome in Indian and on Delhi to grab the scenario of whole school education system in India. Today, Indian schools are standing on cross road where the prevailing education structure is replace by new structure and this study is significant to implement the changes in school sector which is announced by our Indian government through New Policy of Education (2020).

### **1.10 Objectives of the study:**

The objectives of this study are as follows

1. To understand the school leadership and students outcome across high, moderate and low performing schools in India and specifically in Delhi.
2. To Study the school leadership and students outcome in high, moderate and low performing schools across primary, upper primary, secondary and higher secondary schools in India and specifically in Delhi.

3. To understand the relationship between school leadership and student outcome in high, moderate and low performing schools in India and specifically in Delhi.
4. To identify the multiple pathways mediating between school leadership and student outcome.

### **1.11 Hypothesis of the study:**

1. There will be no significant difference between school leadership performance and student outcome across high, moderate and low performing schools in India as well as in Delhi.
2. There will be no significant difference between school leadership performance and student outcome across high, moderate and low performing Primary schools in India as well as in Delhi.
3. There will be no significant difference between school leadership performance and student outcome across high, moderate and low performing upper primary schools in India and specifically in Delhi.
4. There will be no significant difference between school leadership performance and student outcome across high, moderate and low performing secondary schools in India and specifically in Delhi.
5. There will be no significant difference between school leadership performance and student outcome across high, moderate and low performing higher secondary schools in India as well as in Delhi.
6. There will be no significant difference between school leadership performance and student outcome across Primary, upper primary, secondary and higher secondary schools in high performing schools in India, especially in Delhi.
7. There will be no significant difference between school leadership performance and student outcome across Primary, upper primary, secondary and higher secondary schools in moderate performing schools in India and specifically in Delhi.
8. There will be no significant difference between school leadership performance and student outcome across Primary, upper primary, secondary and higher secondary schools in low performing schools in India and specifically in Delhi.
9. There will be no significant positive relationship between school leadership performance and student outcome across high, moderate and low performing schools in India as well as Delhi.
10. There will be multiple path for student outcome.

### **1.12 Variable of the study:**

**Exogenous/Independent Variable-** School Leadership

**Control variables-** location (India and Delhi), school performance (high, moderate and low) and school level (primary, upper primary, secondary and higher secondary).

**Mediating variables-** Enabling Resources of school, Teaching -learning Assessment, Managing Teacher performance and professional Development, Inclusion ,health and safety and Productive community participation

**Endogenous/Dependent Variable-** Student outcome.

### **1.13 Delimitation of the study:**

The present study is limited on following points which are as follows

- a. The present study based on school leadership performance and it is limited only on school head not included state coordination, district coordinator, block and cluster level officials. The schools are the focal point.
- b. This present study is limited to secondary large scale database of Shaala Siddhi (<http://shaalasiddhi.niepa.ac.in/> )
- c. This study is about all India School performance as well as of state Delhi.
- d. The time period of secondary data is 2018-2019.
- e. This study is limited to the 7-key school performance domains as per School standards and evaluation framework.
- f. The data is based on large scale data on school performance in India, hence the inferences can be generalized for India.

## **CHAPTER-2**

### **REVIEW OF LITERATURE**

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#### **2.1 Introduction**

Review of related literature is an essential part of the any research work. It functions as an important pre-requisite to actual planning and execution of good piece of research work and it acts like bridge between the proposed research and the studies already done. Review of related literature helps an investigator to eliminate the duplicity of what has been done and project provides useful hypothesis and helpful suggestions for significant investigation. A review of earlier studies on services of college library is necessary to have a wide view to purpose this study area. The facts and finding are useful to go in depth and to explore the unknown areas of this problem. Many authors have dealt extensively what type of school leadership are important factor to support students learning outcome and what core leadership practices are important to study the link between leadership and student learning outcome. This will help us to know about unexplored areas and make a analysis them in depth. The review of literature done in this chapter based on the variables used in this student. This chapter divided on following sub section or sub themes.

#### **2.2 School leadership.**

#### **2.3 Learning construct & learning measures.**

#### **2.4 School factors influences on student learning outcome.**

#### **2.5 School leadership practices.**

#### **2.2 School Leadership:**

Leadership is primarily described by reference of two core functions: providing direction to the people and exercising an influence on the people working in the same roof (Leithwood & Louis, 2012). Leadership is all about organizational improvement, and it is done through establishing an agreed-upon and making direction on which leaders and subordinates are walking to improve the organization. Leaders are like a weapon in school premises whose actions are built to support the organizational people and make desirable positive changes in the organization. In the highly complex world, a greater embrace of school leaders is thought to understand people's beliefs, perceptions and supposed to satisfy each and every need of co-

workers and children in a diversified school culture context. The school head as an individual and in a leadership position is expected to set the organization in the highest position in the competitive realm of teaching-learning school organization. In the broad literature, there are model which are reflecting on school leadership, which are as contingent leadership model, participative leadership model, and transformational & charismatic leadership model (Leithwood & Duke, 1999; Pearce & Conger, 2003; York Barr & Duke, 2004; Leithwood & Jantzi, 2006). The contingent leadership exhibits the situation or context in which leaders accomplish their task and on hand solve problems and exert reflective leadership. Rowan & Millar, in 2006, reported that the positive effects of leaders depended on many situations. The participative leadership was intakes teacher leadership, shared leadership & distributive leadership where the power of taking decisions also lies on the hand of ground employers. This model shows how leaders can involve others in an organization's decision-making process. The third model focuses on communicating the compelling vision with high-performance expectation, emphasis on collective focus of organizational goal, building appropriate role model in followers, and the leader-follower relationship exercising influence to achieve institutional goal. Encompassing the research on school leadership and it has come out that various leadership styles are linking leadership to student's learning and achievement.

**Leithwood & Jantzi (2012)** described the collective leadership distribution as a powerful source of power equalization in school organization, which in turn affects school improvement. The notion of collective leadership was overlapping with organic management, which is more pragmatic with the improvement reality of school organization. 'Organic Management' is the shift of conventional, hierarchical, bureaucratic structure where power equalization are mostly in the hand of higher official, but this organic management is an array of a shift in the school organization management where subordinates employees are actively involved in the organizational decision (Miller & Rowan, 2006). The collective leadership style helps build self-confidence, collegiality/staff coordination among employees. The collective leadership was interested by a network influence pattern and often described in the literature that it is like control management and power equalization in the formal organization. Tannenbaum (1961) made two hypotheses and proved that organizational effectiveness lies in democratic & polyarchic approaches. The researcher used a control graph wherein in horizontal axis depicts the designated position of the official (president, the board of directorate and Membership), and the vertical axis representing the amount of

influence (some, a great deal and a very great deal). The result shows that a democratic form of control in the organization was more consistent with employee values or beliefs and led to more job satisfaction. Tannenbaum claimed that when control exercised in lower levels of participants shows greater acceptance of jointly-made decisions and acts as a powerful instrument of organizational improvement.

Tannenbaum's work is quite similar to distributed leadership. The two forms of leadership, i.e., democratic and polyarchich had a more significant influence on different individuals or on groups, impacting teacher work and influence on student learning outcome. Collective leadership impacts teachers' knowledge & skills, teachers' motivation, and teachers' work settings, which affects student academic achievement. The collective or distributive leadership style has a continuum of action for improving the student's learning and learning outcome (Leithwood & Jantzi, 2012; Gronn, 2016).

**Stephen E. Anderson (2012)** measures leaders' distributive action by conducting five case studies on five schools. The robust measure was done by categorizing all schools as high, medium, and low and reports widely variation on collective leadership score and student performance score on mathematics or reading. The qualitative analysis of leadership distribution in five elementary schools reveals three patterns of leadership. First, the principal exercise was influenced by collaboration with teacher leaders; second, teacher leadership collaboration was limited to program-specific structure and less emphasis on teacher collaboration; third principal practice oversight and teachers did not emphasize collaboration within across school institutions. It is found that the first pattern had higher student performance rather than the second and third. In distributive leadership action, school principals enact greater influence, and higher levels of collective influence show a positive association with teacher motivation, teacher working conditions, and student performance. The elementary school analysis also reveals four core leadership functions: setting direction, developing people, redesigning the organization, and improving the instructional program; the pattern of distributive leadership action or style varied with these core leadership functions. The five schools showed more common distributed action for developing people & for improving instructional programs; after that remaining two core functions were prioritized.

The school head or principals are expected to understand the basic tenets of quality instruction, knowledge, and experience of building a professional community and knowing

the equipped curriculum with appropriate contents (Marzano, Waters & McNulty, 2005). **Louis & Wahlstrom (2012)** explained instructional and shared leadership is more effective in shaping classroom instruction with the constructivism approach. The quality of good instruction needs a blended approach where influence over pacing contents in the curriculum and classroom; it gives the learner an opportunity to take charge of their own learning, which is focus instruction. It is often labeled in the literature as a constructivism approach. The study report that the minority and poor students got a lesser score on a state math test, but after providing focus instruction, the result changed. The result indicates a strong relationship between three aspects of leaders (instructional, shared, and organizational trust), and along with focus instruction, it affects on student learning outcome. The organizational trust is a mutual relationship built due to practicing a shared decision-making process. This trust might be a precondition of leader's behaviour to deliver instruction, but it had not any direct effect on focus instruction. However, research (Hallinger, 2005; Mosenthal et al., 2004) shows that providing constructive feedback by school heads can enhance teaching and help build a system design support focus instruction in the classroom. Therefore, the mixture of both distributive/collective/shared and instructional leaders is most prevalent to effect teacher professional, professional community and finally affect student achievement.

**Burns' theory (1978)** of transformational leadership exhibits the leaders' engagement with staff in a way that inspires them with a new level of energy and commitment and moral purpose. This was often argued that a new level of energy and commitment has a base of transforming the organization by developing the organization's capacity and promoting a collaborative professional learning environment (Robinson, Lloyd & Rowe, 2008). Therefore, the base of achievement-oriented leadership is hidden in Burns' theory of transformational leadership because super engagement with staff increases the staff's higher expectations. It also inspires them to do work passionately. The Path-Goal Theory of leadership is depicted the four type of leadership style such as directive leadership, participated leadership, supportive leadership, and achievement-oriented leadership (Famakin & Abisuga, 2016). Achievement-oriented transformational leadership directed towards excellent performance by motivating staff, seeing encouragement leaders set challenging goals to perform and it also depicts the supportive style by developing teamwork. Transformational leadership was positively related to students students motivation, students engagement, affective learning & learning outcome; the transformational leadership had a 37 percent effect on cognitive learning of the school-going student, and it is the significant

predictor of student cognitive, affective learning and made satisfactory communication with instructor credibility (Griffith, 2004; Politis, 2004; Leithwood & Jantzi, 2006; Harrison, 2011). The result of reviewed past studies firmly confirmed that transformational leadership sets or enacts three environments (quality assurance, accountability and teaching, learning & curriculum environment) of practicing instructional leadership, and it was found significant moderate effect; one comparable confirms that instructional leadership is more needed rather than transformational leadership (Shatzer et al., 2014; Kwan, 2020)

## **2.2 Learning construct and learning measurement:**

Learners are always tried to construct their learning by making meaning; it is a process of learning to construct. In each classroom, there are visible and invisible learners; those are invisible, they did not showed any fruitful engagement or participate in the classroom and did not even take any lead to for their learning. They are used to keep them in a silent or invisible mode. Encompassing researches on student learning or learning outcome showed that many students in the classroom are struggling to construct meaning from text and found a discrepancy on students decoding ability or face difficulty to understand or comprehend classroom instruction (Meisinger et al., 2009; Jaeger, 2015). As a consequence students drop out or learning crisis occurred in schools (ASER Report, 2019). A case study on an english learner, named Sam identified with less participation in a group project and not taking any decision. After establishing strategy instruction, Sam's interest in reading was sustained, and he viewed himself as a successor, not as a struggling learner. His learning was constructed to much more meaningful (Jaeger, 2015). Promoting learning behavior in the classroom is a more important measure to establish a relationship with the curriculum, learners need and with instructor behaviour. The seminal text and classroom management and how teachers manage lessons are set as a reference through which learning behaviour & develop relationships with self, curriculum, and peer/friend. The learning behaviour of a child develops at the stages of 7, 11 & 14. Identification of learning behaviour by the student can help to understand the purpose of transacted task or instruction in the classroom, find self-monitoring, responsibility, and role allocation to construct the learning (Ellis & Tod, 2018). **Stephen E. Anderson (2012)** describes learning measure or assessment continuous process in which school counselor assess the student performance data starting from the beginning of the year and the school principal reportedly interested keep records of the student's performance data to support the teacher to design a lesson plan. By doing so, principals are



able to monitor student performance & able to identify the student who needs additional coaching. Therefore, learning construct very much depends on teachers' behaviour and their keep on an assessment of learners.

**Kraiger, Ford, & Salas (1993)** did research on “Application of cognitive, skill-based, and affective theories of learning outcomes to new methods of training evaluation.” This study's major focus was to give a model through developing a classification scheme for measuring learning outcomes. The learning constructs from different research domains e.g, cognitive, instructional psychology, social, and human factors, were studied to measure the learning outcomes. They found that learning is a function of changes in cognitive, skill-based and affective states in trainees. The learning outcome and associated measures are well constructed/organized into a classification scheme where several categories, learning constructs, measurement focus, and potential training evaluation methods were given. They identified five categories: verbal knowledge, knowledge organization, cognitive strategies, compilation, and automaticity. These categories have proper learning constructs, which are declarative knowledge, mental models, self-insights and metacognitive skills, composition proceduralization and automatic processing tuning. Each of these learning constructs has a focus of measurement, i.e., cognitive outcomes, skill-based outcomes and affective outcomes, and against each of these focus measurement, there were several evaluation methods such as recognition and recall test, power test, speed test, free sorts, structural assessment, probed protocol analysis, self-report, etc.

**Carey & Gregory (2003)** done a study entitled "Toward Improving Student Learning: policy issues and design structures in course-level outcomes assessment." The central focus was to assess the policy issues that are impediments of adopting systematic course-level outcome assessments for improvement of learning outcomes and describe a design structure applied in learning assessment. The result found that the impediment of course-level outcome assessment is mostly hampered by faculty evaluation, and by using faculty evaluation and rewards has lower the acceptance of the whole entire assessment process. This annual faculty review and rewards seem an outcome assessment process for improving student learning outcomes, but this faculty review is just passing the judgment rather than formal data collection at the course level assessment process, which indicates informing and improving rather than judgment. They developed a design structure for course-level outcome assessment. Its states student learning outcome depended on various components such as

learner characteristic, learning environment, course content, and other essential factors for learning. The essential factors for learning were motivation, learning guidance, active student participation, and content integration, and through which assessment should be done.

**Crespo et al., (2010, April)** made a study on “Aligning assessment with learning outcomes in outcome-based education.” This study aimed to give an insight into outcome-based learning in Europe and develop a conceptual model of outcomes-based assessment of learning and its application. They conceptualize the outcome-based education in two parts, i.e., learning outcome means student's knowledge, skill and competencies, and the second part is unit of learning which includes information and resources such as objectives, content, description of learning and teaching activities/ teaching method (which needs specific application context like a subject, target learner group, infrastructure), learning assessment which includes a formative and summative assessment. This learning assessment requires an assessment method such as multiple choice test, peer assessment, oral examination, and assessment resources such as test, test items, peer assessment forms. They termed it as a ‘conceptual map of learning assessment’ aligning with three learning outcomes, i.e., knowledge, skill, and competencies. The learning unit is seen as a means by which intended learning outcomes (termed as design time) are measured and responses by the learner generate as information that is recorded as his/her performance or result (runtime). This model's application also illustrated at various stakeholders like teachers can construct the learning activities at design time and give space at runtime to record new learning outcomes.

### **2.3 School factors influence on student outcome:**

The quality education defines by student's performance which helps to characterize school effectiveness. The quality resources, school environment, teachers' accountability & creditability, leaders' performance and community participation are crucial factor for student learning outcome. These quality parameters were reflected in Shaala Siddhi data capturing format and also by SAA (Under the Programme of Universalization Elementary, 2009).

**Kapur (2018)** reviewed factors that are influencing on student academic performance and came up with twelve factors or variables. These factors are attitudes of student, school resources, leadership, skills & abilities of teachers, classroom environment, role of parents, social circle, psychological & health related issues, time management, home environment, teaching-learning methods, and approachability & professionalism. These above factors are

nourishes under the roof of school organization and led to higher academic achievements in the students. Piotrowsky, (2016) explained school culture were most effective measure to satisfy learners & set their attitudes towards learning; positive relationship found existing between culture of learning partnership and teachers' retention and with student achievement. For instance, how school principal are manage faculty diversity and promote school culture to support student learning. For example, the Qatar National Professional Standard for School Teacher and Leader (QNPSTSL) set the standard that Qatari principles must emphasize the establishment of constructive and cooperative relationship between teacher and student and teacher and parents. Due to this standard the principal are supposed to recruit the expatriate along with mange the issues related to faculty diversity. One principal sated that benefit is the exchange of ideas and getting to know different culture and by doing so the Qatari culture is getting affected. The principal addressed that the expatriate teachers are spoke different dialects of Arabic and students are started to speak that Arabic dialect instead of speaking standard Arabic and also student are pronouncing the Arabic letters same way of their teaches does. This could lead to conflict or some challenges which are faced by the Qatari principal and by managing this some of the principal are preferred to the national faculty because its leads to the discriminatory pattern also. The teacher of expatriate are having common thought among them that they are different and getting unequal treatment to their Qatari colleges because some principals having notion that expatriate teacher's attitude and belief are to make money and leave after few years. This sense will never help to developed Qatari culture inside the school. The expatriate teachers also complained that things are done very first for their Qatari teacher not for the expatriate because they are recognized as the 'second rank'. The attitudes of students and parents towards teachers are also negative. This kind of practices diminishes the opportunity to enhance student learning outcome in school (Michael et al., 2019). Another study was done by McGrath-Champ et al., (2019) shows working condition supported by school principal e.g. in one WA states principal of provincial school said that 'I think a lot of it has to do with how you relate to your staff and acknowledge teachers are really effects in school improvement. A NSW principal from the remote school says that their teacher is being loved and care and metropolitan more likely to be respond in a way that reflected concerns with teacher responsibility, and teachers were loaded with so many training & school duties. The principal supportive behavior are also have significant role to shape the positive behavior of the teacher and help to teacher emerge as key initiator changer of the organization. This faculty diversity along with supportive behavior of the

principal for their teacher working condition can established the groomed cultural environment of an institute so that the maximum output can be achieve. Teacher working condition and managing faculty diversity by school principal is another effective school factor to influence on student learning outcome. It is often called as management of teachers' performance and professional development by school leaders.

**Leithwood & Jantzi (2012)** showed how school leaders enact their distributive kind of leadership on teachers and teachers reflecting on student academic performance through their knowledge, motivation and through condition of work setting. It was found that teachers' work setting had an enormous and strongest positive relation with collective leadership and impacts on student outcome. The effect of teacher work setting was on students' academic achievement were significant but teachers knowledge & skills were found insignificant. However, the total effect on student academic achievement were registered by teacher work setting condition which was followed by their knowledge, dedication to work under the influence of collective leadership. The School principal can have a greater influence on student learning if they foster teaching-learning and assessment in the school. Research conclude that teaching-learning is an important factor that has strongest impact on student outcome (Dinham, 2008; Cruickshank, 2017). The school principal are attached in teaching learning through maintaining & managing teacher quality, teacher attendance, developing professional community and for that school principal leadership is an also critical factor to process the organization smoothly (Seashore et al., 2010).

The schools factors recognized by different past researches are leadership, management of teachers and their working condition, brings the conducive school culture in which learning can cherish and nourish. There is another school factor, i.e., community involvement in the school management procedure can set the learning community and it can be done identifying school issues & challenges, community as used as a learning resources and they can monitor and management learning community. The learning community is often positively related to student engagement through various educational activities inside and outside the school (Pike, Kuh & Cormick, 2011). Pandey, Goyal & Sundararaman (2008). The participatory community approach gives parental groups room to visit the classroom, monitor teacher attendance, and teachers' effectiveness, and improve student academic performance (Sawada, 1999). A study was conducted in 340 treatment villages all over the states in India to disseminate the information about community participation in the school management and

their state provision to get into the school process. The study reveals that community participation in school management had a positive effect on India's three states. Among these three states, two states were reported a significant positive impact on children's reading, writing, and mathematics outcome, and some improvement was also seen on teacher's effort and on student's uniform, stipend and on Mid-day Meal.

#### **2.4 School leadership practices and student outcome:**

Leithwood (2012) measures core leadership practices that are most essential for teachers & leaders' repertoire. There were four core leadership practices identified which are setting direction, developing people, redesigning the organization & improving the instructional programme. Each core practice has a number of sub-practices. First, setting direction has four sub-practices which are building shared vision, fostering the acceptance of group goals, creating high performance expectation & communicating the direction; these practices focusing on school goals & catching teacher's attention for student achievement. Second, developing people has three sub-practices named providing individualized support and consideration, offering intellectual stimulation and modeling appropriate values & practices; these practices have a base for keeping track of teachers' professional development need and providing backup for teachers for student discipline. Third, redesigning organization has four sub-practices which are building collaborative cultures, modifying organizational structure to nurture collaboration, building productive relations with families & communities and connecting the school to the wider community; these help to create structures and opportunities for teachers collaboration. Fourth, improving the instructional programme has five sub-practices which are staffing the instructional programme, monitoring progress of students, teachers & school, providing instructional support, aligning resources and buffering staff from distractions to their work; it indicates a pattern of monitoring teachers' work in the classroom and providing instructional resources or material that helps to sustain student learning. In 2012 Leithwood.K gave a model of leadership to student learning in which he showed four paths to practice leadership for student learning outcome. The paths were rational path (Academic Emphasis, disciplinary climate, focused instruction & collaborative inquiry processes), emotional path (efficacy & trust), organizational path (principal learning teams, professional learning communities, instructional time & interactive technologies) and family path (family educational culture). These paths are goes through school-wide

experience and classroom experience for achieving student learning outcome (cited in Piotrowsky, 2016).

**Cheng (1994)** conducted a research entitled as “Principal role is a critical factor for school performance; evidence from multilevel of primary schools”. This study aims to investigate how principal leadership is related to school performance in terms of multilevel indicator such as school organization characteristic, teachers’ group level performance, teacher individual level performance, student’s performance and principal leadership. The result showed that five dimension of the leadership are significantly correlated with school performance. And the tendency of high score on leadership dimension (human, structural, political, symbolic, educational) showed that strong leadership. The strong leadership was found associated with organizational characteristic, strong organizational culture, positive principal teacher relationship, more participative in decision, high teacher esprit and professionalism, less teacher disengagement and hindrance, job satisfaction, commitment on more student performance.

**Hallinger, Bickman & Davis (1996)** Conducted a study named as “School context, principal leadership, and student reading achievement”. The focus of this study was to explore the nature and effect of school principal on student reading achievement in U.S. elementary school. They examine the relationship between school context variable (student SES, parental involvement, principal gender and teaching experience), principal instructional leadership (principal activities in key dimensions of school education program) and student reading achievement. The result of this study showed that there is no direct effect of school principal on student reading achievement but they found that principal itself is influenced by personal and contextual variable. The interesting was note that both student SES and parental involvement not only influenced by principal leadership but also had positive direct effect teacher expectations student learning and additional causal linkages were revealed between school context variable and the school climate variables.

**Niemann, R., & Kotzé, T. (2006)** did a research on “The relationship between leadership practices and organizational culture: an education management perspective”. The focus of this study was to investigate the relationship between leadership practices between school principal and school culture in terms of sociability and solidarity which is mostly conducive for effective teaching learning. The findings of this study are clearly based on the correlation between leadership practice and school culture. It is found that the correlation coefficient of

0.6497 was revealed that there is a strong relationship between shared vision practice of leadership and sociability as a school culture and the correlation of coefficient of 0.5864 was also revealed that there is positive relationship between enabling others to act and sociability as a school culture and this are important to effective teaching learning and as well as for conducive environment in the school. They also found and visualize the degree of which challenging the process that was positively related solidarity but not so strongly. There are two leadership practices which are correlated with solidarity school culture i.e., the relationship between the manner in which principals modeled the way and the staff members' feeling of solidarity was depicted in the correlation coefficient of 0.3179 and encouraging the heart was significantly related to the creation of a sense of solidarity in the school, with a correlation coefficient of 0.3456.

**Thoonen et al., (2012)** made a research on “Building school-wide capacity for improvement: The role of leadership, school organizational conditions, and teacher factors”. The focus of this study is to examining the extent to which school improvement capacity developed over a period of time in elementary school in Netherland. Result of multilevel regression analysis showed that school wide capacity for continuous improvement significantly develops over a time. In general, leadership practice, school organizational condition, teacher motivational factor and teacher engagement in Professional learning activities improved since the fourth measurement occasion. The entire dimensions are fluctuated in somewhere fourth and second measure but ultimately it is found that it has a significant improvement on school capacity building.

**Robinson, V. M., Lloyd, C. A., & Rowe, K. J. (2008)** did a research on “The impact of leadership on student outcomes: An analysis of the differential effects of leadership types”. The aim of this research was to investigate the relative affect of different types of leadership on students' academic along with nonacademic outcomes. The result of the meta-analysis of this study indicated that the mean effect of instructional leadership on student outcomes was three to four times that of transformational leadership and it showed that student outcome is affected by five sets of leadership practices i.e., establishing goals and expectations, resourcing strategically, planning & coordinating, and evaluating teaching and the curriculum, promoting and participating in teacher learning and development/ensuring an orderly supportive environment.

**Masumoto, M., & Brown-Welty, S. (2009)** made a study entitled as “Case study of leadership practices and school-community interrelationships in high-performing, high-poverty, rural California high schools”. This study focusing on contemporary leadership theories and school- community interrelationships, this qualitative study examines the practices of educational leaders in three high-performing, high-poverty, rural California high schools. Three primary findings were discovered in this study based on similarities across all three cases. Firstly, prevalence of strong contemporary leadership practices of distributive leadership, instructional leadership, and transformative leadership were found at all three sites. Secondly, school community linkages were established to accomplish each school’s mission and enhance student outcomes. Thirdly, Common contributors to school success were found at all three sites including clear and direct focus on instruction, standards, and expectations; strength of teachers, and; multiple support systems for students with various needs.

**Heck, R. H., & Moriyama, K. (2010)** conducted a study named as “Examining relationships among elementary schools' contexts, leadership, instructional practices, and added-year outcomes: a regression discontinuity approach”. The focus is to examine how context, composition and staffing related variables may interact with school leadership and instructional practices to explain student outcome. They uses one year added outcome on math and reading achievement of student’s grad 4 and 5 for assessing the elementary school effectiveness. They showed in their correlation matrix that correlation between the achievement intercept and average grade level effect was positive in both reading ( $r=0.22$ ) and math ( $r=.25$ ). Second the instructional practices were moderately correlated with each outcome in this study and it is also correlated with teachers characteristic. The leadership indirect effect on one year added reading (0.16) and math (0.14) is significant and it is also seen that the direct effect of student stability, composition and teacher stability and experience on leaders perception is -0.14 but the direct impact of leadership on one year added outcome was insignificant. And the interaction between instructional practices and teacher experience had significantly moderate one year added effect on both reading ( $y=0.22$ ) and math ( $y=0.24$ ) which means that teacher experience on one year added outcome is contingent on level of instructional practices.

**Sun, J., & Leithwood, K. (2015)** did a research on “Direction-setting school leadership practices: A meta-analytical review of evidence about their influence”. The goal of this study



was to explore the effects of direction setting leadership practices on school organization, teacher and students. Focused on direction setting they found that two major category, first developing shared vision and building goal consensus under the transformational school leadership. Secondly high performance expectation and there are six distinct practices in this two categories. The result indicate that direction setting leadership practices in aggregate (DS) are effective in positive working environment and culture, achieving shared understanding of school goals among staff and fostering shared decision making in school. Meta analysis found that DS had moderate level of impact on teacher individual and on internal state ( $r=.37$ ) and on large effect on their practices ( $r=.50$ ). Direction setting leadership Practice (DSLPL) had 0.5 effect size which is statistical insignificant. The result of this study gave some critical path (emotion path, rational path and organizational path) through which direction setting practice influence on student learning.

**Sebastian, J., Huang, H., & Allensworth, E. (2017)** made a study to examine how leadership pathways are related to high school context: mainly how principal and teacher leadership linked in the organizational process and student outcome. The result showed that principal leadership was significantly related to all organizational process and the coefficient were .23 for professional learning community, .39 for professional development, .13 for learning climate and .22 for parent community ties. Only the learning climate is direct related to principal practice and student learning outcome. The teacher leadership was modeled as a mediator between principal leadership and all four organizational processes. The relationship between teacher leadership and professional development, professional learning community and parent community are ties and as well as learning climate are significant. However, only the indirect pathways are linking principal and teacher leadership that involved learning climate ultimately translated to better student learning outcome.

**Mythili, N. (2017)** made a research which is entitled as “Does School Leadership Matter for Student Learning in India?” The major focus of this study was to examine the different leadership practices which are directly essential for student learning outcome in two Indian states i.e., Manipur & Sikkim. The result found that there core five leadership practices (Vision building, goal setting, organizational/ school improvement, commitment to teaching learning, achieving goals ) and each practices has its specific dimension to enhance the student learning outcome and these core practices are significantly relevant in Indian context. There are leadership path found in both state that leader’s are first providing intellectual

stimulation with help of his/her values then assure the teacher professional development and next mutual interaction to each other, try to setting up system or structure for decision making and simultaneously try to enabling resources for conducive learning and lastly improving chance for student learning outcome.

## **2.6 Research Gap and Critical Observation:**

In the school leadership spectrum, most of the researches done to assess the leadership effect on student outcome in regard of school contextual variable, organizational characteristic along with teacher leadership as mediator factor, school culture, leadership practices and it is reported widely in the literature that there is mostly indirect effect between school leadership and students' learning outcome. Very few study attempted to examine the direct effect of school head on their students' learning outcome and not able to see it from whole perspective both in international and national studies showed. None of the studies are talked about the quality of school leadership and students' outcome and not are studied ever that what are the diverse and dynamic path are associated with quality school leadership and what extend to school head's commitment, achievement orientation and leadership practices are impacting on students' learning outcome. Indian, there is as such no study available on these dimensions from whole context. Therefore, if we tried to investigate on this dimension then it will fill the gap in the literature and must be this type of study is required for better school improvement and policy formulation.

## **2.7 Summary:**

In this chapter, literature review has done after dividing on four themes i.e., school leadership, learning construct & learning measurement, schools factor effecting on student learning outcome and leadership practices. In the first theme, brief outline on school leadership were explained and along with various style of leadership and how it linking leadership styles with student learning outcome are made. In the next them construct of learning approach and it assessment are reviewed. After that in next them various school factors that are acting as major standpoint for student learning and their achievement. In the last theme, various leadership practices were explained to find out knowledge gap. This chapter presents an overall review of studies conducted in India as well as in abroad, in chronological order regarding the study. Some studies are directly related and some are

related indirectly. Its ultimate goal is to provide up to date information on a particular area of school leadership and student learning outcome.

## CHAPTER-3

### RESEARCH METHODOLOGY

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#### **3.1 Introduction:**

Research is a systematic effort to gain a new knowledge, and for good and appropriate result, investigation requires systematic and accurate procedure in research field. Anything to be done in research needs to be properly planned before hand or starts. This helps the researchers to proceed or move directly (in a systematic way) without confusing with the related events (that are available in literature). A well thought out plan of action, followed by a systematic execution brings out fruitful results in research (King, Keohane & Verba, 1994). Hence, the research is a careful, critical, discipline inquiry, varying in technique and method according to the nature of conditions of the problem identified, directed towards clarification or resolution (or both) of the problem. Research is not a haphazard task but it requires proceedings in a definite direction, done with definite intention of taking a specific problem and finding its solution in a scientific manner. In the previous chapter brief literature were discussed to develop the problem and in the light of previous studies and theoretical background statement of the problem made. This chapter is devoted to the method and procedure followed in the investigation. Therefore an attempt has been made to provide methodological plan and procedure as under.

3.2 Statement of the problem.

3.3 Secondary database.

3.4 Statistical package and Techniques for data analysis.

Any empirical research followed a proper sequence of research methodology such as method of the study, population and sampling, instrument for data collection. procedure of data collection and techniques used for data analysis. Though this present study is based on large scale secondary database; hence, the above procedure or methodological plan is consider in this study.

#### **3.2 Statement of the problem:**

The problem assigned for the present study entitled as “*Commitment to Achievement Path: School Leadership and Students’ Learning Outcomes in India*”.

### **3.3 Secondary Database:**

The secondary data would be used which is based on data base managed by the School Standards and Evaluation Unit of National Institute of Educational Planning and Administration, New Delhi. Since 2016, it has been leading the National Programme on School Standards and Evaluation (Shala Siddhi) under the aegis of MHRD (Ministry of Human Resource Development), Govt. of India. More than 5.7 lakh schools have uploaded the dashboard relating to school self evaluation to the web portal which provides technological support to each school. The first phase of school self-evaluation 2016 -18 was completed in April 2018. School Standards and Evaluation Framework (SSEF) is a comprehensive instrument which evaluate school performance on some key domains/ indicators which as follows.

- a. Enabling & usability of school resources.
- b. Teaching-learning and assessment.
- c. Learners' progress, attainment and development,
- d. Managing teacher performance and professional development.
- e. School leadership and management.
- f. Inclusion, health and safety.
- g. Productive community participation.

Each core standard has descriptors in a hierarchical order across three levels (i.e., Level-1, 2 and 3) where, Level-1 is lowest and Level-3 is the highest performance level. Based on the chosen level, composite score of the school was calculated and composite score describe the performance level of school.

This present study is largely based on seven key performance domains and each domain has well defined core-standards. The seven domains has total 46 core standards. Each domains beings with a brief introduction to highlights the importance of specific performance area for individual school. Each key performance domains is structured in a sequential manner consisting reflective prompts, factual information, core-standards with descriptors, and supportive evidence to make objective judgment for both self and external evaluation for each school. There is response matrix for each key domain on which judgment is recorded and judgment is also recorded on

each core-standards. The schools are providing their responses by choosing only 1 for each level (Level 1, Level 2 and Level 3). For instance, first domain has 12 core-standards and in this domain highest score will be  $12 \times 3 = 36$  and lowest score will be  $12 \times 1 = 12$  and average score is  $12 \times 2 = 24$ . After combining these three levels consolidate score is calculated. The 46 core-standards are as follows

Table-3.1 Key Domains & Score Standard of School Evaluation.

Key Domains and Core Standards	
DOMAIN -I Enabling Resources of School: Availability and Adequacy	School Premises
	Playground & Sports Equipment/ Materials
	Classrooms and Other Rooms
	Electricity and Gadgets
	Library
	Laboratory
	Computer (where provisioning exist)
	Ramp
	Mid-Day Meal; Kitchen and Utensils
	Drinking Water
	Hand Wash Facilities
	Toilets
DOMAIN -I Enabling Resources of School: Quality and Usability	School Premises
	Playground & Sports Equipment/ Materials
	Classrooms and Other Rooms
	Electricity and Gadgets
	Library
	Laboratory
	Computer (where provisioning exist)
	Ramp
	Mid-Day Meal; Kitchen and Utensils
	Drinking Water
	Hand Wash Facilities
	Toilets
DOMAIN - II Teaching-Learning and Assessment	Teachers' Understanding of Learners
	Subject and Pedagogical Knowledge of Teachers
	Planning for Teaching
	Enabling Learning environment
	Teaching Learning Process
	Class Management

Key Domains and Core Standards	
	Learners' Assessment
	Utilization of Teaching-Learning Resources
	Teachers' Reflection on their own Teaching-Learning
DOMAIN - III Learners' Progress, Attainment and Development	Learners' Attendance
	Learners' Participation and Engagement
	Learners' Progress
	Learners' Personal and Social Development
	Learners' Attainment
DOMAIN - IV Managing Teachers' Performance and Professional Development	Orientation of New Teachers
	Teachers' Attendance
	Assigning Responsibilities and Defining Performance Goals
	Teachers' Preparedness for Curriculum Expectations
	Monitoring of Teachers' Performance
	Teachers Professional Development
DOMAIN- V School Leadership and Management	Building Vision and Setting Direction
	Leading Change and Improvement
	Leading Teaching-Learning
	Leading Management of School
DOMAIN - VI Inclusion, Health and Safety	Inclusive Culture
	Inclusion of Children with Special Needs (CWSN)
	Physical Safety
	Psychological Safety
	Health and Hygiene
DOMAIN- VII Productive Community Participation	Organisation and Management of SMC/SMDC
	Role in School Improvement
	School - Community Linkage
	Community as Learning Resources
	Empowering Community

Source: Shaala Siddhi Database ([www.shaaalsiddhi.ac.in](http://www.shaaalsiddhi.ac.in))

### 3.4 Procedure of selecting high, moderate, and low performing schools:

Composite score (consolidated score of all seven key domain included)

Composite score Mean= 96.29

SD= 18.75

M+1/2 SD= above 106.001 (considering high performing school)

M-1/2 SD= below 87 (considering as a low performing school)

Between 87.001 to 106 score (consider as a moderate performing score)

School were chooses for whole nation & one state (Delhi) depicted in given below table

Table-3.2 Size of Taken School at state level & National Level.

Schools	India	Delhi
High performing	180433	1480
Moderate performing	240370	1544
Low performing	154224	719

Table-3.3 School Management with School Levels in India

Management of school with levels	Count of School	Management of school with levels	Count of School
<b>APTWREI Society Schools</b>	<b>173</b>	<b>KGBVs Run by APSWREI Society</b>	<b>3</b>
Higher Secondary	45	Secondary	3
Primary	89	<b>Local Body</b>	<b>161202</b>
Secondary	16	Higher Secondary	354
Upper Primary	23	Primary	120684
<b>Boarstal or Juvenile Schools</b>	<b>39</b>	Secondary	8780
Higher Secondary	4	Upper Primary	31384
Primary	12	<b>Madarsa recognized (by Wakf board/Madarsa Board)</b>	<b>770</b>
Secondary	12	Higher Secondary	91
Upper Primary	11	Primary	388
<b>Central Govt.</b>	<b>233</b>	Secondary	76
Higher Secondary	159	Upper Primary	215
Primary	11	<b>Madarsa unrecognized</b>	<b>253</b>
Secondary	44	Higher Secondary	5
Upper Primary	19	Primary	167
<b>Department of Education</b>	<b>313001</b>	Secondary	9
Higher Secondary	23743	Upper Primary	72
Primary	165520	<b>No Response</b>	<b>73</b>



Secondary	21341	Higher Secondary	71
Upper Primary	102397	Secondary	1
<b>EGS Only</b>	<b>3</b>	Upper Primary	1
Primary	2	<b>Others</b>	<b>1709</b>
Secondary	1	Higher Secondary	267
<b>Govt. Aided (Pvt.)</b>	<b>47350</b>	Primary	790
Higher Secondary	12180	Secondary	219
Primary	12992	Upper Primary	433
Secondary	13915	<b>Pvt. Unaided</b>	<b>37177</b>
Upper Primary	8263	Higher Secondary	5066
<b>Govt.Schools(Blind)</b>	<b>1</b>	Primary	9909
Primary	1	Secondary	10927
<b>Govt.Schools(Deaf and Dumb)</b>	<b>1</b>	Upper Primary	11275
Primary	1		
<b>Govt.Schools(Mentally Retarded)</b>	<b>12</b>	<b>TG Management</b>	<b>7</b>
Higher Secondary	1	Primary	6
Primary	1	Upper Primary	1
Secondary	8	<b>Venture Unaided</b>	<b>38</b>
Upper Primary	2	Higher Secondary	1
<b>Tribal/Social Welfare Dept.</b>	<b>11892</b>	Secondary	37
Higher Secondary	530	<b>Un-Recognised</b>	1088
Primary	<b>6952</b>	Higher Secondary	<b>17</b>
Secondary	1061	Primary	523
Upper Primary	3349	Secondary	100
<b>Upgraded EGS</b>	<b>1</b>	Upper Primary	448
Primary	1		
<b>Govt.Schools(Orthopaedically Handicapped)</b>	<b>1</b>		
Upper Primary	1		
<b>Grand Total</b>			<b>575027</b>

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19)

**Table-3.4 School Management with School Levels in Delhi.**

School Levels	Management of Schools						
	Central Govt.	Department of Education	Govt. Aided (Pvt.)	Local Body	Pvt. Unaided	Tribal/Social Welfare Dept.	Grand Total
<b>DELHI</b>	<b>12</b>	<b>945</b>	<b>211</b>	<b>1441</b>	<b>1130</b>	<b>4</b>	<b>3743</b>
Higher Secondary	11	824	135		278	2	1250
Primary			38	1441	376	1	1856

Secondary		104	21		126	1	252
Upper Primary	1	17	17		350		385
<b>Grand Total</b>	<b>12</b>	<b>945</b>	<b>211</b>	<b>1441</b>	<b>1130</b>	<b>4</b>	<b>3743</b>

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19)

### **3.5 Statistical package and statistical techniques for data analysis:**

The uni-variate statistics like mean, SD, Z-test; bi-variate statistics like correlation and multivariate statistics like structural equation model (SEM). These statistic were done by using excel, SPSS IBM version 21 and AMOS software.

## CHAPTER- 4

### RESULT & DISCUSSION

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#### 4.1 Introduction:

This chapter is about analyzing the data which was used to generate a piece of new knowledge in the theme of ‘*Linking School Leadership & Student Outcome*’. Chapter four exhibits the results and discussion by using descriptive statistics, z-test, Pearson correlation, Structural Equation Modeling (SEM). The get the result, the researcher used a large-scale database (Shaala Sidhhi) and statistical packages such as Excel, SPSS version 22 & AMOS version 23. This chapter is divided into six sections which are as follows.

4.2 Normality test of the Data.

4.3 Descriptive and Comparative analysis of School leadership and Student outcome in high moderate, low performing schools in India and Delhi Specifically.

4.4 Descriptive and Comparative analysis of School leadership and Student outcome across primary, upper primary, secondary and higher secondary schools in high, moderate and low performing schools in India, and Delhi Specifically.

4.5 Relationship of school leadership practices and Student Outcome across high, moderate and low performing schools in India, and Delhi Specifically.

4.6 Structural Equation Model Analyzing for Student Outcome.

#### 4.2 Normality Test of the Data:

**Table- 4.2.1 Descriptive Statistics for Normality test of SL & SOC.**

	N	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SL	575027	8.56	2.114	-.203	.003	-.222	.006
SOC	575027	10.65	2.329	-.147	.003	.219	.006
Valid N (listwise)	575027						

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The school leadership and student outcome data in Indian are following the distribution of normality as indicated by its standard deviation, which was  $\frac{1}{4}$  of the mean (comparison of mean and standard deviation).

School leadership=  $8.56/4= 2.14$  (which is the same as the SD, however it is normally distributed)

Student outcome=  $10.56/4= 2.64$  (it shows 0.32 above departure from the SD which is very less, however it was normally distributed).

However, the skewness & kurtosis were -.203, -.222 for school leadership, and -.147, .219 for student outcome, and both indicated a slide move towards a left side. Still, the values of skewness were about 0.15 or 0.20, which were not so far from 0, and kurtosis values were not exceeding 3. Therefore we can run a parametric test.

**Table- 4.2.2 Normality test for SL & SOC of High, moderate & low performing school in India.**

	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
School Leadership in High performance school in India	180433	-.631	.006	-.527	.012
Student outcome in high performing schools in India	180433	-.161	.006	-.920	.012
School Leadership in Moderate performing schools in India	240370	.858	.005	2.258	.010
Student outcome in Moderate performance school in India	240370	.904	.005	3.027	.010
School leadership in low performing school in India	154224	-.060	.006	-.954	.012
Student outcome in low performing school in India	154224	.225	.006	.389	.012
Valid N (listwise)	154224				

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

Table 4.2.2 showed the calculated statistical value of skewness & kurtosis for school leadership and student outcome across high, moderate, and low performing schools in India. The skewness and kurtosis value moderately positive & negatively skewed but it was only in three cases of school leadership in high & moderate performing schools. And the student outcomes in moderate performing schools were -.631, .858 & .904 and rest of the other was below .2 which is good

enough to carry parametric test. Though it is hard to generate a perfect normally distributed therefore researcher is considering the skewness & kurtosis values which were .5 to .9 though it beyond the acceptance level but in respect other three value (below .2) and keeping in reality context to generate a 100 percent perfect normally distributed it is enough to carry the parametric test.

**Table- 4.2.3 Normality test for SL & SOC of High, moderate & low performing school in Delhi.**

	N	Skewness		Kurtosis	
	Statistic	Statistic	Std. Error	Statistic	Std. Error
School Leadership in High performance school	1480	-.636	.064	-.692	.127
Student outcome in high performance school	1480	-.130	.064	-1.132	.127
School leadership in moderate performance school	1544	.187	.062	1.895	.124
Student outcome in moderate performance school	1544	.225	.062	1.592	.124
School leadership in low performance schools	719	-.106	.091	-1.026	.182
Student outcome in low performance schools	719	-.223	.091	-.953	.182
Valid N (listwise)	719				

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.2.3 showed that the calculated statistical value of skewness & kurtosis for school leadership and student outcome across high, moderate and low performing schools in Delhi and all the skewness value is less .2 except school leadership in high performing school, hence it is good enough to run out parametric statistic for Delhi.

**4.3 Descriptive and Comparative analysis of School leadership and Student outcome in high moderate, low performing schools in India and Delhi Specifically:**

**Table- 4.3.1 Mean, SD and z-test on school leadership and Student Outcome across high, moderate and low performing schools in India.**

School Leadership & Student Learning Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance

High and Moderate school Leadership	School Leadership in High Performing Schools	180433	10.55	1.402	1.967	517.78	.000
	School Leadership in Moderate Performing Schools	240370	8.45	1.157	1.338		
High and Low School Leadership	School Leadership in High Performing Schools	180433	10.55	1.402	1.967	757.86	.000
	School Leadership in Low Performing Schools	154224	6.40	1.717	2.950		
High and Moderate Student Outcomes	Student outcome in High Performing school	180433	12.68	1.714	2.938	453.21	.000
	Student outcome in Moderate Performing school	240370	10.50	1.274	1.622		
High and Low Student Outcomes	Student outcome in High Performing school	180433	12.68	1.714	2.938	606.71	.000
	Student outcome in Low Performing school	154224	8.50	2.191	4.801		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table (4.3.1) shows the mean, SD, Variance and Z test for school leadership and student outcomes in high, moderate and low performing schools in India. The mean value of school leadership in high performing schools in India was calculated (Table-4.3.1) which is 10.55 and SD is 1.402 which means that school leadership in high performing schools are not performing well. The performances of school leadership in moderate performing school are also not so impressive as showed its mean (8.45) and SD (1.157). The Z-test value 517.78 shows the difference between high and moderate performing schools leadership is significant which means exact same kind of leadership are prevailing in Indian high & moderate schools. The school leadership in low performing school is not in good condition and the difference between high performing school leadership and low performing is highly significant which indicates huge variation in the leadership performance. The mean and SD value of students' outcome in high performing school is 12.68 and 1.714 states that the students outcomes in each schools are not satisfactory and same unsatisfactory student outcomes seen in moderate performing schools in India, indicated by its mean & SD (M=10.50, SD=1.274). The mean value of student outcomes in low performing schools is 8.50 indicates worsened student outcome as compare to high and

moderate performing school and its SD is 2.191. The highly significant differences found in student outcome in high and low performing schools in India which assure by its Z value (606.71) and by its p-value (.000).

**Table- 4.3.2 Mean, SD and z-test on school leadership and Student learning Outcome across high, moderate and low performing schools in Delhi.**

School Leadership & Student Learning Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance
High and Moderate school Leadership	School Leadership in High Performing Schools	1480	10.60	1.446	2.089	45.43	.000
	School Leadership in Moderate Performing Schools	1544	8.36	1.255	1.575		
High and Low School Leadership	School Leadership in High Performing Schools	1480	10.60	1.446	2.089	58.66	.000
	School Leadership in Low Performing Schools	719	6.37	1.653	2.727		
High and Moderate Learning Outcome	Student Learning outcome in High Performing school	1480	12.64	1.804	3.253	41.23	.000
	Student Learning outcome in Moderate Performing school	1544	10.23	1.369	1.874		
High and Low learning Outcome	Student Learning outcome in High Performing school	1480	12.64	1.804	3.253	53.69	.000
	Student Learning outcome in Low Performing school	719	8.07	1.909	3.638		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.3.2 shows the mean, SD, Variance and Z-test for school leadership and student outcome in Delhi. The mean value school leadership in high performing school is 10.60 and its SD is 1.446 indicates the ground situation of school leadership which is not well performing in high performance school in Delhi. The leadership performance in moderate performing schools in Delhi is also not good in condition proves by its mean and SD (M=8.36, SD=1.255). The low performing school leadership mean (6.37) and SD (1.653) shows that the school leadership are not enacts their leadership in highest level in low performing school. The comparative analysis between high & moderate performing school leadership shows highly significant as reported z value (45.43). The mean difference between high & low performing school leadership is also highly significant means there are some other school related variable which are jointly made influence on school leadership as its z value highlighted (Z=58.66, p-value=.000). The student outcome in high, moderate and low performing schools are varied extensively as their mean value and SD shows student outcome in high (Student Outcome, M=12.64, SD= 1.804), moderate (Student Outcome, M=10.23, SD=1.369), and low performing (Student Outcome, M=8.07, SD=1.909) school student outcomes are not the desirable maximum output. The z-value of high and moderate performing schools student outcome is 41.23 and it shows there is highly significant difference in high and moderate performing school student outcome in Delhi. The mean difference in student outcome of high and low performing school is found highly significant (Z=53.69, p-value=.000) calculated in table 4.3.1.

**4.4 Descriptive and Comparative analysis of School leadership and Student outcome across primary, upper primary, secondary and higher secondary schools in high, moderate and low performing schools in India, and Delhi Specifically:**

**Table 4.4.1 Mean, SD and z-test on School Leadership and Student outcome across high, moderate and low performing primary schools in India.**

School Leadership & Student Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance
High and Moderate	School Leadership in High Performing Primary Schools	96141	10.49	1.405	1.973		



school Leadership	School Leadership in Moderate Performing Primary Schools	140035	8.45	1.141	1.303	375.12	.000
High and Low School Leadership	School Leadership in High Performing Primary Schools	96141	10.49	1.405	1.973	536.95	.000
	School Leadership in Low Performing Primary Schools	81873	6.47	1.711	2.929		
High and Moderate Student Outcome	Student outcome in High Performing Primary school	96141	12.71	1.682	2.828	336.53	.000
	Student outcome in Moderate Performing Primary school	140035	10.56	1.254	1.574		
High and Low Student Outcome	Student outcome in High Performing Primary school	96141	12.71	1.682	2.828	440.46	.000
	Student outcome in Low Performing Primary school	81873	8.60	2.172	4.718		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table (4.4.1) shows the mean, SD, Variance and Z test for school leadership and student outcomes in high, moderate and low performing primary schools in India. The mean value of school leadership in high performing primary schools in India was calculated (Table-4.4.1) which is 10.49 and SD is 1.405 which means that school leadership in high performing primary schools are not performing well. The performances of school leadership in moderate performing primary school are also not enough impressive as showed its mean (8.45) and SD (1.141). The Z-test value 375.12 shows the difference between high and moderate performing primary schools leadership is highly significant which means exact same kind of leadership are prevailing in Indian high & moderate schools. The school leadership in low performing primary school is not in good condition as it indicated by its mean & SD value (M= 6.47, SD= 1.711). And the difference between high and low performing primary schools leadership is highly significant which indicates huge variation in the leadership performance. The mean and SD value of students' outcome in high performing primary school is 12.71 and 1.682 states that the students outcomes in each primary schools are not satisfactory and same unsatisfactory student outcomes seen in moderate performing primary schools in India, indicated by its mean & SD (calculated in 4.4.1 table). The mean value of student outcomes in low performing primary schools is 8.60 indicates worsened student outcome as compare to high and moderate performing primary school

and its SD is 2.172. The highly significant differences found in student outcome in high and low performing primary schools in India which assure by its Z value (440.46) and by its p-value (.000).

**Table 4.4.2 Mean, SD and z-test on School Leadership and Student outcome across high, moderate and low performing Upper primary schools in India.**

School Leadership & Student Learning Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance
High and Moderate school Leadership	School Leadership in High Performing Upper Primary Schools	49060	10.56	1.393	1.942	272.43	.000
	School Leadership in Moderate Performing Upper Primary Schools	64481	8.45	1.153	1.329		
High and Low School Leadership	School Leadership in High Performing Upper Primary Schools	49060	10.56	1.393	1.942	408.27	.000
	School Leadership in Low Performing Upper Primary Schools	44353	6.33	1.743	3.008		
High and Moderate Student Outcome	Student outcome in High Performing Upper Primary school	49060	12.59	1.699	2.885	227.32	.000
	Student outcome in Moderate Performing Upper Primary school	64481	10.49	1.294	1.675		
High and Low Student Outcome	Student outcome in High Performing Upper Primary school	49060	12.59	1.699	2.885	295.90	.000
	Student outcome in Low Performing Upper Primary school	44353	8.60	2.332	5.439		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table (4.4.2) shows the mean, SD, Variance and Z test for school leadership and student outcomes in high, moderate and low performing upper primary schools in India. The mean value of school leadership in high performing upper primary schools in India was calculated and its value 10.56 and SD is 1.393 which means that school leadership in high performing upper primary schools are not performing good enough. The performances of school leadership in moderate performing upper primary school are also not as profound as pointed out its mean (8.45) and SD (1.153). The highly significant difference were reported between high and moderate performing upper primary schools ( $Z= 272.43, P= .000$ ) which means exact same kind of leadership practice were existing in Indian high & moderate performing upper primary schools. The school leadership in low performing upper primary school was also low as its mean (6.33) & SD (1.73) value pointed half of average in comparison to high performing upper primary schools; and the difference between high and low performing upper primary schools leadership is highly significant which indicates plenty variation in the leadership performance. The mean and SD value of students' outcome in high performing school is 12.59 and 1.699 states that the students outcomes in each upper primary schools are not satisfactory and same unsatisfactory student outcomes seen in moderate performing upper primary schools in India, indicated by its mean (10.49) & SD (1.294). The mean & SD value of student outcomes in low performing primary schools is 8.60, 2.332 indicates very low student outcome itself in low performing upper primary schools and also as compare to high and moderate performing primary school. The highly significant differences found in student outcome in high and low performing primary schools in India which assure by its Z value (295.90) and by its p-value (.000).

**Table 4.4.3 Mean, SD and z-test on School Leadership and Student outcome across high, moderate and low performing Secondary schools in India.**

School Leadership & Student Learning Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance
High and Moderate	School Leadership in High Performing Secondary	19717	10.67	1.404	1.970		

school Leadership	Schools					165.05	.000
	School Leadership in Moderate Performing Secondary Schools	21120	8.51	1.223	1.496		
High and Low School Leadership	School Leadership in High Performing Secondary Schools	19717	10.67	1.404	1.970	252.93	.000
	School Leadership in Low Performing Secondary Schools	15713	6.43	1.686	2.842		
High and Moderate Student Outcome	Student outcome in High Performing Secondary school	19717	12.69	1.791	3.207	152.65	.000
	Student outcome in Moderate Performing Secondary school	21120	10.32	1.284	1.648		
High and Low learning Outcome	Student outcome in High Performing Secondary school	19717	12.69	1.791	3.207	229.50	.000
	Student outcome in Low Performing Secondary school	15713	8.11	1.922	3.692		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The calculated mean, SD & Z value of school leadership and student outcome in high, moderate & low performing secondary schools in India is depicted above table (table 4.4.3). The picture of school leadership and student outcome in secondary schools across high, moderate & low performing schools were just same in reference of primary or upper primary schools, though the z values of primary or upper schools were higher than secondary schools which means that the school leadership and student outcome were good but not up to the mark or not best. All the secondary schools in high, moderate and low performing schools were showing almost same leadership performance and quite same amount of student outcome as high significant differences were reported by all high, moderate & low performing schools. The mean value of school leadership and student outcome in high performing secondary schools in India was calculated and its value is about 10.67 & 12.69 which are states that the performance of school leadership was not well enough and not the student outcome was satisfactory. The kinds of leadership performance and student outcome were seen in moderate and low performing secondary school. The performances of school leadership in moderate performing secondary school are also not as impressive as pointed out its mean (8.51) and SD (1.223). The school

leadership in low performing secondary school is not in good condition as it indicated by its mean & SD value (M= 6.43, SD= 1.686). The mean and SD value of students' outcome in high performing secondary school is 12.69 and 1.791 states that the students outcomes were not satisfactory and same unsatisfactory student outcomes seen in moderate performing primary schools in India, indicated by its mean & SD (M= 10.32 & SD= 1.284, calculated in 4.3.1 table). The mean value of student outcomes in low performing secondary schools is 8.11 indicates worsened student outcome as compare to high and moderate performing primary school and its SD is 2.922.

**Table 4.4.4 Mean, SD and z-test on School Leadership and Student outcome across high, moderate and low performing Higher Secondary schools in India.**

School Leadership & Student Learning Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance
High and Moderate school Leadership	School Leadership in High Performing Higher Secondary Schools	15515	10.76	1.385	1.918	153.04	.000
	School Leadership in Moderate Performing Higher Secondary Schools	14734	8.47	1.218	1.484		
High and Low School Leadership	School Leadership in High Performing Higher Secondary Schools	15515	10.76	1.385	1.918	239.81	.000
	School Leadership in Low Performing Higher Secondary Schools	12285	6.20	1.713	2.936		
High and Moderate Student Outcome	Student outcome in High Performing Higher Secondary school	15515	12.75	1.846	3.407	139.14	.000
	Student outcome in Moderate Performing Higher Secondary school	14374	10.22	1.282	1.644		
High and	Student outcome in High	15515	12.75	1.846	3.407		

Low Student Outcome	Performing Higher Secondary school					207.03	.000
	Student outcome in Low Performing Higher Secondary school	12285	7.96	1.971	3.885		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table (4.4.4) shows the mean, SD, Variance and Z test for school leadership and student outcomes in high, moderate and low performing higher secondary schools in India. The calculated mean value of school leadership in high performing higher secondary schools in India was 10.76 and SD is 1.385 which means that school leadership in high performing higher secondary schools is not performing good enough. The performances of school leadership in moderate performing higher secondary school are also not as impressive as pointed out its mean & SD value (M= 8.47, SD= 1.218). The school leadership in low performing higher secondary school is not in good condition as it indicated by its mean & SD value (M= 6.20, SD= 1.713). There were significant differences found between high & moderate performing higher secondary school leadership (Z= 153.04, P= .000), and between high & low performing higher secondary schools leadership (Z= 239.81, P= .000) which significant at 99 percent level. The mean and SD value of students' outcome in high performing higher secondary school is 12.75 and 1.846 states that the students outcomes were not satisfactory and same unsatisfactory student outcomes seen in moderate performing higher secondary schools in India, indicated by its mean & SD (M= 10.22 & SD= 1.282, calculated in 4.4.4 table). The mean value of student outcomes in low performing secondary schools is 7.96 indicates worsened student outcome as compare to high and moderate performing primary school and its SD is 1.971. There were significant differences found between high & moderate performing higher secondary schools student outcome (Z= 139.14, P= .000), and between high & low performing higher secondary schools student outcome (Z= 207.81, P= .000) which significant at 99 percent level

**Table 4.4.5 Mean, SD and z-test on School Leadership and Student Outcome across Primary, Upper Primary, Secondary and Higher Secondary Schools in High Performing schools in India.**

School Leadership &	P	N	Mean	SD	Varian	z-test	Sig. (2-tailed) or p-Value on 99%
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Student Outcome					ce		level of Significance	
High Performing school Leadership in India	School Leadership in High Performing Primary Schools	96141	10.49	1.405	1.973	-8.635	.000	Sig.
	School Leadership in High Performing Upper Primary Schools	49060	10.56	1.393	1.942			
	School Leadership in High Performing Primary Schools	96141	10.49	1.405	1.973	-16.165	.000	Sig.
	School Leadership in High Performing Secondary Schools	19717	10.67	1.404	1.970			
	School Leadership in High Performing Primary Schools	96141	10.49	1.405	1.973	-22.344	.000	Sig.
	School Leadership in High Performing Higher Secondary Schools	15515	10.76	1.385	1.918			
	School Leadership in High Performing Upper Primary Schools	49060	10.56	1.393	1.942	-9.353	.000	Sig.
	School Leadership in High Performing Secondary Schools	19717	10.67	1.404	1.970			
	School Leadership in High Performing Upper Primary Schools	49060	10.56	1.393	1.942	-15.750	.000	Sig.
	School Leadership in High Performing Higher Secondary Schools	15515	10.76	1.385	1.918			
	School Leadership in High Performing Secondary Schools	19717	10.67	1.404	1.970	-6.068	.000	Sig.
	School Leadership in High Performing Higher Secondary Schools	15515	10.76	1.385	1.918			
Student outcome in High Performing School.	Student Outcome in High Performing Primary Schools	96141	12.71	1.682	2.828	13.068	.000	Sig.
	Student Outcome in High Performing Upper Primary Schools	49060	12.59	1.699	2.885			
	Student L Outcome in High Performing Primary Schools	96141	12.71	1.682	2.828	1.534	0.125	N. Sig.
	Student Outcome in High Performing Secondary Schools	19717	12.69	1.791	3.207			
	Student Outcome in High Performing Primary Schools	96141	12.71	1.682	2.828	-2.594	.009	Sig.
	Student Outcome in High Performing Higher Secondary Schools	15515	10.76	1.385	1.918			
	Student Outcome in High Performing Upper Primary Schools	49060	12.59	1.699	2.885	-6.818	.000	Sig.
	Student Outcome in High Performing Secondary Schools	19717	12.69	1.791	3.207			

	Secondary Schools							
	Student Outcome in High Performing Upper Primary Schools	49060	12.59	1.699	2.885			
	Student Outcome in High Performing Higher Secondary Schools	15515	10.76	1.385	1.918	-9.810	.000	Sig.
	Student Outcome in High Performing Secondary Schools	19717	12.69	1.791	3.207			
	Student Outcome in High Performing Higher Secondary Schools	15515	10.76	1.385	1.918	-3.181	.001	Sig.

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.4.5 shows the mean, SD & z-test on school leadership & student outcome across primary, upper primary, secondary, and higher secondary in high performing schools in India. In this table the difference between two means were analyzed through z-test like primary schools with upper primary, primary with secondary, and primary with higher secondary; upper primary with secondary, and upper primary with higher secondary; secondary with higher secondary to generate robust findings on school leadership & student outcome. The mean & SD value of school leadership in high performing primary schools was 10.49, 1.405, and the mean & SD value of school leadership in high performing upper primary schools was 10.56, 1.393. The mean difference between primary and upper primary school leadership was significant at 99 percent level ( $Z = -8.635$ ,  $P = .000$ ) which shows that the pattern of leadership practices were varied in existing Indian primary and upper primary schools. The mean & SD value of student outcome in high performing primary schools was 12.71, 1.682, and the mean & SD value of school leadership in high performing upper primary schools was 12.59, 1.699 which shows that the student outcome in primary and upper primary wasn't satisfactory level. The mean difference between primary and upper primary student outcome was significant at 99 percent level ( $Z = 13.07$ ,  $P = .000$ ) which shows that there is almost similar student outcome found in Indian primary and upper primary schools. The mean & SD value of school leadership in high performing primary schools was 10.49, 1.405, and the mean & SD value of school leadership in high performing secondary schools was 10.67, 1.404; the significant differences were registered as their z-value ( $Z = -16.16$ ,  $P = .000$ ). The mean & SD value of school leadership in high performing primary schools was 10.49, 1.405, and the mean & SD value of school leadership in high performing higher secondary schools was 10.76, 1.385; the significant differences were registered as their z-value ( $Z = 22.34$ ,  $P = .000$ ). The mean & SD value of school leadership in



high performing upper primary schools was 10.56, 1.393, and the mean & SD value of school leadership in high performing higher secondary schools was 10.76, 1.385; the significant differences were registered as their z-value ( $Z = -15.75$ ,  $P = .000$ ). Each and every mean of school leadership and student outcome was similar a bit of difference found just by generally seeing their means but the significant difference were present, and these differences were high when it came to the primary with secondary & primary with higher secondary schools, and upper primary with higher secondary leadership or student outcome as indicated by their z-values (calculated in table 4.4.5) except primary and secondary schools student outcome. The mean & SD value of student outcome in high performing primary schools was 12.71, 1.682, and the mean & SD value of school leadership in high performing secondary schools was 12.69, 1.791 which shows that the student outcome in primary and secondary wasn't satisfactory level and, their mean difference was also not significant at 99 percent level ( $Z = 1.534$ ,  $P = .125$ ). It shows that student outcome in Indian primary schools and in secondary schools was same.

**Table 4.4.6 Mean, SD and z-test on School Leadership and Student outcome across Primary, Upper Primary, Secondary and Higher Secondary Moderate Performing schools in India.**

School Leadership & Student Outcome	P	N	Mean	SD	Varian ce	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance	
Moderate Performing school Leadership	School Leadership in Moderate Performing Primary Schools	140035	8.45	1.141	1.303	-0.336	.737	N. sig.
	School Leadership in Moderate Performing Upper Primary Schools	64481	8.45	1.153	1.329			
	School Leadership in Moderate Performing Primary Schools	140035	8.45	1.141	1.303	-7.725	.000	Sig.
	School Leadership in Moderate Performing Secondary Schools	21120	8.51	1.223	1.496			
	School Leadership in Moderate Performing Primary Schools	140035	8.45	1.141	1.303			
	School Leadership in Moderate Performing Higher Secondary Schools	14734	8.47	1.218	1.484	-2.349	.018	N. Sig.
	School Leadership in Moderate Performing	64481	8.45	1.153	1.329			

	Upper Primary Schools							
	School Leadership in Moderate Performing Secondary Schools	21120	8.51	1.223	1.496	-7.039	.000	Sig.
	School Leadership in Moderate Performing Upper Primary Schools	64481	8.45	1.153	1.329			
	School Leadership in Moderate Performing Higher Secondary Schools	14734	8.47	1.218	1.484	-2.070	.038	N. Sig.
	School Leadership in Moderate Performing Secondary Schools	64481	8.45	1.153	1.329			
	School Leadership in Moderate Performing Higher Secondary Schools	14734	8.47	1.218	1.484	-3.399	.000	Sig.
Student outcome in Moderate Performing School.	Student Outcome in Moderate Performing Primary Schools	140035	10.56	1.254	1.574			
	Student Outcome in Moderate Performing Upper Primary Schools	64481	10.49	1.294	1.675	11.520	.000	Sig.
	Student Outcome in Moderate Performing Primary Schools	140035	10.56	1.254	1.574			
	Student Outcome in Moderate Performing Secondary Schools	21120	10.32	1.284	1.648	25.796	.000	Sig.
	Student Outcome in Moderate Performing Primary Schools	140035	10.56	1.254	1.574			
	Student Outcome in Moderate Performing Higher Secondary Schools	14374	10.22	1.282	1.644	31.179	.000	Sig.
	Student Outcome in Moderate Performing Upper Primary Schools	64481	10.49	1.294	1.675			
	Student Outcome in Moderate Performing Secondary Schools	21120	10.32	1.284	1.648	17.135	.000	Sig.
	Student Outcome in Moderate Performing Upper Primary Schools	64481	10.49	1.294	1.675			
	Student Outcome in Moderate Performing Higher Secondary Schools	14374	10.22	1.282	1.644	23.605	.000	Sig.
	Student Outcome in Moderate Performing Secondary Schools	21120	10.32	1.284	1.648			
	Student Outcome in Moderate Performing Higher Secondary Schools	14374	10.22	1.282	1.644	7.397	.000	Sig.

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.4.6 shows the mean, SD & z-test on school leadership & student outcome across primary, upper primary, secondary, and higher secondary in moderate performing schools in

India. In this table the difference between two means were analyzed through z-test on primary schools with upper primary, primary with secondary, and primary with higher secondary; upper primary with secondary, and upper primary with higher secondary; secondary with higher secondary to generate robust findings on school leadership & student outcome. The significant difference & not significant differences were caught in school leadership in moderate performing schools in India but all student outcome mean differences were significant. There were not significant differences found in primary with upper primary, primary with higher secondary and upper primary with higher secondary schools leadership in moderate performing schools in India. The mean & SD value of school leadership in moderate performing primary schools was 8.45, 1.141, and the mean & SD value of school leadership in moderate performing upper primary schools was 8.45, 1.153. The mean difference between primary and upper primary school leadership wasn't significant at 99 percent level ( $Z = -0.336$ ,  $P = .737$ ). The mean & SD value of school leadership in moderate performing primary schools was 8.45, 1.141, and the mean & SD value of school leadership in moderate performing higher secondary schools was 8.47, 1.218. The mean difference between primary and upper primary school leadership wasn't significant at 99 percent level ( $Z = -2.349$ ,  $P = .018$ ). The mean & SD value of school leadership in moderate performing upper primary schools was 8.45, 1.153, and the mean & SD value of school leadership in moderate performing higher secondary schools was 8.47, 1.218; the insignificant differences were registered as their z-value confirms ( $Z = -2.070$ ,  $P = .038$ ). These insignificant difference shows that there is similar kind of leadership practice existing in Indian moderate performing primary with upper primary & with higher secondary, and upper primary with higher secondary schools which made an question about leadership quality or effectiveness . Three significant differences found in school leadership which were moderate performing primary school and with secondary schools ( $Z = -7.725$ ,  $P = .000$ ), moderate performing upper primary school leadership and secondary schools leadership ( $Z = -7.039$ ,  $P = .000$ ), and with moderate performing secondary & higher secondary schools leadership ( $Z = -3.399$ ,  $P = .000$ ); these significant differences tells that the school leadership are in these schools were not some means the variation in leadership practices were prevailing. . The mean & SD value of student outcome in moderate performing primary schools was 10.56, 1.254, and the mean & SD value of student outcome in moderate performing upper primary schools was 10.49, 1.294 which shows that the student outcome in primary and upper primary wasn't satisfactory level, and the same

unsatisfactory results or student outcome were capture across other school levels (secondary, higher secondary). The mean difference between primary and upper primary student outcome was significant at 99 percent level ( $Z= 11.520$ ,  $P= .000$ ) which shows that there is almost similar student outcome found in Indian primary and upper primary schools. The student outcome in Moderate Performing Primary with secondary ( $Z= 25.796$ ), primary with higher secondary ( $Z= 31.179$ ), upper primary with secondary ( $Z= 17.135$ ), Upper primary with higher secondary ( $Z=23.605$ , and secondary with higher secondary ( $Z= 7.397$ ) Schools were also found significant differences in their means which indicates similar outcome in their students.

**Table 4.4.7 Mean, SD and z-test on School Leadership and Student outcome across Primary, Upper Primary, Secondary and Higher Secondary Low Performing schools in India.**

School Leadership & Student Outcome	P	N	Mean	SD	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance		
Low Performing school Leadership in India	School Leadership in Low Performing Primary Schools	81873	6.47	1.711	2.929	13.27	.000	Sig.	
	School Leadership in Low Performing Upper Primary Schools	44353	6.33	1.743	3.008				
	School Leadership in Low Performing Primary Schools	81873	6.47	1.711	2.929	2.30	.0213	N. Sig.	
	School Leadership in Low Performing Secondary Schools	15713	6.43	1.686	2.842				
	School Leadership in Low Performing Primary Schools	81873	6.47	1.711	2.929	16.25	.000	Sig.	
	School Leadership in Low Performing Higher Secondary Schools	12285	6.20	1.713	2.936				
	School Leadership in Low Performing Upper Primary Schools	44353	6.33	1.743	3.008	-6.53	.000	Sig.	
	School Leadership in Low Performing Secondary Schools	15713	6.43	1.686	2.842				
	School Leadership in Low Performing Upper Primary Schools	44353	6.33	1.743	3.008	7.66	.000	Sig.	
	School Leadership in Low Performing Higher Secondary Schools	12285	6.20	1.713	2.936				
	School Leadership in Low Performing		15713	6.43	1.686	2.842			

	Secondary Schools							
	School Leadership in Low Performing Higher Secondary Schools	12285	6.20	1.713	2.936	11.58	.000	Sig.
Student outcome in Low Performing School.	Student Outcome in Low Performing Primary Schools	81873	8.60	2.172	4.718			
	Student Outcome in Low Performing Upper Primary Schools	44353	8.60	2.332	5.439	-0.07	.947	N. Sig.
	Student Outcome in Low Performing Primary Schools	81873	8.60	2.172	4.718			
	Student Outcome in Low Performing Secondary Schools	15713	8.11	1.922	3.692	28.54	.000	Sig.
	Student Outcome in Low Performing Primary Schools	81873	8.60	2.172	4.718			
	Student Outcome in Low Performing Higher Secondary Schools	12285	7.96	1.971	3.885	33.19	.000	Sig.
	Student Outcome in Low Performing Upper Primary Schools	44353	8.60	2.332	5.439			
	Student Outcome in Low Performing Secondary Schools	15713	8.11	1.922	3.692	25.87	.000	Sig.
	Student Outcome in Low Performing Upper Primary Schools	44353	8.60	2.332	5.439			
	Student Outcome in Low Performing Higher Secondary Schools	12285	7.96	1.971	3.885	30.68	.000	Sig.
	Student Outcome in Low Performing Secondary Schools	15713	8.11	1.922	3.692			
	Student Outcome in Low Performing Higher Secondary Schools	12285	7.96	1.971	3.885	6.54	.000	Sig.

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.4.7 shows the mean, SD & z-test on school leadership & student outcome across primary, upper primary, secondary, and higher secondary in low performing schools in India. In this table the difference between two means were analyzed through z-test on primary schools with upper primary, primary with secondary, and primary with higher secondary; upper primary with secondary, and upper primary with higher secondary; secondary with higher secondary to generate robust findings on school leadership & student outcome. All the mean differences for both school leadership & student outcomes cases were reported significant differences except primary with secondary school leadership, and primary with upper primary school student low performing schools in India. The mean & SD value of school leadership in low performing

primary schools was 6.47, 1.711, and the mean & SD value of school leadership in low performing secondary schools was 6.43, 1.686. The mean difference between primary and secondary school leadership wasn't significant at 99 percent level ( $Z= 2.30$ ,  $P= .213$ ) which shows that there is variation in leadership practice in Indian primary and upper primary schools. The mean & SD value of student outcome in low performing primary schools was 8.60, 1.172, and the mean & SD value of student outcome in low performing upper primary schools was 8.60, 1.332 which shows that the student outcome in primary and upper primary schools wasn't satisfactory level. The mean difference between primary and upper primary student outcome was not significant at 99 percent level ( $Z= -0.07$ ,  $P= .947$ ) which shows that there is difference found in student outcome in Indian primary and upper primary low performing schools. The student outcome in low Performing Primary with secondary ( $Z= 28.54$ ,  $P= .000$ ), primary with higher secondary ( $Z= 33.19$ ,  $P= .000$ ), upper primary with secondary ( $Z= 25.87$ ,  $P= .000$ ), Upper primary with higher secondary ( $Z= 30.68$ ,  $P= .000$ ), and secondary with higher secondary schools ( $Z= 6.54$ ,  $P= .000$ ) were found significant differences in their means which indicates similar kind of students outcome across school level. Similarly, the significant differences found in school leadership performance in low Performing schools such as Primary with upper primary ( $Z= 13.27$ ,  $P= .000$ ), primary with secondary ( $Z= 16.25$ ,  $P= .000$ ), upper primary with secondary ( $Z= -6.53$ ,  $P= .000$ ), Upper primary with higher secondary ( $Z= 7.66$ ,  $P= .000$ ), and secondary with higher secondary schools ( $Z= 11.58$ ,  $P= .000$ ). These all differences were significant at 0.01 levels which indicate the practice leadership in primary schools was exact same for the higher secondary schools as well.

**Table 4.4.8 Mean, SD and z-test on School Leadership and Student Outcome across high, moderate and low performing primary schools in Delhi.**

School Leadership & Student Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance	
High and Moderate school Leadership	School Leadership in High Performing Primary Schools	621	10.47	1.446	2.091	29.57	.000	Sig.
	School Leadership in Moderate Performing Primary Schools	846	8.31	1.284	1.650			

High and Low School Leadership	School Leadership in High Performing Primary Schools	621	10.47	1.446	2.091	41.05	.000	Sig.
	School Leadership in Low Performing Primary Schools	389	6.37	1.607	2.583			
High and Moderate Learning Outcome	Student outcome in High Performing Primary school	621	12.37	1.737	3.018	24.32	.000	Sig.
	Student outcome in Moderate Performing Primary school	846	10.35	1.316	1.732			
High and Low learning Outcome	Student outcome in High Performing Primary school	621	12.37	1.737	3.018	34.44	.000	Sig.
	Student outcome in Low Performing Primary school	389	8.26	1.916	3.672			

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table (4.4.8) shows the mean, SD, Variance and Z test for school leadership and student outcomes in high, moderate and low performing primary schools in India. The mean value of school leadership in high performing primary schools in Delhi was calculated (Table-4.4.8) which is 10.47 and SD is 1.446 which means that school leadership in high performing primary schools are not performing well. The performance of school leadership in moderate performing primary schools was also not much impressive as showed by its mean (8.31) and SD (1.284). The Z-test value 29.57 shows the difference between high and moderate performing primary schools leadership is highly significant which means exact same kind of leadership are prevailing in Indian high & moderate performing primary schools. The school leadership in low performing primary school is not in good condition as it indicated by its mean & SD value (M= 6.37, SD= 1.607); and the difference between high and low performing primary schools leadership were highly significant which indicates much variation in the leadership performance. The mean and SD value of students outcome in high performing primary school is 12.37 and 1.737 states that the students outcomes in each primary schools wasn't satisfactory level and same unsatisfactory student outcomes seen in moderate performing primary schools in India, indicated by its mean (10.35) & SD (1.316). The mean value of student outcomes in low performing primary schools was 8.26 indicates worsened student outcome as compare to high and moderate performing primary school and its differences were also significant.

**Table 4.4.9 Mean, SD and z-test on School Leadership and Student Outcome across high, moderate and low performing Upper primary schools in Delhi.**

School Leadership & Student Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance
High and Moderate school Leadership	School Leadership in High Performing Upper Primary Schools	165	10.68	1.522	2.317	13.28	.000
	School Leadership in Moderate Performing Upper Primary Schools	139	8.45	1.415	2.003		
High and Low School Leadership	School Leadership in High Performing Upper Primary Schools	165	10.68	1.522	2.317	22.09	.000
	School Leadership in Low Performing Upper Primary Schools	81	5.94	1.623	2.634		
High and Moderate Outcome	Student outcome in High Performing Upper Primary school	165	13.28	1.752	3.068	15.45	.000
	Student outcome in Moderate Performing Upper Primary school	139	10.40	1.511	2.284		
High and Low Students Outcome	Student outcome in High Performing Upper Primary school	165	13.28	1.752	3.068	21.99	.000
	Student outcome in Low Performing Upper Primary school	81	7.75	1.914	3.663		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table (4.4.9) shows the mean, SD, Variance and Z test for school leadership and student outcomes in high, moderate and low performing upper primary schools in Delhi. The mean value of school leadership in high performing upper primary schools in India was calculated and its value 10.68 and SD is 1.522 which means that school leadership in high performing upper primary schools are not performing good enough. The performances of school leadership in moderate performing upper primary school were also not much impressive as pointed out its mean (8.45) and SD (1.415). There were significant mean difference reported between high and moderate performing upper primary schools ( $Z= 13.28$ ,  $P= .000$ ) which means exact same kind of leadership pattern were existing in high & moderate performing upper primary schools in Delhi. The school leadership in low performing upper primary school was also low as its mean



(5.94) & SD (1.623); and the difference between high and low performing upper primary schools leadership was significant which indicates plenty variation in the leadership performance. The mean and SD value of students' outcome in high performing school is 13.28 and 1.752 states that the students outcomes in each upper primary schools were not satisfactory level and same unsatisfactory student outcomes seen in moderate performing upper primary schools in Delhi, indicated by its mean 10.40 & SD 1.511 (calculated in table 4.4.9). The mean differences of high & moderate performing schools student outcome were significant at 0.01 levels. The mean & SD value of student outcomes in low performing primary schools is 7.75, 1.914 indicates very low student outcome itself in low performing upper primary schools and also as compare to high and moderate performing upper primary school. The significant differences found in student outcome in high and low performing upper primary schools in Delhi which assure by its Z value & p-value (Z= 21.99, P= .000).

**Table 4.4.10 Mean, SD and z-test on School Leadership and Student Outcome across high, moderate and low performing Secondary schools in Delhi.**

School Leadership & Student Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance
High and Moderate school Leadership	School Leadership in High Performing Secondary Schools	112	10.82	1.364	1.860	10.37	.000
	School Leadership in Moderate Performing Secondary Schools	92	8.48	1.074	1.153		
High and Low School Leadership	School Leadership in High Performing Secondary Schools	112	10.82	1.364	1.860	14.56	.000
	School Leadership in Low Performing Secondary Schools	48	6.71	1.762	3.105		
High and Moderate Student Outcome	Student outcome in High Performing Secondary school	112	12.82	1.792	3.211	12.28	.000
	Student outcome in Moderate Performing Secondary school	92	9.96	1.554	2.416		
High and Low Student Outcome	Student outcome in High Performing Secondary school	112	12.82	1.792	3.211	15.99	.000
	Student outcome in Low Performing Secondary school	48	7.77	1.871	3.500		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The calculated mean, SD & Z value of school leadership and student outcome in high, moderate & low performing secondary schools in Delhi is describes in the above table (table 4.4.10). The picture of school leadership and student outcome in secondary schools across high, moderate & low performing schools were just same in reference of primary or upper primary schools in Delhi. All the secondary schools in high, moderate and low performing schools were exhibits almost same pattern of leadership performance and quite same amount of student outcome were caught as significant differences were reported by all high, moderate & low performing schools Delhi. The mean value of school leadership and student outcome in high performing secondary schools in Delhi was calculated and its value is about 10.82 & 12.82 which were states that the performance of school leadership was not well enough and also not the student outcome was satisfactory level. The similar kinds of leadership performance and student outcome were seen in moderate and low performing secondary schools in Delhi. The performances of school leadership in moderate performing secondary school were also not as impressive as pointed out its mean (8.48) and SD (1.074). The school leadership in low performing secondary school was not in good condition as it indicated by its mean & SD value (M= 6.71, SD= 1.762). The mean and SD value of students' outcome in moderate performing secondary school is 9.96 and 1.554 states that the students outcomes were not satisfactory and same unsatisfactory student outcomes seen in low performing secondary schools in India, indicated by its mean & SD (M= 7.77 & SD= 1.871, calculated in 4.4.10 table). The differences between these means were significant at 0.01 level (Z= 15.99, P= .000).

**Table 4.4.11 Mean, SD and z-test on School Leadership and Student Outcome across high, moderate and low performing Higher Secondary schools in Delhi.**

School Leadership & Student Outcome	P	N	Mean	Std. Deviation	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance
High and Moderate school Leadership	School Leadership in High Performing Higher Secondary Schools	582	10.68	1.430	2.046	28.31	.000
	School Leadership in Moderate Performing Higher Secondary Schools	467	8.40	1.183	1.399		
High and Low School	School Leadership in High Performing Higher Secondary Schools	582	10.68	1.430	2.046		

Leadership	School Leadership in Low Performing Higher Secondary Schools	201	6.47	1.703	2.900	31.52	.000
High and Moderate Student Outcome	Student outcome in High Performing Higher Secondary school	582	12.71	1.839	3.382	27.31	.000
	Student outcome in Moderate Performing Higher Secondary school	467	10.02	1.350	1.824		
High and Low Student Outcome	Student outcome in High Performing Higher Secondary school	582	12.71	1.839	3.382	31.69	.000
	Student outcome in Low Performing Higher Secondary school	201	7.89	1.871	3.502		

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table (4.4.11) shows the mean, SD, Variance and Z test for school leadership and student outcomes in high, moderate and low performing higher secondary schools in Delhi. The calculated mean value of school leadership in high performing higher secondary schools in Delhi was 10.68 and SD is 1.430 which means that school leadership in high performing higher secondary schools was not performing good enough. The performances of school leadership in moderate performing higher secondary school wasn't also not as impressive as pointed out its mean & SD value (M= 8.40, SD= 1.183). The school leadership in low performing higher secondary school was not in good condition as it indicated by its mean & SD value (M= 6.47, SD= 1.703). There were significant differences found between high & moderate performing higher secondary school leadership (Z= 28.31, P= .000), and between high & low performing higher secondary schools leadership (Z= 31.52, P= .000) which significant at 99 percent level. The mean and SD value of students' outcome in high performing higher secondary school was 12.71 and 1.839 states that the students outcomes were not at desired level and same unsatisfactory student outcomes seen in moderate performing higher secondary schools in Delhi, indicated by its mean & SD (M= 10.02 & SD= 1.350); and its difference were significant (Z= 27.31, P= .000). The mean value of student outcomes in low performing higher secondary schools was 7.89 indicates worsened student outcome as compare to high and moderate performing higher secondary schools and its SD was 1.871. There was significant differences found between high & low performing higher secondary schools student outcome (Z= 207.81, P= .000) which significant at 99 percent level.

**Table 4.4.12 Mean, SD and z-test on School Leadership and Student outcome across Primary, Upper Primary, Secondary and Higher Secondary schools in High performing schools in Delhi.**

School Leadership & Student Outcome	P	N	Mean	SD	Varian ce	z-test	Sig. (2-tailed) or p- Value on 95% level of Significance	
High Performing school Leadership in India	School Leadership in High Performing Primary Schools	621	10.47	1.446	2.091	-1.61	.107	N. Sig.
	School Leadership in High Performing Upper Primary Schools	165	8.45	1.522	2.317			
	School Leadership in High Performing Primary Schools	621	10.47	1.446	2.091	-2.52	.011	Sig. But N. Sig. at 99% L.
	School Leadership in High Performing Secondary Schools	112	10.82	1.364	1.860			
	School Leadership in High Performing Primary Schools	621	10.47	1.446	2.091	-2.57	.010	Sig.
	School Leadership in High Performing Higher Secondary Schools	582	10.68	1.430	2.046			
	School Leadership in High Performing Upper Primary Schools	165	8.45	1.522	2.317	-0.82	.413	N. Sig.
	School Leadership in High Performing Secondary Schools	112	10.82	1.364	1.860			
	School Leadership in High Performing Upper Primary Schools	165	8.45	1.522	2.317	-0.01	.990	N. Sig.
	School Leadership in High Performing Higher Secondary Schools	582	10.68	1.430	2.046			
	School Leadership in High Performing Secondary Schools	112	10.82	1.364	1.860	0.99	.318	N. Sig.
	School Leadership in High Performing Higher Secondary Schools	582	10.68	1.430	2.046			
Student outcome in High Performing School.	Student Outcome in High Performing Primary Schools	621	12.37	1.737	3.018	-5.92	.000	Sig.
	Student Outcome in High Performing Upper Primary Schools	165	13.28	1.752	3.068			
	Student Outcome in High Performing Primary Schools	621	12.37	1.737	3.018	-2.45	.0140	Sig.
	Student Outcome in High Performing Secondary Schools	112	12.82	1.792	3.211			

Student Outcome in High Performing Primary Schools	621	12.37	1.737	3.018			
Student Outcome in High Performing Higher Secondary Schools	582	12.71	1.839	3.382	-3.22	.001	Sig.
Student Outcome in High Performing Upper Primary Schools	165	13.28	1.752	3.068			
Student Outcome in High Performing Secondary Schools	112	12.82	1.792	3.211	2.11	.034	Sig.
Student Outcome in High Performing Upper Primary Schools	165	13.28	1.752	3.068			
Student Outcome in High Performing Higher Secondary Schools	582	12.71	1.839	3.382	3.67	.000	Sig.
Student Outcome in High Performing Secondary Schools	112	12.82	1.792	3.211			
Student Outcome in High Performing Higher Secondary Schools	582	12.71	1.839	3.382	0.62	.533	N. Sig.

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.4.12 shows the mean, SD & z-test on school leadership & student outcome across primary, upper primary, secondary, and higher secondary in high performing schools in Delhi. In this table the difference between two means were analyzed through z-test like primary schools with upper primary, primary with secondary, and primary with higher secondary; upper primary with secondary, and upper primary with higher secondary; secondary with higher secondary to generate to grab ground situation of school leadership & student outcome. The school leadership in higher performing schools in Delhi was not in good practice across school level as shows the mean & SD values of them (primary= 10.47, upper primary= 8.45, secondary= 10.82, & higher secondary= 10.68) and among them school leadership at upper primary high performing schools in Delhi weren't in average or in perfect position. The mean differences of school leadership were also not significant except primary & higher secondary whereas mean differences of student outcome was mostly significant except between secondary & higher secondary schools in Delhi. The mean & SD value of school leadership in high performing primary schools was 10.47, 1.446, and the mean & SD value of school leadership in high performing upper primary schools was 8.45, 1.522. The mean difference between primary and upper primary school leadership wasn't significant at 95 percent level ( $Z = -1.61$ ,  $P = .107$ ) which shows that there is similar kind of leadership practice existing in Delhi's primary and upper primary schools. There were three

more not significance differences found between upper primary & secondary ( $Z = -0.82$ ,  $P = .413$ ), upper primary & higher secondary ( $Z = -0.01$ ,  $P = .990$ ), and between secondary with higher secondary ( $Z = 0.99$ ,  $P = .318$ ). These differences indicate the similar pattern of school leadership practices were in practices in above mention school level. One significant differences was reported by primary and high secondary schools in their school leadership said it z- value ( $-2.57$ ) & p-value (.010). The mean and standard deviation of student outcome in all schools level replicate student outcome in high performing school was an average or just a bit of above average position (primary mean & SD = 12.37 , 1.737; upper primary mean & SD= 13.28, 1.752; secondary mean & SD= 12.82, 1.792; higher secondary mean & SD= 12.71, 1.839). All these means were significant at 0.05 level of significance such as primary with upper primary ( $Z = -5.92$ ,  $P = .000$ ), primary with secondary ( $Z = -2.45$ ,  $P = .014$ ), primary with higher secondary ( $Z = -3.22$ ,  $P = .001$ ), upper primary with secondary ( $Z = 2.11$ ,  $P = .034$ ), and upper primary with higher secondary ( $Z = 3.67$ ,  $P = .000$ ) which were indicates all the student across all level has similar achievement in their progress. The mean & SD value of student outcome in high performing secondary schools was 12.82, 1.792, and the mean & SD value of student outcome in high performing higher secondary schools was 12.71, 1.839. The mean difference between secondary and higher secondary schools student outcome wasn't significant at 95 percent level ( $Z = 0.62$ ,  $P = .533$ ) which shows that the student outcome was varied from secondary to higher secondary schools in Delhi.

**Table 4.4.13 Mean, SD and z-test on School Leadership and Student Outcomes across Primary, Upper Primary, Secondary, and Higher Secondary schools in Moderate Performing Schools in Delhi.**

School Leadership & Student Outcome	P	N	Mean	SD	Variance	z-test	Sig. (2-tailed) or p-Value on 99% level of Significance	
Moderate Performing school Leadership in India	School Leadership in Moderate Performing Primary Schools	846	8.31	1.284	1.650	-1.041	.297	N. sig.
	School Leadership in Moderate Performing Upper Primary Schools	139	8.45	1.415	2.003			
	School Leadership in Moderate Performing Primary Schools	846	8.31	1.284	1.650			

	School Leadership in Moderate Performing Secondary Schools	92	8.48	1.074	1.153	-1.378	.168	N. Sig.
	School Leadership in Moderate Performing Primary Schools	846	8.31	1.284	1.650			
	School Leadership in Moderate Performing Higher Secondary Schools	467	8.40	1.183	1.399	-1.210	.226	N. Sig.
	School Leadership in Moderate Performing Upper Primary Schools	139	8.45	1.415	2.003			
	School Leadership in Moderate Performing Secondary Schools	92	8.48	1.074	1.153	-0.197	.844	N. Sig.
	School Leadership in Moderate Performing Upper Primary Schools	139	8.45	1.415	2.003			
	School Leadership in Moderate Performing Higher Secondary Schools	467	8.40	1.183	1.399	0.363	.716	N. Sig.
	School Leadership in Moderate Performing Secondary Schools	92	8.48	1.074	1.153			
	School Leadership in Moderate Performing Higher Secondary Schools	467	8.40	1.183	1.399	0.645	.519	N. Sig.
Student outcome in Moderate Performing School.	Student Outcome in Moderate Performing Primary Schools	846	10.35	1.316	1.732			
	Student Outcome in Moderate Performing Upper Primary Schools	139	10.40	1.511	2.284	-0.312	.755	N. Sig.
	Student Outcome in Moderate Performing Primary Schools	846	10.35	1.316	1.732			
	Student Outcome in Moderate Performing Secondary Schools	92	9.96	1.554	2.416	2.371	.0177	N. Sig.
	Student Outcome in Moderate Performing Primary Schools	846	10.35	1.316	1.732			
	Student Outcome in Moderate Performing Higher Secondary Schools	467	10.02	1.350	1.824	4.363	.000	Sig.
	Student Outcome in Moderate Performing Upper Primary Schools	139	10.40	1.511	2.284			
	Student Outcome in Moderate Performing Secondary Schools	92	9.96	1.554	2.416	2.135	.032	N. Sig.
	Student Outcome in Moderate Performing Upper Primary Schools	139	10.40	1.511	2.284			
	Student Outcome in Moderate Performing Higher Secondary Schools	467	10.02	1.350	1.824	2.662	.007	Sig.
	Student Outcome in Moderate Performing Secondary Schools	92	9.96	1.554	2.416			

Student Outcome in Moderate Performing Higher Secondary Schools	467	10.02	1.350	1.824	-0.351	.726	N. Sig.
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Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.4.13 shows the mean, SD & z-test on school leadership & student outcome across primary, upper primary, secondary, and higher secondary in moderate performing schools in Delhi. In this table the difference between two means were analyzed through z-test like primary schools with upper primary, primary with secondary, and primary with higher secondary; upper primary with secondary, and upper primary with higher secondary; secondary with higher secondary to generate to grab ground situation of school leadership & student outcome. The school leadership in moderate performing schools in Delhi was not in good practice across school level as shows the mean & SD values of them (primary mean & SD = 8.31, 1.284; upper primary mean & SD= 8.45, 1.415; secondary mean & SD= 8.48, 1.074; higher secondary mean & SD= 8.40, 1.183) and overall or at each school leadership in moderate performing schools in Delhi were in average position. There were not significant mean differences caught in school leadership across primary with upper primary schools leadership ( $Z= -1.041$ ,  $P= .297$ ), primary with secondary schools leadership ( $Z= -1.378$ ,  $P= .168$ ), primary with higher secondary schools leadership ( $Z= -1.210$ ,  $P= .226$ ), upper primary with secondary schools leadership ( $Z= -0.197$ ,  $P= .844$ ) upper primary with higher secondary schools leadership ( $Z= 0.363$ ,  $P= .716$ ), and secondary with higher secondary ( $Z= 0.645$ ,  $P= .519$ ) as indicated by their z & p values (calculated in table 4.4.13). These all school leadership mean differences were not significant at both 0.05 & 0.01 level. Similarly, student outcome between school levels found insignificant except two cases such as primary with higher secondary and upper primary with higher secondary. The z-value & p-value of student outcome in moderate performing schools between primary & upper primary ( $Z= -0.312$ ,  $P= .755$ ), primary & secondary ( $Z= 2.371$ ,  $P= .0177$ ), upper primary & secondary ( $Z= 2.135$ ,  $P= .032$ ), and secondary with higher secondary ( $Z= -0.351$ ,  $P= .726$ ) were found not significant which tells us that there is not differences between students outcome in these schools and all these differences were significant at 0.01 level. Whereas the mean differences of student outcome were found significant between primary & higher secondary schools ( $Z= 4.363$ ,  $P= .000$ ), and between upper primary & higher secondary



schools ( $Z= 2.662$ ,  $P= .007$ ) in moderate performing schools in Delhi and again these differences were significant at 0.01 level.

**Table 4.4.14 Mean, SD and z-test on School Leadership and Student Outcome across Primary, Upper Primary, Secondary, and Higher Secondary Low Performing schools in Delhi.**

School Leadership & Student Outcome	P	N	Mean	SD	Varian ce	z-test	Sig. (2-tailed) or p- Value on 99% level of Significance	
Low Performing school Leadership in India	School Leadership in Low Performing Primary Schools	389	6.37	1.607	2.583	2.168	.030	Sig.
	School Leadership in Low Performing Upper Primary Schools	81	5.94	1.623	2.634			
	School Leadership in Low Performing Primary Schools	389	6.37	1.607	2.583	-1.297	.194	N. Sig.
	School Leadership in Low Performing Secondary Schools	48	6.71	1.762	3.105			
	School Leadership in Low Performing Primary Schools	389	6.37	1.607	2.583	-0.708	.479	N. Sig.
	School Leadership in Low Performing Higher Secondary Schools	201	6.47	1.703	2.900			
	School Leadership in Low Performing Upper Primary Schools	81	5.94	1.623	2.634	-2.492	.0126	Sig.
	School Leadership in Low Performing Secondary Schools	48	6.71	1.762	3.105			
	School Leadership in Low Performing Upper Primary Schools	81	5.94	1.623	2.634	-2.456	.0140	Sig.
	School Leadership in Low Performing Higher Secondary Schools	201	6.47	1.703	2.900			
	School Leadership in Low Performing Secondary Schools	48	6.71	1.762	3.105	0.863	.388	N. Sig.
	School Leadership in Low Performing Higher Secondary Schools	201	6.47	1.703	2.900			
Student outcome in Low Performing	Student Outcome in Low Performing Primary Schools	389	8.26	1.916	3.672	2.178	.0293	Sig.
	Student Outcome in Low Performing Upper Primary Schools	81	7.75	1.914	3.663			

School.	Student Outcome in Low Performing Primary Schools	389	8.26	1.916	3.672	1.719	.085	N. Sig.
	Student Outcome in Low Performing Secondary Schools	48	7.77	1.871	3.500			
	Student Outcome in Low Performing Primary Schools	389	8.26	1.916	3.672	2.287	.022	Sig.
	Student Outcome in Low Performing Higher Secondary Schools	201	7.89	1.871	3.502			
	Student Outcome in Low Performing Upper Primary Schools	81	7.75	1.914	3.663	-.0052	.958	N. Sig.
	Student Outcome in Low Performing Secondary Schools	48	7.77	1.871	3.500			
	Student Outcome in Low Performing Upper Primary Schools	81	7.75	1.914	3.663	-0.532	.595	N. Sig.
	Student Outcome in Low Performing Higher Secondary Schools	201	7.89	1.871	3.502			
	Student Outcome in Low Performing Secondary Schools	48	7.77	1.871	3.500	-0.385	.700	N. Sig.
	Student Outcome in Low Performing Higher Secondary Schools	201	7.89	1.871	3.502			

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.4.14 shows the mean, SD & z-test on school leadership & student outcome across primary, upper primary, secondary, and higher secondary in low performing schools in Delhi. In this table the difference between two means were analyzed through z-test like primary schools with upper primary, primary with secondary, and primary with higher secondary; upper primary with secondary, and upper primary with higher secondary; secondary with higher secondary to generate to grab ground situation of school leadership & student outcome. The school leadership in low performing schools in Delhi was not in good practice across school level as shows the mean & SD values of them (primary mean & SD = 6.37, 1.607; upper primary mean & SD= 5.94, 1.623; secondary mean & SD= 6.71, 1.762; higher secondary mean & SD= 6.47, 1.703) and overall or at each school leadership in low performing schools in Delhi were in worsened situation itself and as comparison to Delhi's high & moderate performing schools. The mean difference between primary and upper primary school leadership was significant at 99 percent level ( $Z= 2.168$ ,  $P= .030$ ) which shows that there is similar kind of leadership practice existing in primary and upper primary schools in Delhi. Two more significant differences found in school

leadership between upper primary with secondary ( $Z = -2.492$ ,  $P = .0126$ ), and upper primary with higher secondary ( $Z = 2.456$ ,  $P = .0140$ ) which were exert resemble school leadership pattern as primary with upper primary shows. There were three more not significance differences found between primary & secondary ( $Z = -1.297$ ,  $P = .194$ ), primary & higher secondary ( $Z = -0.708$ ,  $P = .479$ ), and between secondary with higher secondary ( $Z = 0.863$ ,  $P = .388$ ) schools leadership in low performing Delhi's school. These differences indicate the similar pattern of school leadership practices were in practices in above mention school level. The student outcome in low performing schools in Delhi was not satisfactory level or worsened as shows by the mean & SD values of them (primary mean & SD = 8.26, 1.916; upper primary mean & SD= 7.75, 1.914; secondary mean & SD= 7.77, 1.871; higher secondary mean & SD= 7.89, 1.871). There were four insignificant & two significant mean differences found in low performing schools student outcome in Delhi. The z-value and p-value of student outcome between primary & secondary schools ( $Z = 1.719$ ,  $P = .085$ ), upper primary & secondary schools ( $Z = -.0052$ ,  $P = .958$ ), upper primary & higher secondary schools ( $Z = -0.532$ ,  $P = .595$ ), and between upper secondary & higher secondary schools ( $Z = -0.385$ ,  $P = .700$ ) were not significant at 0.01 level which means that student outcome these schools were not varied to each other and same amount of student outcome were achieved. Whereas two mean differences between primary & upper primary ( $Z = 2.178$ ,  $P = .0293$ ), and between primary & higher secondary ( $Z = 2.287$ ,  $P = .022$ ) schools student outcome were different to each other.

#### 4.5 Relationship between school leadership & Student Outcome in high, moderate, and low performing schools in India, And Delhi Specifically:

**Table-4.5.1 Correlation between School Leadership and Student outcome of High Performing Schools India**

	Total SL	Total SOC	BVSD	LCI	LTL	LMS	LAT	LPE	LP	LPSD	LATTA
Total SL	1	.266**	.718**	.753**	.705**	.693**	.099**	.183**	.201**	.212**	.203**
Pearson Correlation											
Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
N	180433	180433	180433	180433	180433	180433	180433	180433	180433	180433	180433
Total SOC		1	.198**	.212**	.190**	.161**	.588**	.674**	.730**	.683**	.715**

Sig. (2-tailed)			.000	.000	.000	.000	.000	.000	.000	.000	.000
BVSD Sig. (2-tailed)			1	.443**	.285**	.287**	.088**	.137**	.146**	.151**	.148**
				.000	.000	.000	.000	.000	.000	.000	.000
LCI Sig. (2-tailed)				1	.351**	.328**	.052**	.146**	.169**	.180**	.166**
					.000	.000	.000	.000	.000	.000	.000
LTL Sig. (2-tailed)					1	.425**	.080**	.129**	.148**	.140**	.144**
						.000	.000	.000	.000	.000	.000
LMS Sig. (2-tailed)						1	.064**	.109**	.111**	.136**	.121**
							.000	.000	.000	.000	.000
LAT Sig. (2-tailed)							1	.316**	.281**	.196**	.243**
								.000	.000	.000	.000
LPE Sig. (2-tailed)								1	.359**	.311**	.317**
									.000	.000	.000
LP Sig. (2-tailed)									1	.370**	.446**
										.000	.000
LPSD Sig. (2-tailed)										1	.407**
LATTA Sig. (2-tailed)											1

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

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.5.1 shows that significant and positive correlation in school leadership and student outcomes domains. The correlation value more than 0.70 shows very high and positive correlation was analyzed. There was a very high positive correlation found between building vision and direction, leading change and improvement, leading teaching-learning assessment with total school leadership performance. There was a positive high relationship found with learners' progress, learners' attainment development. The correlation value between 0.41 to 0.70 exhibits the moderate correlation was analyzed. There were moderate correlations found in leading change and improvement with school leadership & building vision and direction setting, leading teaching -learning. It indicates more school leadership and building vision & direction

setting, and leading-teaching learning can have more change & improvement in high performing schools in India. The learners' attendance was moderately related with student outcome, learners' personal & social development means ensure more student outcome, and learners' personal & social development can have more learners' attendance. Similarly, the learners' participation & engagement, and learners' attainment were moderately related with learners' progress, and with learners' personal & social development in high performing schools in India.

**Table 4.5.2 Correlation between school leadership and student outcome in moderate performing schools in India**

	Total SL	Total SOC	BVSD	LCI	LTL	LMS	LAT	LPE	LP	LPSD	LATTA
Total SL Pearson Correlation Sig. (2-tailed) N	1  240370	.085**  240370	.647**  240370	.670**  240370	.713**  240370	.710**  240370	.074**  240370	.100**  240370	.026**  240370	.026**  240370	.026**  240370
Total SOC Sig. (2-tailed)		1	.042** .000	.039** .000	.082** .000	.067** .000	.638** .000	.624** .000	.627** .000	.608** .000	.573** .000
BVSD Sig. (2-tailed)			1	.355** .000	.215** .000	.230** .000	.057** .000	.079** .000	-.011** .000	-.010** .000	.002 .349
LCI Sig. (2-tailed)				1	.300** .000	.270** .000	.009** .000	.062** .000	.017** .000	.021** .000	.010** .000
LTL Sig. (2-tailed)					1	.393** .000	.064** .000	.072** .000	.046** .000	.035** .000	.027** .000
LMS Sig. (2-tailed)						1	.066** .000	.061** .000	.018** .000	.024** .000	.029** .000
LAT Sig. (2-tailed)							1	.286** .000	.207** .000	.139** .000	.158** .000
LPE Sig. (2-tailed)								1	.217** .000	.175** .000	.217** .000
LP Sig. (2-tailed)									1	.309** .000	.256** .000

LPSD Sig. (2-tailed)										1	.281**  .000
LATTA Sig. (2-tailed)											1

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

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.5.2 shows the correlation between school leadership and student outcome in moderate performing schools in Indian and the significant positive and negative correlation were found at 0.01 level. The school leadership in moderate performing school was highly correlated with leading teaching-learning practices and with leading management of school because its correlation value was above 0.70 (Table-4.5.2). The correlation value between 0 .41 to 0.70 exhibits the moderate correlation was analyzed and it was found that the student outcome was moderately related with learners’ attendance, learners’ participation & engagement, learners’ progress, learners’ personal & professional development and with learners’ attainment. The correlation value between 0 .21 to 0.40 exhibits the low correlation or small relationship was analyzed. There was small relationship found in building vision & direction setting with leading change & improvement, leading teaching-learning, and with leading management of school. This building vision & direction setting by school head had negative slight relationship with learners’ progress ( $r = -.011$ ) and with learners’ personal and social development ( $r = -.010$ ) in moderate performing schools in India. It means schools heads building vision & direction setting practices did not related with learners’ progress and their personal and social development but it slight positively related with learners’ attendance, learners’ participation & engagement, and with learners’ attainment. There was positive slight relationship found leading change & improvement, leading teaching-learning, leading management of school with learners’ attendance, learners’ participation & engagement, learners’ progress, learners’ personal & social development, and with learners’ attainment in Indian moderate performing school but these relationships were mostly negligible relationship in context to school leadership core practices.

**Table-4.5.3 Correlation between school leadership and student outcome in Low performing Schools in India**

	Total SL	Total SOC	BVSD	LCI	LTL	LMS	LAT	LPE	LP	LPSD	LATTA
Total SL Pearson Correlation Sig. (2-tailed) N	1  154224	.280**  154224	.763**  154224	.802**  154224	.786**  154224	.798**  154224	.191**  154224	.248**  154224	.199**  154224	.190**  154224	.247**  154224
Total SOC Sig. (2-tailed)		1  .000	.190**  .000	.213**  .000	.248**  .000	.299**  .000	.741**  .000	.762**  .000	.793**  .000	.767**  .000	.775**  .000
BVSD Sig. (2-tailed)			1  .000	.562**  .000	.405**  .000	.436**  .000	.143**  .000	.196**  .000	.111**  .000	.107**  .000	.173**  .000
LCI Sig. (2-tailed)				1  .000	.490**  .000	.489**  .000	.123**  .000	.214**  .000	.149**  .000	.143**  .000	.193**  .000
LTL Sig. (2-tailed)					1  .000	.576**  .000	.169**  .000	.183**  .000	.208**  .000	.185**  .000	.208**  .000
LMS Sig. (2-tailed)						1  .000	.165**  .000	.189**  .000	.157**  .000	.164**  .000	.204**  .000
LAT Sig. (2-tailed)							1  .000	.513**  .000	.477**  .000	.400**  .000	.421**  .000
LPE Sig. (2-tailed)								1  .000	.481**  .000	.433**  .000	.491**  .000
LP Sig. (2-tailed)									1  .000	.559**  .000	.536**  .000
LPSD Sig. (2-tailed)										1  .000	.554**  .000
LATTA Sig. (2-tailed)											1

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

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.5.3 shows the correlation between school leadership and student outcome in moderate performing schools in Indian and it was that all the relationship were positively

correlated at 0.01 significant level. The overall school leadership was slight positively related with student outcome in low performing school as indicated by its correlation value ( $r = .280$ ). The correlation value more than 0.70 shows very high and positive correlation was analyzed. And it was found from the table 4.5.3 that school leadership and student outcome were highly related their core practices such as school leadership were related with building vision & setting direction, leading change & improvement, leading teaching-learning, and leading management of school; similarly, the student outcome was highly related with major five core-standards such as learners' attendance, learners' participation & engagement, learners' progress, learners' personal & social development, and with learners' attainment in low performing schools in India. Almost slight relationship was found in all leadership practices such with building vision & setting direction, leading change & improvement, leading teaching-learning and leading management of school with learners' attendance, learners' participation & engagement, learners' progress, learners' personal & social development, and with learners' attainment but it was found that leading teaching-learning were moving towards the moderate relation in two students outcome which were learners' progress, and learners' attainment as its correlation values shows ( $r = .208$ , &  $r = .208$ ).

**Table-4.5.4 Correlation between school leadership and student outcome in high performing schools in Delhi**

	Total SL	Total SOC	BVSD	LCI	LTL	LMS	LAT	LPE	LP	LPSD	LATTA
Total SL	1	.342**	.736**	.801**	.711**	.721**	.202**	.171**	.280**	.247**	.284**
Pearson Correlation											
Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
N	1480	1480	1480	1480	1480	1480	1480	1480	1480	1480	1480
Total SOC		1	.268**	.276**	.254**	.216**	.653**	.668**	.744**	.693**	.712**
Sig. (2-tailed)			.000	.000	.000	.000	.000	.000	.000	.000	.000
BVSD			1	.547**	.286**	.328**	.182**	.120**	.196**	.205**	.224**
Sig. (2-tailed)				.000	.000	.000	.000	.000	.000	.000	.000
LCI				1	.402**	.406**	.148**	.145**	.216**	.216**	.232**
Sig. (2-tailed)					.000	.000	.000	.000	.000	.000	.000
LTL					1	.441**	.164**	.140**	.206**	.176**	.193**



Sig. (2-tailed)						.000	.000	.000	.000	.000	.000
LMS Sig. (2-tailed)						1	.103**	.102**	.215**	.134**	.192**
							.000	.000	.000	.000	.000
LAT Sig. (2-tailed)							1	.292**	.341**	.317**	.294**
								.000	.000	.000	.000
LPE Sig. (2-tailed)								1	.381**	.300**	.397**
									.000	.000	.000
LP Sig. (2-tailed)									1	.395**	.425**
										.000	.000
LPSD Sig. (2-tailed)										1	.381**
											.000
LATTA Sig. (2-tailed)											1

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

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The relationship between school leadership and student outcome in high performing schools in Delhi has been shown above table (Table-4.5.4) and it was found that all the relationship between this two major variables were positive which were used to analyzed in this study. There were define but small relationship found in total school leadership and overall student outcome as denoted by its correlation value ( $r = .342$ ) and it was just nearby to moderate relationship means it can be improve by setting school context and by enabling sound leadership for effective student outcome. There were all most high & moderate positive relation existing between school leadership and with its core practices (building vision & setting direction, leading change & improvement, leading teaching-learning and leading management of school) and this was just same with the student outcome in Delhi's high performing schools. The correlation value from 0.41 to 0.70 says moderate relationship analyzed. There were moderate relationship found among core leadership practices such as building vision & direction setting was positive related with leading change and improvement ( $r = .547$ ), leading change & improvement was related with leading teaching-learning ( $r = .402$ ) and leading management of school ( $r = .406$ ), and lastly, leading teaching-learning was related with leading management of school ( $r = .441$ ). Analyzing

the relationship between core-leadership practices and various student outcomes was found substantial but small such as building vision & direction setting was positive related with learners' attainment ( $r = .224$ ), leading change & improvement was positively related with learners' progress ( $r = .216$ ), learners' personal & social development ( $r = .216$ ), and with learners' attainment ( $r = .232$ ), and leading management of school was positively related with learners' progress ( $r = .215$ ) in high performing schools in Delhi.

**Table-4.5.5 Correlation between school leadership and student outcome in moderate performing schools in Delhi.**

	Total SL	Total LOC	BVSD	LCI	LTL	LMS	LAT	LPE	LP	LPSD	LATTA
Total SL Pearson Correlation Sig. (2-tailed) N	1   1544	.104**  .000 1544	.656**  .000 1544	.672**  .000 1544	.694**  .000 1544	.737**  .000 1544	.098**  .000 1544	.027**  .000 1544	.088**  .000 1544	.047**  .000 1544	.027**  .000 1544
Total LOC Sig. (2-tailed)		1  .000	.073**  .000	.037  .142	.072**  .005	.097**  .000	.659**  .000	.538**  .000	.578**  .000	.580**  .000	.538**  .000
BVSD Sig. (2-tailed)			1  .000	.373**  .000	.230**  .000	.274**  .000	.027  .292	.038  .138	.061*  .016	.051*  .044	.038  .138
LCI Sig. (2-tailed)				1  .000	.278**  .000	.327**  .000	.075**  .003	-.005  .847	.055*  .031	-.028  .275	-.007  .781
LTL Sig. (2-tailed)					1  .000	.343**  .000	.091**  .000	.029  .261	.022  .384	.046  .073	.007  .783
LMS Sig. (2-tailed)						1  .000	.074**  .003	.012  .641	.102**  .000	.050  .051	.032  .206
LAT Sig. (2-tailed)							1  .000	.220**  .000	.199**  .000	.170**  .000	.189**  .000
LPE Sig. (2-tailed)								1  .000	.030  .239	.103**  .000	.239**  .000
LP Sig. (2-tailed)									1  .000	.255**  .000	.143**  .000

										.000	.000
LPSD Sig. (2-tailed)										1	.169**
LATTA Sig. (2-tailed)											1

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

\* . Correlation is significant at the 0.05 level (2-tailed).

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.5.5 shows the correlation between school leadership and student outcome in moderate performing schools in Delhi and the positive and negative correlation were found in which some relationship were significant at 0.01 level, some were significant at 0.05 level, some were not significant. The relationship between school leadership and student outcome was absolute zero relationship means almost negligible relationship found as its correlation value denotes ( $r = .104$ ). There were three negative relationship found which are learners' participation and engagement ( $r = -.005$ ), learners' personal & social development ( $r = -.028$ ), and learners' attainment ( $r = -.007$ ) relationship with leading change & improvement leadership practices. It indicated that the leading change & improvement if increase than these three student outcome will decrease and these relationship were not significant at all in Delhi moderate performing schools. The relationship of leadership core-practices such as building vision & setting direction, leading change & improvement, leading teaching-learning and leading management of school has no relationship with learners' attendance, learners' participation & engagement, learners' progress, learners' personal & social development, and with learners' attainment. The relationship of building vision & direction setting was positively related with learners' progress and learners' personal & social development but the relationship was negligible and it significant at 0.05 level. Similarly, leading change and improvement was positively related with learners' progress but the relationship was also negligible and significant at 0.05 level.

**Table- 4.4.6 Correlation between school leadership and student outcome in low performing schools in Delhi**

	Total SL	Total SOC	BVSD	LCI	LTL	LMS	LAT	LPE	LP	LPSD	LATTA
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Total SL Pearson Correlation Sig. (2-tailed) N	1	.330**	.761**	.785**	.760**	.801**	.182**	.323**	.164**	.235**	.256**
	719	719	719	719	719	719	719	719	719	719	719
Total SOC Sig. (2-tailed)		1	.236**	.306**	.257**	.230**	.674**	.665**	.730**	.723**	.729**
			.000	.000	.000	.000	.000	.000	.000	.000	.000
BVSD Sig. (2-tailed)			1	.569**	.368**	.440**	.114**	.254**	.122**	.129**	.213**
				.000	.000	.000	.000	.000	.000	.000	.000
LCI Sig. (2-tailed)				1	.421**	.476**	.163**	.302**	.160**	.198**	.253**
					.000	.000	.000	.000	.000	.000	.000
LTL Sig. (2- tailed)					1	.553**	.148**	.217**	.133**	.227**	.175**
						.000	.000	.000	.000	.000	.000
LMS Sig. (2-tailed)						1	.141**	.233**	.096**	.175**	.159**
							.000	.000	.010	.000	.000
LAT Sig. (2-tailed)							1	.289**	.389**	.329**	.320**
								.000	.000	.000	.000
LPE Sig. (2-tailed)								1	.310**	.279**	.440**
									.000	.000	.000
LP Sig. (2-tailed)									1	.494**	.397**
										.000	.000
LPSD Sig. (2-tailed)										1	.455**
											.000
LATTA Sig. (2-tailed)											1

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

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The table 4.4.6 shows the correlation between school leadership and student outcome in low performing schools in Delhi and it was that all the relationship were positively correlated at 0.01 significant level. The relation between school leadership and student outcome was found

substantial but small ( $r = .330$ ). The correlations between student outcomes with all core school leadership practices were low but the relationships were significant at 0.01 level. The correlation value between 0.21 to 0.40 exhibits the low correlation or small relationship was analyzed. There were small correlation found between school leadership practices and with various student outcomes like building vision & setting direction had two small positive relationship with learners' participation & engagement ( $r = .254$ ), and with learners' attainment ( $r = .213$ ). Similarly, leading teaching-learning had two positive small relationship with learners' participation & engagement ( $r = .217$ ), and with learners' personal & social development ( $r = .227$ ) in low performing schools in Delhi.

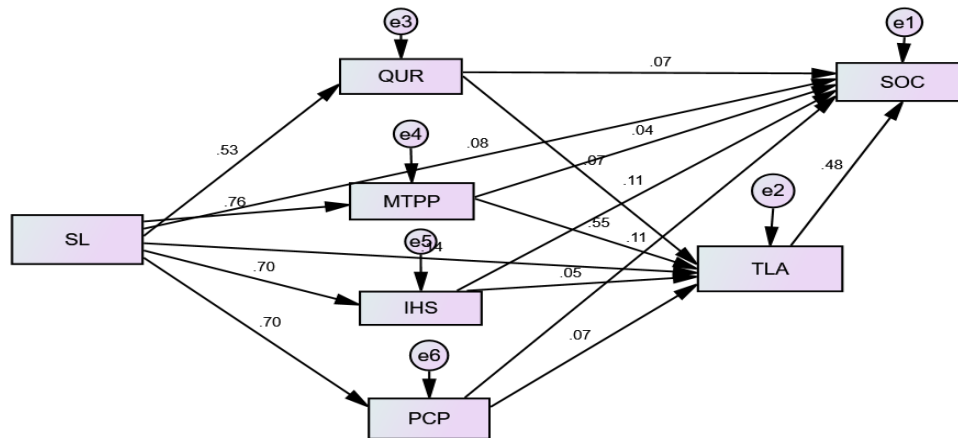
#### **4.6 Structural Equation Model Analysis for Student Outcome:**

A hypothesized model was developed by depending on *direct & mediated effect model for school leadership and teaching* given by Pitner (1988). The hypothesized model for student outcome was analyzed from the secondary database of Shaala Siddhi on 5.7 lakh School. The estimated model was over identified model which was best fit to assess the student outcome rather than just identified model. The estimated model uses the 7 key school performance domains among which prime endogenous variable was student outcome and school leadership was exogenous variable. The estimated model was analyzed through using AMOS 23.

#### **Analytical/Estimated Model:**

The estimated model uses the pre-established exogenous and endogenous variable means the Shaala Siddhi database has established well defined determinant or factor for each key domain. For instance, School leadership was determined by building vision & setting direction, leading change & improvement, leading teaching-learning and leading management of school; the student outcome has well defined determinants e.g., learners' attendance, learners' participation & engagement, learners' progress, learners' personal & social development, learners' attainment. Hence, the all construct were already established and for that no need were felt to conduct a exploratory factor analysis or confirmatory factor analysis. However, the estimated model was developed in following series of steps. Firstly, as mentioned above that no need were felt to conduct a factor loading on each used exogenous & endogenous construct but path specification & specification of relationship among construct were done. While specification of

path relationship, the two hypothesized model was generated. The first hypothesized model found more complex in respect relation of school leadership effect on organizational variable in leading to student outcome. The school process or organized variable was considerate as a mediating variable through which school leaders are affecting students outcome which were availability of resources (AAR), quality & usability of resources (QUR), managing teacher performance & professional development (MTPP), inclusion, health & safety (ISH), Productive community participation (PCP) & teaching-learning & assessment (TLA). In this first hypothesized model, it was found school leadership has relation to organizational variable and each organizational variable were associated in complex manner with each other such as SL had relation with MTPP and AAR, QUA, PCP had directed a relationship; after associated the relation of MTPP it was link to the Students outcome which had very low effect and the path relation was also found labored or complex. The same over complex relationship was found in each case of organization variable used as observed variable in the first hypothesized model and the CFI was not acceptable mark. The modification indices showed recommendation to drop the AAR observed variable and after the model was found very hard to define the exact pathways for student outcome Secondly, the hypothesized model was developed on basis of modification indices and effect score that researcher got from first hypothesized model. The second model showed the best fitted relationship like school leadership directed a effect on student outcome through four mediating variable (QUR, MTTP, ISH, PCP) and these mediating variable impacts students outcome through TLA. This second hypothesized model was best fitted to examine the pathways for student outcome. The fit indices for the final model indicate that the model had adequate fit as it CFA, NFI & RMSEA assures (CFI= .905, NFI= .905 & RMSEA =.276). The result indicated that final model estimation was fit as the Chi-square value was significant (Chi-square= 263515.57, df= 6, & p= .000). The model shows below.



**Figure: 4.6.1 Pathways model of school leadership and Students Outcome.**

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

The school leadership (SL) had a significant casual effect on quality & usability of resources (QUR) i.e., 0.53 which was entirely due to direct effect. The quality & usability of resources (QUR) was also found insignificant determinant for student outcome (regression effect=.07) and also same insignificant effect was described by quality & usability of resources (QUR) on teaching-learning & assessment (regression effect=.07). The direct significant causal effects were registered through school leadership on other school process or organizational process determinants such as managing teacher performance & professional development (MTPP) had 0.76 casual effect, inclusion, health & safety (ISH) had 0.70 casual effect and the same causal effect 0.70 was reported by Productive community participation (PCP) but teaching-learning & assessment (TLA) causal effect 0.14 was insignificant direct effect. The most effective or significant determinants of school leadership for student outcome was managing teacher performance & professional development (Casual effect= 0.76) which indirect effect on teaching-learning & assessment (Casual effect= 0.55) and it in-turn effect on student outcome (0.48).

**Table 4.6.1 Summary of standardized causal effect for student outcome via school leadership and school process variable (Direct & Indirect):**

Outcome (DV)	Determinant (IV)	Direct Effect	Indirect Effect
Quality & usability of resources	School leadership	.53	-----
managing teacher performance & professional development	School leadership	.76	-----
inclusion, health & safety	School leadership	.69	-----
Productive community participation	School leadership	.70	-----
teaching-learning & assessment	School leadership	.14	1.22
	managing teacher performance & professional development	.55	-----
	Productive community participation	.07	-----
	inclusion, health & safety	.05	-----
	Quality & usability of resources	.07	-----
Student Outcome	School leadership	.08	.55
	managing teacher performance & professional development	.04	.26
	Productive community participation	.11	.03
	inclusion, health & safety	.11	.02
	Quality & usability of resources	.07	.03
	teaching-learning & assessment	.48	-----



## CHAPTER-5 FINDINGS OF THE STUDY

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### 5.1 Objective 1:

- i. The school leadership performance in high & moderate performing schools in was found to be similar in India, and Delhi.
- ii. The school leadership performance in high & low performing schools in India were found to be same as well as in Delhi.
- iii. The student outcome in high & moderate performing schools was found to be just same in India, as well as in Delhi.
- iv. The student outcome in high & low performing schools in India was found to be exact the same in India, and in Delhi.

### 5.2 Objective 2:

#### **India:**

- It was found that mean, SD of school leadership for primary high performing school (M= 10.56, SD= 1.39), moderate performing schools (M= 8.45, SD= 1.15) & low performing school (M=6.33, SD= 1.73) were found same for upper primary school, secondary school & higher secondary schools across high, moderate and low performing schools in India.
- It was found that mean & SD of student outcome for primary high performing school (M= 12.59, SD= 1.69), moderate performing schools (M= 10.49, SD= 1.29) & low performing school (M=8.60, SD= 2.33) were found same for upper primary school, secondary school & higher secondary schools across high, moderate and low performing schools in India.

The mean is depicted below across all school levels (Primary, Upper Primary, Secondary, & Higher Secondary) in high, moderate, and low performing schools.

#### **High performing**

School leadership=Primary/upper primary/secondary/higher secondary (mean= 10)

Student outcome= Primary/upper primary/secondary/higher secondary (mean=12)

### **Moderate performing:**

School leadership=Primary/upper primary/secondary/higher secondary (mean= 8)

Student outcome= Primary/upper primary/secondary/higher secondary (mean=10)

### **Low performing**

School leadership=Primary/upper primary/secondary/higher secondary (mean= 6)

Student outcome= Primary/upper primary/secondary/higher secondary (mean=8)

### **Delhi:**

The mean and SD for school leadership, and student outcome in high, moderate and low across primary, upper primary, secondary & higher secondary schools were not the same for Delhi.

### **High performing:**

- The school leadership in higher-performing schools in Delhi was not in good practice across school level as shows the mean & SD values of them (primary= 10.47, **upper primary= 8.45**, secondary= 10.82, & higher secondary= 10.68) and among them, school leadership at upper primary high performing schools in Delhi weren't in average or in perfect position.
- Student outcome in high performing school was an average or just a bit of above average position (primary mean & SD = 12.37, 1.737; **upper primary mean & SD= 13.28, 1.752**; secondary mean & SD= 12.82, 1.792; higher secondary mean & SD= 12.71, 1.839).

It was found that school leadership in upper primary schools in Delhi much worsened but the student outcome there is better in comparison to other school levels and the reason is behind that students are in upper primary schools are happening without the help of school leadership.

### **Moderate performing:**

- The school leadership in moderate performing schools in Delhi was not in good practice across school level as shows the mean & SD values of them (primary mean & SD = 8.31,

1.284; upper primary mean & SD= 8.45, 1.415; secondary mean & SD= 8.48, 1.074; higher secondary mean & SD= 8.40, 1.183) and overall or at each school leadership in moderate performing schools in Delhi were in average position.

- Student outcome in moderate performing school was an average or just a bit of above average position (primary mean & SD = 10.35 , 1.316; upper primary mean & SD= 10.40, 1.511; **secondary mean & SD= 9.96, 1.554**; higher secondary mean & SD= 10.02, 1.350

It was found that school leadership in moderate performing primary, upper primary, secondary, & higher secondary schools were the same, but for student outcome, secondary schools in moderate performing schools were not performing well.

### **Low Performing:**

- The school leadership in low performing schools in Delhi was not in good practice across school level as shows the mean & SD values of them (primary mean & SD = 6.37, 1.607; **upper primary mean & SD= 5.94, 1.623**; secondary mean & SD= 6.71, 1.762; higher secondary mean & SD= 6.47, 1.703) and overall or at each school leadership in low performing schools in Delhi were in worsened situation itself and as a comparison to Delhi's high & moderate performing schools.
- The student outcome in low performing schools in Delhi was not satisfactory level or worsened as shows by the mean & SD values of them (primary mean & SD = 8.26, 1.916; **upper primary mean & SD= 7.75, 1.914**; **secondary mean & SD= 7.77, 1.871**; **higher secondary mean & SD= 7.89, 1.871**).

It was found that school leadership in upper primary schools in Delhi wasn't good, and student outcome in upper primary, secondary, and higher secondary was much worsened.

- It was found from the mean comparison between high & moderate and between high & low for school leadership and for student outcome across primary, upper primary and secondary school and the z-value shows it was a highly significant for India & as in Delhi.

- In high performing schools in India, found that student outcomes between primary & secondary schools were not significantly different from each other, and it indicates the same amount of students has been seen in primary school and as well as in Secondary school. And rest of the other mean comparisons for student outcomes were found significant between primary & upper primary, primary & higher secondary, upper primary with secondary, upper primary with higher secondary, and between secondary with higher secondary.
- In high performing schools in India, it was found that all the mean comparison (between primary & upper primary, primary & secondary, primary & higher secondary, upper primary with secondary, upper primary with higher secondary, and between secondary with higher secondary) for school leadership were significant which indicates that there were variation in leadership practices across the school level.
- In moderate performing schools in India, there were three not significant differences found for school leadership between primary & upper primary, primary & higher secondary, and between upper primary & higher secondary which tells that the way primary school heads were practicing their leadership, exact the same way upper primary school head practicing their leadership role. Similarly, the way primary school heads were practicing their leadership, exact the same way higher secondary schools heads practicing their leadership role, and it goes to between all school levels those were found not significant. The leadership pattern was varied in two comparisons between primary & secondary, and between secondary & higher secondary in moderate performing schools in India.
- In Moderate performing schools in India, it was found that all the mean comparison (between primary & upper primary, primary & secondary, primary & higher secondary, upper primary with secondary, upper primary with higher secondary, and between secondary with higher secondary) for student outcomes were significant which indicates that the student outcome across the school levels was same.
- In low performing school in India, only one not significant difference was found for school leadership between primary & secondary school which indicates that both school heads of primary and secondary schools were practice same leadership and others mean comparison found significant which says variation in leadership pattern.

- In low performing school in India, only one not significant difference was found for student outcome between primary & secondary school which indicates that both school heads of primary and upper primary schools were registered the same amount of student outcome, and others mean comparison found significant, which says student outcome was varied to between school levels.

The result of not significant in Indian high, low performing schools is depicted in given below table.

Table-5.1 Z & P-values of school leadership & student outcome in high, moderate & low performing schools in India.

• Schools	• Categories	• Z & p value
• High performing	• Student outcome between primary & secondary	• Not significant (Z=1.53, p=0.12)
• Moderate performing	• School leadership between primary & upper primary	• Not significant (Z=-0.34, p=.737)
	• School leadership between primary & higher secondary	• Not Significant (Z= -2.35, P=.018)
	• School leadership between upper primary & high secondary.	• Not Significant (Z= -2.07, p= .038)
• Low performing	• School leadership between primary & secondary	• Not significant (Z=2.30, p=.021)
	• Student outcome between primary & upper primary	• Not significant (Z= -0.07, p=.947)

Source: Analyzed from Shaala Siddhi Secondary Database (2018-19).

- High performing school in Delhi: 1. It was found that the mean difference of school leadership in high performing schools between primary & upper primary, upper primary

and secondary, upper primary & higher secondary, secondary & higher secondary were not significant. 2. The student outcome between secondary & higher secondary high performing schools were not significant.

- Moderate performing schools in Delhi: 1. It was found that the mean difference of student outcome in moderate performing schools between primary & high secondary, and between upper primary with higher secondary school student outcome were significant and other comparison were not significantly different from each other (Primary & upper primary, primary & secondary, upper primary & secondary, secondary & higher secondary). 2. It was found that all the mean comparison for school leadership was not significant at all (between primary & upper primary, primary & secondary, primary & higher secondary, upper primary with secondary, upper primary with higher secondary, and between secondary with higher secondary), and the same kind of leadership practice is going on across the school level means effective school leadership was totally missing in moderate performing schools in Delhi.
- Low performing schools in Delhi: 1. it was found that the mean difference for school leadership in low performing schools between primary & secondary, primary with high secondary, and between secondary with higher secondary schools leadership were not significant.
- 2. It was found that student outcomes in low performing schools between primary & upper primary and primary & higher secondary were significant and not significant between primary & secondary, upper primary with secondary, upper primary with higher secondary, and between secondary & higher secondary schools.

### **5.3 Objective 3:**

#### **India:**

High performing schools:

1. A positive & significant relationship was found between overall school leadership & student outcome, but it was definite but low ( $r=.266$ )
2. There is negligible relationship was found between school leadership core-standards and student outcome core standards but building vision & direction setting, and leading-

teaching learning can have more change & improvement in high performing schools in India.

Moderate performing schools:

1. The overall school leadership had slight and negligible positive relation with student outcome in moderate performing school as indicated by its correlation value ( $r = .085$ ).
2. This building vision & direction setting by the school head had negative slight but negligible relationship with learners' progress ( $r = -.011$ ) and with learners' personal and social development ( $r = -.010$ ) in moderate performing schools in India.

Low performing schools:

1. The overall school leadership had definite but small positive relationship with student outcome in low performing school as indicated by its correlation value ( $r = .280$ ).
2. it was found that leading teaching-learning had definite but small relationship with two students outcome which were learners' progress, and learners' attainment as its correlation values shows ( $r = .208$ , &  $r = .208$ ).
3. LCI was low in correlation with learning related to learners' participation & engagement (2.14).

**Delhi:**

**High Performing:**

1. The overall school leadership had definite but small positive relation with student outcomes in high performing school as indicated by its correlation value ( $r = .342$ ) near to the moderate relationship.
2. BVSD (building vision & setting direction has definite small relationship with learners' personal & social development ( $r = .205$ ), & with student attainment ( $r = .224$ ).

3. LCI (leading change & improvement) has definite small relationship with learners' progress ( $r=.216$ ), personal & social development ( $r= .216$ ), & with student attainment ( $r= .232$ )
4. LTI (leading-teaching learning) & LMS (leading management of school) has defined small relation with learners' progress.

#### Moderate Performing Schools:

1. The overall school leadership had negligible positive relation with student outcome in moderate performing school as indicated by its correlation value ( $r= .104$ )
2. There were three negative relationship found which are learners' participation and engagement ( $r= -.005$ ), learners' personal & social development ( $r= -.028$ ), and learners' attainment ( $r= -.007$ ) relationship with leading change & improvement leadership practices.

#### Low performing Schools:

1. The overall school leadership had definite but small positive relation with student outcomes in low performing school as indicated by its correlation value ( $r= .330$ ) near to the moderate relationship.
2. BVSD has a definite small positive relationship with learners' participation & engagement ( $r=.254$ ), and with learners attainment ( $r=.213$ ).
3. LTI has a definite small positive relationship with learners' participation & engagement ( $r=.217$ ), and with learners' personal and social development ( $r= .227$ ).
4. LMS has definite small positive relation with learners' participation & engagement ( $r=.223$ ),

#### 5.4 Objective 4:

- i. School leadership has a direct causal effect on quality & usability (.53), managing teacher personal and social development (.76), inclusion, health & safety (.69), and productive community participation (.70). The school leadership has a direct causal effect on



teaching learning & assessment (.14) which was lowest than other effects. Therefore, it was found that the most effective direct causal effect was managing teacher personal and social development.

- ii. It was found that among this school process variable, the managing teacher personal and social development (MTPP) had the highest effect on teaching-learning & assessment (TLA), and the effect was about .55.
- iii. It was found that quality & usability of resources (QUR), inclusion, health & safety (HIS) and productive community participation (PCP) had effect on teaching-learning & assessment (TLA) but the effect was very poor.
- iv. It was found that the most effective or significant determinants of school head for student outcome was Managing Teacher Performance and Professional Development which has an indirect effect on Teaching-Learning & Assessment and it in-turn effect on Student Outcome.
- v. It was found that the direct effect of school leadership on student outcome was very low (causal effect= .08).

## **CHAPTER-6**

### **EDUCATIONAL IMPLICATION & CONCLUSION**

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This chapter contains the educational implication, conclusion and suggestion for future research. This chapter extensively discussed the educational implications in three sections such as theoretical implication, policy implication & practitioners' implication. This chapter proceeds in the following manner.

6.1 Educational Implication

6.2 Conclusion

6.3 Suggestion for Further Studies.

#### **6.1 Educational Implication:**

The educational impact of this study is discussed in three sections, first- theoretical implication dealt with existing theories for school management & school self evaluation and how school self evaluation theories are connected to school leadership practices & student outcome. Secondly- policy implication dealt with existing policies related school self evaluation and further, discussion led to new policy direction for school leadership & student outcome in India. Thirdly- practitioners implication dealt with the status of school leadership practices & student outcome, and gave a evidentially collective way to practitioners (school head & teachers) professional development.

##### **i. Theoretical implication:**

The earlier studies report that school management strategies viewed as three approaches firstly, school's self evaluation as a highly reliable organization concerning on pupils achievement (social, mental, emotional & physical enhancement). School as a high reliability concept indicates all concerned members of the schools strive for excellence of school by having or presume a principle of trial without error for optimal school career for their pupil's desired aims & goals. Secondly, school is like as a learning organization which is concerning on teachers &

staff. It describes a school is a place where teachers & staff can learn during their work and developed their professional development. This second theoretical approach to school as a learning organization describes learning organization as a dynamic process where all school staff are shared their individual strength and aims to work out collectively and to build effective or efficient methods to realize the school's aims & objectives. Thirdly, school self evaluation developed under the pressure of external agencies (parents, community member, etc.). This last theoretical approach emerged from the contingency theory of management (Mintzberg, 1997). It included the perspective schools self evaluation (SSE) through external community surrounded by schools, and it demands or seeks for quality schooling where their children can have good quality education. The parents choose academically improved schools for their children, which led a thrust to the school process, and simultaneously, it demands for school improvement. **Hofman, Dijkstra & Adriaan Hofman (2009)** describes the external versus internal evaluation theory highlighted that school performances are depended on external function & internal function. The external function working as a safeguard of quality education in schools, and in most European countries, national inspector of education is responsible for that task; just similar to our Indian education system but the difference is that the district education coordinator, and along with school inspector is responsible for that task. The government is maintaining their school through these officials in India based on standard objectives or criteria of the succession of school outcome by inspection & supervision of school inspector & district coordinator largely. The internal function of the schools largely depends on the school head/school leaders who are responsible for the safeguarding of quality education, teaching-learning process, and for maximum school performance. However, this theory of school evaluation is in practice in India as the Shaala Siddhi data capturing format shows the school internally evaluates their performance by school head and their along staff. The evaluation is also done by external giving a whole date on school performance which intern gives insights on school leader effectiveness. However, this external versus internal theory has an evidenced-based implication for school leadership performance and student outcomes in Indian schools.

## **ii. Policy Implication:**

This study was built on the Shaala Siddhi secondary database, run by the National Institute of Educational Planning & Administration (NIEPA); the national organization that is responsible

for policy making & implementation. Shaala Siddhi has generated a momentum on the significance of school evaluation for school improvement amongst the 1.5 million diversified Indian schools, and created the culture of school self –evaluation through collective professional decision making based on evidences or developed a clear understanding amongst the systemic level decision-makers and other stakeholders regarding the developmental notion of school evaluation for school improvement. The result of this study describes the school performance levels of school leaders’ and student outcomes at the National and state level. The school performance analytics or school assessment is needed to be done at district (by District education officer), block (by block education officer) for guiding the policies and decision-making process in a robust manner. Hence, the aspirational district or backward district’s school accountability will be assessed and enhanced by the work of the District Education Officer & Block Education Officer. The New Education policies are talked about children’s critical thinking abilities, emotional development, creativity, fundamental capacity or make them how to learn, and for that govt. made an announcement about an implemental initiative, i.e., “SARTHQA” which is Student and Teachers’ Holistic Advancement through quality education. This study was highlighted the school level means which primary, upper primary and secondary schools are performing worsened across high, moderate, & low performing schools. Therefore, based on that school assessment information, the policy implementation can be done in an effective way. The Shaala Siddhi data can be more robust, if their member can include learning outcomes as a separate domain with three core standards such as the cognitive, affective, and emotional outcome of SC, ST, OBC, Minority, and General student. Though they are collective learning outcome data but it was not specified in a holistic manner and data were in percentage form, and also not given the total number of students in each class. They can include a core stand in the availability of resources domain like availability of technology. The process leads towards empowerment, accountability and change in the belief system - ‘Beyond School Evaluation -How to improve the school performance and help us to reduce learning crisis.

### **iii. Practitioners’ implication:**

This study gave insights about school leaders relationship with student outcome and the relationship was worsened across high, moderate, and low performing school but much worsened in moderate performing schools in Delhi as well as in India, and also gave an insights about how

Indian school leaders are working to enhance student outcome which was teacher management & professional development, and teaching-learning assessment. The whole picture demands training & experience in school management both for school leaders and teachers. The School Leadership Development Programme and it offered eight foundation courses for school heads. These courses are Perspective on School Leadership, Developing Self, Transforming Teaching-Learning Process, Building & Leading Teams, Leading Innovation, Leading Partnership, Leading School Administration, and Consolidation & Drawing School Development Plan but the ground situation wasn't at desired level nor in satisfactory level which shows Indian school head or teacher still have lack of training to practice their responsibilities. The leadership training program such as NISHTHA and Capacity building programme are not able to give job satisfaction to the school leader as highlighted by previous studies. The school leaders' are burnout at their job places and emerged a left tendency from one school to another (Sreedevi, 2015; Maxwell & Riley, 2017; Suleman et al., 2018). Therefore, policy builder or designer of school leadership programme can include school leaders' wellbeing and use of emotion labor, and shows them how it works in job places. The Learners' Attainment, Learners' Progress, Empowering Community, Leading Change and Improvement, Learners' Personal and Social Development, Utilization of Teaching-learning Resources, Community as Learning Resource, Building Vision and Setting Direction & Learners' Participation and Engagement wasn't good. And to enhance the above mentioned core-standards, the effective practice of leader and accountability of teacher needs to be there in school. And besides that, effective or fruitful training required to implement the predefined goal made by various policies.

## **6.2 Conclusion:**

School heads who are more committed to the values of the school and to its teacher for achieving the school goals. The school head is not only affecting the management but also has to provide instructional leadership. School heads, by leading the teaching-learning process through teachers & other supporting staff can enhance student outcomes. The conclusion of this study is given below.

- It is found that there are variations in the school leadership practice in high, moderate, and low performing schools.

- There are significant differences found in the school leadership and student outcome across primary, upper primary, secondary and higher secondary schools in India, but in Delhi, there are significant and not significant differences were registered across all school levels which are belonging from different school management.
- The relationship status of school leadership and student outcome in the Indian context wasn't good, mostly the worse relationship had been seen, and in the moderate performing school. The relation between school leadership and student outcome was largely devastating both in National Context and in Delhi.
- It has been found that there are multiple pathways which act as mediating variables for student learning outcome. The school head's affects are on managing teacher performance, and professional development which in turn affect teaching-learning & assessment and that enhance student outcomes.

This could be used as a reference for measuring the existing policies, and later, it helped the policymaker to make a change in their practices.

### **6.3 Suggestion for Further Studies:**

- a. A longitudinal study on school effectiveness can be conducted by including all the seven domains of Shaala Siddhi.
- b. The school dash board can be verified by having field visit for greater reliability even for large-scale data in short-term research.
- c. There is need for development of indigenous model of school leadership, and student learning outcome in India.
- d. Other variables like gender, work experience, rural & urban school leadership and socio-economic variables of the student or their parents can include to the student the effectiveness of school leadership and student outcome.
- e. The leadership style, leaders' communication with teachers and students as well as various behavioural components of teacher and school head can be undertaken.
- f. As it is found in Indian context, school leadership directly effect quality & usability of school resources, teacher management, Learners personal and social development, inclusion, health & safety, and productive community participation, the studies can be taken good practices in these areas.

- g. The dimension of commitment of school leaders (Affective, Continuance & Normative) can include studying their commitment to achievement and which leadership style and what pattern of communication is needed for their commitment to achievement.

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# APPENDIX

## School Evaluation Dashboard Evaluation for Improvement

School UDISE ID: \_\_\_\_\_  
 Name of School: \_\_\_\_\_ School Head / Principal: \_\_\_\_\_  
 Address: \_\_\_\_\_ Locality: Rural  Urban  Tribal  Category (Classes being taught): \_\_\_\_\_

### LEARNERS' PROFILE & LEARNING OUTCOMES

**Demographic Profile**

Category	SC	ST	OBC	General	Minority	Total
Number						

**Classwise Annual Attendance Rate #**

Class	Boys	Girls	Total
I			
II			
III			
IV			
V			
VI			
VII			
VIII			
IX			
X			
XI			
XII			
Total			

### LEARNING OUTCOMES (ANNUAL/ CONSOLIDATED REPORTS)

Class	Percentage of students who scored in respective percentage range							
	< 33	33-40	41-50	51-60	61-70	71-80	81-90	91-100
I								
II								
III								
IV								
V								
VI								
VII								
VIII								
IX								
X								
XI								
XII								

### TEACHERS' PROFILE

Number of teachers in each category

Male	Female	Total
Trained	Trained	Trained
Untrained	Untrained	Untrained

### PERFORMANCE IN KEY SUBJECTS (ANNUAL)

Class	Key Subject/Stream	Total Student	Percentage of Students in each grade*					Subjects with consistent low performance
			A	B	C	D	E	
VII	Language - I							
	Language - II							
	Math							
IX	Science							
	Social Science							
	Language - I							
X	Language - II							
	Math							
	Science							
XI	Social Science							
	Language - I							
	Language - II							
XII	Math							
	Science							
	Social Science							

\* Criteria to respond for performance of the students  
 Grade A: Students have achieved 81 - 100 marks in key subjects;  
 Grade B: Students have achieved 61 - 80 marks in key subjects;  
 Grade C: Students have achieved 41 - 60 marks in key subjects;  
 Grade D: Students have achieved 21 - 40 marks in key subjects and;  
 Grade E: Students have achieved 00 - 20 marks in key subjects

# Attendance rate is the average attendance of all the students on all the instructional days of the school.  
 Annual Attendance Rate =  $\frac{\text{Annual Attendance}}{\text{Annual Instructional days}} \times 100$

### SCHOOL EVALUATION COMPOSITE MATRIX

Level	Availability and Adequacy		Quality and Usability		Prioritize the area of improvement	Number of Core Standards in each level		
	Self	External	Self	External				
<b>DOMAIN - I</b> Enabling resources of School: Availability, Adequacy and Usability Core Standards: 12	School Premises		Playground and Sports Equipment / Materials		L/M/H #	Availability and Amount Level 1 Quality and Usability Level 2 Level 3		
Classrooms and Other Rooms		Electricity and Gadgets						
Library		Laboratory						
Computer (where provisioning exists)		Ramp						
Mid Day Meal, Kitchen and Utensils		Drinking Water						
Hand Wash Facilities		Toilets						
<b>DOMAIN - II</b> Teaching-learning and Assessment Core Standards: 9	Teachers' Understanding of Learners		Subject and Pedagogical Knowledge of Teachers				Level	Number of Core Standards in each level Level 1 Level 2 Level 3
Planning for Teaching		Enabling Learning Environment						
Teaching-learning Process		Class Management						
Learners' Assessment		Utilization of Teaching-learning Resources						
Teachers' Reflection on their own Teaching-learning Practice		Learners' Attendance						
Learners' Participation and Engagement		Learners' Progress						
Learners' Personal and Social Development		Learners' Attainment						
<b>DOMAIN - III</b> Learners' Progress, Attainment and Development Core Standards: 5	Orientation of New Teachers		Teachers' Attendance		Level	Number of Core Standards in each level Level 1 Level 2 Level 3		
Assigning Responsibilities and Defining Performance Goals		Teachers' Preparedness for Changing Curricular Expectations						
Monitoring of Teachers Performance		Teachers' Professional Development						
Building Vision and Setting Direction		Leading Change and Improvement						
Leading Teaching-learning		Leading Management of School						
<b>DOMAIN - IV</b> Managing Teacher Performance and Professional Development Core Standards: 6	Inclusive Culture		Inclusion of Children with Special Needs (CWSN)		Level	Number of Core Standards in each level Level 1 Level 2 Level 3		
Physical Safety		Psychological Safety						
Health and Hygiene		Organization and Management of SMC/ SOMC						
Role in School Improvement		School Community Linkages						
<b>DOMAIN - V</b> School Leadership and Management Core Standards: 4	Community as Learning Resource		Empowering Community		Level	Number of Core Standards in each level Level 1 Level 2 Level 3		
<b>DOMAIN - VI</b> Inclusion, Health and Safety Core Standards: 5	Physical Safety		Psychological Safety					
<b>DOMAIN - VII</b> Productive Community Participation Core Standards: 5	Health and Hygiene		Role in School Improvement		Level	Number of Core Standards in each level Level 1 Level 2 Level 3		
School Community Linkages		Community as Learning Resource						

Note: Write level against each core standards in numeric (e.g., 1, 2, 3) by using matrix of each Key Domain  
 Self - Levels judge by school, External - Levels judge by External Evaluators

© Low/Medium/High



## Structure of Each Key Domain

### About the Key Domain

Each key domain begins with a brief introduction to highlight the importance of the specific performance area for the school. It also describes significance of the key domains. Each Key Domain is structured in a sequential manner comprising Reflective Prompts, Factual Information, Core Standards with Descriptors and Supportive Evidences to make objective judgements for both self and external evaluation. There is also a Response Matrix at the end of each Key Domain to record judgements.

### Reflective Prompts

These are a set of reflective questions that form a prelude to the main contents of each domain. They are broad-based questions that set the school to introspect and deliberate upon collectively, before attempting to evaluate itself against each key domain. They provide an insight into the kind of information that needs to be addressed, thus preparing the school for a more robust evaluation.

### Factual Information

Factual information is a set of questions or data points which capture the school's overall status in a particular key domain. These may be in the form of statistical data or short responses. Some of the information, so collected, may not otherwise be captured in the core standards that follow and would, in this sense, add substance to the evaluation. The school may use data available with it or information collected earlier from other sources. Factual information helps a school make a more accurate judgment later when placing itself against a particular core standard. It also helps the external evaluator understand the school better as a precursor to evaluation against core standards, besides helping to corroborate judgment against the descriptors.

### Core Standards

The core standards under each key domain address the most significant dimensions of the respective key domain. These formulate measurable expectations, setting benchmarks for quality, and provide a common basis for school evaluation. They place the expected level of performance in an incremental manner across three levels.

They cover the critical elements that need to be taken into account to bring about holistic improvement in a particular key domain. Core standards also provide a direction to a school that embarks on a journey of improvement.

### Descriptors for Core Standards

Descriptors are complete statements that define the extent of fulfillment of a core standard at each level. They define the scope of each core standard for a particular level. The

descriptors are not prescriptive in nature and lend themselves to various ways of fulfilling a core standard. The descriptors are written in a hierarchical order across three levels. It helps a school place itself at a particular level and also understand its next aspiration-al level. Due to the incremental nature of descriptors, it is expected that a school placing itself at any particular level would be fulfilling the demands of the lower levels too. For example, a school at level three for a defined core standard is expected to be fulfilling levels 1 and 2 of the same core standard.

### Sources of Evidence

Evidence helps a school to support its judgment of placing itself at a particular level. The school is expected to provide appropriate evidence for its claim against each core standard. Suggested sources of evidence have been listed out towards the end of each key domain. The school may choose appropriately from this list, depending on the level it places itself at, to support its claim. The school may also furnish alternative evidences which may not be listed. Sources of evidence may be records in the form of documents/ photographs/ statistical data/ audio-visual material etc. available in the school. The school may also use U-DISE school report card as data base. Further school needs to create its source of evidence that classroom observation capturing the voices of learners, parental views and SMC suggestions.

Sources of evidence may be classified as:

Referential Evidence – Norms/ Guidelines and Frameworks, Registers, Government Orders, etc.

Supportive Evidence – Records Available with the School

Evidences that a school needs to create

### Response Matrix

Each key domain has a 'Response Matrix'. The response matrix should be used by a school to record its response against each core standard. The response should be collectively decided by the school who deliberate and make judgments based on descriptors. The school should respond to or choose only one level against each core standard. The response matrix is a comprehensive table that helps a school get a complete picture of their current status in each Key Domain. By the end of the evaluation process, the school is expected to fill seven such response matrices.

### Innovation (s)

Each domain provides an opportunity for the school to record innovative practices, if any, and/or strengths of the school, hitherto not covered in the core standards and their descriptors. It gives scope to appreciate the uniqueness of each school. It acknowledges that the school may be doing other practices beyond the scope of this framework. It provides a formal space for a school to make known its context specific micro-innovations.

## Approach to School Evaluation

The SSE Framework is a strategic instrument for both self and external evaluation. Self-evaluation is considered as the nucleus of the school evaluation process. It is intended to provide the school personnel with a common understanding of the school's overall performance and identify priority areas for development. External Evaluation follows as a complementary exercise to self-evaluation so as to ensure that the two approaches work in synergy and respect the strengths and insights that each brings to the overall evaluation. It aims to develop a complete picture of the school for supporting its overall improvement.

	Self Evaluation	External Evaluation
	<p>A continuous and cyclic process; embedded in day- to-day activities of the school</p> <p>School, as a whole, acts collaboratively involving all its stakeholders, including the SMC/SDMC</p>	<p>A complementary exercise to self-evaluation to develop a complete and objective picture of school performance</p> <p>Evaluators are external to the school and internal to the system- like Education Officials, Head Teachers of other schools, other Public Administrators, etc.</p>
	<p>Process of self-evaluation includes steps such as building preparedness among all stakeholders;</p> <p>collecting and analyzing evidences;</p> <p>recording judgment in the response matrix; preparing consolidated report in the School Evaluation Dashboard</p>	<p>Evaluators act as 'Critical Friend' to school; analyze and review self-evaluation documents; seek additional information from teachers, parents, children and other stakeholders; observe classroom practices and functioning of the school; give objective feedback to school; record judgment and prepare the evaluation report; provide support in prioritized areas for improvement</p>
	<p>Is undertaken throughout the term (July-June)(The consolidated report filled in School Evaluation Dashboard needs to be submitted at the end of the term)</p>	<p>Is planned for twice a year, typically as mid-term and end-term exercise. (The states may decide on the frequency of external evaluation as per their criteria)</p>

## APPENDIX-1

### Domain III

#### Learners' Progress Attainment & Development

##### About Domain

Holistic Development of the learner is the primary objective of good schooling. This encompasses development of learners in the cognitive, affective as well as psychomotor domains. The school aims to achieve this by encouraging learners to participate in all curricular areas, continuously monitoring their progress over a time period of time. Apart from scholastic progress, it also promotes their personal and social well-being. This involves providing a variety of opportunities in co-scholastic areas to develop student talent, internal-personal and social skills. The scope of this domain thus encompasses all aspects of desirable learning outcomes.

##### Reflective Prompts

- Q1.** Do learners come to school regularly and punctually?
- Q2.** How does the school monitor attendance and address learning loss in case of prolonged absence?
- Q3.** To what extent does the school ensure student participation in several learning activities?
- Q4.** In what ways does the school identify and promote the talents of learners in different areas?
- Q5.** How does the school assess the learners' attainment and ensure that they progress from one class to the next as per the curriculum expectations?
- Q6.** How does the school monitor the curricular progress of learners on a continuing basis?
- Q7.** How does the school ensure personal and social development of learners as well as observe their progress in the same?

1. Average school attendance for the current academic year \_\_\_\_\_

2. Types of rewards (if any) given to learners for punctuality and regular attendance:

3. Record of actions to promote regularity and punctuality in attendance

a. meetings with parents/ guardians in contact register

b. reminder/ letter sent to the parents/ guardians of learners irregular with attendance

c. other (please mention) \_\_\_\_\_

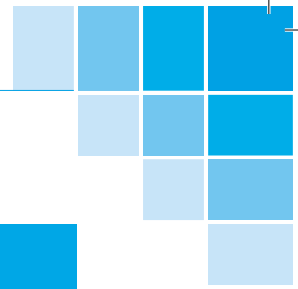
d. no record

4. Are the learners' attendance registers kept up-to-date? Yes No

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



5. a. Is average attendance calculated monthly for every learner? Yes  No
- b. Is average attendance calculated monthly for every class? Yes  No
6. Alternative arrangements made for classes which the teachers could not take:
- a. classes are combined with that of other teachers
- b. another free teacher takes the class
- c. no arrangement made
- d. any other (please mention) \_\_\_\_\_
7. a. Is personal hygiene of learners checked and assured by the school? Yes  No
- b. If, yes then
- i. personal hygiene is stressed upon occasionally during school assembly
- ii. checking and questioning individual learners in class or during school assembly almost daily
- iii. stressing importance of personal hygiene during school assembly
- iv. any other (please mention) \_\_\_\_\_
8. List the activities undertaken in the school that help in personal and social development of learners:  
\_\_\_\_\_
9. How is learners' personal development monitored?  
\_\_\_\_\_
- a. By observing learners in class and during their participation in games/ sports and other co-scholastic activities
- b. By keeping a record of learners' participation and attainment
- c. No efforts made to monitor personal-social development
- d. Any other (please mention) \_\_\_\_\_
10. How is learners' attainment measured and how is the progress ascertained over time?
- a. By counting periodic tests  b. Half yearly
- c. Annual exams  d. By awarding grades based on marks



Core Standard	Descriptor		
	Level-1	Level-2	Level-3
<b>Learners' Attendance</b>	Teachers take and record attendance of learners regularly; identify learners who are frequently absent or not punctual; display class-wise attendance of the learners on the school noticeboard; sometimes inform parents about frequently absent learners	School provides regular information about learner attendance to parents; identifies the reasons for prolonged and frequent absence; discusses with learners and parents about the implication of low attendance on learning, making home visits as and when appropriate	School analyzes attendance data of all learners; ascertains whether the high absence rates can be associated with any particular category of learners or at any period of the year; addresses the problem with the help of the SMC and parents; evolves measures to motivate learners and parents to ensure punctuality and regular attendance; acknowledges and appreciates punctuality and regularity of learners
<b>Learners' Participation and Engagement</b>	Learners listen quietly to teachers in the classroom without much interaction; organizes mandated school functions and co-scholastic activities; the same students usually participate in these activities	A few learners actively participate in classroom discussion and interactions; school organizes a variety of co-scholastic activities and cultural programmes; teachers motivate learners to actively participate in the same; a large number of students participate in these activities	All learners participate actively in classroom discussions and interact with teachers and peers; school identifies the talent of learners in different co-scholastic areas; provides them training and opportunities to excel in the same; all learners take interest and participate enthusiastically in various school functions and co-scholastic activities

Core Standard	Descriptor		
	Level-1	Level-2	Level-3
<b>Learners' Progress</b>	School documents and maintains records of learner's progress data as per mandate such as in the form of report cards, CCE register, etc.	School continuously gauges individual learner's progress against curricular expectations (scholastic and co-scholastic); creates a cumulative database across classes and for different groups of learners that is updated annually	School tracks and monitors each learner's progress across subjects and co-scholastic areas; tracks individual learner progress from the beginning and over time, keeping in mind the differential pace of learning of learners; analyzes the cumulative database to identify progress patterns and trends for classes and groups of learners; uses the findings of such analyses and incorporates the feedback in classroom practice; aspires to achieve/ exceed state/ national learner attainment levels
<b>Learners' Personal and Social Development</b>	School is aware of the indicators of personal and social development of learners e.g. spirit of nationalism, tolerance, secular behavior, good interpersonal relations, etc.; organizes activities like morning assembly, celebration of national days and festivals as per mandate	Teachers organize group activities in the class with a view to develop social and interpersonal skills; organize meetings with parents/ community for discussing social and personal development needs of learners	School integrates life skills development with day-to-day classroom transactions to promote creative and critical thinking, problem solving and decision making, communication and interpersonal skills; teachers create and use resources like stories, audio-video clips, etc. to create a conducive value ethos; teachers exemplify behavior as expected from learners; discuss with parents the role of both school and home in the personal and social development of the learner





Core Standard	Descriptors		
	Level-1	Level-2	Level-3
<b>Learners' Attainment</b>	Very few learners attain curricular expectations (knowledge and skills) in every grade as measured; school conducts assessment at the end of each academic year to ascertain grade exit levels of learners in all curricular areas	Some learners attain most of the curricular expectations (knowledge and skills) in every grade while most remain marginally below grade level expectations; school arranges for remedial measures for improving attainment levels and thereby preparing learners for next grade	Most learners' attainment is at par/ above expected grade level across the school; school continuously improvises its mechanism to ascertain grade exit levels of learners

*Response Matrix*

## Learners' Progress, Attainment and Development

Core Standard	Level 1	Level 2	Level 3
Learners' Attendance			
Learners' Participation and Engagement			
Learners' Progress			
Learners' Personal and Social Development			
Learners' Attainment			

## APPENDIX-2

### Domain V

About Domain Effective school leadership and management play a significant role in providing quality education. School leadership goes beyond administrative and managerial responsibilities to include proactive practices for school transformation. It includes developing a vision for a school and aligning all planning to it so as to improve the performance of the learners. It also involves maintaining a harmonious relationship with all stakeholders and including them in planning, decision making and general administration. School leadership aims at increased participation/ ownership in/ of school activities by the community. It strives at continuous improvement in the area of teaching and learning through continuous pedagogical innovation. A school needs a strong and focused leader who is committed to channelizing teachers, learners, community members and resources for achieving quality in all spheres.

#### Reflective Prompts

**Q1.** Does the school have a clear vision/ mission statement and development plan that is shared and understood by all?

**Q2.** How well does the School Head manage the day-to-day functioning of the school?

**Q3.** Does the School Head promote and participate in teaching-learning process?

**Q4.** How well does the School Head identify the developmental needs of the school and manage changes for continuous improvement?

**Q5.** How effectively does the School Head manage, and utilize the available financial, human and material resources?

**Q6.** How well does the School Head lead improvement in teaching-learning process and ensure enhanced teacher performance?

**Q7.** How does the School Head maintain a healthy relationship with staff members for school improvement?

Factual information: (School may response for more than one option in question if required)

1. Does the school have a vision /mission Statement?

Yes  No

If yes What are the main points in it for future development of school.

2. Is the School Development Plan (SDP) of previous year available? Yes  No

If yes, what are the main recommendations for the current year in the plan?

3. Was the SDP for the previous year implemented? Yes  No

If yes, to what extent were its goals for that year achieved and what were thereasons for shortfall, if any?

4. (i) What are the areas in which the School Head has received training?

a. Financial Management  b. ICT

c. School Leadership

d. Any other (please mention)

(ii) when and where did she/he receive training ?

5. How does the School Head usually take routine management decisions?
- a. On his/ her own
- b. In consultation with a few teachers
- c. With involvement of all teachers
- d. With involvement of teachers, parents and SMC
6. The directions/ decisions communicated to teachers are clearly understood by:
- a. all teachers       b. most teachers
- c. a few teachers only       d. no teacher
7. How often does the School Head review implementation of the plan and assessthe progress made, particularly in the prioritized areas?
- a. Regularly       b. Occasionally
- c. Rarely       b. Does not review
8. Has the School Head constituted teams for different tasks and made them accountable?      Yes       No

If yes, which are these teams/ committees and what tasks are assigned to them?

9. How does the School Head monitor teachers' performance?
- a. By discussing progress individually with teachers
  - b. By reviewing the performance of their learners in tests from time to time
  - c. By observing the classrooms occasionally to check how teaching is done
  - d. Any other (please mention)

10. How does the School Head monitor learners' progress in learning?
- a. By reviewing record of CCE of learners of every class
  - b. By discussing the performance of learners with teachers
  - c. By checking the results of all learners in tests and taking note of the change/ improvement in results over a time
  - d. Progress is not reviewed by the School Head
  - e. Teachers monitor their progress at their level

Core Standard	Descriptors		
	Level-1	Level-2	Level-3
<b>Building Vision and Setting Direction</b>	School Head develops a School Development Plan (SDP) as per the given mandate; the other stakeholders do not find an opportunity to participate in the planning process	School Head develops a vision/ mission statement; teachers are involved in the creation of the SDP, prioritization of tasks; SchoolHead allocates responsibilities to majority of teachers for SDP implementation; provides directionfor its implementation	School Head engages all stakeholders in developing vision/ mission taking into account current practices, policies and programs which are subsequently documented; SDP is co-created byall the stakeholders and is aligned to the vision/ mission statement; appropriate prioritization is done for necessary action; all teachers understand their defined roles and responsibilities and act accordinglyto make desired progress; periodicreview of vision and SDP is undertaken regularly

Core Standard	Descriptor		
	Level-1	Level-2	Level-3
<b>Leading Change and Improvement</b>	School Head is broadly aware of areas that need attention; acts on issues in response to official mandate and immediate needs; the required change is rarely discussed and reflected upon	School Head, in consultation with teachers, identifies the strengths of the school, and areas that need improvement; reflects upon the required changes; identifies action points and appropriately acts upon them; logically assesses the progress and refines actions, where required; takes note of the changes that are being reflected in the teaching-learning and other school practices	School Head communicates clearly the need for change to all the stakeholders and enhances their understanding of the same; identifies clear targets and formulates predictable improvement strategies on the basis of analysis of evidence and other sources collectively with stakeholders; leads change and monitors incremental improvement regularly; distributes leadership roles and individual responsibilities for implementing change; encourages teachers to engage in evidence-based improvement and change in school practices
<b>Leading Teaching-learning</b>	School Head ensures that all classes are taken regularly, makes alternative arrangements for classes when teachers are absent; ensures effective classroom teaching by taking rounds; is aware of learners' performance in different classes and subjects	School Head regularly observes the teaching-learning process in different classes and provides written/ verbal feedback to teachers individually; analyses and reviews the learners' performance in different classes and subjects and discusses the same with concerned teachers/ subject teachers	School Head and teachers collectively reflect on current teaching-learning practices and learners' progress and attainment; discuss required improvement in the light of learning indicators, learner-centred pedagogy, innovative approaches to teaching, etc.; discuss performance of learners with parents

Core Standard	Descriptors		
	Level-1	Level-2	Level-3
<b>Leading Management of School</b>	School Head manages routine activities and school resources (staff, material and financial); allocates responsibilities to a few; takes decisions; acts on the orders and instructions received from the authorities for compliance; communicates decisions; shares the orders and instructions received	School Head and staff plans and manage routine activities and school resources (staff, material and financial); involve staff in decision-making; School Head communicates details of the SDP and provides clear directions to staff members and takes the lead for its effective implementation	School Head and staff members collectively develop a shared vision and a strategic plan in consultation with parents and learners; distribute the responsibilities among the staff members on the basis of mutual consensus and areas of expertise; take action with mutual support, monitor and evaluate the progress collectively

### Response Matrix

#### School Leadership and Management

Core Standard	Level 1	Level 2	Level 3
Building Vision and Setting Direction			
Leading Change and Improvement			
Leading Teaching-learning			
Leading Management of School			



APPENDIX-3

Low Performing School (DELHI)



## SCHOOL SELF EVALUATION REPORT

<b>Name of School</b>	Nanakheri-G(Co-ed)SS	<b>School U- DISE Code</b>	07080113312	<b>Category(Class being taught)</b>	Upper Primary with Secondary(6-10)
<b>Address</b>	133-CHHAWLA, DEFAULT,DOE, SOUTH WEST DELHI, DELHI - 110071	<b>Locality</b>	Rural	<b>Academic Year</b>	2018-19

### LEARNERS' PROFILE & LEARNING OUTCOMES

Note: Data will be shown as 'NA' if there is no data available.

Demographic Profile (Academic Year : 2018-19)

Category	S C	S T	OB C	General	Minority
<b>Number</b>	46	0	10	46	0

Classwise Annual Attendance Rate # (Previous Academic Year : 2017-18)

Class	Boys	Girls	Total
VI	84.00	81.00	82.5
VII	80.00	81.00	80.5
VIII	82.00	88.00	85
IX	91.00	90.00	90.5
X	84.00	87.00	85.5

### LEARNING OUTCOMES (ANNUAL / CONSOLIDATED REPORTS)(PREVIOUS ACADEMIC YEAR : 2017-18)

Class	Percentage of Students who scored in respective percentage range							
	<33	33-40	41-50	51-60	61-70	71-80	81-90	91-100
VI	4	1	5	5	1	0	0	0
VII	3	4	9	6	0	1	0	0
VIII	2	2	9	2	3	2	0	0
IX	4	0	8	1	3	0	0	0
X	3	4	5	1	0	0	0	0

### PERFORMANCE IN KEY SUBJECTS(ANNUAL) (PREVIOUS ACADEMIC YEAR : 2017-18)

Class	Key Subject/ Stream	Total Student	Percentage of Students in each Grade*	Subjects with consistent lowperformance

			A	B	C	D	E	
VIII	Language-I	20	0	5	7	5	3	NA
	Language-II	20	1	1	9	5	4	
	Maths	20	0	0	6	8	6	
	Science	20	1	3	4	10	2	
	Social Science	20	0	0	15	4	1	
IX	Language-I	16	1	7	5	0	3	NA
	Language-II	16	0	0	5	7	4	
	Maths	16	0	2	3	3	3	
	Science	16	0	2	5	4	5	
	Social Science	16	0	2	3	3	3	
X	Language-I	13	0	1	6	5	1	NA
	Language-II	13	0	1	3	7	2	
	Maths	13	0	1	6	5	1	
	Science	13	0	1	2	5	5	
	Social Science	13	0	1	7	4	1	

\* Criteria to respond for performance of the students

Grade A: Students have achieved 81 - 100 marks in key

subjects: Grade B: Students have achieved 61 - 80 marks in

key subjects: Grade C: Students have achieved 41 - 60

marks in key subjects:

Grade D: Students have achieved 33 - 40 marks in key subjects

and: Grade E: Students have achieved 00 - 32 marks in key

subjects

### TEACHERS' PROFILE

Number of teachers in each category (Academic Year : 2018-19)

Male		Female		Total	
Trained	Untrained	Trained	Untrained	Trained	Untrained
7	1	4	0	11	1

Teachers' Attendance (Previous Academic Year : 2017-18)

Type of Leave	Number of teachers who availed
Long (more than one month)	0
Short (up to one week)	0

### SCHOOL EVALUATION COMPOSITE MATRIX

DOMAIN-I Enabling resources of School: Availability, Adequacy and Usability Core Standards: 12 (Academic Year : 2018-19)

Enabling resources of School: Availability, Adequacy and Usability	Availability and Adequacy (Self)	Quality and Usability (Self)	Prioritize the area of Improvement (Low/Medium/High)
School Premises	Level_2	Level_2	Medium
Playground and Sports Equipment / Materials	Level_1	Level_1	High
Classrooms and Other Rooms	Level_1	Level_1	High
Electricity and Gadgets	Level_2	Level_2	Medium

Library	Level_1	Level_1	High
Laboratory	Level_3	Level_3	Low
Computer (where provisioning exists)	Level_1	Level_1	High

Ramp	Level_1	Level_1	High						
Mid Day Meal; Kitchen and Utensils	Level_1	Level_1	High						
Drinking Water	Level_2	Level_2	Medium						
Hand Wash Facilities	Level_1	Level_1	High						
Toilets	Level_2	Level_2	Medium						
Aggregation	Level-1 - 7	Level-2 - 4	Level-3 - 1	NA - 0	Level-1 - 7	Level-2 - 4	Level-3 - 1	NA - 0	

DOMAIN-II Teaching-learning and Assessment Core Standards: 9 (Academic Year : 2018-19)

TEACHING-LEARNING AND ASSESSMENT	Level (Self)			Prioritize the area of Improvement (Low/Medium/High)
Teachers' Understanding of Learners	Level_1			High
Subject and Pedagogical Knowledge of Teachers	Level_1			High
Planning for Teaching	Level_1			High
Enabling Learning Environment	Level_2			Medium
Teaching-learning Process	Level_2			Medium
Class Management	Level_1			High
Learners' Assessment	Level_1			High
Utilization of Teaching-learning Resources	Level_1			High
Teachers' Reflection on their own Teaching-learning Practice	Level_2			Medium
Aggregation	Level-1 -6	Level-2 - 3	Level-3 -0	

DOMAIN-III Learners' Progress, Attainment and Development Core Standards: 5 (Academic Year : 2018-19)

LEARNERS' PROGRESS, ATTAINMENT AND DEVELOPMENT	Level (Self)			Prioritize the area of Improvement (Low/Medium/High)
Learners' Attendance	Level_1			High
Learners' Participation and Engagement	Level_2			Medium
Learners' Progress	Level_2			Medium
Learners' Personal and Social Development	Level_2			Medium
Learners' Attainment	Level_2			Medium
Aggregation	Level-1 -1	Level-2 - 4	Level-3 -0	

DOMAIN-IV Managing Teacher Performance and Professional Development  
Core Standards: 6 (Academic Year : 2018-19)

<b>MANAGING TEACHER PERFORMANCE AND PROFESSIONAL DEVELOPMENT</b>	<b>Level (Self)</b>			<b>Prioritize the area of Improvement (Low/Medium/High)</b>
Orientation of New Teachers	Level_2			Medium
Teachers' Attendance	Level_1			High
Assigning Responsibilities and Defining Performance Goals	Level_2			Medium
Teachers' Preparedness for Changing Curricular Expectations	Level_1			High
Monitoring of Teachers Performance	Level_1			High
Teachers' Professional Development	Level_1			High
<b>Aggregation</b>	<b>Level-1 -4</b>	<b>Level-2 - 2</b>	<b>Level-3 -0</b>	

DOMAIN-V School Leadership and Management Core Standards: 4  
(Academic Year : 2018-19)

<b>SCHOOL LEADERSHIP AND MANAGEMENT</b>	<b>Level (Self)</b>			<b>Prioritize the area of Improvement (Low/Medium/High)</b>
Building Vision and Setting Direction	Level_1			High
Leading Change and Improvement	Level_1			High
Leading Teaching-learning	Level_1			High
Leading Management of School	Level_1			High
<b>Aggregation</b>	<b>Level-1 -4</b>	<b>Level-2 - 0</b>	<b>Level-3 -0</b>	

DOMAIN-VI Inclusion, Health and Safety Core Standards: 5 (Academic Year : 2018-19)

<b>INCLUSION, HEALTH AND SAFETY</b>	<b>Level (Self)</b>			<b>Prioritize the area of Improvement (Low/Medium/High)</b>
Inclusive Culture	Level_1			High
Inclusion of Children With Special Needs (CWSN)	Level_1			High
Physical Safety	Level_1			High
Psychological Safety	Level_1			High
Health and Hygiene	Level_1			High
<b>Aggregation</b>	<b>Level-1 -5</b>	<b>Level-2 - 0</b>	<b>Level-3 -0</b>	

DOMAIN-VII Productive Community Participation Core Standards: 5 (Academic Year : 2018-19)

<b>PRODUCTIVE COMMUNITY PARTICIPATION</b>	<b>Level (Self)</b>			<b>Prioritize the area of Improvement (Low/Medium/High)</b>
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<b>Organization and Management of SMC/ SDMC</b>	Level_2			Medium
<b>Role in School Improvement</b>	Level_2			Medium
<b>School-Community Linkages</b>	Level_2			Medium
<b>Community as Learning Resource</b>	Level_2			Medium
<b>Empowering Community</b>	Level_2			Medium
<b>Aggregation</b>	<b>Level-1 -0</b>	<b>Level-2 - 5</b>	<b>Level-3 -0</b>	

## ACTION FOR CONTINUOUS SCHOOL IMPROVEMENT PLAN

MISSION STATEMENT (ACADEMIC YEAR : 2018-19)

letter was written to PWD deptt in respect of new construction of four Labs in the school and replacement of RO system

	Area of Improvement (As per the defined Core Standard)	Proposed Action	Support Needed	Action Taken
<b>DOMAIN-I Enabling Resources of School: Availability, Adequacy and Usability</b>	drinking water ,lab,electric gardgets	nil	new RO system, construction of Four Lab	letter written to PWD deptt.
<b>DOMAIN-II Teaching-learning and Assessment</b>	learner concentration	Meditation and happiness classes	nil	Meditation and happiness classes
<b>DOMAIN-III Learners' Progress, Attainment and Development</b>	participation of students in various activities	motivate the students time to time	nil	motivating the students time totime
<b>DOMAIN-IV Managing Teacher Performance and Professional Development</b>	nil	nil	nil	nil
<b>DOMAIN-V School Leadership and Management</b>	nil	nil	nil	nil
<b>DOMAIN-VI Inclusion, Health and Safety</b>	nil	nil	nil	nil
<b>DOMAIN-VII Productive Community Participation</b>	participation is required	role of SMC members is to be explained	nil	informed SMC members time to time for improvement in differentaspects