

**The Influence of Distributed Leadership on Effective School
Governance and Improved School Performance:
A study conducted in two private schools in Al Ain**

تأثير القيادة الموزعة على المسؤولين الفاعلين في المدرسة و تحسين الأداء
المدرسي: دراسة أجريت في مدرستين خاصتين في العين

by

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**Dissertation submitted in fulfilment
of the requirements for the degree of**

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ABSTRACT

The Distributed Leadership Theory states that the success of an organization cannot depend on one person alone. It gives staff at various levels the power and autonomy to create change, aiming to utilize the skills, ideas and initiatives of the entire organization. The purpose of this research is to identify the impact of distributed leadership on school governance, leading to an improvement in the overall school performance. This study was conducted in two private schools in Al Ain. The existing literature was analyzed to understand the concept of distributed leadership and the challenges faced by the school hierarchy. The data was collected using a mixed method research approach, i.e. both surveys and interviews were conducted. The data was then analyzed using descriptive analysis and moderated regression analysis. The conclusion reached was that DL has a positive impact on the relationship between governance and performance. It was also found that DL was being applied in both schools at varying levels, and each had areas that needed improvement. The most important implication was the connection of distributed leadership to governance and performance. This study has the potential to be beneficial not only to the schools studied, but the other schools of the region as well.

ملخص الأطروحة

تنص نظرية توزيع القيادة على أن نجاح المنظمة لا يعتمد على عمل شخص واحد وهو (المدير) ؛ فتوزيع القيادة للمهام والمسؤوليات يمنح الموظفين على مختلف المستويات القوة والاستقلالية لإحداث التغيير والتطوير ، بهدف الاستفادة من مهارات و أفكار و مبادرات المنظمة بأكملها . يهدف هذا البحث إلى تحديد أثر توزيع القيادة على إدارة المدرسة ، مما يؤدي إلى تحسين الأداء العام لها . أجريت هذه الدراسة على (مدرستين) من المدارس الخاصة في مدينة العين ، وتم تحليل مجموعة من الأدبيات والسلوكات والمهارات الموجودة لفهم مصطلح القيادة الموزعة ، و التحديات التي تواجه التسلسل الهرمي في المدرسة. جُمعت المعلومات من خلال طرق بحث متنوعة ، كإجراء الاستبيانات و المقابلات إضافة إلى تحليل المعلومات ، من خلال : (التحليل الوصفي و التحليل المعتدل).

وتم التوصل إلى النتائج الآتية :

- إن توزيع القيادة كان يطبق في المدرستين كلتيهما على مستويات مختلفة.
- كل منهما لديه نقاط بحاجة للتطوير و التعديل .
- كان الأثر الأكثر أهمية هو ارتباط توزيع القيادة بالتحكم و الأداء.

ستكون فائدة هذه الدراسة ليس فقط على المدرستين اللتين كانتا ضمن نطاق الدراسة، بل على مستوى مدارس المنطقة ، ومرجع ليستدل به كل باحث.

Dedication

This study is wholeheartedly dedicated to my parents who are the reason I am who I am today. They were always the source of my inspiration and gave me strength when I thought of giving up, and continually provided me with moral, spiritual, emotional, and financial support.

I dedicate this work to every person who stood beside me and helped me finish it. I sincerely thank my principal, my colleagues, my brothers and sister for their endless support.

Nobody has been more important to me in the pursuit of this project than the members of my family: my sincere husband and my lovely sons. Their unconditional love and support instilled in me the confidence that I am capable of doing anything I aim for. Thank you for everything.

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List of Abbreviations

| | |
|------|---|
| ADEK | Abu Dhabi Department of Education and Knowledge |
| CS | Compass Setting |
| DL | Distributed Leadership |
| DLI | Distributed Leadership Index |
| DV | Dependent Variable |
| HD | Human Development |
| HOD | Head of Department |
| IV | Independent Variable |
| MMR | Mixed Method Research |
| MRA | Moderated Regression Analysis |
| MoE | Ministry of Education |
| MV | Moderator Variable |
| OD | Organizational Development |
| SE | School Effectiveness |
| SP | School Performance |
| SPSS | Statistical Package for the Social Sciences |

Chapter 1: Introduction

1.1. Overview of the Chapter

This chapter will underline the key points being studied in this thesis. It will shed light on the motivation of this research as well as the reason why it is needed. The main questions being asked will be given and the purpose stated.

1.2. Background and Motivation to the Study

For too long, schools have operated under a top-down leadership model. However, the field of education is now changing, and the way schools operate must follow, or risk falling behind. As Shah (2014) stated, the use of top-down models of leadership in today's changing world will lead to "compromises on students' achievement, academic freedom and autonomy of teachers" (p. 9). In such an environment, the application of Distributed Leadership (DL) could be the push needed to improve overall school performance.

Two schools situated in Al Ain will be studied. One, called School F, received an acceptable rating twice from ADEK, before which they were rated unacceptable. The second, School S, received the rating of good four times in a row. However, both schools still want to improve in order to meet international standards and the changing needs of their students.

1.3. Statement of the Problem

“Senior administrators in various schools often lack qualifications, interests and predilections which require them to be up to the task in ever-changing organizational life of a school” (Shah 2014, p. 17). This is even more true when the leadership team is out of touch with the current teaching dynamics. As such, the policies they put into practice often do not reflect the students’ needs.

These issues can potentially be resolved through the application of DL practices. The idea is to empower all capable members of the organization and utilize their full potential. However, the method of application is what determines the extent to which DL influences a positive change in schools.

The MoE is currently working to achieve the goals of the National Strategy for Higher Education 2030, which aims to improve the level of education across all of UAE. The four main points of focus that have been set are “quality, efficiency, innovation and harmonization” (U.ae 2020). These goals cannot be achieved if schools continue to operate in a top-down model of leadership. However, DL could provide the solution. To do so, the leadership team must first agree to this distribution of power and responsibilities. Secondly, these tasks must be given to responsible individuals who will take their role seriously and put in the time and effort required. Third, the rest of the staff must accept the power given to these individuals and follow their lead.

1.4. Purpose and Objectives

1.4.1. Main Purpose

The main purpose of this study is to identify the impact of distributed leadership on school governance, leading to an improvement in the overall school performance.

1.4.2. Objectives

This paper will focus on the following objectives in detail:

1. Explain the concept of DL.
2. Study the impact of DL on school governance and school performance.
3. Ascertain the extent to which leadership is being shared or distributed in the schools being studied.
4. Identify areas where improvement is needed in terms of distribution of leadership.

1.5. Research Questions

The main research question is ‘What is the impact of distributed leadership on school governance and overall school performance?’. More specifically, the questions that will be asked and answered are:

1. What is DL?

2. How does DL impact school governance and school performance?
3. Is leadership being distributed in the schools being studied?
4. Which areas could benefit from the application of DL that would lead to an improvement in school performance?

1.6. Hypothesis

1. Gaining a comprehensive understanding of the principles of DL.
2. DL can have a significant impact on school governance and school performance, depending on how well it's applied.
3. Leadership is being distributed in the schools being studied to a varying extent.
4. Areas that could benefit from the application of DL have been identified, leading to a potential improvement in school performance.

1.7. Rationale for the Study

The rationale of this study is both theoretical and practical. In theoretical terms, it discusses the impact of DL on governance leading to an improvement in school performance. In doing so, it adds to the body of work regarding DL, as this is an area of inquiry that needs further research. Previous investigations have connected DL to the roles of principals, middle managers, and teachers. This can be seen clearly in the writings of Harris (2003b; 2011), Shah (2014), and Hulpia, Devos and Van Keer (2009). Additionally, the role of DL in school effectiveness has also been researched,

such as by Al-Harthi and Al-Mahdy (2017) and Harris (2003a). However, not much attention has been given to the effect of governance on the distribution of roles and responsibilities in terms of formation and practice of policies being followed.

In practical terms, this study has significance to the MoE and ADEK as they work to accomplish the goals in the National Strategy for Higher Education 2030, in regard to designing an effective academic system that works as a global model (Ministry of Education 2017). This cannot be accomplished if the leadership strategies being followed are not adapted to ensure maximum efficiency. This study aims to test whether the concept of DL could help the school improve. The research will focus on finding the extent of distribution of leadership, in order to pinpoint areas where DL could have a positive influence. The effect of DL on the leadership team, middle management team, and the teachers will be studied, as they are the ones who apply the practices and policies that make up school governance, which in turn impacts the school's performance. The results of the study will not only help the schools being studied improve, they will also pave the way for the application of DL in other schools.

1.8. Structure of the Dissertation

This paper will have five major sections. The first, introduction, will present the background, motivation, statement of problem, purpose and objectives, research questions, hypothesis, and rationale of the study. The second, literature review, will consist of the conceptual analysis focusing on school governance, school performance and challenges faced by school hierarchies. Next, in the

theoretical framework, distributed leadership and its impact on school governance, performance and hierarchy will be scrutinized. In addition, models of leadership will also be studied. Lastly, related literature will be reviewed, and the study will be situated.

The third section will relate to methodology, and will examine the research approach, data collection plan, instruments to be used, data analysis plan, scope of study, and the ethical considerations. The fourth section will relate to results of research conducted, their analysis and discussion. Both qualitative and quantitative data will be analyzed. The last section will be the conclusion, where the study will be summarized, findings will be reported, and recommendations will be made. Additionally, the implications, limitations, and scope for further research will also be given.

Chapter 2: Literature Review

2.1. Overview of the Chapter

This chapter will focus on existing theories and models in answer to research question 1. The conceptual analysis will shed light on the importance of governance, school performance, and responsibilities and challenges of leadership, middle management, and teachers. The theoretical framework will discuss DL and its impact on leadership, middle management, and teachers, as well as theoretical models of leadership. Next, similar studies will be reviewed. Finally, the current study will be situated.

2.2. Conceptual Analysis

2.2.1. Importance of School Governance

Governance can be defined as “a set of responsibilities, practices, policies, and procedures exercised by an institution to provide strategic direction to ensure objectives are achieved” (World Bank n.d.). Over time, the way education is viewed has changed and so must the policies that govern it. Throughout this process, the goals to be achieved must be kept firmly in mind.

Spillane and Diamond (2015) have identified several functions essential for the success of a school, and have divided them into three categories. Compass setting (CS) refers to the preferred direction

of the school, namely the vision, mission and policies. Human development (HD) refers to the training and assessment of staff members, and recognition of success from the leadership. Organizational development (OD) refers to the development of an inclusive school culture which prioritizes collaboration, and the acquisition and proper usage of resources (Spillane & Diamond 2015, p.3).

Above all, schools must ensure quality improvement (Mulford 2003, p. 12). When they fail to do so, they are considered ineffective. The community demands that the government step in and act. This creates tension between the school, the government and the communities they service, putting further pressure on the leadership, which is then passed down throughout the organization. One way that schools deal with such pressure is by increasing the responsibilities of the principal, which adds to their already tremendous workload. Quite often, such demands contradict each other and “could undermine the capacity of schools” (Mulford 2003, p. 12). Quite often, this confusion is then handed down throughout the organization, impeding the progress of the school. While hierarchies are a part of governance, “it is individuals who undertake actions – generating ideas, implementing decisions, administering the system, spending money and so on” (Connolly and James 2011, p. 502). Therefore, it is the professionals working in the school who are ultimately responsible for ensuring that all policies and practices are followed.

Schools must operate in transparency if they are to improve their practices, but honesty can have a severe cost, such as individuals losing their jobs. Therefore, schools must maintain an air of openness. The staff should be able to accept their faults without fear of reprisals, so they can learn

from their mistakes and evolve into more efficient professionals. In order for this to happen, accepting failure as an aspect of learning must become a part of the school culture (Mulford 2003, p. 11).

2 2.2. Attributes of School Performance

Al-Harthi and Al-Mahdy (2017) have proposed school performance can be measured using four aspects. The first is adapting to the ever-changing climate of the educational system. The second is attainment of goals, measured by the academic results of the students. The third is integration, meaning collaboration and cooperation. The fourth is latency, the commitment of the staff towards the school and its progress (p. 803).

The culture of the school is mostly responsible for how things are done. The problem with this attitude is that it becomes the reason for why practices never change. Therefore, “the most important job of school leaders is to change the existing school norms” (Alqarqaz 2014, p. 15). They must ensure that the organization as a whole remains flexible, and the relationships between all stakeholders remain open and continue to flourish (MacNeil, Prater & Busch 2009, p. 77-78).

When discussing the attainment of goals, the role of the leadership team is crucial. If a leader is effective, they will have a positive influence, improving the attainment of students (Mujis & Harris 2003, p. 437). As Harris and Hopkins (2008) stated, “school leadership is second only to classroom teaching as an influence on pupil learning” (p. 27). Leaders can influence student attainment by

motivating their staff, giving them a sense of ownership, and improving working conditions (Harris & Hopkins 2008, p. 27).

For the performance of a school to improve, the leaders, middle management and teachers all need motivation. Therefore, to judge school performance, attention needs to be given not only to student attainment but also the performance of those working in the school (OECD 2016, p. 145). Students cannot progress without the support of teachers, and so the “teachers [must be] highly skilled, well resourced, and motivated to perform at their best” (OECD 2016, p. 146). Additionally, it is not enough for teachers to have the requisite skills, they “must also have faith in their ability to execute given strategies (Harris and Hopkins 2008, p. 33).

Currently the hierarchies in organizations are resistant to change, unable “to attract the right human capital” (Lawler, cited in Woods 2004, p. 4). As a result, new strategies need to be employed that work laterally instead of vertically. The emphasis needs to be on the sharing of knowledge and skills, so competent and skilled employees can be found throughout the entire organization (Lawler, cited in Woods 2004, p. 4).

2.2.3. Organizational Hierarchy in Schools

2.2.3.1. Leadership Team

All schools have similar hierarchies when it comes to the leadership team; one person resides at

the top, denoted as the principal (Pont, Nusche & Moorman 2008, p. 75). This individual hold most of the power. Not only does he make all day to day decisions, he also makes the policies followed by the entire staff. Additionally, he is responsible for the budget and resource allocation (Pont, Nusche & Moorman 2008, p. 74).

Even though every school is led by a principal, it cannot be assumed that they all operate in the same manner. The most common form is that of “the school principal as [a] *bureaucratic administrator*” where he is “mainly responsible for translating policies defined at higher levels of the educational administration into a reality at the school level” (Pont, Nusche & Moorman 2008, p. 76). In such cases, the principal is not the one who is making the policies, instead it is his job to ensure that they are implemented accurately (Pont, Nusche & Moorman 2008, p. 76). Regardless of which specific duties have been assigned, in today’s world a principal must be proficient at multitasking (Habegger 2008, p. 42).

The principal is not the only member of the leadership team. An additional role of vice principal is quite common in all schools (Pont, Nusche & Moorman 2008, p. 77). Their job usually consists of some of the responsibilities of the principal, mostly managerial, but occasionally they may have a leadership role as well. They could be given some administrative duties relating to the curriculum or student discipline (Pont, Nusche & Moorman 2008, p. 78).

In today’s world, principals must involve themselves in teaching methodologies as well as the instructional needs of students (Glasman 1984, p. 284). Their attitude towards leadership must

evolve, just as with their daily practices (Crow, Hausman & Scribner 2002, p. 196).

2.2.3.2. Challenges Faced by Leadership Team

Much is expected from the leadership team of a school. As Lashway (2003) puts it, “The expectations have always been formidable, but [many] years of school reform have stuffed the principal’s job jar to overflowing” (p. 3). One of their main responsibilities is to decide future strategies for the school which will be followed by the entire organization, in addition to scrutinizing the staff to ensure implementation (Pont, Nusche & Moorman 2008, p. 77).

Concerns are now being expressed that the leadership is being asked to pursue too many conflicting avenues simultaneously while performing an excess of duties. “The concept of the ‘superprincipal’ has even been raised in the literature as the unattainable ideal for the school leader” (Pont, Nusche & Moorman 2008, p. 77). This has led to long workdays and poor work-life balance. This is also true for the vice principals.

Additionally, “balancing learning while maintaining support from the staff is a struggle when principals deal with the traditional ways ‘things’ are done while trying to make much-needed changes” (Furman 2019). Such conflicts can create feelings of resentment in the staff, if they think a deficiency on their part is implied.

2.2.3.3. Middle Management

All schools have a middle management team, but the designations can differ. For the purpose of this study, heads of sections and coordinators will be considered part of the middle management.

Most commonly, the role of the middle management team is that of a line manager, ensuring implementation of all policies, and performance of duties by their staff (Adey 2000, p. 429). By taking on some of the managerial tasks, the middle management free up the principal. In addition, they present opportunities for their staff to take on leadership roles and implement policies set for the school (Pont, Nusche & Moorman 2008, p. 80).

Their most important task, however, is “providing the bridge between the teaching staff and the executive staff within their school” (Bufalino 2017, p. 155). They act as go-betweens, relaying orders, opinions and ideas. They occupy a pivotal position in the hierarchy and have the power to change the school for the better (Harris & Jones 2017, p. 213).

2.2.3.4. Challenges Faced by Middle Management

The biggest challenge of the middle management is they are neither a part of the leadership nor the teachers, meaning they have to walk a fine line between two contradicting views (Wise 2001, p. 340). While the implementation of policies is often one of their duties, there is “little evidence” that they also “contribute to the development of whole-school policy-making” (Adey 2000, p. 429).

Often teachers feel that middle managers do not wield any power and so their opinions are not important. Further complications ensue when there is a lack of trust between the middle management and teachers. For example, Wise (2001) found in his study that middle managers acknowledged that supervising the staff under them was an important part of their responsibilities but was not well received by the teachers (p. 340). On the flip side, sometimes the “involvement in policy making at a school level is seen as a status symbol... by the staff” (Glover et al. 1998, p. 283). In such cases, the teachers feel the middle managers hold more power than is true, leading to resentment between middle management and teachers.

The new challenges faced by the middle management has led to stress due to time constraints, conflicting demands, and not enough expertise (Wise 2001, p. 340). Adey (2000) found that most members of the middle management team admit they require more training in order to fulfill their new responsibilities (p. 428). Another major issue is how the middle managers themselves view their new roles. According to Glover et al. (1998), middle managers often forget they are ‘managers’, trying to perform multiple tasks by themselves (p. 282). In trying to do too much on their own, they end up being unable to fulfill most of their duties, resulting in feelings of inadequacy. This usually happens in schools where the individuals being appointed as middle managers do not receive adequate training (Bufalino 2017, p. 156).

2.2.3.5. Teachers

Teachers hold the most important position in the school though they are lower in the hierarchy. Their most important responsibility is to impart knowledge in a manner that would help students retain it. However, this is not their sole responsibility. “Teachers participate in decision making, have a shared sense of purpose, engage in collaborative work and accept joint responsibility for the outcomes of their work” (Harris 2003b, p. 321).

Teachers cannot empower students if they do not feel empowered themselves. The current policies often make teachers feel self-conscious, instead of empowered (Shah 2014, pp. 9-10). Additionally, teachers must feel ownership towards the school, so they can perform effectively and provide quality education to their students (Hulpia, Devos & Van Keer, 2009, p. 3). They must also be given the chance to evolve and develop new teaching methodologies and practices (Harris 2003b, p. 321).

2.2.3.6. Challenges Faced by Teachers

In a study conducted by Shah (2014), he concluded that the major challenges teachers face is lack of appreciation, lack of cooperation, mistrust, and leadership that is ineffective (p. 9). If the leadership wishes to receive commitment from teachers, they must first show them that they are valued. By doing so, teachers will be moved to support the organization (Shah 2014, p. 16). On the

flip side, when the leadership does not provide encouragement, the teachers lose faith, no longer collaborate and are unable to discuss their problems openly (Shah 2014, p. 16).

In schools where trust has broken down, even the smallest mistake on the part of the teachers can result in serious consequences. They start to feel left out and experience job burnout. This leads to a communication gap (Shah 2014, p. 16-17). Eventually, the school will find it hard to retain good teachers and an unending cycle of training new teachers will begin, resulting in complete failure (Shah 2014, p. 17).

2.3. Theoretical Framework

2.3.1. Distributed Leadership Theory

For too long, the success of a school has been attributed to a single person: the one at the top of the hierarchy, with all successes attributed to him. However, leadership practices are changing, with theorists arguing against the “heroics of leadership’ genre” (Spillane 2005, p. 143). New theories maintain that for an organization to succeed, leadership cannot reside with one person alone. One such theory is the Distributed Leadership Theory.

2.3.1.1. Concept

Distributed leadership (DL) shifts the focus from an individual leading a team of professionals to

“a collective social process emerging through the interactions of multiple actors” (Bolden 2011, p. 251). It isn’t “something done ‘by’ or ‘to’ members of organizations”, rather a way of interaction between various leaders at different levels where their experiences and initiatives are combined (Pont, Nusche & Moorman 2008, p. 82).

The main idea is to share both the responsibilities and the workload across the hierarchy by giving staff at all levels more power. One person is not expected to be responsible for the success of an entire complex organization. Instead, DL emphasizes that using the skills, creativity, ideas and initiatives of the whole staff would result in more opportunities for a change in the organization (Woods 2004, pp. 6-7). The main responsibility of the leadership team should be to improve the instructional methods of the school. Therefore, it stands to reason that the knowledge as well as skills that are actually important are those which lead to positive changes in both the instruction and performance of students (Humphreys 2010, p. 24).

Nevertheless, this does not mean that the principal loses all control. The idea that responsibilities should be distributed does not imply that there is no hierarchy, as DL can take place while working within the hierarchy already present in the organization (Woods 2004, p. 8). According to Spillane (2005), “distributed leadership is first and foremost about leadership practice rather than leaders” (p. 144). It has more to do with how the responsibilities are delegated to the staff. According to the principles of DL, the work done by all individuals taking on leadership roles must be acknowledged, regardless of their designation (Harris & Spillane, 2008, p. 31). It is the “belief in the potential and authority of others, listening with the intent to understand, [along with]

negotiation and persuasion [which] are the levers that allow trust to gain a foothold and leadership to be assumed and shared” (MacBeath 2005, p. 355).

However, this does not mean that all the work should be divided among the staff, adding unfairly to their responsibilities. As Spillane (2005) stated, what matters is the way leaders and their staff interact with each other, depending on the situation at hand (p. 145). It is the situation that determines who will lead. As Harris (2008) states, leadership depends on need; the best person to lead is the one who has the expertise needed for the task at hand (p. 29).

The integration of the principles of DL in an organization cannot happen overnight. Harris (2008) divides the process into three levels. The first is the superficial, meaning simple delegation of tasks and responsibilities. The second is subterranean, referring to the creation of teams, as well as reassignment of responsibilities. The third level is the deepest, in which the culture of the school itself changes (p. 32). The people leading the organization must realize that leadership can no longer be viewed as simply being top-down, and that multiple leaders are possible (Mehra et al. 2006, p. 2).

2.3.1.2. Drawbacks of Distributed Leadership

DL has attracted a lot of interest but, as always, every theory has its drawbacks. The first is that various terms are being used interchangeably which leads to confusion and an overlap in the concepts (Harris & Spillane 2008, p. 31).

Another point of confusion is that many theories exist which talk about sharing leadership. Not only does this give rise to a great deal of confusion, it could also lead to the misuse of distributed leadership as a common phrase in reference to all kinds of shared leadership roles (Harris & Spillane 2008, p. 32).

A vital aspect that must be pointed out is the gap between the theory and its practical applications. In theoretical terms, DL can be thought of as a method of distribution where multiple individuals are responsible for the leadership roles and all tasks are completed through collaboration (Harris & Spillane 2008, p. 32). In terms of its practical applications, the main issue is “*how* leadership is distributed, by whom and with what effect” (Harris & Spillane 2008, p. 32). As stated by Harris (2013), the method of leadership distribution is linked to the quality of the outcomes. To what extent the roles, responsibilities and power are distributed depends on the individuals who are a part of the leadership team (p. 8). This is an area that is still being analyzed, as location, culture and norms are all factors that must also be considered.

DL requires a give and take, and a relinquishing of power on the part of the leadership team, which could put the leader in a susceptible position. This can create barriers in the implementation of DL. Additionally, financial resources are a factor as not every school can afford to reward their staff monetarily for taking on leadership roles. In such cases, the leadership team must find new ways to incentivize the staff (Harris 2003a, p. 20).

2.3.2. Impact of Distributed Leadership

2.3.2.1. School Governance

OECD (2016) has classified five main elements that make up modern governance, all of which can be accomplished through the application of DL. The first is a focus on the process, rather than the existing structure. The second is adaptability in terms of feedback. The third is to involve all stakeholders in the establishment of policies and practices. The fourth is that of alignment of all policies, practices, and responsibilities. The fifth, and last, element emphasizes the use of research data in informing policies. (OECD 2016, p. 109). All of this can be achieved with the implementation of DL.

According to the DL, the role of the individual depends on the required “expertise and creativity in the context of specific situations” (Pont, Nusche & Moorman 2008, p. 82). This can become one of the strengths of the school as all ideas will then be considered, regardless of who they came from. As Salahuddin (2011) stated, education is a complex field, that can only flourish when expertise and skills are shared across the school (p. 18).

Schools and educational departments must also ensure that the distribution of responsibilities is handled appropriately, as that can greatly affect student progress (OECD 2016, p. 110). All policies set for the school must be decided in collaboration with the entire staff, as the application must be harmonious in order to be effective.

The application of DL ensures that multiple initiatives can be taken simultaneously, as different members of the organization can be given the leadership role. In doing so, the school can undergo fluent changes that help it stay current instead of falling behind (Pont, Nusche & Moorman 2008, p. 82). This means that any data collected through research can be applied in real time in order to achieve viable results.

2.3.2.2. School Performance

Many studies have found links between the application of DL and school performance. The schools that allowed teachers to take on leadership roles found that the academic standing of students also improved (Harris 2003a, pp. 14-15). This shows that when teachers are empowered to act, they work more confidently and feel a sense of ownership, improving student performance.

When leaders are effective, they positively impact both student attainment and school progress (Harris 2003a, p. 11). No organization can flourish without the commitment and contentment of the staff. The more committed the staff is, the harder they will work to achieve the set goals, which in turn leads to a more effective school (Hulpia, Devos & Rosseel 2009, p. 6). The desired result is that of the “‘improving school’, a ‘school that continues to improve student learning outcomes for all students over time’” (Glickman et al, cited in Harris 2003a, p. 14).

2.3.2.3. Leadership Team

DL redefines the role of the leadership team. Their main responsibility is to create an open atmosphere in the school where sharing knowledge and skills is viewed positively, so their staff can be productive through collaboration (Harris 2003a, p. 14).

Many tasks are performed regularly by principals. It is the responsibility of the leadership to include their staff and give them opportunities to lead, rather than leading each project themselves. They can choose to provide support, as opposed to taking a leader's role. However, this does not mean that they must give up all their responsibilities and power. In certain cases, their experience and knowledge might prove to be crucial (Spillane, Halverson & Diamond 2001, p. 25).

“Trust, allied with support, is an underpinning value within the concept of distributed leadership” (Humphreys 2010, p. 26). It is not enough for the leadership to step back and let another take over. They must also show their support in such situations, and provide guidance as needed. “Principals occupy the critical space in the teacher leadership equation and center stage in the work redesign required to bring distributed leadership to life in schools” (Harris 2011, p. 8). Without their active support, DL cannot flourish in any school.

2.3.2.4. Middle Management

The middle management often holds no real power in the school structure. A study carried out by

Harris emphasized that the role of middle leaders is now changing. In order for them to take on leadership roles successfully, the leadership must empower and encourage them in addition to equipping them with the skills they must now acquire (Mujis & Harris, cited in Bufalino 2017, p. 157). As Bufalino (2017) said, middle managers must now become leaders in education, rather than simply implementing decisions made by the leadership (p. 157). They must take charge at their level, and in doing so help the school progress.

“The work of middle-level leaders is heavily dependent on how their roles are constructed and the capacities, abilities, and attitudes of the leaders” (Bufalino 2017, p. 157). This indicates that no matter how willing the middle management is to take on leadership roles, ultimately it is up to the leadership to allow them to do so. Without their support, the middle management will struggle to achieve set goals.

Nevertheless, the support of the leadership is not the only factor that must be considered. While sharing tasks and responsibilities is necessary for DL to flourish, who the responsibility is given to is also of the utmost importance. The individuals chosen must be willing to learn and adapt. In some cases, people who are unwilling to, or incapable of, taking on such roles are being pressured into doing so (Bufalino 2017, p. 158). In such cases, failure is to be expected, resulting in a negative impact on the school’s progress.

2.3.2.5. Teachers

One way of depicting DL is “as a form of collective leadership in which teachers develop expertise by working together” (Harris 2003a, p. 14). Cooperation and collaboration are key features of DL. Harris (2003a) found that when teachers work and learn together, the teaching quality improves (p. 15). Another benefit of collaboration is that teachers in leadership roles can support their colleagues by helping them accept the set goals, understand their strengths and weaknesses, and improve their methods (Harris 2003a, p. 13). This does not mean that teachers can only collaborate and lead in terms of teaching methodologies. The “key to successful distributed leadership resides in the involvement of teachers in collectively guiding and shaping instructional and institutional development” (Harris 2003a, p. 20).

As Harris (2003b) stated, certain conditions must be met for teacher leadership to occur, such as support from the leadership and middle management and favorable internal conditions (p. 319). Teacher involvement ultimately results from the attitude of the leaders. They must create opportunities during the day so teachers can get together and collaborate (Spillane, Halverson & Diamond 2001, p. 24). Without their support, there can be no teacher leaders.

The most important factor that must be considered is time. Teachers must have time during school hours so they can meet up and confer (Harris 2003b, p. 320). They must also have space. “In strong professional communities teachers do not work in isolation; on the contrary, they team-teach, model and work in other ways that bring teachers together to focus on curriculum and the quality

of the work produced” (Crow, Hausman & Scribner 2002, p. 197). If there is insufficient time, then providing teachers with leadership opportunities will have no impact on the success of the school.

Another element to consider is that of professional development. According to Harris (2003b), professional development of teacher leaders cannot focus solely on teaching skills and methodologies. They also need to be trained in areas relevant to their new roles as leaders (p. 320). Without proper training, teachers will be hard pressed to succeed in their new roles, which will negatively impact their self-esteem, as well as school progress.

Giving teachers a chance to lead will give them “a sense of responsibility, ownership, collegueship and fulfillment by involving [them] in the decision-making processes and building collaborative relationship between supervisors, teachers and other stakeholders in the organization” (Shah 2014, p. 9). This is the true meaning of distributed leadership, which can only be achieved if all parts of the school hierarchy work together with an open mind.

2.3.3. Theoretical Models of Leadership

The following leadership models can be applied simultaneously with DL.

2.3.3.1. Situational Theory

Situational theory proposes that the situation determines the action to be taken, meaning the style the leader adopts changes from one situation to another (Amanchukwu, Stanley, & Ololube 2015, p. 8; Karadag et al. 2015, p. 80). The leader must use intuitiveness to determine which behavior is appropriate in the given situation (Owings & Kaplan 2012, p. 156-157). This is also true when leadership is being distributed. The situation determines who has the best capabilities and so should lead. However, this theory assumes that the leader has the intuitiveness required to judge the best course of action in each situation, meaning it relies on an internal quality rather than on one that can be learned.

2.3.3.2. Behavioral Theory

The behavioral theory states that good leaders can be made. The focus should be on actions, as leaders can be taught to be great through training (Amanchukwu, Stanley, & Ololube 2015, p. 8). “The theory identifies two behaviors that leaders may exhibit, the task-oriented behavior and relationship-oriented behavior” (Wakabi 2016, p. 412). The second behavior, relationship-oriented, is highly compatible with DL as leaders cannot create an atmosphere of collaboration without first establishing strong, trusting relationships with their staff. This model has the potential to be more effective as it relies on a willingness to learn on the part of the leader, rather than on innate qualities.

2.3.3.3. Transformational Theory

Transformational theory focuses on the relationships of leaders with their followers. It improves the organization by motivating the staff to adopt set goals and align their needs with those of the organization (Ross & Gray, cited in Rautiola 2009, p. 5). According to Emmanouil, Ma and Paraskevi-Ioanna (2014), transformational leadership has a bottom-up approach. The views of the principal are not the only ones taken into consideration; the teachers have a say as well (p. 35). So, this form of leadership can be considered to be a form of DL as well.

This model “has the potential to engage all stakeholders in the achievement of educational objectives” (Bush 2007, p. 397). However, it would be very easy to abuse such a leadership model, where the leader could use his charisma to control teachers and end up becoming despotic (Bush 2007, p. 396). Therefore, while the transformational model of leadership could potentially lead to the distribution of leadership, it must be approached with caution.

2.3.3.4. Participative Theory

The participative theory states that the input of all employees must be considered. Such leaders encourage collaboration during all decision-making processes, engendering feelings of commitment in the employees (Amanchukwu, Stanley & Ololube 2015, p. 8). The theory focuses on three assumptions. One, collaboration has a positive effect on school performance. Two, this model is democratic in principle. Three, leadership is open to all justifiable stakeholders. The result

is collaboration across the board, which leads to a decrease in pressures faced by principals (Bush 2008, p.14). This model is very similar to that of DL. Therefore, the principles of DL can easily be combined with the participative model as well. The main drawback to this model is that it can take more time than is available, meaning it might not always be effective. Consequently, the focus must be to build harmony throughout the organization (Bush 2008, p.22).

2.4. Review of Related Literature

The following studies held great influence, as the questions posed in these studies are similar to the one being asked here. These include Al-Harthi and Al-Mahdi (2017), Harris (2003a), Humphreys (2010), and Salahuddin (2011).

The study performed by Al-Harthi and Al-Mahdi (2017) focused on the perceptions of teachers with regards to DL practices being applied in their schools in Oman and Egypt. They also studied aspects of school effectiveness. Findings indicated that DL and SE are highly connected, where the level of DL links directly to that of SE. It was recommended that the principals of schools studied need to overhaul their methods and include DL practices if they want to increase SE and meet international standards.

In her article, Harris (2003a) has focused on the connection between school improvement and DL. She states that DL practices offer an innovative method of studying, analyzing and modifying school practices in order to help schools improve. She found that the heads of the schools being

studied were all distributing responsibilities, rather than just delegating them. However, the method of distribution was still top-down. The focus was on collaboration instead of individualization. Harris was able to imply a connection between school improvement and DL but not prove it conclusively, and recommended further investigations into this topic.

Humphreys (2010) studied the understanding of DL in Irish schools, post-primary, with specific attention given to how it affects learning and teaching. Three schools were studied, and focus groups were created consisting of individuals from all three schools. It was found that the individuals from all schools understood the concept of DL, but it was not always applied. This study showed that DL is useful as an analysis method of learning and teaching, and helped develop leadership in the schools studied.

Salahuddin (2011) focused on the changing environment in the field of education in Bangladesh. He analyzed the knowledge base of principals regarding leadership theories, and analyzed whether DL were being applied. His findings revealed that the principals had an adequate knowledge base developed through personal experiences. However, they were unaware of theories and concepts regarding leadership, due to lack of training opportunities. He also found that despite not being aware of the theory, DL principles were being practiced.

2.5. Situating the Study

School governance refers to the policies and practices of an organization that help guide its goals

can be reached. Spillane and Diamond (2015) divided it into three categories: compass setting, human development and organizational development. All three must function well for a school to succeed.

DL refers to the sharing of role and responsibilities by giving staff at all levels more power. Harris (2008) divided it into three levels: superficial, subterranean and deepest, where the culture itself changes. To get to the deepest level, the challenges faced by the school hierarchy must be resolved, resulting in positive changes in student attainment and school performance. When effective leaders implement DL, the confidence and commitment of the staff increases, leading to the progress of the school. Additionally, DL can exist as part of a hierarchy. Therefore, it can flourish with various models of leadership, such as situational, behavioral, transformative and participative.

While many studies have been conducted on DL, its impact on school governance has not been studied in much detail. World over, most of the policies followed in schools are not set by the principal. They come from either the school board or the government. Therefore, the impact of DL on school governance needs to be analyzed. This study will study the impact of DL on the relationship between governance and school performance in two schools based in Al Ain.

As stated by Sheikh Zayed bin Sultan Al Nahyan, “the real asset of any advanced nation is its people, especially the educated ones, and the prosperity and success of the people are measured by the standard of their education” (Abu Dhabi Education Council 2014). This is the vision that has led to the creation of the National Strategy for Higher Education 2030, due to which schools have

been given new goals that they must meet in order to be found effective. The level of distribution of leadership in the schools will be ascertained, and areas that need further improvement will be identified so the goals set in the National Strategy 2030 can be accomplished.

Chapter 3: Methodology

3.1. Overview of the Chapter

This chapter will focus on the methods of primary research conducted. The research approach and paradigm will be explained. The method of data collection will be given, as well as the site, population and sample size. Instruments used will be explained. The analysis method will be described. Additionally, delimitation, ethical considerations and reliability of data will also be explained.

3.2. Research Approach

The research approach used in this study is that of mixed method research (MMR). MMR is effective when more than one viewpoint is required while conducting a study (Johnson, Onwuegbuzie & Turner 2007, p. 113). In order to find the impact of DL on school governance and school performance, a quantitative approach was required, whereas finding the areas that need improvement necessitated a qualitative approach. Therefore, MMR was the best method to use.

This study will operate under the pragmatist paradigm, which is “not committed to any one system of philosophy or reality” (Mackenzie & Knipe 2006, p. 5). It concerns itself with practicality, and “suggests that ‘what works’ to answer the research questions is the most useful approach to the investigation” and so the methods of collection and analysis can be eclectic, depending on their

fitness in answering the research questions (Cohen, Manion & Morrison 2018, pp. 34-36). The pragmatist paradigm was chosen because three very different research questions needed to be answered, going from generalized to specific to the schools being studied. The actions of the school hierarchy and consequent results were the focus of this study, and real concrete recommendations were the final result. In such a situation, pragmatist paradigm was the best fit.

3.3. Data Collection Plan

Mainly primary data was collected in this study. As Ajayi (2017) stated, primary data is based on facts and is used when the idea is to reach a solution to a particular problem (p. 2). This study was conducted in two schools in Al Ain, which come under the jurisdiction of ADEK. School F was rated unacceptable in the beginning, and then achieved a rating of acceptable. School S received the rating of good four times in a row. Both schools were analyzed in order to determine whether leadership was being distributed, and how it linked to governance and school performance. This study has the potential to help the schools improve both overall performance and ADEK rating.

The population consisted of the employees of the two school, which included the principal, vice-principal, HODs, coordinators and teachers. Two methods were employed in the collection of data: surveys and interviews.

Surveys were used to collect quantitative data. Three surveys were employed; the first geared towards the leadership, the second towards middle management, and the third towards the teachers.

All surveys were conducted online, through Survey Monkey and were based on the Likert scale, as it can quantify “subjective preferential thinking, feeling and action in a validated and reliable manner” (Joshi et al. 2015, p. 397). The first step was to talk to the principals of the schools being studied and gain their consent. Next, the objectives and purpose of the research were emailed to the potential participants as a consent form, given in Appendix 1. All enquiries were answered, and anonymity was assured. It was made clear to all participants that they were not obligated to take part in the study and could choose to opt out by simply skipping questions. The surveys were given to all employees who were willing to participate. Effort was made to include middle managers and teachers from each section. The formula used to determine sample size for the data set, taken from Cohen, Manion and Morrison (2018), was:

$$\text{Sample size} \geq 50 + (8 \times \text{number of independent variables})$$

As there were three independent variables, the result was 74 or more participants for each school, which meant a total of 148 participants. This number was rounded up to 155 in case of incomplete responses. The total population size was 190, so the ideal sample size came out to be 128 respondents (95% confidence level, 5% margin of error). Therefore, our sample size is accurate and represents the population appropriately. This included participants from the leadership, middle management and teachers. Since the number of participants from the leadership and middle management were limited, all employees were asked to participate in order to maximize diversity. At the end of the survey, participants were asked if they would agree to be interviewed as well.

The interviews were used to collect qualitative data. Three sets of interviews were conducted. The first with the principals, the second with middle managers, and the third with teachers. This method

was chosen as “the interview can do what surveys cannot, which is to explore issues in depth” (Cohen, Manion & Morrison 2018, p. 506). The questions asked were intended to draw out the interviewees. When choosing which heads of departments (HODs) and teachers to interview, the researcher tried to get a range in terms of experience at the school.

The sampling technique used was that of sequential mixed method sampling, as in this method one sample is followed by another, meaning “what one gathers from an early sample influences what one does in the next stage with a different sample” (Cohen, Manion & Morrison 2018, p. 224). The first sample was the surveys, and the second was the interviews.

3.4. Instruments

The data this study collected was based on perceptions and opinions. As such, one of the difficulties that was faced was the reluctance of people to answer questions honestly, fearing repercussions. Therefore, all surveys conducted were internet based and the participants were assured that confidentiality would be maintained. Additionally, if the participants felt that they were being pressured to answer the surveys, they were given the option of skipping questions, knowing that their responses would then be ignored. A pilot survey was not conducted as the questions in the surveys were modelled after those found in the Distributed Leadership Inventory, DLI, given in Appendix 2 (Hulpia, Devos & Van Keer, 2009, pp. 26-27). Additionally, the survey and interview questions were also given to the principals to review. Mainly, a pilot survey was not conducted

because the number of possible participants was limited, and the researcher did not want to skew the results by dividing the already limited respondents into pilot and post-pilot surveys.

Three surveys were conducted, each with similar questions so data collected could be triangulated. Each survey was divided into six sections. Section A consisted of personal information, including gender, years of teaching experience, years of experience in current school, present position in current school, and grade level at current school. The last question required the participants to choose between School S and School F, so the data could be divided according to their current school. Sections B-D were divided according to the three categories of governance, as identified by Spillane and Diamond (2015), i.e. compass setting (labelled school direction in the survey), human development and organizational development. Section B asked questions regarding vision/mission of school, goals set, and support provided to the leadership and middle management. Section C enquired into support given by the leadership and middle management, opportunities for professional development and assessment of progress. Section D asked about school culture and appropriate use of school resources. Section E asked questions regarding the distribution of leadership. Section F was concerned with school performance. The survey can be found in Appendix 3.

The design of the interviews was that of a standardized, open-ended one, meaning the questions were specifically worded and arranged, and each interviewee was asked the same questions in the same manner. The interviews were meant to illicit an elaborated response, and asked for examples from the daily lives of the participants so they would open up. The questions mainly focused on

the distribution of roles and responsibilities within the hierarchy. Similar questions were asked from the principals, HODs and teachers, so data collected from one could be verified by the other. The interview questions are in Appendix 4.

3.5. Data Analysis Plan

For the quantitative data, i.e. the surveys, data was collected online through Survey Monkey. It was then coded and uploaded into IBM SPSS Statistics. In response to research question 2, a Moderated Regression Analysis (MRA) was employed. The following equation was used:

$$y = B_0 + B_1x + B_2M + B_3 (x \times M) + \varepsilon$$

where y = dependent variable, DV (school performance)

x = independent variable, IV (compass setting, human development, and organizational development)

M = moderator variable, MV (distributed leadership)

$B_0 - B_3$ = coefficients

The data from each IV was analyzed using this model. The first step was to mean center the variables, after which the interaction variable was created. Next, the MRA was conducted. Finally, a simple slopes analysis was conducted. The results were then interpreted. In response to research question 3, descriptive statistics were generated in order to determine the level of distribution of leadership from the point of view of the leadership team, middle management team and teachers. This was done for both schools separately.

Research question 4 was answered by the qualitative data, i.e. the interviews. The data was analyzed according to the three levels of the hierarchy and then interpreted as a whole. This was done separately for School S and School F, as the strengths and weaknesses of one were not necessarily the same as the other.

3.6. Delimitation

As Miles and Scott (eds 2017) stated, “Delimitations are self-imposed restrictions to [the] study”. The main delimitation was the choice to limit the study to two schools in Al Ain, which were chosen on the basis of ease of access and their prior ADEK ratings. The location was limited to one emirate, so geographical concerns would not affect the results. Therefore, the potential respondents were limited, meaning so was sample size. This was especially true when it came to the leadership and middle management. The instruments chosen were surveys and interviews. Observations in classrooms were not conducted as the focus was on the interactions between the leadership, middle management and teachers. Therefore, classroom observations would not have been helpful.

The purpose of this study was to identify whether DL impacts school governance and leads to an improvement in the overall school performance. Therefore, only the members of the organization, i.e. school employees were taken as participants. The members of the board, students and parents were not included.

Another delimitation is that not all the results of this study can be generalized. When discussing distribution of leadership, the results will differ from one school to another, as every school has a slightly different hierarchy and distribution of role and responsibilities.

3.7. Ethical Considerations

Every effort was made to adopt an objective position, especially as the researcher is employed in one of the schools being studied. To overcome this bias, the second school chosen was one the researcher had no connections to. Also, the participants chosen from the researcher's school were picked based on their years in the school, and the section they were responsible for, so there would be a variety. During analysis, the researcher purposefully took a step back and relied on the numbers to answer the research questions, choosing to stay critical and reflect on the meaning of the analysis, while keeping in mind that their own opinions should not colour the interpretation or findings.

All surveys were conducted online, and the anonymity of the participants was assured. Confidentiality and anonymity were maintained at every step of the research process. The participants were only required to name themselves if they were willing to be interviewed. They could choose not to identify themselves, if they preferred. Interview questions were open-ended so that the researcher would not influence the answers given. Also, it was reiterated at the beginning of the interview that their responses would not be provided to any member of the organization, and so they could answer honestly, without fear of reprisal. The teachers interviewed from the

researcher's school were those from other sections, i.e. the researcher was not their line manager, and so they were free to answer honestly, without worrying about backlash.

All participants were assured that their privacy and anonymity would be maintained and that all data gathered would be confidential. All interviews were conducted behind closed doors so the participants could answer freely. Those being interviewed were reminded that they could refuse a question if they did not feel comfortable answering it. The schools were referred to as School S and School F in the study, so they would remain anonymous. All references to the participants followed the same pattern, i.e. no names were used. Instead they were assigned numbers. All personal information collected during this process was kept private, and not even the leadership team of the schools being studied was given access to this information.

3.8. Reliability and Trustworthiness of Data

Reliability depends on “the consistency, dependability and replicability” of the findings (Zohrabi 2013, p. 259). In order to ensure this study is reliable, triangulation was achieved in the surveys as the data gathered was from three sources, i.e. the leadership, middle management and teachers, so the data set would be more comprehensive. The reliability was measured using the Cronbach Alpha test, performed in Excel. Results are given in Appendix 5.

In order to ensure trustworthiness of qualitative data, credibility was achieved through triangulation in the interviews. Additionally, a member check was performed so the interviewees could confirm

their answers. Throughout the process, an eye was kept on research bias. This was even more imperative as the researcher is employed in one of the schools being studied. All interview questions were open-ended, so they would not bias the interviewee.

Chapter 4: Results, Analysis and Discussion

4.1. Overview of the Chapter

This chapter contains the analysis and interpretation of the data collected through surveys and interviews. Research questions 2, 3 and 4 will be answered in this chapter. A summary will also be given of the results of the analysis.

4.2. Analysis of Quantitative Data

Out of 155 respondents, 137 respondents answered all questions in the survey. This makes the response rate 88.38%, which is reasonably high. 18 respondents chose to submit incomplete surveys, and so their answers were not included in the data analyzed. The frequency and percentages of the data collected are given in Appendix 6.

From School S, there were 72 respondents (52.6% of total respondents). Their years of experience in School S is given in Table 4.1. According to this data, most (50%) have been working in School S for 0-3 years, 23.6% for 4-6 years, 6.9% for 7-10 years, and 19.4% for more than 10 years. Therefore, the data gathered considers the opinions of both respondents with seniority and those who are relatively new to the school. The complete demographics are given in Appendix 7.

Table 4.1 Experience of Participants from School S

| | | Years in School S | | | |
|-------|------------|-------------------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 0-3 years | 36 | 50.0 | 50.0 | 50.0 |
| | 4-6 years | 17 | 23.6 | 23.6 | 73.6 |
| | 7-10 years | 5 | 6.9 | 6.9 | 80.6 |
| | >10 years | 14 | 19.4 | 19.4 | 100.0 |
| | Total | 72 | 100.0 | 100.0 | |

From School F, there were 65 respondents (47.4% of total). Their years of experience in School F are given in Table 4.2. According to this data, 46.2% of participants had more than 10 years of experience in education. Most (56.9%) have been working in School S for 0-3 years, 21.5% for 4-6 years, 6.2% for 7-10 years, and 15.4% for more than 10 years. Again, this shows that the opinions of both respondents with seniority and those who are relatively new to the school were considered. The complete demographics are given in Appendix 8.

Table 4.2 Experience of Participants from School F

| | | Years in School F | | | |
|-------|------------|-------------------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 0-3 years | 37 | 56.9 | 56.9 | 56.9 |
| | 4-6 years | 14 | 21.5 | 21.5 | 78.5 |
| | 7-10 years | 4 | 6.2 | 6.2 | 84.6 |
| | >10 years | 10 | 15.4 | 15.4 | 100.0 |
| | Total | 65 | 100.0 | 100.0 | |

The independent variables considered in the study are compass setting (CS), human development (HD), and organizational development (OD), which are the three aspects of governance. The moderating variable is distributed leadership (DL). The dependent variable is taken to be school performance (SP). All variables were measured using a five-point Likert Scale.

For School S, the descriptive statistics of the variables are given in Table 4.3. All are above average. The lowest mean is that of OD (3.879), followed by DL at 3.892, SP at 3.902, HD at 4.043, and CS at 4.116.

Table 4.3 Main Descriptive Statistics of School S

| Descriptive Statistics | | | | | |
|-------------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| CS | 72 | 2.20 | 5.00 | 4.1167 | .48266 |
| HD | 72 | 2.33 | 5.00 | 4.0431 | .54821 |
| OD | 72 | 2.00 | 5.00 | 3.8796 | .60787 |
| DL | 72 | 2.56 | 5.00 | 3.8921 | .49136 |
| SP | 72 | 2.00 | 5.00 | 3.9025 | .55388 |
| Valid N (listwise) | 72 | | | | |

For School F, the descriptive statistics of the variables are given in Table 4.4. Again, all are above average. The lowest mean is that of OD (3.915), followed by SP at 3.966, DL at 4.027, CS at 4.076, and CS at 4.084.

Table 4.4 Main Descriptive Statistics of School F

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| CS | 65 | 2.00 | 5.00 | 4.0769 | .53583 |
| HD | 65 | 2.50 | 5.00 | 4.0843 | .53600 |
| OD | 65 | 2.33 | 5.00 | 3.9158 | .53915 |
| DL | 65 | 2.11 | 5.00 | 4.0274 | .50384 |
| SP | 65 | 2.17 | 5.00 | 3.9665 | .58172 |
| Valid N (listwise) | 65 | | | | |

4.2.1. Compass Setting and School Performance

This section examines the influence of compass setting on school performance, with DL as the moderator, in response to research question 2. MRA is run using the mean centered values of CS, DL and the interaction term (CS×DL), with results given in Tables 4.5, 4.6 and 4.7.

Table 4.5 Model Summary of CS and SP with DL as moderator

| Model Summary | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .782 ^a | .612 | .603 | .35663 |

a. Predictors: (Constant), CSxDL_c, DL_cen, CS_cen

As seen in Table 4.5, the R-squared value is high (.612), showing goodness of fit. The Adjusted R square shows that 60.3 % of the variance in SP is due to CS. The standard error is also low (.356).

Table 4.6 ANOVA of CS and SP with DL as moderator

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
| 1 | Regression | 26.663 | 3 | 8.888 | 69.877 | .000 ^b |
| | Residual | 16.916 | 133 | .127 | | |
| | Total | 43.579 | 136 | | | |

a. Dependent Variable: School Performance

b. Predictors: (Constant), CSxDL_c, DL_cen, CS_cen

As seen in Table 4.6, the ANOVA is highly significant (.000) showing that the relationship between SP and CS is very strong, i.e. not coincidental.

Table 4.7 Coefficients of Regression of CS and SP with DL as moderator

| Coefficients ^a | | | | | | |
|---------------------------|------------|-----------------------------|------------|---------------------------|---------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.934 | .033 | | 118.081 | .000 |
| | CS_cen | .138 | .093 | .124 | 1.494 | .138 |
| | DL_cen | .775 | .090 | .685 | 8.589 | .000 |
| | CSxDL_c | -.006 | .073 | -.005 | -.082 | .935 |

a. Dependent Variable: School Performance

As seen in Table 4.7, CS (B=0.138) is positively related to SP but the effect is very small and not significant (p=.138). DL (B=0.497) is also positively related to SP but with a higher effect and is highly significant (p=.000).

Table 4.8 Slope Analysis with High DL – CS and SP

| | | Coefficients^a | | | | |
|-------|-----------------|---------------------------------|------------|---------------------------|-------|------|
| | | Unstandardized Coefficients | | Standardized Coefficients | | |
| Model | | B | Std. Error | Beta | T | Sig. |
| 1 | (Constant) | 2.968 | .336 | | 8.836 | .000 |
| | Compass Setting | .141 | .090 | .127 | 1.574 | .118 |
| | High_DL | .800 | .310 | .707 | 2.579 | .011 |
| | HighDLxCS | -.006 | .073 | -.023 | -.082 | .935 |

a. Dependent Variable: School Performance

Table 4.8 shows the Slope Analysis with a high level of DL. When DL is high, the slope is not significant ($p=.118$) and it is positive ($B=.141$) but with very little effect. This means that as CS becomes more effective, SP improves but by a negligible amount.

Table 4.9 Slope Analysis with Low DL – CS and SP

| | | Coefficients^a | | | | |
|-------|-----------------|---------------------------------|------------|---------------------------|-------|------|
| | | Unstandardized Coefficients | | Standardized Coefficients | | |
| Model | | B | Std. Error | Beta | T | Sig. |
| 1 | (Constant) | 3.768 | .480 | | 7.843 | .000 |
| | Compass Setting | .135 | .108 | .121 | 1.249 | .214 |
| | Low_DL | .800 | .310 | .707 | 2.579 | .011 |
| | LowDLxCS | -.006 | .073 | -.019 | -.082 | .935 |

a. Dependent Variable: School Performance

Table 4.9 does the opposite and shows the Slope Analysis with a low level of DL. The slope again is not significant ($p=.214$) and positive ($B=.135$). Once again, as CS becomes more effective, SP improves but by a negligible amount.

Figure 4.1 Impact of CS on SP, moderated by DL

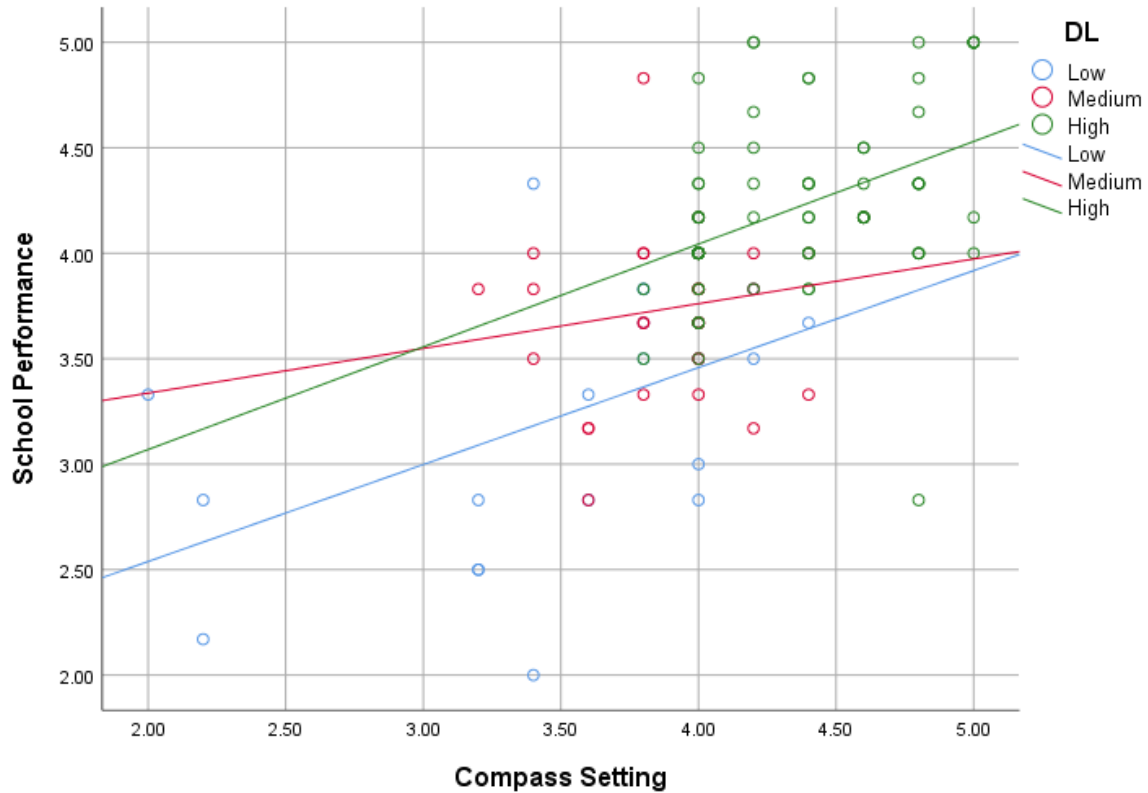
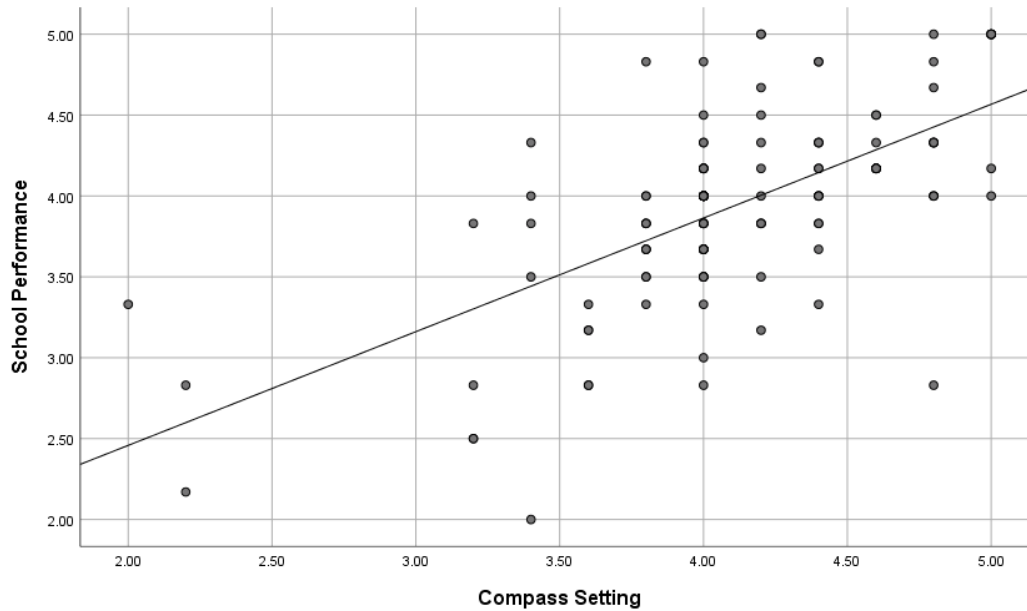


Figure 4.1 shows the true moderating effect of DL on CS and SP. When the level of DL is low, the slope is marginally steep and as CS becomes more effective, SP improves. When the level of DL is high, the slope is very similar to low DL. However, the line is higher meaning the relationship between CS and SP is more effective when level of DL is high. When the level of DL is medium, the slope is low even though the line starts at a higher point when compared to low or high DL. Here, the effect of DL lessens as CS becomes more effective.

Figure 4.2 Impact of CS on SP without moderation



In conclusion, DL does moderate the relationship between CS and SP. This can be seen clearly when the graphs in Figures 4.1 and 4.2 are compared.

4.2.2. Human Development and School Performance

This section examines the influence of human development on school performance, with DL as the moderator, in response to research question 2. MRA is run using the mean centered values of HD, DL and the interaction term (HD×DL), with results given in Tables 4.10, 4.11 and 4.12.

Table 4.10 Model Summary of HD and SP with DL as moderator

| Model Summary | | | | |
|----------------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .828 ^a | .686 | .679 | .32060 |

a. Predictors: (Constant), HDxDL_c, DL_cen, HD_cen

As seen in Table 4.10, the R-squared value is quite high (.686), showing goodness of fit. The Adjusted R square shows that 67.9 % of the variance in SP is due to HD. The standard error is also low (.320).

Table 4.11 ANOVA of HD and SP with DL as moderator

| ANOVA^a | | | | | | |
|--------------------------|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
| 1 | Regression | 29.908 | 3 | 9.969 | 96.990 | .000 ^b |
| | Residual | 13.671 | 133 | .103 | | |
| | Total | 43.579 | 136 | | | |

a. Dependent Variable: School Performance

b. Predictors: (Constant), HDxDL_c, DL_cen, HD_cen

As seen in Table 4.11, the ANOVA is highly significant (.000) showing that the relationship between SP and HD is very strong, i.e. not coincidental.

Table 4.12 Coefficients of Regression of HD and SP with DL as moderator

| Coefficients^a | | | | | | |
|---------------------------------|------------|-----------------------------|------------|---------------------------|---------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 3.954 | .031 | | 129.008 | .000 |
| | HD_cen | .439 | .080 | .419 | 5.483 | .000 |
| | DL_cen | .497 | .086 | .439 | 5.767 | .000 |
| | HDxDL_c | -.104 | .067 | -.078 | -1.555 | .122 |

a. Dependent Variable: School Performance

As seen in Table 4.12, HD (B=0.439) and DL (B=0.497) are both positively related to SP with average effect, and are highly significant (p=.000).

Table 4.13 Slope Analysis with High DL – HD and SP

| Coefficients^a | | | | | | |
|---------------------------------|-------------------|-----------------------------|------------|---------------------------|--------|------|
| Model | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 1.713 | .305 | | 5.620 | .000 |
| | Human Development | .490 | .083 | .469 | 5.883 | .000 |
| | High_DL | .918 | .279 | .811 | 3.283 | .001 |
| | HighDLxHD | -.104 | .067 | -.401 | -1.555 | .122 |

a. Dependent Variable: School Performance

Table 4.13 shows the Slope Analysis with a high level of DL. When DL is high, the slope is significant (p=.000) and it is positive (B=.490). This means that as HD becomes more effective, SP improves.

Table 4.14 Slope Analysis with Low DL – HD and SP

| Coefficients ^a | | | | | | |
|---------------------------|-------------------|-----------------------------|------------|---------------------------|--------|------|
| | | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
| Model | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.631 | .402 | | 6.552 | .000 |
| | Human Development | .387 | .090 | .370 | 4.307 | .000 |
| | Low_DL | .918 | .279 | .811 | 3.283 | .001 |
| | LowDLxHD | -.104 | .067 | -.329 | -1.555 | .122 |

a. Dependent Variable: School Performance

Table 4.14 does the opposite and shows the Slope Analysis with a low level of DL. The slope is still significant ($p=.000$) and positive ($B=.387$), but not as steep as for low DL. Once again, as HD becomes more effective, SP improves.

Figure 4.3 Impact of HD on SP, moderated by DL

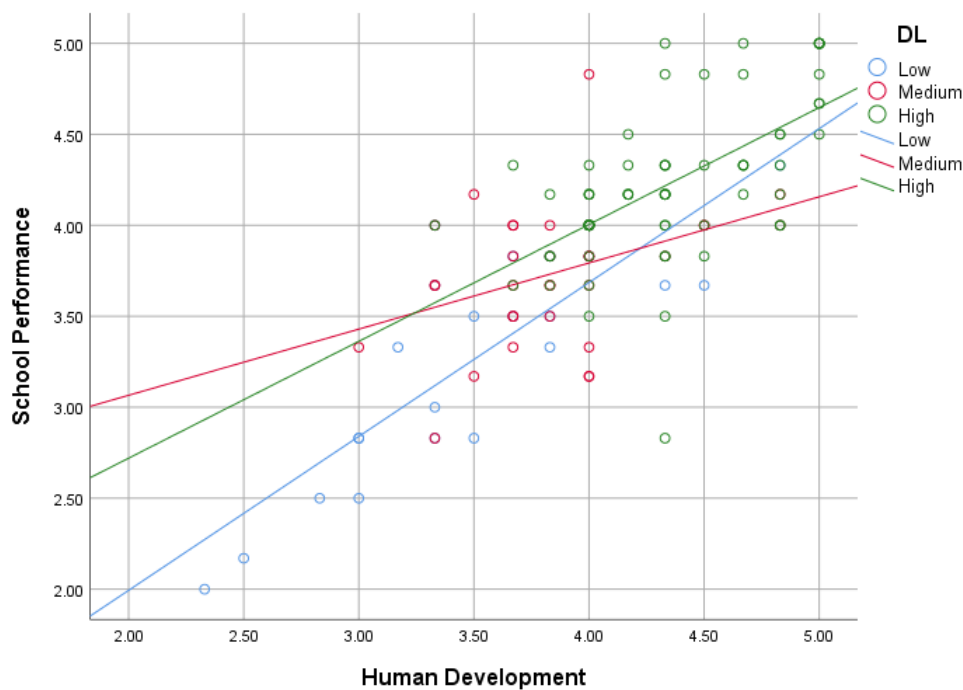
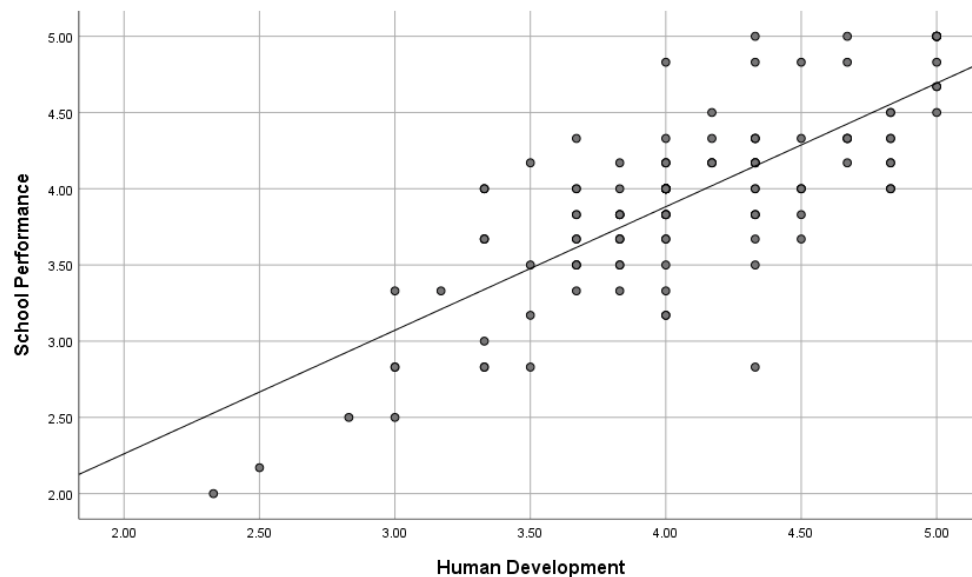


Figure 4.3 shows the true moderating effect of DL on HD and SP. When the level of DL is low, the slope is very steep and as HD becomes more effective, SP improves. When the level of DL is high, the slope is again steep, but not as much as for low DL. However, the line is higher meaning the relationship between HD and SP is more effective when level of DL is high. When the level of DL is medium, the slope is low even though the line starts at a higher point when compared to low or high DL. Here, the effect of DL lessens as HD becomes more effective.

Figure 4.4 Impact of HD on SP without moderation



In conclusion, DL does moderate the relationship between HD and SP. This can be seen clearly when the graphs in Figures 4.3 and 4.4 are compared.

4.2.3. Organizational Development and School Performance

This section examines the influence of organizational development on school performance, with DL as the moderator, in response to research question 2. MRA is run using the mean centered values of OD, DL and the interaction term (OD×DL), with results given in Tables 4.15, 4.16 and 4.17.

Table 4.15 Model Summary of OD and SP with DL as moderator

| Model Summary | | | | |
|---------------|-------------------|----------|-------------------|----------------------------|
| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
| 1 | .809 ^a | .654 | .646 | .33679 |

a. Predictors: (Constant), ODxDL_c, DL_cen, OD_cen

As seen in Table 4.15, the R-squared value is again quite high (.654), showing goodness of fit. The Adjusted R square shows that 64.6 % of the variance in SP is due to OD. The standard error is also low (.336).

Table 4.16 ANOVA of OD and SP with DL as moderator

| ANOVA ^a | | | | | | |
|--------------------|------------|----------------|-----|-------------|--------|-------------------|
| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
| 1 | Regression | 28.493 | 3 | 9.498 | 83.731 | .000 ^b |
| | Residual | 15.086 | 133 | .113 | | |
| | Total | 43.579 | 136 | | | |

a. Dependent Variable: School Performance

b. Predictors: (Constant), ODxDL_c, DL_cen, OD_cen

As seen in Table 4.16, the ANOVA is highly significant (.000) showing that the relationship between SP and OD is very strong, i.e. not coincidental.

Table 4.17 Coefficients of Regression of OD and SP with DL as moderator

| Coefficients^a | | | | | | |
|---------------------------------|-----------------------------|------------|---------------------------|---------|-------|------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. | |
| | B | Std. Error | Beta | | | |
| 1 | (Constant) | 3.941 | .033 | 119.410 | .000 | |
| | OD_cen | .335 | .080 | .340 | 4.202 | .000 |
| | DL_cen | .576 | .091 | .509 | 6.346 | .000 |
| | ODxDL_c | -.035 | .074 | -.026 | -.478 | .634 |

a. Dependent Variable: School Performance

As seen in Table 4.17, OD (B=0.335) and DL (B=0.576) are both positively related to SP with average effect, and are highly significant (p=.000).

Table 4.18 Slope Analysis with High DL – OD and SP

| Coefficients^a | | | | | | |
|---------------------------------|-----------------------------|------------|---------------------------|-------|-------|------|
| Model | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. | |
| | B | Std. Error | Beta | | | |
| 1 | (Constant) | 2.279 | .286 | 7.975 | .000 | |
| | Organizational Development | .352 | .083 | .358 | 4.269 | .000 |
| | High_DL | .713 | .295 | .630 | 2.419 | .017 |
| | HighDLxOD | -.035 | .074 | -.130 | -.478 | .634 |

a. Dependent Variable: School Performance

Table 4.18 shows the Slope Analysis with a high level of DL. When DL is high, the slope is significant ($p=.000$) and it is positive ($B=.352$). This means that as OD becomes more effective, SP improves.

Table 4.19 Slope Analysis with Low DL – OD and SP Coefficients^a

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|----------------------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 2.992 | .400 | | 7.481 | .000 |
| | Organizational Development | .317 | .093 | .322 | 3.423 | .001 |
| | Low_DL | .713 | .295 | .630 | 2.419 | .017 |
| | LowDLxOD | -.035 | .074 | -.104 | -.478 | .634 |

a. Dependent Variable: School Performance

Table 4.19 does the opposite and shows the Slope Analysis with a low level of DL. The slope is still significant ($p=.001$) and positive ($B=.317$). Once again, as HD becomes more effective, SP improves.

Figure 4.5 Impact of OD on SP, moderated by DL

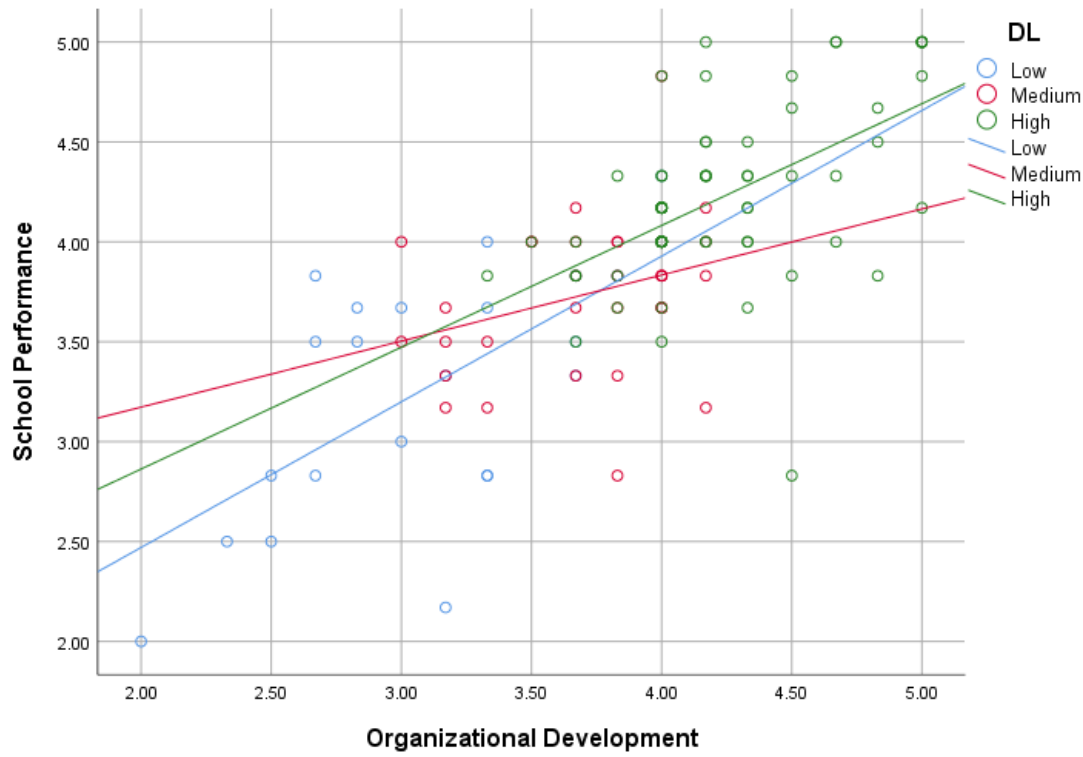
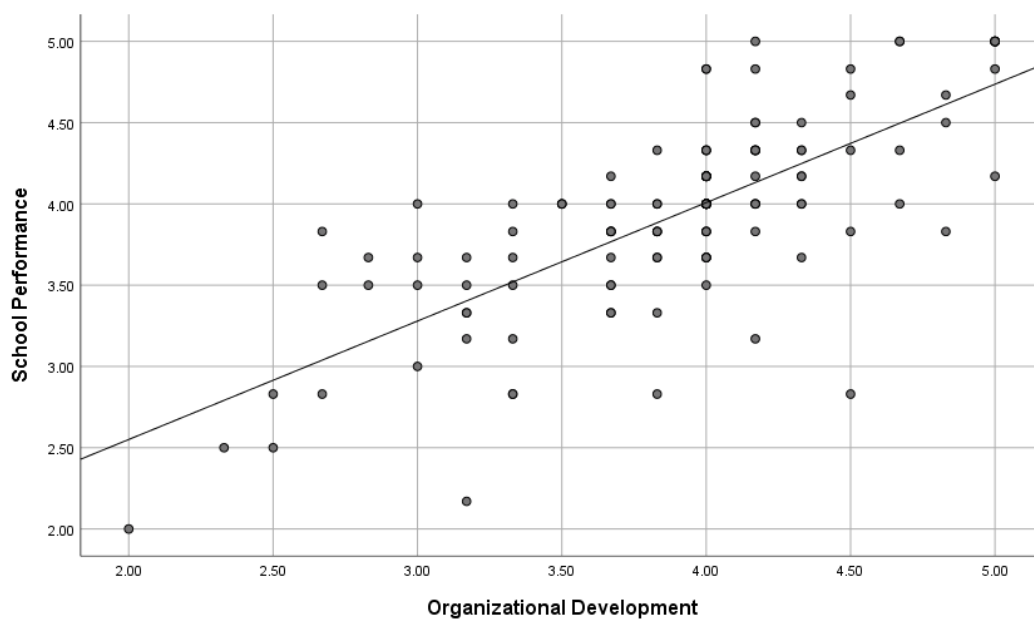


Figure 4.5 shows the true moderating effect of DL on OD and SP. When the level of DL is low, the slope is very steep and as OD becomes more effective, SP improves. When the level of DL is high, the slope is again steep, but not as much as for low DL. The line starts at a higher point meaning when the level of OD is low, the relationship between HD and SP is more effective when level of DL is high. However, the line for low DL and high DL meet towards the end, meaning when OD is highly effective, SP is the same for both low and high DL. When the level of DL is medium, the slope is low even though the line starts at a higher point when compared to low or high DL. Here, the effect of DL lessens as HD becomes more effective.

Figure 4.6 Impact of OD on SP without moderation



In conclusion, DL does moderate the relationship between OD and SP. This can be seen clearly when the graphs in Figures 4.5 and 4.6 are compared.

4.2.4. Distributed Leadership

4.2.4.1. School S

This section examines the level of distribution of leadership in School S, in response to research question 3. Question 23 of the survey addressed the level of distribution of leadership in School S directly. DL refers to the data collected when level of distribution was ascertained indirectly.

Table 4.20 Descriptive Statistics of DL and DL Q23 – School S

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| DL – Q23 | 72 | 2.00 | 5.00 | 3.8611 | .67773 |
| Distributed Leadership | 72 | 2.56 | 5.00 | 3.8921 | .49136 |
| Valid N (listwise) | 72 | | | | |

As seen in Table 4.20, the means of both are almost identical (DL-Q23=3.8611 and DL=3.8921). Both show that leadership is being distributed, as 4 on the Likert Scale was coded to the response of ‘agree’.

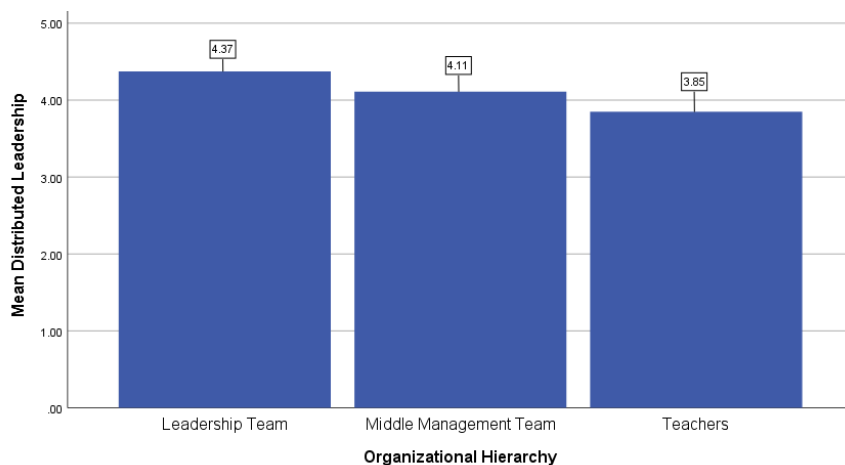
Table 4.21 Descriptive Statistics of DL according to Organizational Hierarchy– School S

| Report | | | | | |
|--------------------------|----|---------|---------|--------|----------------|
| Distributed Leadership | | | | | |
| Organizational Hierarchy | N | Minimum | Maximum | Mean | Std. Deviation |
| Leadership Team | 3 | 3.67 | 4.89 | 4.3733 | .63106 |
| Middle Management Team | 6 | 3.89 | 4.44 | 4.1100 | .25084 |
| Teachers | 63 | 2.56 | 5.00 | 3.8484 | .49074 |
| Total | 72 | 2.56 | 5.00 | 3.8921 | .49136 |

As shown in Table 4.21, the leadership team agrees that leadership is being distributed (mean=4.37), although their opinions differ from ‘agree’ (4 on Likert scale) to ‘strongly agree’ (5 on Likert scale) as shown by the standard deviation (0.63106). The middle management team also agrees that leadership is being distributed (mean=4.11), and there is consensus (standard deviation=0.25). The teachers also agree (mean=3.84) but not at the same level, as the mean is less than that of the leadership and middle management teams. Also, the opinions of the teachers differ

from ‘neutral’ (3 on Likert scale) to ‘agree’ (4 on Likert scale) as shown by the standard deviation (0.49).

Figure 4.7 Level of DL according to Organizational Hierarchy – School S



The same information, from Table 4.21, is also displayed in Figure 4.7. In conclusion, we can say that leadership is being distributed in School S, but the degree of distribution varies from one part of the organizational hierarchy to the other.

4.2.4.1. School F

This section examines the level of distribution of leadership in School F, in response to research question 3. As previously stated, Question 23 addressed the level of distribution of leadership directly and DL was ascertained indirectly.

Table 4.22 Descriptive Statistics of DL and DL Q23 – School F

| Descriptive Statistics | | | | | |
|------------------------|----|---------|---------|--------|----------------|
| | N | Minimum | Maximum | Mean | Std. Deviation |
| DL – Q23 | 65 | 1.00 | 5.00 | 3.8000 | .77460 |
| Distributed Leadership | 65 | 2.11 | 5.00 | 4.0274 | .50384 |
| Valid N (listwise) | 65 | | | | |

As seen in Table 4.22, the means are not the same, with the indirect mean higher (DL-Q23=3.8 and DL=4.0274). However, both show that leadership is being distributed (4 on the Likert Scale is ‘agree’).

Table 4.23 Descriptive Statistics of DL according to Organizational Hierarchy– School F

| Report | | | | | |
|--------------------------|----|---------|---------|--------|----------------|
| Distributed Leadership | | | | | |
| Organizational Hierarchy | N | Minimum | Maximum | Mean | Std. Deviation |
| Leadership Team | 2 | 4.78 | 4.89 | 4.8350 | .07778 |
| Middle Management Team | 5 | 2.78 | 4.67 | 4.1340 | .78322 |
| Teachers | 58 | 2.11 | 5.00 | 3.9903 | .46540 |
| Total | 65 | 2.11 | 5.00 | 4.0274 | .50384 |

As shown in Table 4.23, the leadership team agrees that leadership is being distributed (mean=4.83) and there is consensus (standard deviation=0.07). The middle management team also agrees that leadership is being distributed (mean=4.13) although their opinions differ from ‘neutral’ (3 on Likert scale) to ‘strongly agree’ (5 on Likert scale) as shown by the standard deviation (0.78). The teachers also agree (mean=3.99) but not at the same level, as the mean is less than that of the leadership and middle management teams. Also, the opinions of the teachers differ from ‘neutral’ (3 on Likert scale) to ‘agree’ (4 on Likert scale) as shown by the standard deviation (0.46).

Figure 4.8 Level of DL according to Organizational Hierarchy – School F



The same information, from Table 4.23, is also displayed in Figure 4.8. In conclusion, we can say that leadership is being distributed in School F, but the degree of distribution varies from one part of the organizational hierarchy to the other.

4.3. Summary of Quantitative Results

Research question 2 addressed the impact of DL on school governance leading to an improvement in school performance. School governance was divided into three parts, namely compass setting (CS), human development (HD) and organizational development (OD). The analysis showed that all three are affected by DL.

When leadership is distributed at a high or low level, all three aspects of governance become more effective, leading to an improvement in school performance. However, when the level of DL is

medium, the slope lowers showing that the level of improvement in school performance is less. This could be due to a confusion in the division of roles and responsibilities, or other factors not determined in this study. What is clear is that when leadership is distributed, school governance improves, leading to better school performance.

Research question 3 addressed the level of distribution of leadership in the schools being studied. The analysis showed that leadership was being distributed in both schools S and F, but the level of distribution varied.

In School S, both the leadership and middle management teams agreed that leadership was being distributed, but not all of the teachers agreed. A few said the level of distribution was ‘neutral’ or average. Therefore, the level of DL needs improvement, according to the teachers.

In School F, the leadership was unified in stating that leadership was being distributed. Some teachers agreed while some described it as ‘neutral’. The strongest variation, however, was in the response of the middle management team, with answers ranging from ‘neutral’ to ‘strongly agree’. This shows that the middle management team of School F does not feel the level of DL is adequate, and could be improved.

4.4. Analysis of Qualitative Data

This section will focus on answering research question 4. Each school will be analyzed separately. As previously stated, compass setting refers to the direction taken by the school; human development consists of providing training, assessment, support and recognition to all members of the organization; and organizational development is the culture of the school and appropriate use of resources. The following points were explored in the interviews conducted, in order to determine areas that could be enhanced in order to improve school performance.

4.4.1. School S

4.4.1.1. Compass Setting

When asked to categorize their leadership styles, the principal said it was a mix of visionary, coaching and democratic. She stated, “I coach my staff to be in line with my vision while still allowing them to make suggestions... Once I see that they are able to handle tasks properly, I then hand off and delegate tasks to them and allow them to make the decisions” (Principal School S 2020, personal communication, 9 March). The HODs responded with charismatic and transformative, as they were willing to experiment and could be flexible. The teachers mostly agreed, but one stated it was “autocratic leadership at present” (Teacher2 School S 2020, personal communication, 9 March). She also said this style “may not always be the best because your employees will feel devalued” (Teacher2 School S 2020, personal communication, 9 March). From

the responses, we can conclude that leadership is being distributed. However, there is room for improvement.

In terms of development of policies, the principal stated that all the main policies come from the Ministry. For the ones specific to the school, the policies are developed “with the board of trustees and the senior leaders through discussing and suggesting approaches to fix problems” (Principal School S 2020, personal communication, 9 March). The HODs and teachers said they were included in the discussion. From the answer given by the principal, it is clear that policies are developed at a higher level, and the middle management and teachers are only involved during the implementation stage. This could be improved upon through the principles of DL.

4.4.1.2. Human Development

The principal was asked about her motivational techniques. Her response was that motivation can have many forms, from a simple ‘good work’ to material compensation and recognition. She also said, “when you are a true leader and someone who has influence and charisma, you can easily motivate your staff” (Principal School S 2020, personal communication, 9 March). This could lead to potential problems in the future. She was also asked to talk about her evaluation process for teachers. The response was that they have both formal and informal evaluations, that may or may not be announced. Afterwards, feedback is given to the teachers “in a private space where only the teacher and leader are present” (Principal School S 2020, personal communication, 9 March). She

starts with the positive and progresses to the recommended actions. This course of action seems to be effective.

The HODs and teachers were asked how often they interact with the principal. The HODs stated that most of their interactions were with the vice-principal, with one explaining that “she is accessible but the day to day interaction has been delegated to the vice-principal” (HOD2 School S 2020, personal communication, 10 March). The teachers had a similar response, stating they mostly interacted with their HODs. When asked about the level of support they received from the principal, the HOD said they were supported but that “improvement is always possible” (HOD1 School S 2020, personal communication, 9 March). The teachers were happy with the level of support they receive. There is some dissatisfaction implied here, that must be addressed so DL can flourish and improve school performance.

4.4.1.3. Organizational Development

When asked if any teacher at school could perform the role of teacher leader, the principal said that they had tried teacher leaders and had been successful. After that, they “came up with the instructional coaching initiative”, where instructional coaches were appointed throughout the school (Principal School S 2020, personal communication, 9 March). When asked if they had been able to achieve a good work/life balance, the answer was sometimes, but that it was not easy and at times work must be done at home as well. From this, we can state that DL is already being practiced and is showing promise.

The principal was then asked if she would be open to delegating some of her responsibilities. She said that she was already doing so, by hiring a “very experienced and dedicated vice-principal who can handle instructional issues” and that she was “gradually withdrawing [herself] to spare more time with [her] family” (Principal School S 2020, personal communication, 9 March). Here, the principal is already seeing the benefits of DI, and is open to further change.

The HODs and teachers were asked if they felt safe voicing their opinions and the answer was yes. However as one teacher stated, “we feel more comfortable while we discuss with middle management” (Teacher4 School S 2020, personal communication, 10 March). They also stated that the leadership empowers them, but that they felt a lot of pressure to perform well at all times. This shows that while a safe environment does exist, the leadership team needs to involve themselves more with the teaching staff so the level of comfort can increase, and a more open exchange of ideas can take place.

4.4.2. School F

4.4.2.1. Compass Setting

When asked to categorize their leadership styles, the principal said “you cannot be a leader of one style”, as it depended on the situation at hand: from instructional, to managerial, to distributive, with a strong hands-on approach (Principal School F 2020, personal communication, 8 March).

The HODs responded with democratic or participative as they preferred to work through collaboration, “giving [their staff] the opportunity to express their opinions” (HOD1 School F 2020, personal communication, 8 March). The teachers agreed that teamwork is a strong aspect of leadership style, but stated it was mostly supportive. Regarding autonomy to perform their duties, both the middle management and teachers gave a positive response, with the provision that they stayed “within the direction of the school” (HOD1 School F 2020, personal communication, 8 March). This shows that the leadership and the middle management are open to suggestions and ideas of the staff, and the leadership styles can be adapted so DL can flourish.

In terms of development of policies, the principal stated that all the main policies come from ADEK and the policies developed within the organization depend on the situation at hand. She also said that when there was a change in policy, “we involved all stakeholders, especially students and teachers” (Principal School F 2020, personal communication, 8 March). The HODs agreed with this statement. The teachers were divided, asserting their level of input differed from one policy to another. One stated that her “recommendations were considered if they were related to student benefits and needs, but not about school policy” (Teacher3 School F 2020, personal communication, 8 March). This is an area that could benefit from DL as more extensive collaboration could give rise to new ideas that could help the school advance.

4.4.2.2. Human Development

The principal was asked about her motivational techniques. Her response was, “ I have an open-door policy. I listen to them, motivate them by providing them with guidelines and using incentives like certificates and early leave days” (Principal School F 2020, personal communication, 8 March). She was also asked to talk about her evaluation process for teachers. The response was that there were two levels of informed evaluations performed by her and the middle management. The results were then discussed one-on-one with the teachers, starting with “the good, the bad and what they could change...Then I ask them what you would change” (Principal School F 2020, personal communication, 8 March). Here, all agreed that the process in place works well.

The HODs and teachers were asked how often they interact with the principal. Both stated that they see her on a daily basis, with one HOD saying “the principals door is always open,” and were satisfied with her level of involvement (HOD2 School F 2020, personal communication, 8 March). Next, they were asked about the level of support they receive from the principal and replied that she supports and helps them in many ways, big and small. This, also, is conducive to the application of DL.

4.4.2.3. Organizational Development

When asked if any teacher at school could perform the role of teacher leader, the principal said that there were a few who were capable and had already been given the responsibility. So far, there had

been no tensions or problems among the staff. “They have support from me and their middle leaders” (Principal School F 2020, personal communication, 8 March). In response to whether they had been able to achieve a good work/ life balance, the answer was “no, for sure not” (Principal School F 2020, personal communication, 8 March). There weren’t enough hours in the day, and some work had to be done at home instead. Again, this is an area that could benefit from DL.

The principal was then asked if she would be open to delegating some of her responsibilities. She replied in the affirmative, but also stated that “I have to know what’s going on” (Principal School F 2020, personal communication, 8 March). This could lead to many issues in the future. In order to apply DL effectively, the principal will have to give up daily reports and distribute tasks, without expecting that every decision taken is first passed by her.

The HOD and teachers were asked if they felt safe voicing their opinions and the answer was yes, with one HOD saying, “the principal gives us the opportunity to voice our opinions on numerous things” (HOD2 School F 2020, personal communication, 8 March). They felt that the leadership listens to them and considers their ideas fairly. They also replied in the affirmative when asked if they feel empowered. One also added, “our work environment is harmonious” (Teacher4 School F 2020, personal communication, 8 March). From this we can conclude that the general culture of the school is inclusive and emphasizes cooperation and collaboration.

4.5. Summary of Qualitative Results

For School S, the styles of leadership currently being practiced are conducive to DL. However, there is need for more open communication with the teachers. When policies are developed, all stake holders should be included, not just the board of trustees and the leadership team. The teachers and the middle management do not feel that they interact enough with the principal. This, in itself, is not necessarily negative, as long as they feel the principal can be approached if they are facing a serious problem. The HODs felt they were not happy with the level of support they received from the leadership team, and this must be addressed.

Instructional coaches, similar to teacher leaders, are already in place and working effectively. The work life balance is adequate, showing leadership is already being distributed, and the principal is open to further changes as well. The HODs and teachers agreed that the environment is safe, but the teachers were feeling pressured. This must change as people cannot perform well under constant stress. While deadlines must be met, the overall level of comfort the teachers and HOD feel with the leadership team must increase, so DL can help the school improve. In conclusion, leadership is already being distributed in School S, with positive results. However, as always, there is room for improvement.

For School F, the leadership style currently being practiced can work with DL. Regarding autonomy, the principal was included in all decisions, which is not a sustainable model. Real autonomy must be given, so that leadership can truly be distributed. In regard to development of

policies, input from different levels is taken, but this could be more extensive. The principal's open-door policy was appreciated by all and bodes well, but daily interactions with both HODs and teachers create time constraints that could be avoided. All agreed the principal was very supportive, and this is conducive to the application of DL.

While some teachers have been given the role of teacher leaders, more work can be done on this aspect, so it becomes a more common occurrence, rather than just a few. As stated before, the principal is too involved on a daily basis and so is unable to achieve a good work/life balance. In order for DL to be effective, the level of distribution of roles and responsibilities has to increase dramatically. In terms of environment, the general culture of the school is inclusive, and collaboration is encouraged. In conclusion, DL could help School F become extremely effective and have a huge, positive impact on school performance. In order for this to occur, change will have to come from the top, i.e. the leadership team.

4.6. Triangulation of Quantitative and Qualitative Data

4.6.1. School S

Both qualitative and quantitative data indicate that leadership is being distributed. According to the survey data, the leadership and middle management both agree that leadership is being distributed. This is further emphasized with the answers gained from the interviews, where the principal stated she delegates tasks once she sees her staff can handle the responsibilities, and lets them make the

decisions. A version of the teacher leader initiative has already been put in place and is producing positive results. The HODs also seemed happy with their level of input and felt the environment encouraged collaboration.

According to the survey data, the teachers could not reach consensus. Some agreed that DL was taking place while some did not. The answers gained from the interviews showed that some teachers felt the leadership style was autocratic, and made them feel devalued. They also stated that they mostly interacted with the vice-principal and not the principal. While some did not feel it mattered, others were dissatisfied and felt the pressure to perform well at all times.

4.6.2. School F

Both sets of data indicate leadership is being distributed. According to the survey data, the leadership strongly agrees. This was reinforced by the interview answers of the principal, where she stated all stakeholders are involved in policy development. The principal stressed her open-door policy and stated that the teacher leader initiative was being practiced.

For the middle management, the survey response indicated variation, i.e. some agreed and some said it was average. However, the interview responses were mainly positive. The HODs had a positive response regarding autonomy and their involvement in policy making. They admired the principal's open-door policy and felt supported and empowered.

According to the survey responses by the teachers, leadership is being distributed. The interview responses also showed that teachers were mainly satisfied by their level of autonomy. They felt they could approach the principal, and were being supported and empowered. The only area they were unhappy about was policy making for the school, where they felt their opinions were not being considered.

Chapter 5: Conclusion

5.1. Overview of Chapter

This chapter will focus on bringing together all information gathered in this research. The study will be summarized, findings reported, and recommendations made. Additionally, the implications, limitations, and scope for further research will also be given.

5.2. Summary of Study

The main aim of this study was to identify the impact of DL on school governance, leading to an improvement in overall school performance. The literature review answered research question 1, i.e. explained what DL is, and looked at its impact on governance, school performance and school hierarchy. It also explored the challenges faced by the leadership, middle management and teachers. Additionally, school governance was divided into three categories based on Spillane and Diamond (2015): compass setting (CS), human development (HD) and organizational development (OD).

The main focus of the primary research was the impact of DL on governance and school performance. This was followed by finding the level of DL in the schools being studied and areas where DL could help them improve their performance and ADEK rating.

The methodology adopted was that of MMR, as answering the research questions required both the quantitative and qualitative approach. The data for research question 2, impact of DL on governance and performance, and research question 3, level of DL, was collected through an online survey and then analyzed using IBM SPSS. The data for research question 4, areas that could improve with DL, was collected through interviews. The sampling method used was sequential mixed method sampling, as the survey was conducted first and the interviews after. The total population was 190 and the total respondents for survey were 137, so the sample was representative.

Once the data had been analyzed, it was interpreted, and the research questions were answered. Conclusions were then formed, and recommendations were made, so that further research could be done on this subject, both internationally and within UAE.

5.3. Key Findings

5.3.1. Research Question 1

Research question 1 delved into the concept of DL. After a thorough review of the available literature, it was discovered that DL refers to the sharing of roles and responsibilities by giving staff at all levels more power. The idea is to utilize the skills, ideas and initiatives of the entire organization, rather than just one individual, leading to a positive change in student attainment and school performance. DL can exist as part of a hierarchy, and so can coexist with various leadership

models. Harris (2008) divided it into three levels: superficial, subterranean and the deepest, where the culture changes. Which level exists, depends on the leadership team.

DL can be the solution for many of the challenges faced by the leadership, middle management and teachers. Salahuddin (2011) concluded the same in his study. His analysis showed that DL can help improve the efficiency of leaders, which would lead to a more confident and committed staff, resulting in the progress of the students and the school as a whole.

5.3.2. Research Question 2

Research question 2 explored the impact of DL on the three categories of governance, i.e. CS, HD and OD. They were analyzed one by one through moderated regression analysis, where DL was the moderator and SP the dependent variable. All were measured using a five-point Likert scale.

The analysis showed that all three aspects of governance showed the same trends. DL does moderate the relationship between governance and SP. Further analysis revealed that when the level of DL is low, SP improves as governance becomes more effective. The same is true when DL is high, but the relationship is even more effective. However, at a medium DL, SP does improve with governance, but only marginally; meaning DL does not have a significant moderating effect when medium. Additionally, when comparing the three aspects, it was seen that DL has a greater effect on HD and OD than on CS.

The study by Al-Harthi and Al-Mahdi (2017) and the article by Harris (2003a) both positively connected DL to school effectiveness, and this study also exhibits similar results. It goes a step further by connecting DL and SE to governance.

5.3.3. Research Question 3

Research question 3 ascertained the level of DL in School F and School S through descriptive statistics. The level was determined through both direct and indirect questions asked in the surveys.

For School S, the means of both were almost identical and quite high. The leadership team implied high levels of DL and the middle management agreed. The teachers were of the opinion that while leadership is being distributed, the level is not very high; rather it was intimated to be average. The various levels of the hierarchy were not in agreement, but the truth can be supposed to be between the two responses. The level of DL here is subterranean, i.e. responsibilities and power are being distributed, but the culture itself has not changed.

For School F, the indirect mean was higher, but both show distribution of leadership. The leadership team implied high levels of DL. The middle management agreed, but answers varied from 'neutral' to 'strongly agree'. The teachers also agreed but the level is not as high as stated by the leadership. The variation of the response from the middle management showed that a lot of work is still required if DL is to be implemented successfully in School F. The level of DL here is

superficial, meaning there is some delegation of tasks and responsibilities, but the true implementation of DL is not taking place.

Humphreys (2010) found a similar situation when he studied DL in Irish post-primary schools, saying that while the concept of DL was understood, the application wasn't always effective. The same is true here of School F, and to a smaller degree, of School S.

5.3.4. Research Question 4

Research question 4 dealt with the discovery of the areas that could be enhanced with DL, in order to improve school performance. The results were gathered through the analysis of interviews conducted.

In School S, many aspects of DL are already being practiced, such as the principal delegating tasks and letting the staff make the decisions. A version of the teacher leaders, called instructional coaches, has already been put in place and is producing positive results. However, there are many areas that still need work, such as more open communication from the leadership. All stakeholders should be included in policy making, not just the stakeholders and leadership itself. The HODs should be able to confidently approach the principal if they feel the need. The teachers feel pressured to perform well constantly. Still, the leadership is open to change. So, with a little effort, School S could improve enormously.

In School F, some aspects of DL already exist. All stakeholders are involved in policy development, the principal has an open-door policy, all ideas are considered, and the teacher leader initiative is being practiced. One of the main areas that need improvement is the level of involvement of the principal. She is involved in all decisions, which is not a sustainable model. For DL to be effective, real autonomy must be given. Additionally, this creates time constraints for the principal, which leads to poor work/life balance. The teacher leader initiative needs to be explored further. In general, the environment of the school is inclusive. With a few changes from the principal, DL could have an enormous impact on school performance.

The study by Al-Harthi and Al-Mahdi (2017) showed similar results. It recommended that for DL to flourish, the leadership needed to change their approach and restructure their policies and practices, so the schools could become more effective. The same is true for Schools S and F.

5.4. Recommendations

This study will not only benefit the two schools being studied; it will also prove helpful to the entire educational community of UAE, as all schools need to change the way they operate to keep up with the times. The findings of this study show that DL has a positive impact on governance and school performance. However, each school will have to assess their strengths and weaknesses, and then formulate a plan for the application of DL, if they wish to improve school performance.

In terms of School S and School F, the areas that need improvement have been found, and that is where the schools should start. They need to find solutions to the problems that have been discovered, which might include the formation of new policies and practices. They might also want to repeat the study in the future, in order to compare the results, and find the level of progress made. Additionally, it is recommended that further research is done on the impact of DL on the relationship between governance and performance, so the results of this study can be corroborated. This is also important as not a lot of research exists on this topic.

5.5. Implications

This study found that there is a positive relationship between DL and governance, which leads to effective school performance. The level of DL was also studied for each school, and areas that could be improved were found.

This study started with an investigation into the concept of DL. After a thorough review, it was discovered that DL refers to the sharing of roles and responsibilities by giving staff at all levels more power, leading to an improvement in school performance. As implied in the literature, there are many factors that must be considered if DL is to succeed. Through the analysis conducted, the strengths and weaknesses of each school were discovered, so they would have a blueprint of how to help their school progress.

This study was similar to the one conducted by Al-Harthi and Al-Mahdi (2017), and the article written by Harris (2003a) as they also focused on connection between DL and school effectiveness, or performance. The current study goes a step further by connecting DL and school performance to school governance. However, more studies need to be conducted on this topic so the results obtained here can be verified by others.

5.6. Limitations

The first limitation encountered was getting the target participants to take the time to answer the surveys, as they were all very busy professionals. This study was conducted during the second school term, which is always a very busy one. However, the participants were very professional, and willing to help. Some even agreed to take out additional time and take part in the interviews. The main limitation of this study was the use of two schools in Al Ain. Since only two were analyzed, it was not possible to use a large population or sample size. Due to this, the samples from the leadership and middle management were less than those from the teachers.

Additionally, due to time constraints, only private schools were studied. There wasn't enough time to get samples from government schools as well, although this could have helped validate the results collected. For the same reason, the school board, parents and students were not included in the study, which again could have added materially to the analysis conducted. To overcome these limitations, every effort was made to include participants with different levels of experience.

5.7. Scope for Further Study

The impact of DL on governance has not been studied in detail, and so further researchers could provide more data on this topic. Only two schools in Al Ain were studied in this research. Further research could be carried out using the methodology of this study, that could include more schools from the UAE, in order to corroborate the findings presented.

The schools studied were both private schools. This study could also be conducted in government schools. The data gathered could be compared with the results from private schools. Moreover, the involvement of the school board, parents and teachers could help elucidate the issue more comprehensively. The complete analysis could not only be used by the schools internally in order to improve, but also be used by MoE or ADEK in the development of their policies.

5.8. Concluding Note

For research question 1, the conclusion reached is that DL is an effective theory that relies on giving staff at various levels the power and autonomy to create change. It aims to utilize the skills, ideas and initiatives of the entire organization, rather than just one individual. The level of DL in an organization ultimately depends on the choices made by the leadership. If applied effectively, it can improve the performance of a school.

For research question 2, the conclusion reached is that DL has a positive impact on the relationship between governance and school performance. When the level of DL is low or high, SP improves as governance becomes more effective. However, at a medium DL, SP does improve with governance, but only marginally.

For research question 3, the conclusion reached is that DL is being applied in both schools but at varying levels. In School S, the level is subterranean, i.e. responsibilities and power are being distributed, but the culture itself has not changed. In School F, the level is superficial, meaning there is some delegation of tasks and responsibilities, but the true implementation of DL is not taking place.

For research question 4, the conclusion reached is that both schools are practicing aspects of DL, but have areas that must be improved. In School S, those areas include more open communication from the leadership, inclusion of all stakeholders in policy making, comfort level of staff with the principal, and constant pressure felt by teachers to perform well. In School F, the areas are the level of involvement of the principal, level of autonomy of staff, and further application of the teacher leader initiative.

To conclude, DL has a positive influence on school governance, and this leads to an improvement in school performance. This is a topic which has not been delved into in much detail. However, in order to fully realize the benefits of DL, it must be investigated further. The many points of

interest found for Schools S and F will no doubt apply to other schools as well. Therefore, this study can be beneficial not only to the schools studied, but the other schools of the region as well.

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Appendices

Appendix 1 – Consent Form

The Influence of Distributed Leadership on Effective School Governance and Improved School Performance

You are being invited to participate in a research study. The following information will give you a brief explanation so you can decide. Please feel free to get in touch with me if you have any questions, or would like more clarification.

The **purpose** of this study is to identify the impact of distributed leadership on school governance, leading to an improvement in the overall school performance. This study will help identify areas where improvement is needed in terms of distribution of leadership. The **procedure** involves the participation of the administrators and the staff in surveys and one-on-one interviews. All questions will be opinion based. I am studying at British University in Dubai and am conducting this research for my **thesis**. My supervisor is Dr. Solomon Arulraj David at the University. The university has approved this study and its procedures.

It is entirely your decision whether or not you **participate**. You can decide to take part in both the survey and interview, or one of them, or even to not participate at all. You can choose to skip any questions you do not feel comfortable answering. All information collected will be treated with the strictest confidence and neither the school nor individual participants will be identifiable in any

reports that are written. The study involves no foreseeable **risks** to harm you. The information gathered will only be reported in my dissertation.

Contact Information

For any further enquiries, please feel free to contact me.

Rima Al Hassanieh

Email: -----

Mobile: -----

Please tick to show consent.

☐ I agree to take part in this research.

Name of Participant: _____

Date: _____

Appendix 2 – Distributed Leadership Inventory

Taken from Hulpia, Devos and Van Keer 2009, pp.26-27

| Scale | Items (strongly disagree/0; strongly agree/4) |
|---|--|
| <i>Cooperation of the leadership team</i> | There is a well-functioning leadership team in our school The leadership team tries to act as well as possible The leadership team supports the goals we like to attain with our school All members of the leadership team work in the same strain on the school's core objectives In our school the right man sits on the right place, taken the competencies into account Members of the management team divide their time properly Members of the leadership team have clear goals Members of the leadership team know which tasks they have to perform The leadership team is willing to execute a good idea |
| Based on | Group cohesion (Litwin & Stringer, 1968) Role ambiguity (Rizzo, House, & Lirtzman, 1970) Goal orientedness (Staessens, 1990) |
| Validity & Reliability | Modified model (Author et al., 2007): $\chi^2 = 138.098$ ($df = 35$; $p = .000$), CFI = 0.978, TLI = 0.972, SRMR = 0.026, RMSEA = 0.056 Reliability Cronbach's alpha: .93 |
| Scale | Items |
| | To what amount is (1) the principal; (2) the assistant principals; (3) the teacher leaders involved in the following statements? (never/0; always/4) |
| <i>Leadership Support</i> | ... premises a long term vision ... debates the school vision ... compliments teachers ... helps teachers ... explains his / her reason for criticism to teachers ... is available after school to help teachers when assistance is needed ... looks out for the personal welfare of teachers ... encourages me to pursue my own goals for professional learning ... encourages me to try new practices consistent with my own interests |

| | |
|------------------------|--|
| | ... provides organizational support for teacher interaction |
| <i>Leadership</i> | ... evaluates the performance of the staff |
| <i>Supervision</i> | ... is involved in summative evaluation of teachers ... is involved in formative evaluation of teachers |
| Based on | Strength of vision (De Maeyer, Rymenans, Van Petegem, van den Bergh, & Rijlaarsdam, 2007) Supportive behavior (Hoy & Tarter, 1997) Providing instructional support (Leithwood & Jantzi, 1999) Providing intellectual stimulation (Leithwood & Jantzi, 1999) |
| Validity & reliability | Modified model (Author et al., 2007): <ul style="list-style-type: none"> principal $\chi^2 = 353.840$ ($df = 64$; $p = .000$), CFI = 0.960, TLI = 0.952, SRMR = 0.042, RMSEA = 0.069; assistant principals: $\chi^2 = 361.794$ ($df = 64$; $p = .000$), CFI = 0.957, TLI = 0.948, SRMR = 0.047, RMSEA = 0.070; teacher leaders: $\chi^2 = 390.001$ ($df = 64$; $p = .000$), CFI = 0.943, TLI = 0.931, SRMR = 0.044, RMSEA = 0.073. Reliability Cronbach's alfa support: .91 (teacher leaders); .93 (principals, assistant principals) Reliability Cronbach's alfa supervision: .79 (teacher leaders); .83 (principal); .85 (assistant principals) |

| | |
|--------------------------------------|--|
| Scale | Items (strongly disagree/0; strongly agree/4) |
| <i>Participative decision-making</i> | Leadership is delegated for activities critical for achieving school goals Leadership is broadly distributed among the staff We have an adequate involvement in decision making There is an effective committee structure for decision-making Effective communication among staff is facilitated There is an appropriate level of autonomy in decision making |
| Based on | Developing structures to foster participation in school decisions (Leithwood & Jantzi, 1999) |
| Validity & reliability | Modified model (Author et al., 2007): $\chi^2 = 57.403$ ($df = 9$; $p = .000$), CFI = 0.970, TLI = 0.950, SRMR = 0.032, RMSEA = 0.075 Reliability Cronbach's alfa: .81 |

| | |
|----------------------------------|--|
| Scale | Items (strongly disagree/0; strongly agree/4) |
| <i>Organizational commitment</i> | My school inspires me to do the best I can I'm proud to be a part of this school team |

| | |
|------------------------|--|
| | I really care about the fate of this school I find that my values and the organization's values are very similar I regularly talk to friends about the school as a place where it is great to work I'm really happy that I choose this school to work for |
| Based on | Organizational commitment questionnaire (Mowday, Steers, & Porter, 1979) |
| Validity & reliability | Modified model (Author et al., 2007): $\chi^2 = 152.077^{**}$ ($df = 43$; $p = .000$), CFI = 0. 978, TLI = 0. 972, SRMR = 0. 0306, RMSEA = 0. 054 Reliability Cronbach's alfa: .91 |

Appendix 3 – Survey

Survey 1: Principal and Vice Principal

| | | | | |
|----------------------------------|-----------|---------------------------|----------------------------------|-----------|
| Personal Information | | | | |
| Gender | Male | | Female | |
| Years of experience in education | 0-3 years | 4-6 years | 7-10 years | >10 years |
| Years in this school | 0-3 years | 4-6 years | 7-10 years | >10 years |
| Present Position | Principal | Vice Principal (academic) | Vice Principal (student affairs) | |
| I am working in | School S | | School F | |

| Coding | Questions | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--------|---|-------------------|----------|---------|-------|----------------|
| | School Direction | | | | | |
| CS1. | I feel the middle management is aware of and working towards the vision/ mission of the school. | | | | | |
| CS2. | I feel the teachers are aware of and working towards the vision/ mission of the school. | | | | | |
| CS 3. | I have set clear goals to help my school progress. | | | | | |
| CS 4. | I have the support of the middle management in achieving the goals set for my school. | | | | | |
| CS 5. | I have the support of the teachers in achieving the goals set for my school. | | | | | |
| | Human Development | | | | | |

| | | | | | | |
|-------|---|--|--|--|--|--|
| HD 1. | I provide help and support to the middle management when needed. | | | | | |
| HD 2. | I provide help and support to the teachers when needed. | | | | | |
| HD 3. | I provide encouragement and opportunities for professional development and growth for the middle management team. | | | | | |
| HD 4. | I provide encouragement and opportunities for professional development and growth for the teachers. | | | | | |
| HD 5. | I support my staff in the pursuit of higher education. | | | | | |
| HD 6. | I take time to discuss the results of appraisals and areas that need work. | | | | | |
| | Organizational Development | | | | | |
| OD 1. | I provide a safe and open environment for peer interactions. | | | | | |
| OD 2. | I look out for the well-being and happiness of the middle management. | | | | | |
| OD 3. | I look out for the well-being and happiness of the teachers. | | | | | |
| OD 4. | I provide enough time for planning and group discussions during school hours. | | | | | |
| OD 5. | I feel members of the middle management team utilize their time appropriately. | | | | | |
| OD 6. | I feel the teachers utilize their time appropriately. | | | | | |
| | Distribution of Leadership | | | | | |

| | | | | | | |
|-------|--|--|--|--|--|--|
| DL 1. | I involve the middle management team in reviewing the vision/ mission of the school. | | | | | |
| DL 2. | I involve the teachers in reviewing the vision/ mission of the school. | | | | | |
| DL 3. | I am clear when I issue tasks to the middle management. | | | | | |
| DL 4. | I am clear when I issue tasks to the teachers. | | | | | |
| DL 5. | In my school, the staff has the autonomy to make decisions at their level. | | | | | |
| DL-23 | In my school, leadership is distributed throughout the staff. | | | | | |
| DL 6. | I am open to suggestions made by the middle management. | | | | | |
| DL 7. | I am open to suggestions made by the teachers. | | | | | |
| DL 8. | I consider the opinions of the middle management team regarding teaching methodologies. | | | | | |
| DL 9. | I consider the opinions of the teachers regarding teaching methodologies. | | | | | |
| | School Performance | | | | | |
| SP 1. | The leadership in my school runs like a well-oiled machine. | | | | | |
| SP 2. | I acknowledge and reward the middle management team when they succeed in their set goals or tasks. | | | | | |
| SP 3. | I acknowledge and reward the teachers when they succeed in their set goals or tasks. | | | | | |

| | | | | | | |
|-------|---|--|--|--|--|--|
| SP 4. | As a part of the leadership team, I guide and work with the middle management to help them achieve their set goals. | | | | | |
| SP 5. | As a part of the leadership team, I guide and work with the teachers to help them achieve their set goals. | | | | | |
| SP 6. | I inspire the staff to do their best. | | | | | |

I would like to conduct a follow-up interview as well. If you are willing to participate, please fill out the following:

Name: _____

Email: _____

Mobile: _____

Survey 2: Middle management

| | | | | |
|---|-----------------|--------------------|------------|-------------|
| Personal Information | | | | |
| Gender | Male | | Female | |
| Years of experience in education | 0-3 years | 4-6 years | 7-10 years | >10 years |
| Years in this school | 0-3 years | 4-6 years | 7-10 years | >10 years |
| Present Position | Head of Section | Head of Department | | Coordinator |
| Grade levels under your supervision (select all that apply) | KG | Grade 1-5 | Grade 6-9 | Grade 10-12 |
| I am working in | School S | | School F | |

| Coding | Questions | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--------|--|-------------------|----------|---------|-------|----------------|
| | School Direction | | | | | |
| CS1. | I feel the leadership is aware of and working towards the vision/ mission of the school. | | | | | |
| CS2. | I feel the teachers are aware of and working towards the vision/ mission of the school. | | | | | |
| CS 3. | The leadership has set clear goals to help the school progress. | | | | | |
| CS 4. | I have the support of the leaders in achieving the goals set for my school. | | | | | |
| CS 5. | I have the support of the teachers in achieving the goals set for my school. | | | | | |
| | Human Development | | | | | |

| | | | | | | |
|-------|---|--|--|--|--|--|
| HD 1. | I feel the leadership helps and supports me when I need it. | | | | | |
| HD 2. | I provide help and support to the teachers when needed. | | | | | |
| HD 3. | The leadership encourages me and provides opportunities for professional development and growth. | | | | | |
| HD 4. | I provide encouragement and opportunities for professional development and growth for the teachers. | | | | | |
| HD 5. | The leadership supports the staff in the pursuit of higher education. | | | | | |
| HD 6. | The leadership takes time to discuss the results of appraisals with me and suggests areas that need work. | | | | | |
| | Organizational Development | | | | | |
| OD 1. | I feel the leadership team provides a safe and open environment for peer interactions. | | | | | |
| OD 2. | I feel the leadership team looks out for my well-being and happiness. | | | | | |
| OD 3. | I look out for the well-being and happiness of the teachers. | | | | | |
| OD 4. | The leadership team provides enough time for planning and group discussions during school hours. | | | | | |
| OD 5. | I feel I utilize my time appropriately. | | | | | |
| OD 6. | I feel the teachers utilize their time appropriately. | | | | | |
| | Distribution of Leadership | | | | | |

| | | | | | | |
|-------|--|--|--|--|--|--|
| DL 1. | I feel the leadership includes me in reviewing the vision/ mission of the school. | | | | | |
| DL 2. | I feel the leadership includes the teachers in reviewing the vision/ mission of the school. | | | | | |
| DL 3. | The leadership is clear when they issue tasks to me. | | | | | |
| DL 4. | I am clear when I issue tasks to the teachers. | | | | | |
| DL 5. | I feel I have the autonomy to make decisions at my level. | | | | | |
| DL-23 | In my school, leadership is distributed throughout the staff. | | | | | |
| DL 6. | The leadership is open to my suggestions and ideas. | | | | | |
| DL 7. | I am open to suggestions made by the teachers. | | | | | |
| DL 8. | The leadership team takes my opinions into consideration regarding teaching methodologies. | | | | | |
| DL 9. | I consider the opinions of the teachers regarding teaching methodologies. | | | | | |
| | School Performance | | | | | |
| SP 1. | The leadership in my school runs like a well-oiled machine. | | | | | |
| SP 2. | The leadership acknowledges my efforts and rewards me when I succeed in my set goals or tasks. | | | | | |
| SP 3. | I acknowledge and reward the teachers when they succeed in their set goals or tasks. | | | | | |
| SP 4. | The leadership team guides me and works with me to help me achieve my set goals. | | | | | |

| | | | | | | |
|-------|---|--|--|--|--|--|
| SP 5. | As a part of the middle management team, I guide and work with the teachers to help them achieve their set goals. | | | | | |
| SP 6. | I feel the leadership team inspires the staff to do their best. | | | | | |

I would like to conduct a follow-up interview as well. If you are willing to participate, please fill out the following:

Name: _____

Email: _____

Mobile: _____

Survey 3: Teachers

| | | | | |
|----------------------------------|-----------|-----------|------------|-------------|
| Personal Information | | | | |
| Gender | Male | | Female | |
| Years of teaching experience | 0-3 years | 4-6 years | 7-10 years | >10 years |
| Years of teaching in this school | 0-3 years | 4-6 years | 7-10 years | >10 years |
| Grade Level | KG | Grade 1-5 | Grade 6-9 | Grade 10-12 |
| I am working in | School S | | School F | |

| Coding | Questions | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
|--------|---|-------------------|----------|---------|-------|----------------|
| | School Direction | | | | | |
| CS1. | I feel the leadership is aware of and working towards the vision/ mission of the school. | | | | | |
| CS2. | I feel the middle management is aware of and working towards the vision/ mission of the school. | | | | | |
| CS 3. | The leadership has set clear goals to help the school progress. | | | | | |
| CS 4. | I have the support of the leaders in achieving the goals set for my school. | | | | | |
| CS 5. | I have the support of the middle management in achieving the goals set for my school. | | | | | |
| | Human Development | | | | | |
| HD 1. | I feel the leadership helps and supports me when I need it. | | | | | |

| | | | | | | |
|-------|---|--|--|--|--|--|
| HD 2. | I feel the middle management helps and supports me when I need it. | | | | | |
| HD 3. | The leadership encourages me and provides opportunities for professional development and growth. | | | | | |
| HD 4. | The middle management encourages me and provides opportunities for professional development and growth. | | | | | |
| HD 5. | The leadership supports the staff in the pursuit of higher education. | | | | | |
| HD 6. | The leadership takes time to discuss the results of appraisals with me and suggests areas that need work. | | | | | |
| | Organizational Development | | | | | |
| OD 1. | I feel the leadership team provides a safe and open environment for peer interactions. | | | | | |
| OD 2. | I feel the leadership team looks out for my well-being and happiness. | | | | | |
| OD 3. | I feel the middle management looks out for my well-being and happiness. | | | | | |
| OD 4. | The leadership team provides enough time for planning and group discussions during school hours. | | | | | |
| OD 5. | I feel I utilize my time appropriately. | | | | | |
| OD 6. | I feel the leadership team utilize their time appropriately. | | | | | |
| | Distribution of Leadership | | | | | |

| | | | | | | |
|-------|--|--|--|--|--|--|
| DL 1. | I feel the leadership includes the middle management in reviewing the vision/ mission of the school. | | | | | |
| DL 2. | I feel the leadership includes me in reviewing the vision/ mission of the school. | | | | | |
| DL 3. | The leadership is clear when they issue tasks to me. | | | | | |
| DL 4. | The middle management is clear when they issue tasks to me. | | | | | |
| DL 5. | I feel I have the autonomy to make decisions at my level. | | | | | |
| DL-23 | In my school, leadership is distributed throughout the staff. | | | | | |
| DL 6. | The leadership is open to my suggestions and ideas. | | | | | |
| DL 7. | The middle management is open to my suggestions and ideas. | | | | | |
| DL 8. | The leadership team takes my opinions into consideration regarding teaching methodologies. | | | | | |
| DL 9. | The middle management takes my opinions into consideration regarding teaching methodologies. | | | | | |
| | School Performance | | | | | |
| SP 1. | The leadership in my school runs like a well-oiled machine. | | | | | |
| SP 2. | The leadership acknowledges my efforts and rewards me when I succeed in my set goals or tasks. | | | | | |
| SP 3. | The middle management acknowledges my efforts and | | | | | |

| | | | | | | |
|-------|---|--|--|--|--|--|
| | rewards me when I succeed in my set goals or tasks. | | | | | |
| SP 4. | The leadership team guides me and works with me to help me achieve my set goals. | | | | | |
| SP 5. | The middle management team guides me and works with me to help me achieve my set goals. | | | | | |
| SP 6. | I feel the leadership team inspires the staff to do their best. | | | | | |

I would like to conduct a follow-up interview as well. If you are willing to participate, please fill out the following:

Name: _____

Email: _____

Mobile: _____

Appendix 4 – Interview Questionnaire

Interview Questionnaire 1: Principal

1. Please give a short introduction of yourself.
2. As a school principal, what are your key responsibilities?
3. How would you categorize your leadership style? Please give a few examples of your style in your day to day interactions with your staff.
4. How is the selection of teacher leaders and other members of the middle management done in your school? What qualities do you look for in teacher leaders?
5. How would you motivate your staff? What strategies do you use to empower them? Please give a few examples.
6. In your opinion, are there any teachers in your staff that are performing the role of a leader at their level? Has there been any tension as a result? Do you approve of their initiative? Please give a few examples.
7. How is teacher evaluation carried out in your school? Who is responsible for performing the evaluation? How do you provide feedback to the teachers at the completion of the evaluation?
8. How are policies developed in your school? Please give a few examples.
9. How was the current vision and mission of your school developed? Were all the stakeholders involved?
10. Do you feel you have been able to achieve a good work/life balance? Do you get enough time to carry out your duties during school hours?
11. Would you be open to delegating some of your responsibilities? Please elaborate.

Interview Questionnaire 2: Middle Management

1. Please give a short introduction of yourself.
2. As a part of the middle management team, what are your key responsibilities?
3. How would you categorize your leadership style? Can you tell me who is part of your team (roles)? Please give a few examples of your style in your day to day interactions with your staff.
4. How did the leadership team select you (outside hire or promoted from within)? Please tell me about the selection process and how it works in your school? Do you feel this process is effective or does it need to change? Please elaborate.
5. Do you feel you have been able to achieve a good work/life balance? Do you get enough time to carry out your duties during school hours? Please give a few examples.
6. How many times a week would you say you interact with your principal?
7. Do you feel comfortable voicing your opinions during meetings? Do you feel the leadership listens to your ideas and considers them?
8. Do you feel you have autonomy in performing your duties? Please give a few examples.
9. Do you feel that the leadership team empowers the teachers? Do you think the teachers agree? Please give a few examples.
10. Do you feel the principal supports you? Is there more that they should be doing?
11. Were your recommendations considered when the policies of your school were developed? Please give a few examples.

Interview Questionnaire 3: Teachers

1. Please give a short introduction of yourself.
2. As a part of the teaching staff, what would you say are your key responsibilities?
3. What would you say is the leadership style followed in your school? Please give a few examples.
4. How did the leadership team hire you? Please tell me about the hiring process and how it works in your school? Do you feel this process is effective or does it need to change? Please elaborate.
5. Do you feel you have been able to achieve a good work/life balance? Do you get enough time to carry out your duties during school hours? Please give a few examples.
6. How many times a week would you say you interact with your principal?
7. Do you feel comfortable voicing your opinions during meetings? Do you feel the leadership and middle management listen to your ideas and consider them?
8. Do you feel you have autonomy in performing your duties? Please give a few examples.
9. Do you feel that the leadership team empowers you? Please give a few examples.
10. Do you feel the principal and middle management support you? Is there more that they should be doing?
11. Were your recommendations considered when the policies of your school were developed? Please give a few examples.

Appendix 5 – Cronbach's Alpha Test

| Variable | Cronbach's Alpha | Internal Consistency |
|---------------------------------|------------------|----------------------|
| Compass Setting (CS) | 0.839 | Good |
| Human Development (HD) | 0.837 | Good |
| Organizational Development (OD) | 0.838 | Good |
| Distributed Leadership (DL) | 0.872 | Good |
| School Performance (SP) | 0.829 | Good |

Appendix 6 – Descriptives of Survey Data

Gender

| | Frequency | Percentage |
|--------|-----------|------------|
| Male | 49 | 36 |
| Female | 88 | 64 |
| Total | 137 | 100 |

Years of experience in education

| | Frequency | Percentage |
|------------|-----------|------------|
| 0-3 years | 16 | 12 |
| 4-6 years | 29 | 21 |
| 7-10 years | 23 | 17 |
| >10 years | 69 | 50 |
| Total | 137 | 100 |

Years in this school

| | Frequency | Percentage |
|------------|-----------|------------|
| 0-3 years | 73 | 53 |
| 4-6 years | 31 | 23 |
| 7-10 years | 9 | 7 |
| >10 years | 24 | 18 |
| Total | 137 | 100 |

S1 - Present Position

| | Frequency | Percentage |
|----------------------------------|-----------|------------|
| Principal | 2 | 1 |
| Vice Principal (academic) | 2 | 1 |
| Vice Principal (student affairs) | 1 | 1 |
| Head of Section | 2 | 1 |
| Head of Department | 10 | 7 |

| | | |
|-------------|-----|-----|
| Coordinator | 1 | 1 |
| Teacher | 119 | 87 |
| Total | 137 | 100 |

Grade levels under your supervision

| | Frequency | Percentage |
|---------------|-----------|------------|
| KG | 11 | 8 |
| Grade 1-5 | 43 | 31 |
| Grade 6-9 | 33 | 24 |
| Grade 10-12 | 41 | 30 |
| KG - Grade 12 | 5 | 4 |
| Grade 1-12 | 4 | 3 |
| Total | 137 | 100 |

I am working in

| | Frequency | Percentage |
|----------|-----------|------------|
| School S | 72 | 53 |
| School F | 65 | 47 |
| Total | 137 | 100 |

School Direction (Compass Setting- CS)

CS 1

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 4 | 3 |
| Neutral | 6 | 4 |
| Agree | 91 | 66 |
| Strongly Agree | 36 | 26 |
| Total | 137 | 100 |

CS 2

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 3 | 2 |
| Neutral | 19 | 14 |
| Agree | 85 | 62 |
| Strongly Agree | 30 | 22 |
| Total | 137 | 100 |

CS 3

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 3 | 2 |
| Neutral | 8 | 6 |
| Agree | 89 | 65 |
| Strongly Agree | 37 | 27 |
| Total | 137 | 100 |

CS 4

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 5 | 4 |
| Neutral | 9 | 7 |
| Agree | 89 | 65 |
| Strongly Agree | 34 | 25 |
| Total | 137 | 100 |

CS 5

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 3 | 2 |
| Neutral | 18 | 13 |

| | | |
|----------------|-----|-----|
| Agree | 88 | 64 |
| Strongly Agree | 28 | 20 |
| Total | 137 | 100 |

Human Development (HD)

HD 1

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 2 | 1 |
| Neutral | 10 | 7 |
| Agree | 79 | 58 |
| Strongly Agree | 46 | 34 |
| Total | 137 | 100 |

HD 2

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 5 | 4 |
| Neutral | 13 | 9 |
| Agree | 77 | 56 |
| Strongly Agree | 42 | 31 |
| Total | 137 | 100 |

HD 3

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 5 | 4 |
| Neutral | 14 | 10 |
| Agree | 84 | 61 |
| Strongly Agree | 34 | 25 |
| Total | 137 | 100 |

HD 4

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 5 | 4 |
| Neutral | 18 | 13 |
| Agree | 83 | 61 |
| Strongly Agree | 31 | 23 |
| Total | 137 | 100 |

HD 5

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 1 | 1 |
| Neutral | 29 | 21 |
| Agree | 78 | 57 |
| Strongly Agree | 29 | 21 |
| Total | 137 | 100 |

HD 6

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 2 | 1 |
| Disagree | 11 | 8 |
| Neutral | 14 | 10 |
| Agree | 84 | 61 |
| Strongly Agree | 26 | 19 |
| Total | 137 | 100 |

Organizational Development (OD)**OD 1**

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 1 | 1 |
| Disagree | 6 | 4 |

| | | |
|----------------|-----|-----|
| Neutral | 15 | 11 |
| Agree | 87 | 64 |
| Strongly Agree | 28 | 20 |
| Total | 137 | 100 |

OD 2

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 1 | 1 |
| Disagree | 11 | 8 |
| Neutral | 26 | 19 |
| Agree | 75 | 55 |
| Strongly Agree | 24 | 18 |
| Total | 137 | 100 |

OD 3

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 1 | 1 |
| Disagree | 12 | 9 |
| Neutral | 22 | 16 |
| Agree | 77 | 56 |
| Strongly Agree | 25 | 18 |
| Total | 137 | 100 |

OD 4

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 1 | 1 |
| Disagree | 6 | 4 |
| Neutral | 21 | 15 |
| Agree | 85 | 62 |
| Strongly Agree | 24 | 18 |
| Total | 137 | 100 |

OD 5

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 6 | 4 |
| Neutral | 15 | 11 |
| Agree | 87 | 64 |
| Strongly Agree | 29 | 21 |
| Total | 137 | 100 |

OD 6

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 1 | 1 |
| Disagree | 5 | 4 |
| Neutral | 26 | 19 |
| Agree | 88 | 64 |
| Strongly Agree | 17 | 12 |
| Total | 137 | 100 |

Distributed Leadership (DL)**DL 1**

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 8 | 6 |
| Neutral | 10 | 7 |
| Agree | 87 | 64 |
| Strongly Agree | 32 | 23 |
| Total | 137 | 100 |

DL 2

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 2 | 1 |
| Disagree | 7 | 5 |

| | | |
|----------------|-----|-----|
| Neutral | 19 | 14 |
| Agree | 80 | 58 |
| Strongly Agree | 29 | 21 |
| Total | 137 | 100 |

DL 3

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 1 | 1 |
| Disagree | 3 | 2 |
| Neutral | 15 | 11 |
| Agree | 96 | 70 |
| Strongly Agree | 22 | 16 |
| Total | 137 | 100 |

DL 4

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 3 | 2 |
| Neutral | 14 | 10 |
| Agree | 92 | 67 |
| Strongly Agree | 28 | 20 |
| Total | 137 | 100 |

DL 5

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 7 | 5 |
| Neutral | 28 | 20 |
| Agree | 81 | 59 |
| Strongly Agree | 21 | 15 |
| Total | 137 | 100 |

DL 6

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 5 | 4 |
| Neutral | 20 | 15 |
| Agree | 87 | 64 |
| Strongly Agree | 25 | 18 |
| Total | 137 | 100 |

DL 7

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 4 | 3 |
| Neutral | 19 | 14 |
| Agree | 79 | 58 |
| Strongly Agree | 35 | 26 |
| Total | 137 | 100 |

DL 8

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 4 | 3 |
| Neutral | 28 | 20 |
| Agree | 87 | 64 |
| Strongly Agree | 18 | 13 |
| Total | 137 | 100 |

DL 9

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 8 | 6 |
| Neutral | 23 | 17 |

| | | |
|----------------|-----|-----|
| Agree | 87 | 64 |
| Strongly Agree | 19 | 14 |
| Total | 137 | 100 |

DL – Q23

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 1 | 1 |
| Disagree | 6 | 4 |
| Neutral | 25 | 18 |
| Agree | 88 | 64 |
| Strongly Agree | 17 | 12 |
| Total | 137 | 100 |

School Performance (SP)

SP 1

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 8 | 6 |
| Neutral | 15 | 11 |
| Agree | 82 | 60 |
| Strongly Agree | 32 | 23 |
| Total | 137 | 100 |

SP 2

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 3 | 2 |
| Disagree | 8 | 6 |
| Neutral | 34 | 25 |
| Agree | 70 | 51 |
| Strongly Agree | 22 | 16 |
| Total | 137 | 100 |

SP 3

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 8 | 6 |
| Neutral | 24 | 18 |
| Agree | 83 | 61 |
| Strongly Agree | 22 | 16 |
| Total | 137 | 100 |

SP 4

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 7 | 5 |
| Neutral | 18 | 13 |
| Agree | 85 | 62 |
| Strongly Agree | 27 | 20 |
| Total | 137 | 100 |

SP 5

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 6 | 4 |
| Neutral | 15 | 11 |
| Agree | 86 | 63 |
| Strongly Agree | 30 | 22 |
| Total | 137 | 100 |

SP 6

| | Frequency | Percentage |
|-------------------|-----------|------------|
| Strongly Disagree | 0 | 0 |
| Disagree | 5 | 4 |
| Neutral | 15 | 11 |

| | | |
|----------------|-----|-----|
| Agree | 91 | 66 |
| Strongly Agree | 26 | 19 |
| Total | 137 | 100 |

Appendix 7 – Demographics of Survey Respondents – School S

| Statistics | | | | | |
|------------|---------|----|--------|--------------------|-------------------|
| | | ID | Gender | Years in Education | Years in School S |
| N | Valid | 72 | 72 | 72 | 72 |
| | Missing | 0 | 0 | 0 | 0 |

| ID | | | | | |
|-------|------------------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Leadership Team | 3 | 4.2 | 4.2 | 4.2 |
| | Middle Management Team | 6 | 8.3 | 8.3 | 12.5 |
| | Teachers | 63 | 87.5 | 87.5 | 100.0 |
| | Total | 72 | 100.0 | 100.0 | |

| Gender | | | | | |
|--------|--------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Male | 24 | 33.3 | 33.3 | 33.3 |
| | Female | 48 | 66.7 | 66.7 | 100.0 |
| | Total | 72 | 100.0 | 100.0 | |

| Years in Education | | | | | |
|--------------------|------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 0-3 years | 9 | 12.5 | 12.5 | 12.5 |
| | 4-6 years | 11 | 15.3 | 15.3 | 27.8 |
| | 7-10 years | 13 | 18.1 | 18.1 | 45.8 |
| | >10 years | 39 | 54.2 | 54.2 | 100.0 |
| | Total | 72 | 100.0 | 100.0 | |

Years in School S

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------|-----------|---------|---------------|-----------------------|
| Valid | 0-3 years | 36 | 50.0 | 50.0 | 50.0 |
| | 4-6 years | 17 | 23.6 | 23.6 | 73.6 |
| | 7-10 years | 5 | 6.9 | 6.9 | 80.6 |
| | >10 years | 14 | 19.4 | 19.4 | 100.0 |
| | Total | 72 | 100.0 | 100.0 | |

Appendix 8 – Demographics of Survey Respondents – School F

| Statistics | | | | | |
|------------|---------|----|--------|--------------------|-------------------|
| | | ID | Gender | Years in Education | Years in School F |
| N | Valid | 65 | 65 | 65 | 65 |
| | Missing | 0 | 0 | 0 | 0 |

| ID | | | | | |
|-------|------------------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Leadership Team | 2 | 3.1 | 3.1 | 3.1 |
| | Middle Management Team | 5 | 7.7 | 7.7 | 10.8 |
| | Teachers | 58 | 89.2 | 89.2 | 100.0 |
| | Total | 65 | 100.0 | 100.0 | |

| Gender | | | | | |
|--------|--------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Male | 25 | 38.5 | 38.5 | 38.5 |
| | Female | 40 | 61.5 | 61.5 | 100.0 |
| | Total | 65 | 100.0 | 100.0 | |

| Years in Education | | | | | |
|--------------------|------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 0-3 years | 7 | 10.8 | 10.8 | 10.8 |
| | 4-6 years | 18 | 27.7 | 27.7 | 38.5 |
| | 7-10 years | 10 | 15.4 | 15.4 | 53.8 |
| | >10 years | 30 | 46.2 | 46.2 | 100.0 |
| | Total | 65 | 100.0 | 100.0 | |

Years in School F

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|------------|-----------|---------|---------------|-----------------------|
| Valid | 0-3 years | 37 | 56.9 | 56.9 | 56.9 |
| | 4-6 years | 14 | 21.5 | 21.5 | 78.5 |
| | 7-10 years | 4 | 6.2 | 6.2 | 84.6 |
| | >10 years | 10 | 15.4 | 15.4 | 100.0 |
| | Total | 65 | 100.0 | 100.0 | |

Appendix 9 – Sample of Interview Questionnaire – Principal

2. As a school principal, what are your key responsibilities?

Well, to begin with, I must say that being a principal and owner of a school is not at all easy. There are many issues that you need to take care of and follow up on, and these may not be sometimes within your day to day management of the school. I will be more specific and give you examples. Let's talk about the daily responsibilities for instance... as a principal I have to oversee the overall school operation and be involved with all that arises like teachers' absence, substitution, daily meetings with parents, handling complaints, checking on the health and safety of students, and solve any issue. On a weekly basis, I have several meetings with those who work in the administration, teachers, heads of departments, and senior leaders to review performance, action plans, and school development. All this only to name a few.. there is a whole lot of issues that pop up and that is not actually on my mind now; but I just wanted to give you a briefing.

3. How would you categorize your leadership style? Please give a few examples of your style in your day to day interactions with your staff.

I would say that my leadership style is a mix of a visionary, coaching, democratic. Let me explain that to you. First of all, I am a leader with a vision, which means I know what I want and where I want my institution to head in the future, for that reason, I coach my staff to be in line with my vision while still allowing them to make suggestions and come up with new ideas to improve the

school. Once I see that they are able of handling tasks properly I then hand-off and delegate tasks to them and allow them to make the decisions.

4. How is the selection of teacher leaders and other members of the middle management done in your school? What qualities do you look for in teacher leaders?

Selecting teacher leaders usually happens on a yearly basis and upon demand. This procedure is based on evaluation of teachers, their contributions, creativity, leadership skills, and potential for growth. I personally favor the strategy of investing in my existing staff instead of hiring someone for outside. At least, people who have been with me in the same boat know much more than others what issues to expect and how to handle them.

5. How would you motivate your staff? What strategies do you use to empower them? Please give a few examples.

Motivating staff comes in a variety of ways. It can be a tap on the shoulder, a morning smile, and good morning, a well done, a thank you etc. When you are a true leader and someone who has influence and charisma, you can easily motivate your staff. This is in addition to material things like bonus and increment, and recognition among all other staff ,embers like in email, teacher of the week etc.

6. In your opinion, are there any teachers in your staff that are performing the role of a leader at their level? Has there been any tension as a result? Do you approve of their initiative? Please give a few examples.

I have several teachers who did that last year before we came up with the instructional coaching initiative. For instance, before appointing ICs, I had teachers, who have been in the school for a long time, guide newly hired staff and support them without the demand of the administration, and we didn't face any tension or issues that required admin support. Instead, the new teachers welcomed the guidance and direction. This year, however, because individual initiatives were successful in the past, we appointed formal instructional coaches throughout the school to implement what was before still emerging.

7. How is teacher evaluation carried out in your school? Who is responsible for performing the evaluation? How do you provide feedback to the teachers at the completion of the evaluation?

We have different levels of evaluation, some are formal, others informal. Some are announced, others are unannounced. Heads of departments conduct informal observations for the purpose of directing teachers and providing support. They also do formal ones to evaluate performance based on prior recommendations. Most of these evaluations are announced, but they can still happen otherwise. On the other hand, Senior leaders are entitled to conduct formal announced observations, while still they can pop into the class anytime for quick monitoring of instruction. In general, we conduct formal observations once a term and we give teachers feedback on what we want to see

next observations. Feedback takes place in a private space where only the teacher and leader are present. We give positive feedback at first, and then we explain the areas that require further development, and we finally agree on a development plan for the teacher.

8. How are policies developed in your school? Please give a few examples.

Our school policies are all based on the Ministry's. We normally base our major policies in line with the laws, rules, and regulations of the country in addition to the UAE vision for education. In other cases, when the policy is specific to the school context and is required for the functioning of the institution, we do that with the board of trustees and the senior leaders through discussing and suggesting approaches to fix problems. Of course, policies need revision, and a strategy for implementation, so we do that before we actually introduce them to the staff. We try to study all the issues associated with them, and we adjust according to needs. However, it is important to note that transformational policies are not applied in the current academic year, instead we introduce them in phases, we share them with staff, and we train teachers properly. Let's take for instance, the behavior policy. The policy was formulated and tailored in the school to suit the specific context of the school, introduced at the end of the academic year, shared with staff, and training was planned for its implementation in the next year. Once the policy was embedded, we kept following up on it and providing assistance for those who still cannot implement it properly. The feedback given was taken into consideration as well to enhance or amend the policy.

9. How was the current vision and mission of your school developed? Were all the stakeholders involved?

Our school mission and vision were developed in line with the UAE vision for education for 2021. In addition to the needs of our school, the worldwide market needs, and the context in which we exist, our small Al Ain community. We have developed the vision and mission with our senior leaders and board of trustees, and then we shared it with all the staff and all other stakeholders.

10. Do you feel you have been able to achieve a good work/life balance? Do you get enough time to carry out your duties during school hours?

In some parts, I would say yes, but it is not easy at all. I try to do as much as possible within the school, but sometimes the workload is heavier than expected, so I find myself involuntarily working at home as well.

11. Would you be open to delegating some of your responsibilities? If yes, how would you go about it? If no, why?

I already do that; I have hired a very experienced and dedicated vice principal who can handle instructional issues, and I am gradually withdrawing myself to spare more time with my family.