



**Participation in Professional Learning Communities by female principals in
Bojanala, Northwest Province.**

by

Tinti Enoch Rabotapi

9713015F

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Supervisor: Professor Punday Pillay

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Abstract

The study sought to determine the perceptions of female principals in secondary schools in the Bojanala district of the Northwest Province about the level of support they receive from each other through their networks and how this support impacts their confidence and motivation. The current study adopted a single case study to assess the PLC programme's implementation in the Northwest Bojanala District. The study combines qualitative and quantitative approaches to draw rich data.

The study found that female principals used the PLC to exchange ideas and share best practices in a conducive and non-threatening environment. This enabled them to gain a lot of knowledge and improve the extent of their leadership and management skills. Improved knowledge and skills have had a ripple effect that has improved their confidence and motivation, resulting in the overall improvement of their schools and their learners' performance.

The study concludes by recommending the model as an instrument that can address the under-representation of females at the managerial level. The recommendations also include how the model can be strengthened by providing additional support to participants. The study also recommends allocating time within the school timetable to create an opportunity for teachers to participate in the PLCs.

Keywords: Confidence, Motivation, Knowledge, Leadership, Management, Self-efficacy, Network, Platform, School, Enterprise, Collaboration, Education District, Expertise, Competence, Systems, Synthesis

Declaration

I declare that this dissertation is my own, unaided work. It is being submitted for the **Master of Management at** the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination at any other University.



(Signature of candidate)

22nd **day of** _February____ 2023 ___at___ Pretoria__

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CHAPTER 1: Introduction

1.1. Background of the study

The Department of Basic Education (DBE) had a program to support the establishment of networks for female school principals since 2013. The purpose of these networks was to provide a platform for female principals to share challenges and best practices and render support to each other. This program aimed to improve the self-efficacy, leadership, and management skills of female principals and encourage female teachers to become principals, particularly in secondary schools. This study aimed to evaluate the impact of this intervention in assisting female principals in secondary schools to deal with challenging and complex working environments that they faced on a daily basis.

Even though most teachers in South Africa were women, female principals were significantly fewer than their male counterparts. According to the Organisation for Economic Co-operation and Development's [OECD] (2018), only 22% of principals in South African Schools were women, even though women constitute 60% of the teaching cohort. Similar trends in women's representation have been highlighted in the 2013 OECD report on *Teaching and Learning International Survey* [TALIS] 2013 OECD report. What was not clearly established was whether this under-representation resulted from women not applying to become principals when a post was advertised or whether women were not being considered, with preference being given to men.

The interest in this research was generated by the fact that since democracy was instituted in South Africa in 1994, issues of gender imbalance in the workplace, particularly at the leadership level, have been under consideration. However, evidence showed that not much progress was made in addressing them (SAHRC, 2019). In acknowledging the challenges women principals faced in South African schools, the Minister of Basic Education, Angie Motshekga, hosted and launched a network of female principals at the DBE offices on 23 August 2013 (DBE, 2013). The network was constituted in the form of a Professional Learning Community (PLC).

The purpose of establishing the PLC was to create a platform for female principals to share experiences, challenges, and best practices, as well as to encourage and motivate each other (DBE, 2013). According to the Minister, "Female principals will therefore learn to overcome their shortcomings and be encouraged to lead and

manage their schools with more confidence" (DBE, 2013, p.2). Assessing the effectiveness of the PLCs assisted in exploring possible solutions on how to improve women's representation at the level of principalship.

The use of PLCs as a mode of delivery for sustained professional development programs was gaining popularity. More teachers accepted that they could learn better from each other and with each other in the workplace (McLaughlin & Talbert, as cited in Devos & Vanblaere, 2018.).

1.2. Professional Learning Community (PLC)

A Professional Learning Community (PLC) was defined as "a group of people sharing and critically interrogating their practice in an on-going, reflective, collaborative, inclusive, learning-oriented, growth-promoting way, operating as a collective enterprise". (Portman & Prenger, 2018, p.441).

PLCs could also be defined as, "learning communities whereby teachers collaboratively work together to develop a culture that enhances teaching and learning for all through shared vision and values, collective responsibility and professional learning practices" (Zhang & Pang, 2016, as cited in Kareem & Kin, 2021, p.193).

Various sources in the literature have demonstrated that there is no standard definition of a PLC. However, some common themes or terms emerged after reflecting on the two definitions. Firstly, it was apparent from the two definitions that a PLC consisted of a group of teachers and not individual teachers. Secondly, the group must have a shared vision, shared values or common objectives that must bring them together. Thirdly, the group must work together on an ongoing basis and take collective responsibility for the activities and the outcomes of the group. Finally, the group must reflect on their practice and focus on learning to bring about improvement,

These various dimensions meant that the different members of the group would bring different knowledge, skills and expertise that they would share and, in the process, provided support to each other. Over the years, different names had been attributed to the practice where teachers collaborated in groups to achieve a particular objective. For example, they had been referred to as learning networks or in some instances, learning communities. (Adams & Doğan, 2018). However, reference to these collaborative structures as PLCs had become more common in recent years (Adams & Doğan, 2018).

1.3. Professional Learning Communities and Gender

The challenges of gender imbalance at the leadership level within South African schools had persisted for a long time despite efforts to address them (SAHRC, 2019). Muzvidziwa (2013) argued that there was a problem of women's under-representation in leadership positions in Zimbabwe despite various efforts and interventions to address it. These findings demonstrated that the problem of women's under-representation in leadership positions was more widespread than just in education in South Africa.

The use of PLCs as a model of support, and its effectiveness was assessed to establish if it could provide a solution to the persistent problem. The perceptions of current principals who are members of PLCs could be used to document their experiences. If their experiences were positive, they could then be used to encourage more female principals to become members of PLCs to promote and support aspirant female principals.

Various studies have sought to establish the relationship between PLCs and other variables such as self-efficacy, job satisfaction, improved leadership, and student learning, amongst others (Kareem & Kin, 2021). The power and effectiveness of PLCs was recognised in research as an instrument that provided onsite support and helped improve participants' confidence and effectiveness (Owen, 2015). The effectiveness of PLCs in providing a platform for teachers and school leaders to collaborate and share knowledge and best practices has been well-researched (OECD, 2018; Owen, 2015).

Research showed a growing trend among teachers to prefer this mode of professional development. However, the actual process of how it could bring about the desired changes had not been clearly established (Owen, 2015).

Whilst there was much literature to demonstrate the effectiveness of PLCs in supporting learning outcomes, efficacy, and leadership, the use of the PLC approach to address challenges women face in leadership positions was not well documented. For this reason, the DBE's intervention was of interest in establishing a PLC for female principals.

The research outcome sought to contribute meaningfully to the body of evidence on how PLCs could assist female principals to deal with challenges they faced in

managing complex school environment, thereby improving their performance and that of their schools. The assumption was that if PLCs could effectively provide much-needed support to female principals and improved their self-efficacy; this was likely to impact women's apparent lack of interest in applying for leadership positions, thereby addressing their under-representation in such positions.

1.4. Context of the study

The Department of Basic Education (DBE) was tasked with delivering quality basic education to South Africa's citizens. In order to deliver this vital mandate, the DBE had to work with the nine provincial education departments. In terms of the Intergovernmental Relations Framework Act (Act 13 of 2005), the national government, through the DBE, was responsible for formulating school policy, and the provincial departments were responsible for implementing this policy at the local level. According to the school realities of 2021, the entire basic education sector had a budget of R27 billion. Furthermore, 12 706 157 learners were accommodated across all grades in 22 740 public schools spread across 75 districts in 9 provinces. (DBE, 2019). Since a principal manages each school, there are 23 076 principals who are managing 405 050 educators. (DBE, 2019).

As managers, principals were responsible for ensuring that schools deliver the curriculum as prescribed and that teachers and learners were in class and on time. (DBE, 2015). Teachers were regarded as the backbone of any education system. It was within the context of the above that Barber and Mourshed (2007) argued that "The quality of an education system cannot exceed the quality of its teachers". (Barber & Mourshed, 2007, p.13) It was through continuous investment in teachers that the quality of education outcomes could improve. The leadership that school principals provided was critical in ensuring that there was a culture of learning and teaching within a school and that everybody endeavoured to improve their knowledge and practice on an ongoing basis.

1.5. The role of a district office

The district was the level within the education system responsible for providing immediate support to schools; the district worked very closely with the principals. The structure, roles, and responsibilities of education districts were outlined in the DBE's

policy on education districts. A director managed each of the 75 education districts in the nine provinces. The focus of this study was the Bojanala district, which was one of the districts situated in the Northwest Province.

1.6. Problem Statement

As highlighted earlier, the South African Human Rights Commission (SAHRC) report pointed to an acute shortage of female representation at the leadership level in various sectors of our society, including the schools. This under-representation of women had persisted since 1994, implying that measures implemented to address it have not been successful. This was also been confirmed by the 2018 TALIS report (OECD, 2018).

The SAHRC also pointed to a consistent lack of support for females appointed into leadership positions, resulting in a high turnover rate at this level. Without the required support structure, female leaders lost confidence in their ability to lead effectively, resulting in them becoming demotivated. This had a ripple effect where the entire organization began to experience a decline in performance and ability to achieve its targets. The lack of support structures resulted in female principals struggling to adapt and provide the required leadership. A lack of support made it difficult for them to showcase their skills and competencies, resulting in them feeling despondent and ultimately quitting. Furthermore, this also deterred aspiring female teachers from applying for appointment in leadership positions.

The research problem addressed by the study was to assess the effectiveness of participation in PLCs by female principals in the Bojanala district of the Northwest Province.

1.7. Research Question

The following was the main research question:

The main research question that this study sought to address was how participation of female principal in a PLC affected their approach to dealing with complex school environment?

1.8. Research Objectives

The objectives of the study were as follows:

1. To investigate the experiences and challenges of female principals in their working environment;
2. To assess the experiences of female principals who are members of PLCs;
3. To identify the benefits and challenges of their participation in PLCs; and
4. To evaluate the extent to which their participation in PLCs affects their confidence and motivation.

1.9. Contribution of the study

This research could provide valuable information on whether the model, as implemented by the DBE, was the answer to the long-standing challenge of gender inequality at the principal level in the South African education system. The views and experiences of the principals interviewed as part of the research provided valuable insights into whether the PLC model could effectively address the challenges experienced by female principals and encouraged more aspirant female teachers to become principals and participants in a PLC. Information from this research would benefit the DBE in terms of strengthening its policies on how to support female principals and to improve female representation at leadership level.

1.10. Delimitations of the study

This study focused mainly on female principals in secondary schools in the Bojanala District of the Northwest Province. Being the principal of a secondary school was a particular category where women were experiencing serious challenges. Whilst many studies generally focused on the leadership of female principals in schools, this study focused on the secondary school category where the number of females was low compared to the other levels. The study also looked at the Professional Learning Community (PLC) as a mode of support for female secondary school principals. This mode of support had been elevated above other support structures due to its effectiveness in delivering the desired support outcomes.

Various researchers have shown that using PLCs to support teachers in various ways has been largely successful. On this basis, the DBE opted for a PLC approach to entrench support for female principals. The study tried to establish if the participation

of female principals in PLCs could effectively deal with challenges they faced and the fears they encountered in their working environments.

The focus on the Bojanala District of the Northwest Province was primarily due to, among others, the convenience in terms of access to participants and thus, data collection process. In addition, based on the 2021 DBE monitoring report, the district had one of the country's most active networks for female principals; hence, it was selected for this study. Furthermore, the district had been performing consistently high in terms of grade 12 results since 2020. The proximity of the chosen district to the researcher increased the ease with which data could be collected. Therefore, the findings of the study might not be generalised to other Districts.

1.11. Outline of the Dissertation

The dissertation had five chapters.

Chapter 1:

This chapter provided background and context to the study, including an outline of the rationale for the study. The chapter proceeded to provide justification for the chosen population and its attributes. The research question, as well as the research objectives, were clearly articulated in the chapter. An outline of the problem statement, research objectives, questions, and delimitations were presented.

Chapter 2:

The chapter identified the key literature that informed the study. The literature overview and analysis provided a context to the study and formed the basis for drawing conclusions to the research question. The chapter also outlined the theoretical framework that would provide context to the conclusions drawn from the research question.

Chapter 3:

The chapter dealt with the methodology adopted by the study based on the literature review. The chapter also outlined the research tools or instruments used to collect data and how these instruments were applied. Key sampling techniques and their justification were outlined in the chapter. The chapter also addressed how the collected data was analysed. The chapter concluded by highlighting key ethical

considerations that were taken into account during the study and the limitations of the study.

Chapter 4:

This chapter provided an overview of the data collected. An outline of limitations within the data were also outlined.

Chapter 5:

This chapter analysed the data collected and drew key inferences from the data.

Chapter 6:

This chapter relied on the previous one to draw key conclusions. This chapter provided an answer to the research question and other key conclusions drawn from the data and the literature review. A summary of the research was provided in the chapter.

1.12. Conclusion

Chapter one provided the background to the study and the context within which the study was undertaken. The context provided an overview of the structure of the DBE and the rationale for the study's focus. Chapter one also outlined the reasons behind the introduction of support networks for female principals and justified the rationale behind investigating the impact of the intervention. Also outlined in the chapter was the gap that existed in literature and how the study would potentially contribute. The purpose of the research is highlighted, as well as the problem statement and key research questions.

Chapter 2: Literature Review

1.13. Introduction

Chapter One provided a broad outline of the study and a synopsis of the methodological approach that will be adopted. An outline of what the different chapters will deal with were also provided.

Chapter Two aimed to locate this study within a specific literature framework to understand how other countries have applied the concept of PLCs, and what approaches they have undertaken. The literature review also assisted to get a synopsis of what worked and what did not work. The information emanating from literature was compared with experiences within the South African context. The chapter also located the study within a specific conceptual framework, which assisted in data analysis and enabled the drawing of relevant conclusions.

1.14. Factors impacting on the quality of education systems

Barber and Mourshed (2007) highlighted the research findings from twenty-five top-performing education systems in the world, amongst them Finland, Japan and Singapore. Some of the practices employed by these countries to improve the quality of their education systems were highlighted. Overall it was evident that the investment in teachers was at the centre of their strategies. Part of that investment involved how teachers were recruited and trained to ensure that each learner had the best instructional practices at all times (Barber & Mourshed, 2007).

One of the studies examined by Barber and Mourshed (2007) was in Tennessee (USA), where two average eight-year-old students were exposed to two teachers, one a high performer and the other a low performer. After three years of instruction and tuition, there was an average difference of about 50 percentage points between the two students in terms of their performance (Barber & Mourshed, 2007). What the study was able to demonstrate was that the quality of the teacher had a significant impact on the quality of student learning. Based on this, Barber and Mourshed argue in their findings that the quality of an education system cannot exceed the quality of its teachers.

1.15. Factors affecting student learning.

In 2007, the Department of Education under Minister Naledi Pandor established a ministerial committee to look at factors that influence the quality of learning outcomes in schools that are not in affluent areas, particularly quintiles 2 and 3 (DoE, 2007). The report was titled *Schools that work*. Schools in affluent areas were clustered together and referred to as quintile five schools. Similarly, schools in communities with low economic activity, high unemployment rates, and unaffordability were categorised as quintile 1. A Likert scale, ranging from 1 to 5, allocated schools according to their affordability for communities where they are located. Historically, schools in affluent areas (Quintiles 5 and 4, respectively) would be better resourced and tend to perform better than schools in quintiles 1, 2 and 3.

The 2007 study's commissioning was influenced by the emerging trend in the National Senior Examination results that saw some schools in quintiles 1, 2 and 3 performing better than others in the same context. Some of these schools were beginning to outperform schools in quintiles 4 and 5. This interesting development led the then

minister to commission a study to determine factors that prevailed in these high-performing schools despite their context and circumstances (DoE, 2007).

A similar study was commissioned by Minister Angie Motshekga in 2017 after various results of the National Senior Certificate revealed that the performance gap between lower quintile schools and those in higher quintile schools was closing very quickly. The study was conducted by the National Education Evaluation and Development Unit (NEEDU) (DBE, 2017).

Amongst the key findings, the two studies concluded that two categories of factors influenced learning outcomes within a school. The first category was the "In-school factors," and the second category was the "out-of-school factors". (DBE, 2017, p.13).

2.1.1. Out-of-school factors

The report highlighted the following "out-of-school" factors:

- a) Parent and Community Support: This was about how effectively school governing bodies positively impacted the school's functioning.
- b) Support from the Education System: This was about the vital role that the districts played in ensuring that the schools were effective and functional.
- c) Learner Well-being and Learner Background: The focus was on understanding the context of the learners, family background, and socioeconomic context.
- d) Facilities: This was about the positive impact created by facilities, such as the school infrastructure and the availability of learning facilities such as libraries and laboratories.

2.1.2. In-School Factors

The key determinant of "in-school factors" was how teaching and learning happen within a school, in what the report describes as the 'Teaching and Learning process'. (DBE,2017, p.14). Furthermore, the report identified the following key aspects as being responsible for high performance:

- Learner-centred Climate: This related to specific circumstances of learners that might have affected their learning process.
- Enabling conditions, This referred to the circumstances within the school environment that might or might not have enabled learning to take place

- Leadership and management; This related to the quality of leadership and management at the school, particularly in relation to instructional leadership.
- Professional Development and Collaboration: This related to school based programmes for teacher development, as well as how teachers collaborated in such development processes.
- Quality of teaching: This referred to the quality of instruction in the classroom by the teachers.

To further contextualise this research, the study focused on three "in-school" factors based on their relevance to the objectives of the study:

a) Leadership and Management

According to the report, leadership and management quality at the school was a key determinant of the performance and overall school functioning. The report outlined the following best practices that were observed at well-performing schools:

i. Strategic Planning

Well-performing schools were found to be planning effectively and providing critical direction that the school needs to take to improve. The schools were found to have a clearly defined School Improvement Plan (SIP). The SIP was an outcome of a strategic planning session where a process of needs analysis and reflection was undertaken. Furthermore, the strategic planning sessions were inclusive, and the product in terms of the SIP was known and owned by everyone in the school, including the School Governing Body (SGB).

ii. Instructional Leadership

The core business of the school was curriculum delivery and learner performance. Whilst attention was paid to the overall management of the school, particular attention was paid to providing support in what happened in the classroom. According to the report, activities such as monitoring learners' work, teacher performance, and class attendance were prioritised. Most importantly, the management focuses on supporting the teachers to ensure they could do their work effectively. The instructional leadership approach was

informed by analysing the results of learner assessment and using the analysis to inform the interventions by the teachers.

The critical part of instructional leadership was the School Management Team's (SMT) participation in classroom observation, where they could see the nature of the interactions between teachers and learners. Based on those observations, SMT members could have meaningful conversations with their teachers about teaching strategies and learner assessment issues. Furthermore, those observations enabled the SMT to monitor the coverage of the essential topics prescribed in policies such as the Annual Teaching Plan (ATP).

iii. Facilitative leadership

One of the critical success factors identified in the report was the notion of participation by staff members and other role players. The principals played an oversight role and delegated some of the leadership responsibilities to other members of the SMTs, Teachers and SGB members. The delegation was mainly done after the strategic planning session, where everybody participated and understood the broader vision regarding what needed to be achieved. Through that participative leadership, there was broad buy-in and collective responsibility towards achieving the results.

b) Professional Development and Collaboration

The following best practices were identified in this theme:

i. School-based programmes

As highlighted in the discussion above regarding leadership, well-performing schools institutionalised specific programmes meant to address specific challenges identified during the planning session. The programmes focused on various aspects of the school, including teaching and learning. Feedback on these programmes was provided during meetings, which were either management meetings or staff meetings. Those feedback sessions allowed other teachers to provide inputs on the various programmes.

ii. Teachers engaged in their own development.

The report found that teachers in those schools took pro-active steps to self-reflect and develop themselves further. In open discussions with their management to analyse results, they could identify gaps in their practice and tried to fill them. Those teachers could undertake their own research to find solutions to the challenges they faced. The report found that teachers were not afraid to take risks and be innovative since there was a supportive environment that could correct mistakes. That ability to innovate set them apart from other schools that simply followed the directives from higher levels.

iii. Collaboration with other teachers

As indicated in the section above, the report has found that teachers in those schools were self-driven, confident, and highly motivated. The mere fact that they were not afraid to make mistakes was an indication of the level of confidence that they had. Since the management style at the school allowed for engagement with their peers and supervisors, they were not afraid to engage, even outside the formal structures.

Teachers in those schools have learned to compete with each other positively. They were not afraid to disclose their weaknesses and challenges to their colleagues since the environment was supportive. They were open to being visited in their classrooms by their peers and supervisors and reflected collectively on their practice. Teachers in such schools could also engage in team teaching, observing each other in practice. That collaborative engagement allowed teachers in those schools to correct each other and learn from each other.

iv. Networking

In terms of the report, teachers in those high-performing schools collaborated amongst themselves and with other teachers teaching the same subject in other schools and other experts. That way, those teachers could form professional networks and participated in Professional Learning Communities (PLC). They also affiliated as members of professional bodies as part of their networks. Through those networks, they could learn new things that they shared with their colleagues and brought about improvement in their own practice as well as that of their schools.

c) Quality of teaching

The theme on the quality of teaching was primarily an emphasis on the themes that were discussed above. The key emphasis under this theme was planning on the use of time. The schools ensured that the time allocated for various activities, particularly teaching and learning was used effectively. If any time was lost due to circumstances, measures were put in place to ensure that such time was recovered. The other themes of collaboration, networking, team teaching and peer coaching form part of the strategies to enhance the quality of teaching.

1.16. Determinants of variation in student achievement

Figure 1 below highlighted the critical factors that influenced student achievement. Those factors were consistent with the DBE report on schools that work. Although several factors were highlighted, two critical factors had the most impact. These were the following:

- a) Student ability
- b) The teacher's ability

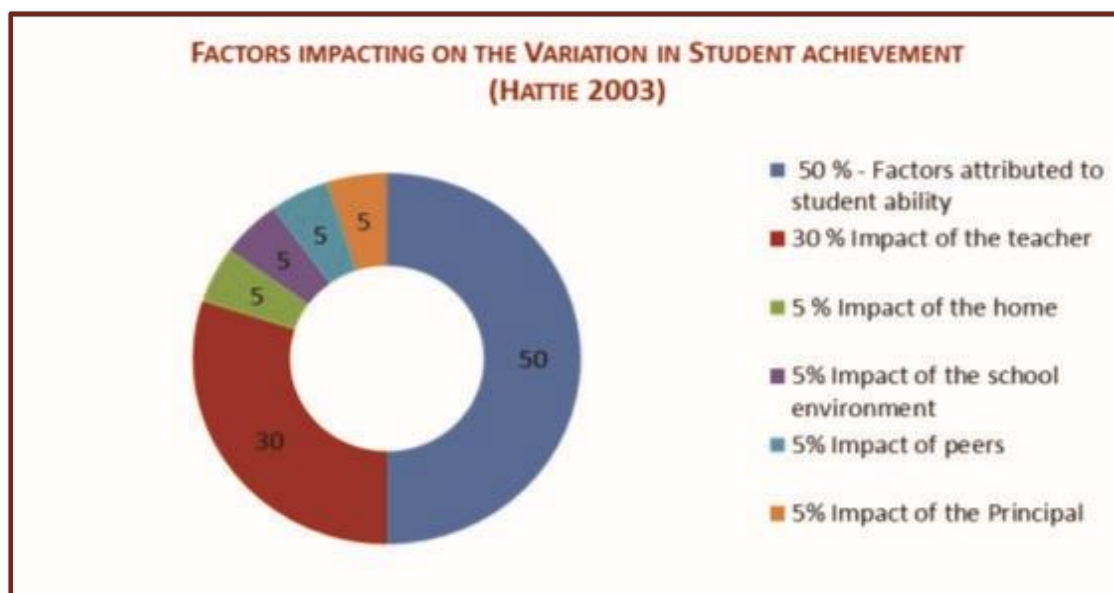


Figure 2.1: Factors impacting on the variation in student achievement (Hattie, 2003)

2.1.3. Student ability

Hattie (2003) identified student ability as one factor that contributed the most to student learning, up to 50%. There was an acknowledgement that students differed in their learning abilities. Those that were more gifted would learn better than those who were less gifted (Hattie, 2003). While agreeing with Hattie's assertion that the student's ability had a significant bearing, I also believed that a positive attitude towards their work must complement the ability. A student who was not that gifted but was determined to work hard to achieve their goals had a better chance of success than a capable student with a negative attitude. Student factors like ability and attitude would have a positive bearing on the variance.

2.1.4. Effects of the Teacher

The teacher was the second critical factor that impacted the variance depicted in Figure 1. Although learners had access to resources and materials, they were still influenced by the kind of teachers they were exposed to on a daily basis. The interactions that happened in the classroom, directed by the activities of the teacher, largely influenced whether the students would learn effectively or not. The teacher's influence accounted for about 30% of the variance (Hattie, 2003). Therefore, it was the aspect that most influenced the learner other than his/her attributes and characteristics. It was clear from the conclusions of Barber and Mourshed (2007) that the quality of an education system could not exceed the quality of its teachers. It further confirmed the findings of Hattie that teachers had the most significant influence on students learning than anything else outside the students' factors such as parents or peers.

Timperly (2008) confirmed Hattie's arguments by indicating that whilst many factors that happen outside of schools influenced student learning, in-school factors played the most important role. Key among in-school factors was what teachers taught and how they taught. (Timely, 2008). That further confirmed the argument by Barber and Mourshed that the quality of a teacher mattered the most. What the teacher taught (content knowledge) and how they taught it (pedagogy) influenced the ability of the student to learn. Based on that, Barber and Mourshed argued that if we improved the quality of the teachers, the quality of learning outcomes would improve, and so would the quality of the education system.

1.17. The school as a "Learning Organisation."

Fullan (2004) strongly argued about the relationship between school culture and performance. A good leader was able to instil a good performance culture in a school, was able to transform a school into a learning organisation. Fullan went on to explain a learning organisation as "One where people are continually discovering how they create their reality and how they can change such reality" (Fullan, 2004, p.5). That argument was consistent with a "constructivist paradigm", where people did not just accept what they saw as reality but made efforts to interpret, disaggregate and construct a reality they could manage (Garner, Kawulich & Wagner, 2012).

Fullan further highlighted the importance of leadership that had a full view of the system they were managing, as well as understood the individual components and how those components interrelated and influenced one another. The nature of those interrelationships and interactions modified the individual behaviours that ultimately affected the entire school. (Fullan, 2004). If the interactions were positive and developmental, they would lead to a positive and developmental school culture that would transform the school into a learning organisation. (Fullan, 2004).

In his book, *Systems + Thinking*, an overview, Joss Colchester (2016) talked about two concepts or paradigms we used to explain things or events that happened. The concepts were "analysis" and "synthesise", respectively. Analysis was described as "A traditional method of reasoning whereby we try to gain understanding of a system by breaking it down into its constituent parts." (Colchester, 2016, p.6). Colchester went on to further explain the analysis paradigm as adopting a "reductionist approach". (Colchester. 2016.p.6). In that regard, the only way to understand a process or a phenomenon was to break it up into its constituent parts. Alternatively, to put it differently, the system or the phenomenon was the total of the different constituent parts.

On the other hand, synthesise was described as "the combination of components or elements to form a connected whole". (Colchester, 2016, p.7). The main difference between analysis and synthesis, according to Colchester, was the interconnectedness between the constituent elements. The analysis paradigm assumed that the

constituent parts were static and behaved independently. The total of the constituent elements or parts would therefore influence the entire system's behaviour. The synthesis paradigm focused on the behaviour, relationships, and interconnectedness of the system's constituent parts.

The key question was whether the two paradigms described by Colchester could be applied within the context of a school and whether they could apply when we tried to understand the concept of leadership and learning.

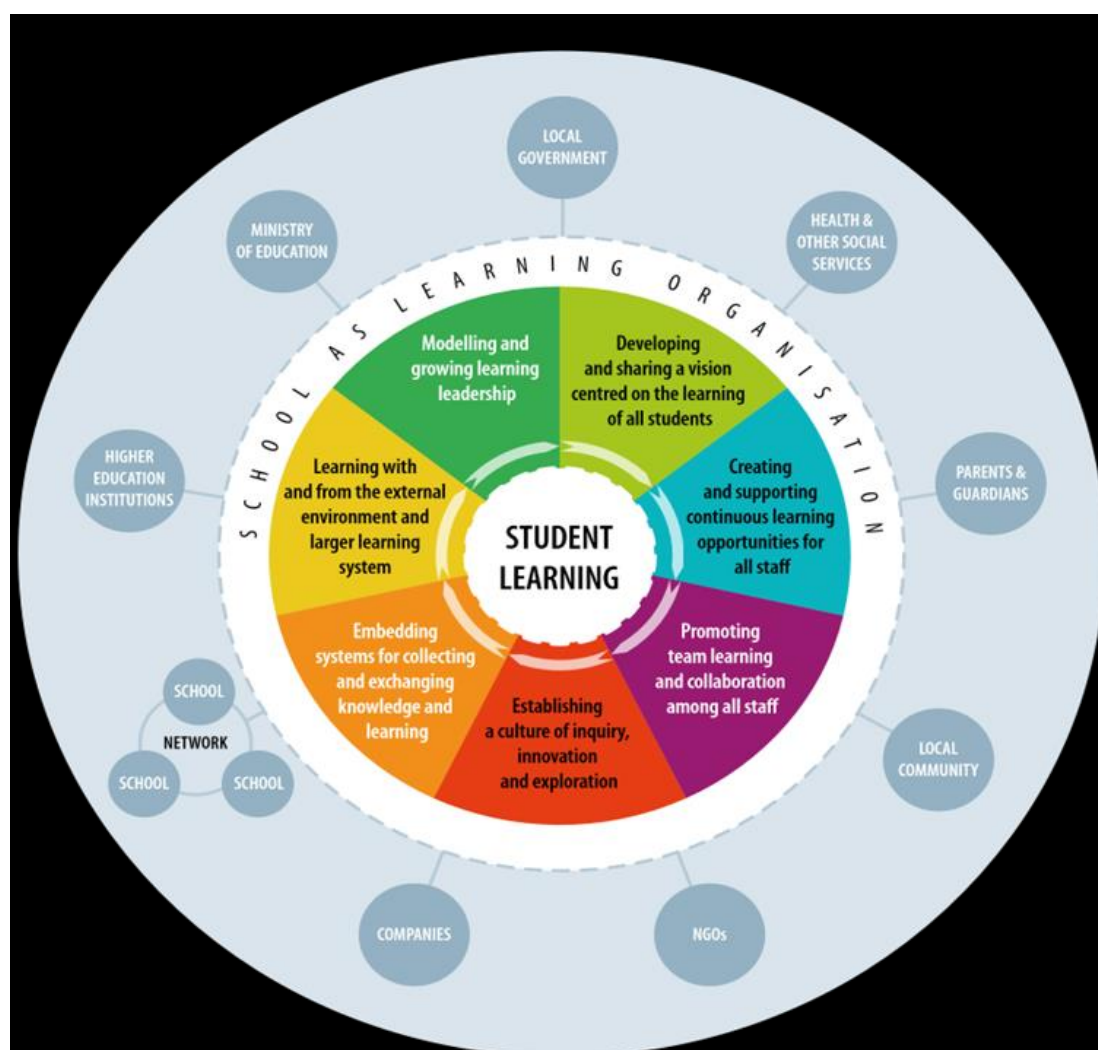


Figure 2.2: An integrated model of a school as a learning organisation (OECD, 2016)

Figure 2 shows what the OECD described as "An integrated model of a school as a learning organisation." The model above was based on the systems theory advocated by both Fullan and Colchester. The model showed how student learning at the school level was influenced by the interactions between various components that formed part of the schooling community. Those interactions showed that for effective learning to

take place, it must take place within a particular context. Those different components and interactions provided the context in this case. Each component had a role to play and influenced the school and the student learning in a specific way. The total of all those interactions and relationships influenced the learning outcomes. That implied that a synthetic approach applied when referring to a school as a learning organisation. Seven key characteristics defined and identified a school as a learning organisation. (Kools & Stolls, 2016). The discussion below focussed on five key ones based on their relevance to the study, which were the following:

a) Developing a shared vision centred on the learning of all students.

According to Kools and Stools (2016), a learning organisation must be driven by a common and shared vision that all students and staff co-developed. Participation of all involved ensured that there was total buy-in on the vision, and all processes and activities were geared towards achieving or realising that vision. A shared and common vision brought unity of purpose and was likely to drive the achievement of higher learning outcomes. In South Africa, the DBE required that all schools develop vision, mission statements, and display those statements in public places where they could be visible.

b) Promoting team learning and collaboration among all staff.

The organisation or the school needed to structure itself, so that collaborative learning amongst staff were planned for and supported. That meant the time and resources must be set aside for such collaboration to happen. Furthermore, support for working together would encourage unity and trust among staff members. It would also eliminate negative competition and promote mutual trust and respect amongst the staff. Staff would be free to confide in one another without fear of being judged or criticised. They would also be free to rely on each other for mutual support. Such a culture would lessen the burden on the leaders since the staff would be self-motivated and self-driven. That point was also consistent with the DBE report on schools that work, where it was found that teachers in those schools were self-driven and highly motivated and engaged each other in a collaborative and supportive way. Teachers in those schools not only networked amongst themselves but also with other schools and other experts.

c) Promoting and supporting continuous professional learning from all staff.

As a learning organisation, the school needed to support staff's professional learning in terms of its own structures and processes. The school must set aside time and other necessary resources to enable teachers to engage in ongoing professional development. The staff must be supported to do self-reflection based on their need to improve their practice and to align their individual goals with the organisational goals. The structures must also be able to provide support to new entrants into the job through mentoring by more experienced employees. The school systems must support a culture of engagement and collaboration amongst staff members to enable the exchange of information, knowledge and other expertise, as well as to receive guidance and feedback from peers and superiors alike in a congenial and non-threatening environment.

d) Learning with and from the external environment and larger system.

As a learning organisation, the school could not operate in isolation from its immediate environment. Schools were embedded in communities and must service communities where they were located. A school must instil a sense of belonging to the environment within its vicinity. The parents of learners attending the school needed to form part of the vision and mission of the school and promote that vision within the broader community. Within the community environment outside the school, there would be other organisations, such as businesses and enterprises, which must shape what happens within the school environment. The parents who served in various capacities in the community structures needed to bring their knowledge and expertise and influence and shape the operations within the school. That will create a mutually beneficial relationship between the school and its immediate environment.

e) Establishing a culture of inquiry, exploration and innovation.

Part of the support systems that the school made available as a learning organisation was the acknowledgement and recognition that mistakes were part of the learning process. The school must create a conducive learning climate and be tolerant of the mistakes that learners would make as part of their experimentation. Through such experimentation and mistakes, innovative practices would emerge that would take the school to the next level of development. Furthermore, the school must be tolerant of the culture of inquiry and questioning the status quo. If the school was not amenable to change, innovation would be stifled.

In summary, section 2.5 above referred to a school as a learning organisation. As described in the literature by Kools and Stools (2016), a learning organisation must be able to provide a conducive environment for effective learning to take place. This meant that this was an environment where teachers could learn through innovation and experimentation, without fear of making mistakes. It was also an environment that allowed collaboration to thrive since there would be no limits or boundaries that put restrictions on what could or could not be done. The key emphasis on the school as a learning organisation was based on its ability to collaborate both internally and externally. Internal collaboration happened amongst the staff as well as between the staff and school management.

It is in that collaborative environment where a structure such as a PLC would be able to thrive. The concept of a school as a learning organization was an area of interest since it could provide a context within which a PLC could function effectively. The use of Colchester's Systems thinking approach was also relevant in that case since the school consisted of various components that must relate and interact with each other. (Colchester, 2016). Similarly, a PLC as a structure relied on interactions amongst its own members, but also interactions with other stakeholders who were not members of the PLC. The contexts provided by the concept of systems thinking as well as the school as a learning organization, were relevant in considering whether the use of a PLC as an approach had any prospects of success or not.

Furthermore, reference to the DBE report on schools that work also brought an important perspective since it re-enforced the principle of a school as a learning organization. The practices that were cited in the DBE report on what these schools were doing, was consistent with what was described by Kools and Stools regarding the school as a learning organisation.

1.18. The impact of gender on leadership

According to the DBE report on schools that work, the role of a principal in a school was very critical, particularly as both an instructional and facilitative leader. Outside the student and the teacher, the quality of the principal was one of the factors that influenced the quality of classroom instruction (Hattie, 2003). The principal was

responsible for creating a conducive climate for effective learning and teaching in a school. Education systems that performed well, such as Singapore, South Korea and Finland, had robust mechanisms to appoint principals, ensuring that the focus was mostly on instructional leadership rather than administration (Barber & Mourshed, 2007). The role and the quality of a principal had been identified as the most influential factor, after the teacher, that had the most considerable influence on student learning (Willis, 2015).

Whilst there seemed to be no dispute about the critical role played by teachers and principals in influencing student learning, the key question that needed to be examined was whether there was any difference that the gender of the principal brought about. South Africa, like many countries of the world, had a big problem of gender stereotypes and gender inequality, which infiltrated our education system and classrooms, thereby affecting girl learners, female teachers and female principals (Moolman, Rarieya & Sanger, 2014). The experiences of girl learners in schools influenced their attitudes and career aspirations and played a big role in determining the kind of position they were likely to occupy in the future (Moolman, Rarieya & Sanger, 2014).

2.1.5. Gender stereotypes

In the study conducted by Moorosi (2007) on 28 secondary schools, women principals from Kwazulu-Natal were interviewed to get their views on how their roles as mothers and wives had affected their professional roles as principals. According to the report, most of the women principals reported having difficulties breaking through what is referred to as "a glass ceiling" (Moorosi, 2007, p.5190). These women were appointed as principals; however, many other women were not preferred for appointment by male-dominated interview panels that preferred the appointment of a male because of their negative perceptions about women (Moorosi, 2007).

Even after appointment, women principals worked extra hard to ensure they were not regarded as incompetent. The misconceptions and stereotypes from their communities filtered into their work environments, where they experienced subtle forms of discrimination and a lack of appreciation for their work (Moorosi, 2007). The DBE had Circuits and Districts that were supposed to work with schools, particularly principals, and support them. In most cases, these workspaces were equally male-dominated, and women principals tended to suffer the same level of prejudice and

discrimination from those structures that were meant to support them (Bantwini & Moorosi, 2017).

Cheng and Wu (2016,p.2) demonstrated that various firms, ranging from small to medium in the industrial and social services sectors, were able to improve their productivity by between 0,9% to 11% by merely increasing the number of female executives by 1%(Cheng & Wu, 2016). Some of the factors cited as responsible for the increase in productivity included more hospitality, professionalism and better career pathing, which positively impacted workers' motivation and efficiency.

Various policy measures and legislative provisions have been implemented within the South African context to address gender inequalities. One such measure was the enactment of the Employment Equity Act, No.55 of 1998, which prohibits unfair discrimination in the workplace. Furthermore, Chapter 3 of the Act referred to measures to promote the implementation of affirmative action to improve the representation of designated groups. Despite these measures, the South African Human Rights commission report pointed to high levels of inequality in the workplace (SAHRC, 2019).

The SAHRC 2019 report stated, "At the top management level, women constitute a mere 20.7 % in the private sector and 30.8 % in the public sector" (SAHRC, 2019, p. 14). Furthermore, the report pointed to a lack of improvement in women's representation at the top management level between 2014 and 2016. This meant that innovative solutions needed to be sort in order to improve Women's representation at leadership level. Exploring options such as PLCs was one way of achieving that objective. The OECD (2018) report also highlighted the under-representation of women in leadership positions within the education sector in South Africa, thereby confirming the findings in the report by the SAHRC. The findings from those two reports highlighted the need for research of this nature to be conducted since many questions arose regarding the effectiveness of the measures that were put in place to address issues of gender equality at the level of principals in South African Schools, particularly matters pertaining to the recruitment, retention and empowerment of women principals.

1.19. The need for networking and collaboration through Professional Learning Communities

One of the key principles emphasised by Fullan was sustainability. A learning organisation must be able to effect change for individuals, who in turn must influence and bring about sustainable systemic changes. One key element that brought about sustainable change was what was described by Fullan as "Lateral capacity building through networks" (Fullan,2004, p.3). Fullan argued, in that instance, that learning could happen either laterally or vertically. Lateral learning happened amongst and between colleagues through networks such as Professional Learning Communities (PLCs). Vertical learning happened when training was provided by higher authority.

Avalos (2011) also highlighted co-learning and networking as one of the most effective ways of bringing about meaningful behaviour change and deepening learning and understanding. The Japanese model of using lesson studies as collaborative learning networks was cited as an example of how those collaborative networks were the key drivers of change in teacher beliefs and practices. In a lesson study, a group of teachers would plan and teach a lesson together. Others would observe and critique when the other was teaching a lesson they planned together, and the group would later analyse and share the results and observations. Those would be used to improve the approach and teaching of that lesson (Avalos,2011).

This was consistent with what Fullan (2004) referred to as lateral capacity building. Avalos (2011) argued that collaborative learning influenced every aspect of the school community, from classroom teaching to management practices, resulting in a change in the general culture of the school.

PLCs were recognised as effective mechanisms to influence and shape teacher behaviours, attitudes, beliefs and practices and provided opportunities for collaboration over long periods of time (Owen, 2015). PLCs provided an opportunity for teachers and school leaders to be supported within their own working environments. Their inquiry approach and learning focus had been found to impact positively not only on the teaching practices but also on student learning (Owen, 2015).

1.20. Conceptual framework

2.1.6. Social Learning Theory

The construct of the research perspective was underpinned by the principles of social learning theory as advocated by Bandura (1977). Bandura (as cited in McLeod, 2016) described social learning theory as something that had evolved from observing and studying the behaviour of individuals and society. According to Bandura (1977), the Social Learning Theory was underpinned by two models, which were the following:

- Behaviourist model, where behaviour was learned from the environment through the process of observational learning, and
- Cognitive model, where the observed behaviour was processed through a cognitive process and a decision was made on whether to imitate the observed behaviour.

2.1.6.1. Behaviourist Model

The behaviourist model was about how behaviour was observed and learned from other people and the environment. This was what Bandura referred to as "observational learning". (McLeod, 2016, pp.1-5). In this regard, the example of small children was used in how they modelled their behaviour based on the adults surrounding them. The same principle applied to young people who might model their behaviour based on their mentors or people they admired.

- The behaviour of the mentor was regarded as a source of stimulus, and the behaviour of the observer or admirer was a response to the stimulus. The extent to which the observed behaviour would be learned or imitated depended on the degree of reward or punishment derived from repeating the behaviour. In other words, if the mentor was deriving benefits from exhibiting a particular behaviour, the observer was likely to imitate or learn the same behaviour in anticipation of deriving similar or more benefits. That was what Bandura referred to as "positive reinforcement" (McLeod, 2016, pp.1-6). The benefit, which might be in the form of recognition or acknowledgement from peers and other people, would serve as reinforcement to exhibit or demonstrate the learned behaviour. Conversely, if repeating the behaviour would result in punishment, the chances of learning the behaviour would be slim, in what was referred to as "negative reinforcement" (McLeod, 2016, pp.1-6).

The study could identify with the argument that Mcleod (2016) was advancing. The model was best demonstrated when raising children. Children learned more from observing what their parents or other adults did. Hence there was a general understanding in society that children imitate what they saw rather than do what they were told to do. For that reason, if parents drank regularly in front of their children, those children would end up drinking, even if they were told about the dangers of alcohol because that was what they saw.

On the other hand, if the same children were criticised by their friends or peers for drinking, they might be discouraged and quit drinking. However, if they were praised and encouraged, they would continue to drink. That demonstrated how reinforcement or punishment could encourage or discourage repeated, observed behaviour.

2.1.6.2. Cognitive Model

The Cognitive model focused on the decision-making processes that followed the observed behaviour. That meant that observed behaviour was not just imitated. There was a series of cognitive decisions that were made to determine if the observed behaviour would be imitated or not. Part of what influenced the decision would be whether there was positive or negative reinforcement that followed the observed behaviour.

According to Bandura, four distinct thought processes followed from observing a behaviour. (McLeod, 2016, pp.1-6). These were the following:

- a) Attention: The observed behaviour must draw attention for it to be remembered. The only chance of noticing the behaviour was if it grabbed the attention of the observer.
- b) Retention: Retention was about remembering the behaviour. There was an acknowledgement that several behaviours might have been observed, but not all of them would be remembered. Only those that drew attention would be remembered.
- c) Reproduction: As the term says, that was the ability to replicate or reproduce the observed behaviour. The ability to reproduce the behaviour was influenced by the level of complexity of the observed behaviour and the ability of the body to perform such an action. It was possible sometimes for the body to be physically unable to execute the behaviour due to the nature of its complexity. A person may watch and

be impressed by someone performing a dance routine. The excitement created by the dance routine would be remembered, but the actual repetition and execution of the routine might not be possible.

- d) Motivation: Motivation was primarily linked with the appetite to execute the behaviour. At the centre of this motivation was the influence of reinforcement and the cost-benefit analysis. A behaviour that was likely to receive acknowledgement and support, and the one that was likely to bring about benefits, was more likely to be repeated than the one where there would be no benefit. (McLeod, 2016, pp.1-6).

Earlier in the introduction we referred to the definition of a Professional Learning Community (PLC) as "a group of people sharing and critically interrogating their practice in an on-going, reflective, collaborative, inclusive, learning-oriented, growth-promoting way, operating as a collective enterprise". (Portman & Prenger, 2018, p.441). Furthermore, we referred to the DBE report on, 'Schools that work', wherein reference was made to how practices such as teacher collaboration and networking are driving performance in such schools.

Reference was also made earlier to the Japanese model of using lesson studies as part of their professional learning communities. (Alvos, 2011). In those lesson studies, teachers worked together by jointly planning lessons and teaching together. According to Alvos (2011), those teachers would observe each other in practice and critique each other, thereby bringing about improvements in their teaching approaches. The use of the Japanese lesson study approach was consistent with what Bandura referred to as "observational learning." (McLeod, 2016, pp.1-5). The PLC approach as advocated in the lesson studies was aligned to the behaviourist model of the social learning theory.

The PLC approach further used the concept of reflective practice as well as sharing of ideas and critical interrogation of each other's practices, (Portman & Prenger, 2018). That meant that an improvement in practice was not only brought about by observation and mere copying of what was observed, but it was followed by critical analysis of what was being observed and making decisions about how to bring about a change of practice with a view to bring about an improvement. The critical analysis that followed the observation was aligned to the four thought processes as advocated by Bandura, viz Attention, Retention, Reproduction and Motivation. (McLeod, 2016, pp.1-6). In

summary, it meant that during a lesson observation, the peer was able to pay attention to what was being done and took note so that they could remember and referred to it during the reflection discussion. They were also able to reproduce the observed behaviour with a view to identify limitations, and then motivated for a different behaviour that could bring about an improved practice. That demonstrated that the social learning theory involved the interactive engagement of the two models. Each of the models did not operate in isolation from each other, but operated in an interactive manner.

2.1.7. Self-efficacy

At the core of this theory was the principle of self-efficacy. Self-efficacy was "a personal belief in one's capability to organise and execute causes of action required to attain designated types of performance" (Artino, 2012, p.76). Based on the definition, Artino's argument, which complemented the social learning theory advocated by Bandura, argued that for an individual to execute a function or activity, they needed to have the belief that they were capable of such execution with the likelihood to succeed. (Artino, 2012).

The DBE had developed minimum criteria for appointing a principal that all aspirant principals were required to meet. Those criteria were reflected in the Personnel Administration Measures (PAM) and the Employment of Educators Act 76 of 1998. It was therefore assumed that all principals, irrespective of their gender, would have met the minimum criteria as outlined and would have the requisite knowledge and skills to perform the functions. Artino and Bandura argued that possession of knowledge and skills was not always sufficient for effective functioning. The power to execute lied in what Artino referred to as "reciprocal causation", where there was an iterative interaction between skills and efficacy. (Artino, 2012, p .79).

The principle of self-efficacy, as defined above, referred to two critical constructs used in the research: confidence and motivation. The Oxford dictionary defined confidence as "feeling sure of yourself and your abilities". It was evident from the definition of confidence that it was an element of self-efficacy. The other element was motivation, defined by the dictionary as "a reason for acting or behaving in a particular way." Motivation was also one of the cognitive model's elements, which reinforced the location of self-efficacy within the social learning theory. So, the belief in one's abilities and the ability to take action constituted self-efficacy.

2.1.8. Knowledge as Capital

Hargreaves and Fullan supported the Social Learning Theory (as cited in Molla & Nolan, 2017). They defined knowledge gained through professional development as "Capital" (Molla & Nolan, 2017, p.11). The notion of capital was drawn mainly from the business sector, where a businessperson had to invest money into the business in order to start it or to improve its performance. In a nutshell, capital was something one could leverage to gain an advantage or improve performance. Using the same analogy, Molla and Nolan (2017) argued that knowledge was also a form of capital since it could be used to gain an advantage and improve performance. A teacher investing in their professional development would improve their "Professional Capital" (Molla & Nolan, 2017, p.11).

2.1.8.1. The notion of Professional Capital

Building on the same argument in support of Hargreaves and Fullan, Molla & Nolan (2017) further identified three forms of professional capital. The first form of professional capital was what they referred to as "the knowledge base of teaching as a profession" or "Human Capital" (Molla & Nolan, 2017:12). The second form of capital was what they referred to as "Social capital, which they defined as access to continuing support and collaboration. The third one was what they described as "Decisional capital, which they defined as the professional agency of teachers. (p.12)

2.1.8.2. Teacher Professional Capital and Confidence

Earlier, the theory of systems thinking advocated by Colchester was analysed, describing how the different components of a system would interact together to influence the behaviour of that system. Similarly, Molla and Nolan (2017) applied the same systems thinking theory to establish a relationship between teacher professional capital and confidence. To put it differently, Molla and Nolan argued that the level of confidence of a teacher was subject to the interactions between human capital, social capital and decisional capital.

Molla and Nolan argued that a person's confidence was related to their knowledge acquisition and application. That phenomenon might explain why more experienced people were appointed to leadership positions in many workplaces. Their ability to make value judgements and decisions was assumed to have been influenced by what Molla and Nolan referred to as decisional capital.

The notion of Teacher Professional capital was aligned to the social learning theory, particularly regarding learning as social capital. The element of collaboration within the mentoring process and engagements in a Professional Learning Community (PLC) were likely to align with the behaviourist and the cognitive models. Even if the behaviours were not necessarily imitated, cognitive learning would still happen through attention, retention, and motivation processes.

2.1.9. Socio-cultural Theory

Apart from the social learning theory that focused on an individual's beliefs and actions, the research is also modelled on the sociocultural theory advocated by Vygotsky (1978). Aguilar (2018) used the sociocultural theory to explain how one's context and environment will shape and influence behaviour in specific situations. Aguilar further explained how a platform like a community of practice, which was a form of network like a professional learning community (PLC), would serve as a platform where an individual would be influenced by a group and, similarly, a group would influence individual behaviour (Aguilar, 2018).

The sociocultural theory differed slightly from the social learning theory in that the individual's behaviour was not only influenced by the other party's behaviour (Stimulus), but other factors triggered a response. Vygotsky's sociocultural theory addressed some of the criticisms levelled at the social learning theory, which sought to suggest that behavioural factors only influenced response to a stimulus. (McLeod, 2016.).

2.1.10. Wenger's community of practice framework

Wenger's community of practice framework "used the dimensions of joint enterprise, mutual engagement, and shared repertoire to explain how learning occurred as people participated in collectives associated with a specific physical, historical, and cultural context" (Aguilar 2018, p.209).

Wenger's community of practice framework was also built on the social learning theory advocated by Bandura. The framework identified four key elements that constitute learning in a collaborative environment. (Aguilar, 2018).

- a) The Community:** The community referred to a group of people that had decided to work together and collaborated because they shared a common interest.

- b) The domain or identity:** The identity referred to the area of common interest or competence. As highlighted in the definition of the community above, they were brought together by a common identity. Teachers who taught the same topic, or people who occupied the same position, like principals, could operate as a community. They would work together, support and learn from each other.
- c) The practice:** People who practice the same discipline would have reasons to collaborate and work together to share their experiences and learn from each other,

The framework explained that as people attained a sense of belonging to a group where they belonged, they moved from being peripheral to being central to the activities of the group, thereby gaining knowledge and skills in the process that would improve their efficacy, Wenger, (as cited in Aguilar, 2018).

1.21. Conclusion

The main purpose of chapter two was to provide the theoretical context and to locate the study within the relevant literature. As evidenced in the literature cited in the chapter, deep learning was enhanced by the principles of self-directed learning, collaboration and networking. The notion of Professional Learning Communities was premised on the principles of networking and collaboration. Literature supporting the notion that self-efficacy tended to be boosted in an environment of mutual collaboration and networking has been cited. The DBE report on schools that work provided practitioners evidence that networking and collaboration were necessary to drive school improvement and learner performance. Most importantly, an environment where collaboration and networking were thriving also benefitted the leadership and management of the institution.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. Introduction

Chapter 2 discussed the issues of literature review, where reference was made to what scholars were saying regarding Professional Learning Communities and how they have the potential to benefit practitioners. Other than information drawn from the literature, there was also evidence drawn from practitioners based on their own experiences.

Chapter 3 described the research methodology followed in this current study. The researcher adopted a single case study approach to solicit views from the participants about the PLCs. The chapter also justified why a case study was appropriate for the research. The subsequent section addressed the methodology for data collection, including the instruments used. The methodology also described the data collection area, including the justification for the preferred location. A full description of the process of identifying participants and the instruments used to collect data from the participants were provided. The justification for using specific methodologies were also provided.

Chapter 3 also addressed the sampling techniques applied and the justification for such an approach. The processes for data analysis were also outlined, including the various techniques and the software packages applied. The chapter also addressed feasibility issues, the study's limitations, some ethical issues, and the potential impact of the researcher's position.

3.2. Research design

The design used in the study was a case study approach. A case study was defined as an "In-depth investigation of a single person, group, event or community" (McLeod, 2019, p.1). Furthermore, a case study was also defined as "An empirical inquiry about a contemporary phenomenon, set within its real-world context, especially when the boundaries between phenomenon and context were not clearly evident" (Yin, 2009, p.18).

According to Yin (2009), case studies are well suited to explain the 'how' and 'why' questions and are also highly appropriate when the researcher has little or no control over the events to be investigated (Yin, 2009).

The use of a case study was preferred in the research since the conclusions were drawn from the real life experiences of female principals, which was the key driver in the study. An inquiry into the views and perceptions of female principals participating in a Professional Learning Community (PLC) required them to rely on their real-life experiences and to describe whether they benefitted from such experiences. Therefore, the case study design in this research context was relevant and appropriate. Furthermore, the respondents generated new learnings or new meanings about what they experienced in their everyday working environments. The generation

of these new learnings and meanings fitted within the constructivist paradigm, as discussed in the literature review.

3.3. Research Approach and Data Collection

A mixed method approach was adopted to collect data for the research, and data was collected in two phases. The first phase involved the use of a structured questionnaire and the second phase involved the use of an unstructured questionnaire. The mixed method approach was also influenced by the context, where it was difficult to conduct interviews due to the challenges of Covid-19. Furthermore, the first phase enabled the researcher to receive data from a wide variety of respondents, thereby broadening the scope within which data was collected.

The second phase of data collection involved administering of a semi-structured questionnaire to a sample of respondents drawn from the first sample. The second phase enabled a more in-depth inquiry, which provided further perspectives that could not be obtained through the first phase. The use of a mixed method approach enabled the researcher to enrich the data and created a more in-depth understanding.

Data was collected from a database of female principals who are part of the professional learning community, provided by the North West Provincial Education Department. The network of female principals was a programme launched by the Department of Basic Education (DBE) in 2013, and female principals were encouraged to participate in its activities on an ongoing basis. As a result of the campaign, the Provincial Departments of Education have kept a database of active members. Based on the fact that the Northwest province had one of the most active networks, the proximity of the Northwest Province to the researcher's home and the fact that it was outside the province where the researcher was employed, it was decided that Northwest was an ideal location in terms of costs related to data collection. Furthermore, a defined database made it easier to work with a clearly defined group where simple random sampling was possible.

The researcher asked the manager responsible for the program for access to a database of female principals who were part of the network. The request was made after permission was sought from the Provincial Head of the Department to conduct research in the province. The reasons and the justification were already outlined in the

permission letter; hence no issues were raised concerning the reasons why the database was needed.

a) Quality of data on the database

A database of female principals was received from the programme manager in June 2020 via email. The database was received in MS Excel format. Upon receipt of the database, it was exported by the researcher to a dedicated folder where it was saved. According to the manager, the database consisted only of female principals who were still employed and were active in the network for female principals. The names in the database were not arranged in any order. The following were some of the details that were captured on the database:

- i. Name and surname of principal
- ii. Name of the school
- iii. The Area Office
- iv. The Circuit Office
- v. Cell phone numbers (More than one in some instances)
- vi. Email address (More than one in some instances)

A total of 46 names were on the database, and 30 were randomly selected to be part of the group requested to participate in the study.

b) Data collection techniques

As highlighted above, the approach to the study was a case study, which required the use of questionnaires as instruments for data collection. Due to the nature of the study, a mixed-methods approach was adopted for data collection. Data collection was conducted in two phases. The first phase was data collection through a structured questionnaire, and the second was collecting data through an unstructured questionnaire.

The first data collection phase began in October 2020, and the last information was received in July 2021. Therefore, data collection for the first part of the research was collected over eight months. The long delay in finalising data collection in the first phase was due to the slow responses from the respondents. Reminders had to be

sent through various platforms to prompt responses from the identified respondents. The impact caused by the Covid-19 pandemic was also felt since some identified respondents reported that they were affected by the pandemic and could not provide responses as required. The second phase of data collection was conducted between July and August 2022. The delays between the first and second phases were due to work-related interruptions.

The first data collection phase was primarily quantitative, whereas the second was qualitative.

3.4. Research tools and their application

The first data collection phase involved the development of a structured questionnaire that was developed and converted into a Google form. The following were the envisaged advantages of using a google form;

- 3.4.1 Google forms enabled easy questionnaire distribution using email, SMS or WhatsApp. The respondents can easily access these platforms using their cell phones, tablets, laptops or desktops;
- 3.4.2 Using a Google form, assisted with tracking the responses in terms of who responded and who did not;
- 3.4.3 The use of Google forms was convenient for this type of data collection since it was able to perform preliminary analysis upon receipt of feedback from respondents;
- 3.4.4 It was easier to identify possible duplications using the form;
- 3.4.5 It was easier to see which questions were not answered by the respondents; and
- 3.4.6 The Google form functionalities guaranteed better data quality and integrity.

A structured questionnaire was developed and sent to a sample of 30 female principals in the Bojanala district of the Northwest province who are network members. This was done by using the contact details that were reflected on the database of members. Permission was sought from the head of the provincial education department to access the database and use it for research purposes.

Once the respondents' feedback was received, each questionnaire was evaluated to establish if all questions were answered and if responses were clear, relevant and concise. The responses were already consolidated through Google forms and

presented graphically for each question. Since Google forms only show preliminary analysis, data had to be exported back to MS Excel for a more in-depth analysis. This part of the research was quantitative.

The second phase of the data collection process involved conducting telephonic interviews with five (5) respondents randomly selected from those who responded to the initial questionnaire. The interviews were used to generate additional data that could not be generated through the first process due to open-ended type of questions and to validate and clarify some of the initial responses received. The interviews were conducted using a semi-structured questionnaire. Garner, Kawulich, and Wagner. (2012) defined a semi-structured questionnaire as one with a clearly defined line of inquiry. Furthermore, a semi-structured interview had a set of predetermined questions and allowed the researcher to probe and ask questions of clarity where the responses were not clear enough.

During the interview, responses to questions were recorded on the questionnaire. Every recording was verified with the relevant respondent to ensure that they agreed with the record. Furthermore, respondents were asked for their permission to use a tape recorder. The information captured on paper was verified further using the recorder. This assisted in ensuring the completeness of the information and that there were no information gaps or inaccuracies.

3.5. Sampling

As highlighted in 3.4 above, a simple random sampling technique was used during the various stages of the research. The first stage involved randomly sampling 30 female principals from a database of 46 female secondary school principals who are members of a PLC in the Northwest province. Although the questionnaire was sent to 30 respondents, the intention was to target a minimum of 20 respondents, which was achieved. The researcher was confident that responses from 20 respondents would generate sufficient data to respond to the research question.

Similarly, for the second stage, a minimum of an additional five female principals from the Bojanala District of the Northwest Province who responded to the initial questionnaire were randomly selected for one-on-one interviews. The researcher was of the view that in-depth interviews from a minimum of five respondents was sufficient to solicit an understanding of the context of the responses and to provide any

additional information that could not be collected through the first phase. Since the second phase was also used as a verification exercise, the sampling of five respondents was sufficient for that purpose. Bojanala District has been selected based on its proximity, particularly given the anticipated travel restrictions due to Covid-19. A semi-structured questionnaire was used for this purpose.

3.6. Data analysis

As highlighted above, a mixed method approach was undertaken in collecting both quantitative and qualitative data. The first phase of data collection was quantitative, and the second phase was qualitative.

3.6.1 Quantitative analysis of data

The data collected through the structured interview questionnaire was captured on the google form. The responses were colour coded and depicted graphically by the google form. In order to enable easy analysis and ensure comparisons, the data was translated back into an excel spreadsheet for each question. Two key themes emanated from the research questions, forming the basis for the quantitative analysis using graphs and tables. These were the following:

- a) Understanding the context within which female principals are working, and
- b) Understanding the experiences, challenges, and benefits of participating in a PLC network

For each of the above themes, at most, two variables were identified and compared with other variables that emerged from the responses. For the first theme, the two variables were the respondents' age and the school's location. These variables were compared as follows:

- i. Age of respondents' vs the number of times respondents applied to become principals.
- ii. Location of school vs composition of staff
- iii. Location of the school vs composition of the SGB
- iv. Location of the school vs gender of the supervisor

The outcomes from these comparisons were depicted as graphs.

A similar approach was adopted regarding the second theme. The primary variable, in this case, was the duration of the principal's participation in a PLC network. The variable was compared with others as follows:

- i. Duration of the principal in a PLC network vs reason for joining a PLC network

- ii. Duration of the principal in a PLC network vs their experience of participating in a PLC network
- iii. Duration of the principal in a PLC network vs what they liked most about their participation.
- iv. Duration of the principal in a PLC network vs what they disliked most about their participation.
- v. Duration of the principal in a PLC network vs quality of their decision making
- vi. Duration of the principal in a PLC network vs their feelings about themselves as members of a PLC network

Similarly, the outcomes of these comparisons were depicted graphically. The quantitative analysis process is summarised in the table below:

Table 3.1: Quantitative data analysis process

QUANTITATIVE ANALYSIS OF DATA			
Theme 1: Context of female Principals		Theme 2: Experiences, challenges and benefits of being in a PLC network	
Variables	Sub-variables	Variables	Sub-variables
Age of respondents	Number of times they applied to become principals	Duration of the principal in a PLC network	Reasons for joining a PLC network
Location of the school	Composition of staff		Their experience of participating in a PLC network
	Composition of the SGB		What they liked most about their participation

	Gender of the supervisor		What they disliked most about their participation
			Quality of their decision making
			Feelings about themselves as members of a PLC network

3.6.2 Qualitative analysis of data

Data collected from the in-depth interviews were recorded and transcribed verbatim into five separate transcripts. Transcripts were then allocated pseudonym in order to protect the identity of participants. Thus, participants were identified according to the number allocated, i.e. Participant 1. The transcripts were cleaned up before loading into the Computer Assisted Qualitative Data Analysis Software (CAQDAS). The cleaning process involved adding missing words and deleting unnecessary or repeated words such as "mmm", "yes, yes" "cough" from the transcripts. Transcripts were then loaded into Atlas.ti 8, the CAQDAS to analyse qualitative data in the current study. The researcher opted for this CAQDAS due to its ability to analyse and categorise data segments into common groups that can be converted into themes. The process is summarised in the Figure below:

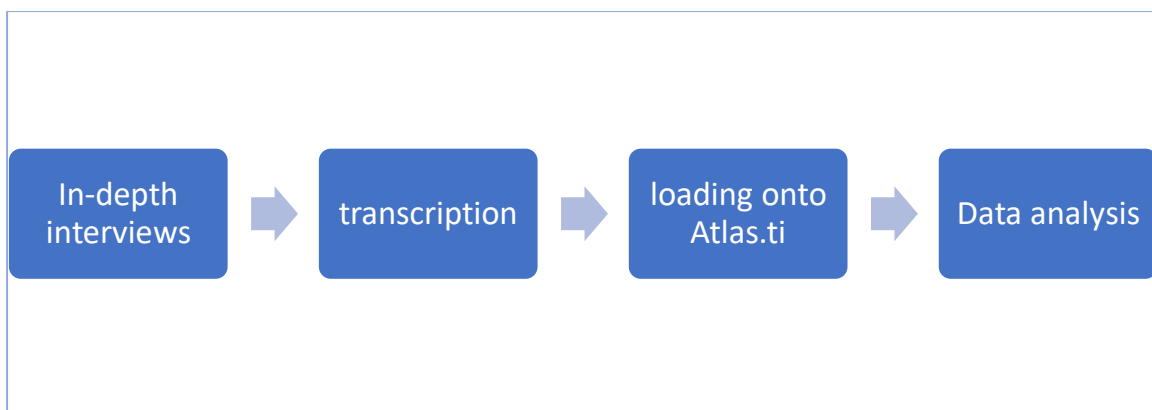


Figure 1.1: Qualitative data analysis process. (Source: Own compilation)

The data analysis process commenced in October 2022 and concluded in November 2022. The researcher used a hybrid method of coding where a set of pre-established codes linked to the research questions were applied. This is referred to as the deductive coding approach. However, some of the codes emerged from the data, referred to as inductive coding. During

the coding process, 180 codes emerged and were grouped into eight categories. The researcher then further refined the code categories into four main themes.

The themes are:

- a) Reasons for joining a PLC network;
- b) Benefits of belonging to a PLC network;
- c) Challenges of being a member of a PLC network; and
- d) Overall perceptions about PLC networks.

The current study's findings are then based on the themes described above. The reporting and referencing convention adopted for this study is as follows: "*quote from the respondent*" – *respondent one*.

3.7. Limitations, Feasibility and Positionality

3.7.1 Limitations

a) Research Design

The research was undertaken as a case study implying that data was collected through a structured and semi-structured questionnaire. The entire process was long and time-consuming. The situation was worsened by the low response rates and responses that were coming in slowly. The slow responses were attributed to the impact of the Covid-19 pandemic. Some respondents were either affected by or caring for sick family members. They did not have time to respond to the questionnaire.

To mitigate this, the researcher explained the purpose of the research and emphasised the importance of providing honest and truthful responses. The effectiveness of the strategy could not be ascertained since the process is dependent on the feelings and attitude of the respondent, something that the researcher has no control over. The schedule of the respondents was done in consultation with the participants since it was dependent on their availability.

Due to the nature of the research, the fact that results could not be generalised was not a problem since the outcome was meant to apply to the group concerned. Throughout the interviews, particularly during the one-on-one interviews, the researcher was conscious of the risks of possible biases and tried to maintain objectivity.

b) Research Tools

The questionnaires were distributed to 30 female secondary school principals. The limitation of the questionnaires was that the response rate was slow due to the environmental factors caused mainly by the Covid-19 pandemic. Furthermore, some respondents opted not to answer specific questions, creating information gaps, and using a structured questionnaire also limited respondents' responses to some of the questions that needed more clarification.

In order to mitigate the slowness of the responses, the questionnaire had to be re-sent several times, and follow-ups were made via WhatsApp and SMS. This was meant to ensure that the minimum target of 20 was reached. If more than enough responses were received, incomplete questionnaires would have been omitted from the analysis.

It is also important to note that the second phase of data collection through a semi-structured questionnaire was conducted telephonically rather than one-on-one. This was because the respondents were more comfortable with the telephonic interview. The anxiety about one-on-one physical interviews could have resulted from the stigma brought about by the Covid-19 pandemic. The limitations of a telephonic interview were that the researcher could not read the emotions and the body language. This was, however, assumed from the voice. Body language does sometimes convey unspoken messages.

c) Sampling technique

A simple random sampling technique was used throughout the research. This was necessitated by the fact that the targeted population was homogeneous in terms of gender and location.

Feasibility

The small sample size and the participants' proximity made the research feasible and doable.

Positionality

Since the research was mainly based on the experiences of the principals in relation to how they have benefited from participation in Professional Learning Communities, the research was more inclined towards an interpretivist paradigm. In this regard, knowledge was constructed from people's practical experiences about their situation

and environment. The methodology for the interpretivist research paradigm involved trying to understand people's experiences in their own environment. (Maree, 2010).

Furthermore, the research focused on prejudices that men perpetrated against women in society. The fact that the researcher was a man could have resulted in some respondents withholding particular perspectives. As a researcher, I tried showing empathy towards the respondents to gain their confidence.

3.8. Ethics

An application was made to the University of Witwatersrand Human Research Ethics Committee to get clearance for the research and its approaches. Since the research involved school principals, an application was made to the Head of the Provincial Education Department, asking for written permission to conduct the research, which was granted. The request clarified the research purpose and objectives and provided guarantees on confidentiality issues. Permission was also sought from participants to interview them and record them. Concurrently, guarantees were provided regarding the confidentiality of their identity and the information they shared. The collected data was stored in a folder created for this purpose, and access was password protected to ensure security.

3.9. Conclusion

This chapter examined the methodological approach adopted in undertaking mixed method research. The chapter also outlined how the quantitative and qualitative methods were used to collect data, using a structured and semi-structured questionnaire. The chapter also looked at the use of a simple random sampling technique in the study and why it was preferred. Further elucidation was provided on techniques for data analysis, where the use of data analysis software packages was also undertaken. Finally, the chapter concluded with limitations that may have impacted the research's quality and possible outcomes.

CHAPTER 4: DATA PRESENTATION AND ANALYSIS

4.1. Introduction

The purpose of this chapter was to present the data collected from female principals in secondary schools in the Bojanala District of the Northwest Province. The presentation of the data was based mainly on two critical approaches. The first approach was to present data that was collected through the quantitative method. This was based on the structured questionnaire administered to 20 participants randomly selected from the database provided. The results from the quantitative approach were graphically presented using MS Excel.

The second approach was the data collected through a qualitative approach. Five respondents were randomly selected from the 20 respondents to the structured questionnaire. The responses were then coded and presented according to four main themes that emerged from the responses. Specific quotations from the participants were also be used as evidence of their feelings and expressions.

4.2. Quantitative results from data analysis

The research questions have guided the approach to data analysis. Key themes were identified that were aligned to data that was required to respond to the research question. The first theme is centred around understanding the working context of female principals.

4.2.1. Understanding the working context of female principals

a) Age of respondents vs the number of times respondents applied to become principals

Table 4.1 below showed the data collected concerning two key variables, the "age category" of respondents and the "number of times" they applied to become principals. The context of this comparison was understanding how difficult it was for a female person to become a principal.

Respondents were asked how many times they applied to become principals. They were given four different options as follows:

- Only once
- Two times
- Three times
- More than three times

Table 4.1: Comparison - respondents' age and number of applications

	No of applications				
AGE(YRS)	1	2	3	3 MORE	TOTAL
41-50	5	1	1	0	7
51-60	4	3	1	4	12
60+	1	0	0	0	1
Total	10	4	2	4	20

The data in the table showed that of the 20 participants who responded, ten reported that they only applied once to become a principal. Five (5) of the ten respondents were in the age category of 41-50 Years. Four respondents reported having applied twice, and another four reported having applied more than three times. In both instances, most of the respondents were in the age category of 51-60.

b) Comparison between the location of the school and the composition of staff

Figure 4.1 below compared the school's location and the staff's composition. The comparison was meant to establish if geographical factors and stereotypes influenced the recruitment policy of schools within those localities. In other words, it was meant to establish if there were any gender stereotypes based on the location of the school.

Earlier, respondents were asked to describe the location of their schools. Different options were provided regarding whether the school was in the Suburb, the Township or the Village. The data was then compared with another data set where respondents were asked to indicate staff composition in their schools. Similarly, the following options were provided:

- Females are more than Males
- Males are more than Females
- Males and Females are equal

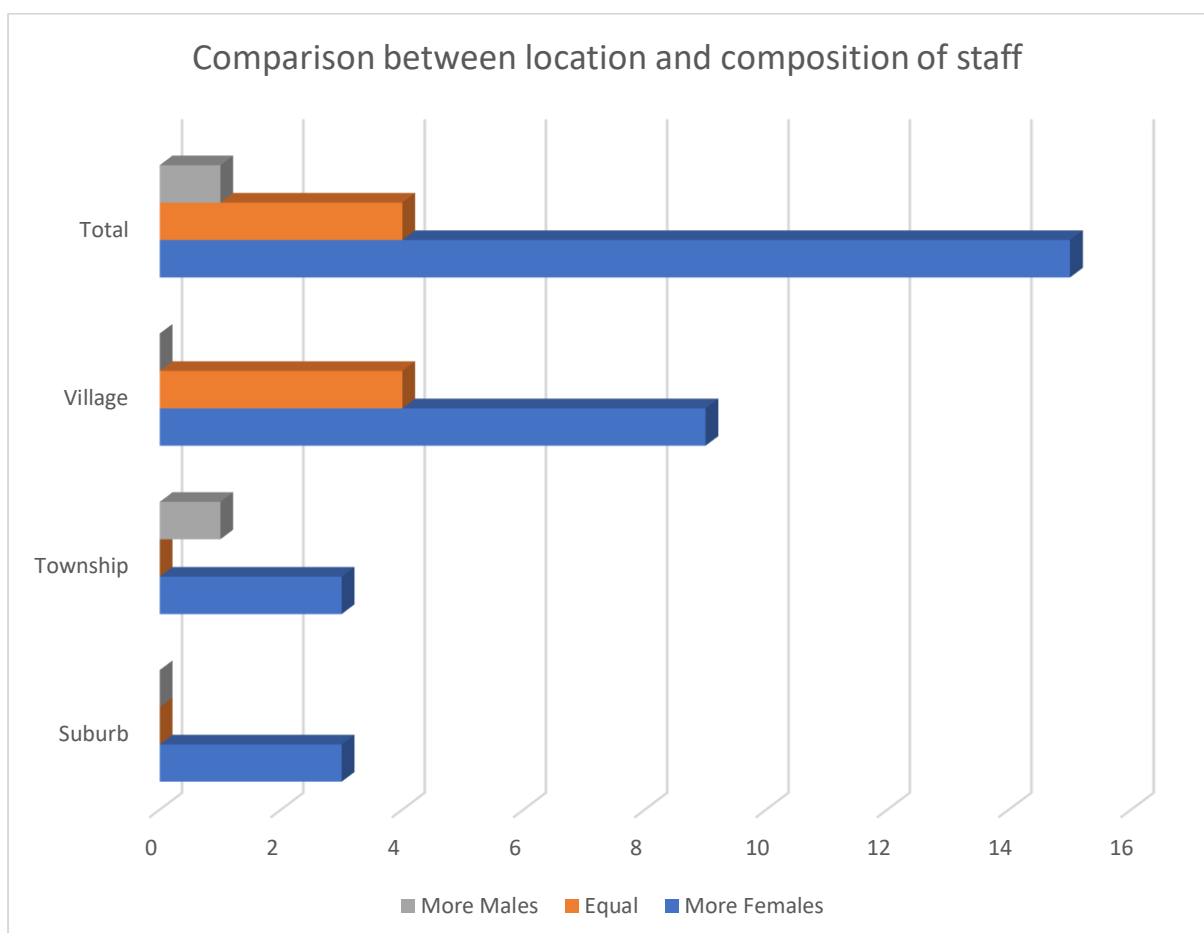


Figure 2.1: Comparison between the location of the school and the composition of staff

Out of the 20 respondents, 15 indicated more females on their staff than males. This applied to all the categories of Village, Township and Suburb. The dominance of females is significantly higher in villages than in Townships and Suburbs. One of the four respondents in the township reported that there were more males than females.

c) Comparison between school location and the composition of the School Governing Body

Figure 4.2 below showed the comparison between the location of the school and the composition of the School Governing Body (SGB). Respondents were asked to indicate the composition of the SGBs in their schools. Similarly, the following options were provided:

- Females are more than Males
- Males are more than Females
- Males and Females are equal

Respondents had to put a tick next to the statement that best described the composition of their SGB.

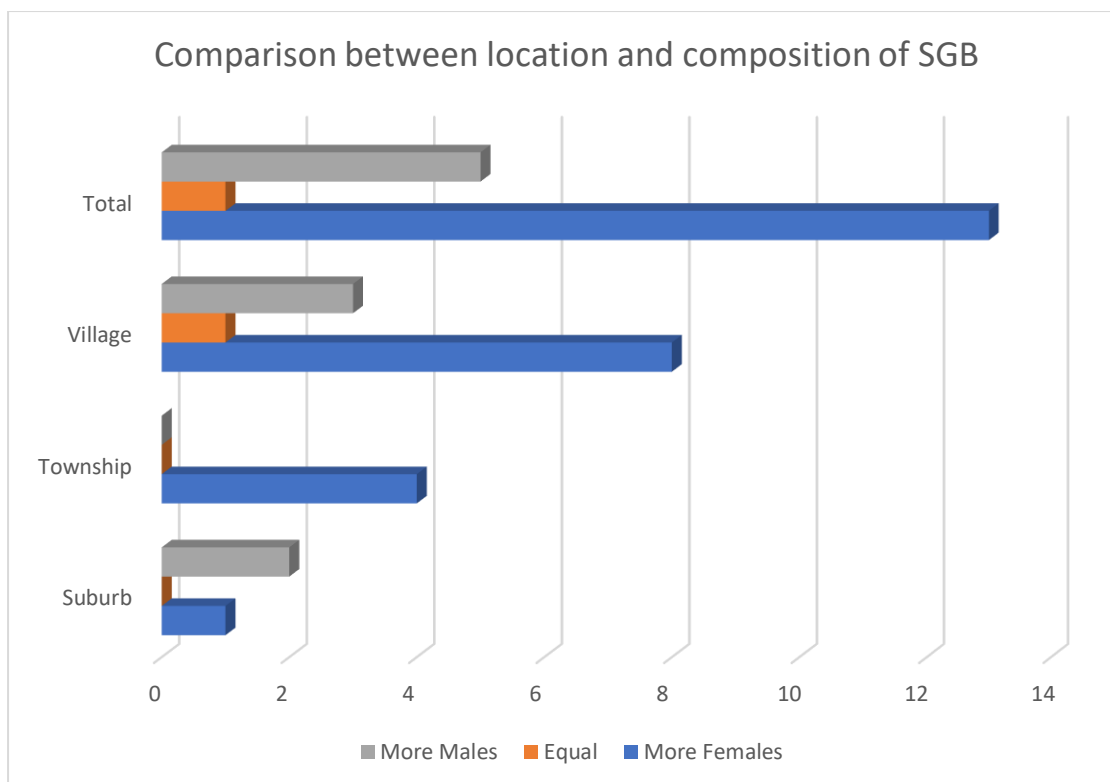


Figure 4.2: Comparison between the location of the school and the composition of the School Governing Body

The comparison results, as reflected in Figure 4.2 above showed that of the 20 respondents, 13 indicated that there were more females on their SGBs than males. The slight difference is in the suburbs, where two of the three respondents indicated more males on their SGBs than females. Also, the proportion of males to females in the village category increased in SGBs compared to staff members, although females remain dominant.

d) Comparison between the location of the school and the gender of the supervisor

Figure 4.3 below showed the comparison between the location of the school and the gender of the supervisor to the principal. The purpose of the comparison was to establish if the supervisor's gender had any bearing on the school's overall culture in terms of the effectiveness of a female principal.

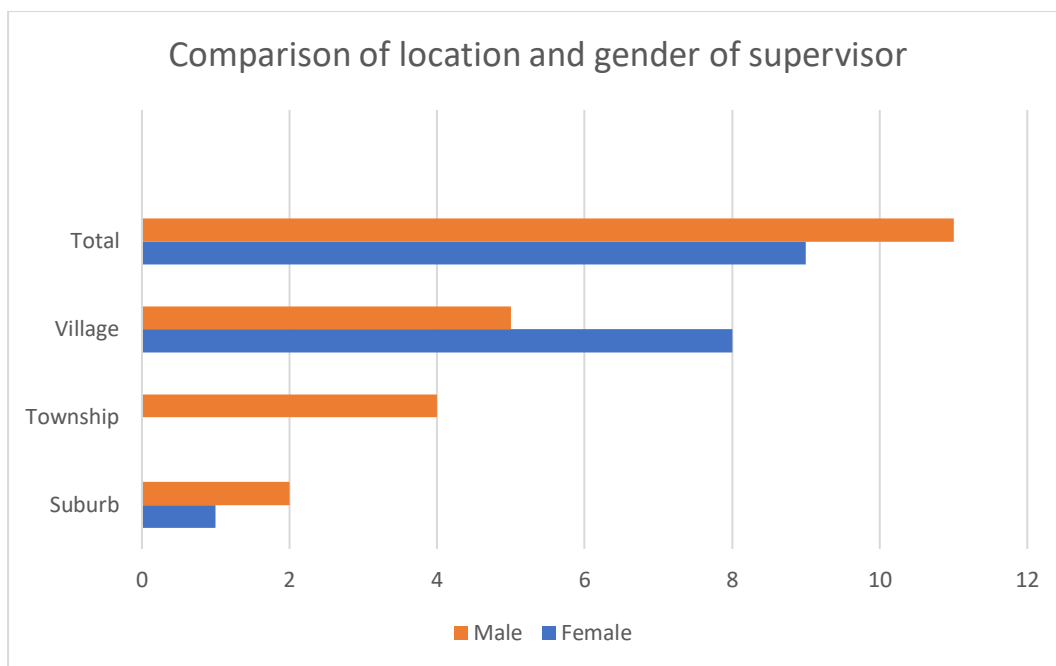


Figure 4.3: Comparison between the location of the school and the gender of the supervisor

All 20 respondents responded to the question. Respondents were asked to indicate whether the gender of their supervisor was male or female. Figure 4.3 above shows that 11 of the 20 respondents reported that their supervisor was male, whilst nine indicated that the supervisor was female. In the township, all four respondents indicated that the supervisor was male. Two of the three respondents in the suburb reported that the supervisor was male. It was only in the village where females outnumbered male supervisors. Despite the overall dominance of male supervisors, the proportion of females was significant.

In summary, Figures 4.1 to 4.3 above showed that the respondents in the villages work in a predominantly female environment, with their members of staff, members of SGBs, and supervisors also being predominantly female. The situation changed in township and urban schools, where the number of males and females was balanced.

e) Comparison between location and reaction to the instructions of the Principal

Figure 4.4 below compared the school's location and the staff's reaction to the principal's instructions. The primary purpose of the comparison was to establish if the staff composition influenced how the principal's instructions were responded to in specific locations.

All 20 respondents responded to the question. The respondents were asked to highlight their perceptions of how their staff members reacted to their instructions. Three possible statements were provided as follows:

- Males are more cooperative than females
- Females are more cooperative than males
- Males and females cooperate in the same way

Out of the 20 respondents, 16 indicated that Males and Females respond the same way. The same situation applied to respondents in all the different categories. Two out of the 13 respondents in the village indicated that females were more responsive to males, which is not significant. The same applied to urban and township settings where the male representation was greater but still had no influence on how the principal's instructions were received.

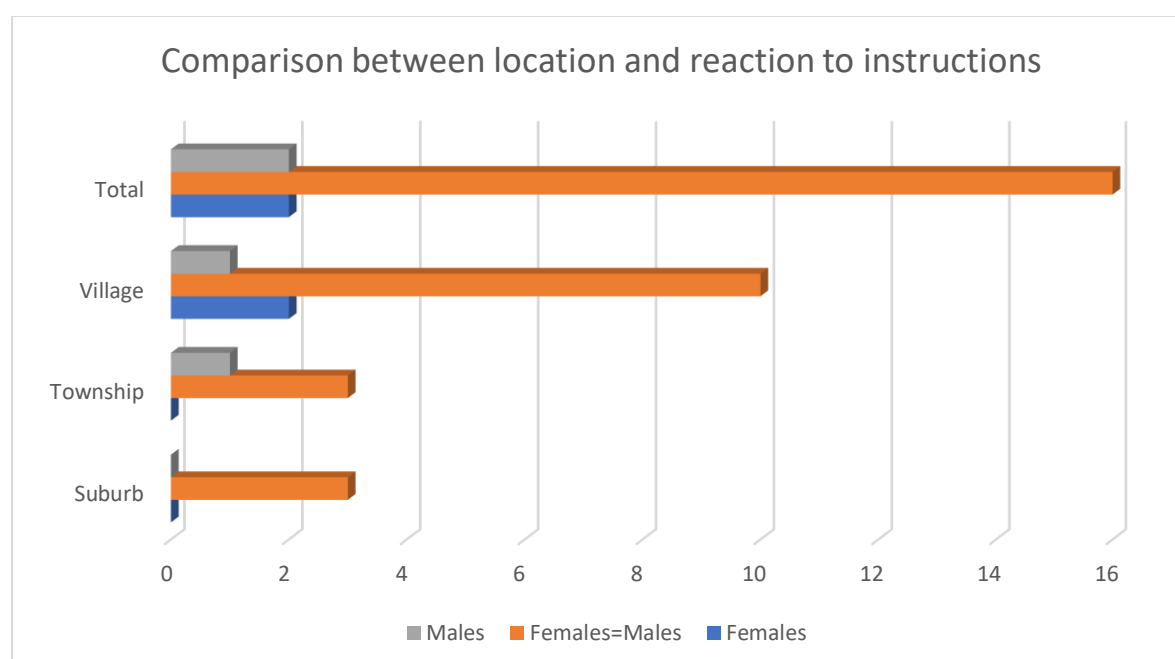


Figure 4.4: Comparison between location and reaction to the instructions of the Principal

f) Comparison between school location and the level of support the principal is receiving

In Figure 4.5 below, the relationship between the location of the school and the respondent's views on the level of support they received when they experienced challenges was outlined. The purpose of the comparison was to test the respondents' perceptions of whether they felt supported when necessary. The participants were asked to rate the level of support they received when experiencing challenges. Respondents were asked to choose between the following responses:

- Support is always available
- Support is sometimes available
- Support is never available

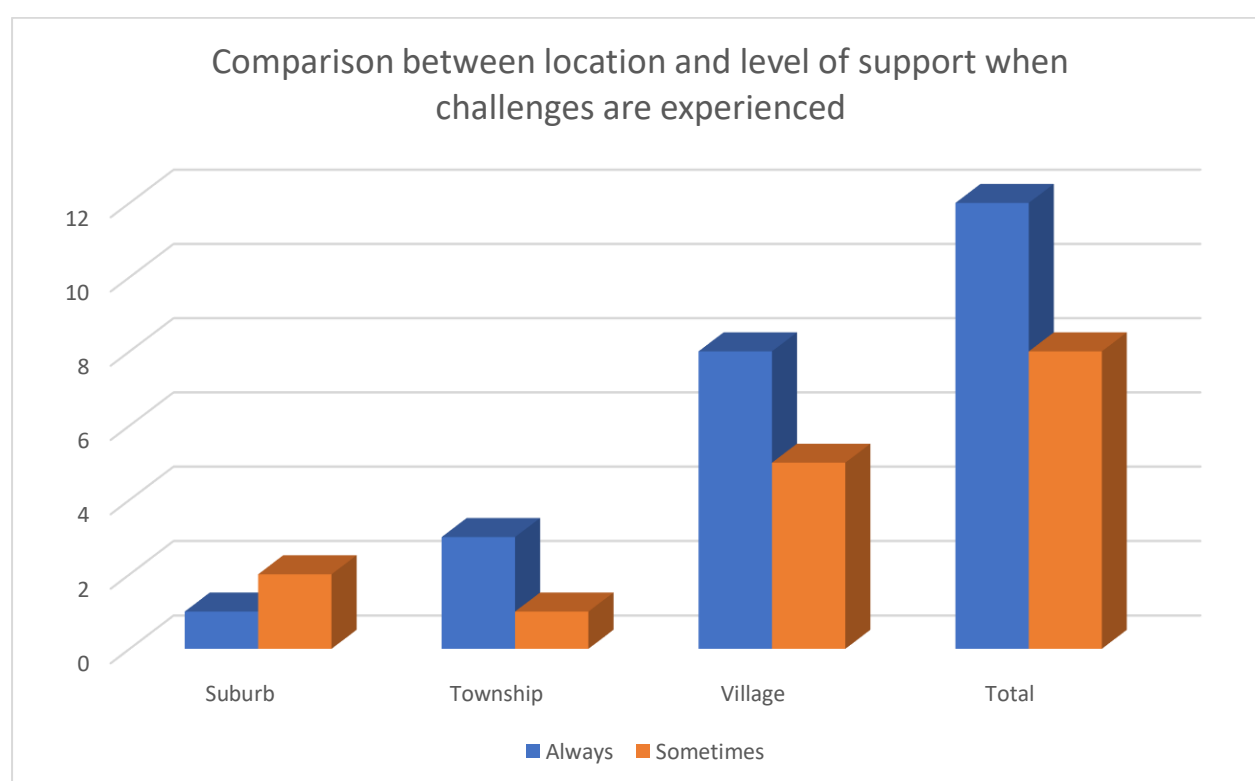


Figure 4.5: Comparison between school location and the level of support the principal is receiving

Twelve (12) of the 20 respondents indicated that support was always available. The situation was the same in the village and the suburb, where most respondents reported that support was always available. The difference was in the suburb, where two of the three respondents indicated that support was sometimes available. Eight respondents overall indicated that support is sometimes available, which is significant. No respondents indicated that support was never available.

g) Comparison between the location of a school and where support is mostly received

The data collected in Figure 4.6 below was a follow-up to the data collected in Figure 4.5 above. Whilst Figure 4.5 above showed data on whether support was always or sometimes available, with the majority indicating that it was always available, Figure 10 focused on where the support originated. In Figure 4.6 below, respondents were asked where the support mainly came from in cases where they needed it. The following options were provided as possible responses:

- From my Supervisor
- From other Principals
- From members of the SGB

All 20 respondents responded to the question. Twelve (12) respondents indicated that they were receiving the most support from their supervisors. That was the case mainly in the village and the suburbs. The situation was slightly different in the township, where two of the four respondents indicated that support was mainly received from members of the SGB.

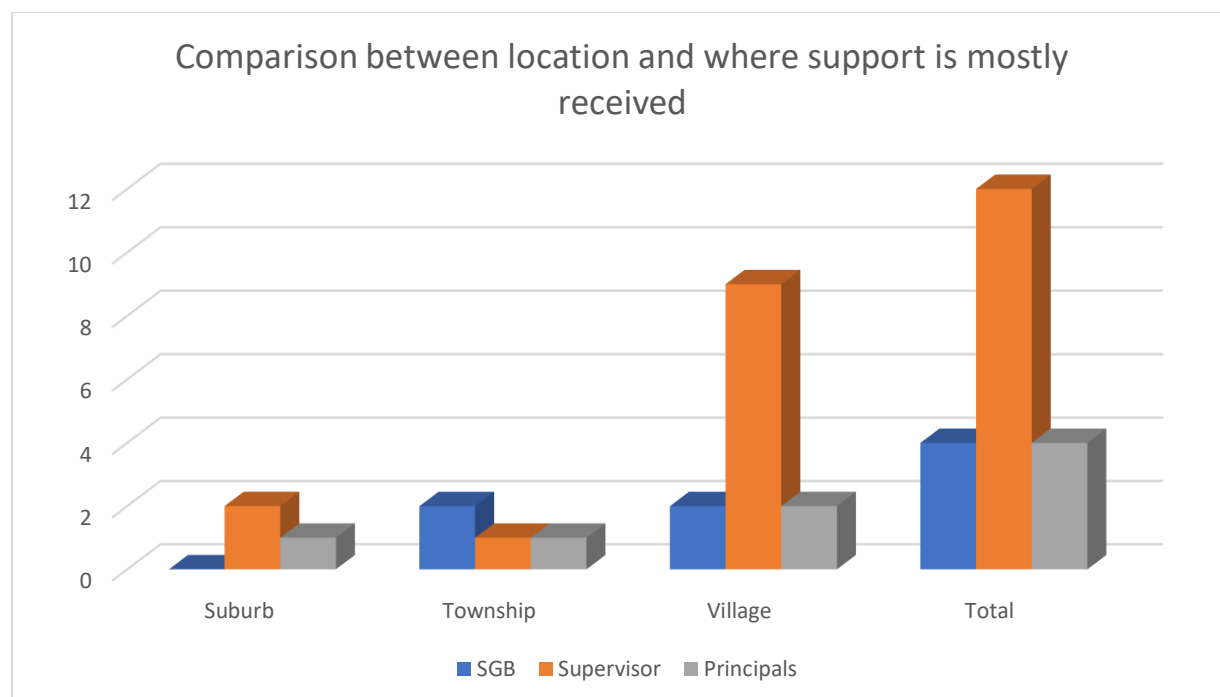


Figure 4.6: Comparison between the location of a school and support received

In summary, the Figures 4.4 to 4.6 above looked at the location of the school in relation to how the staff responded to the instructions of the principal. The graphs also illustrated the school's location in relation to the level of support the principal received, including where that support originated from. Figures 4.1 to 4.6 above informed an understanding of the working contexts of female principals in the different settings of urban, township and village.

4.2.2. Understanding the experience, challenges and benefits of participating in a PLC network

The first part of the data focused on the context of female principals in their working environment. That included recording their experiences and challenges. The next part focused on their participation in a PLC network, specifically their experiences, challenges and benefits.

h) Comparison between the duration of a principal in a PLC network and the reasons for joining the network

Figure 4.7 below showed the comparison between the time spent participating in a PLC network and the reasons for joining such a network. The data in Figure 4.7 below showed that most respondents had been members of the PLC for between 1 and 5 years. Very few of the respondents were members for longer than five years.

Regarding factors that influenced them to join the PLC network, the respondents were asked to choose the answer that best suited their reason for joining the network. Three possible responses were provided in the questionnaire. These were the following:

- a) Influence from other Principals
- b) A lack of support
- c) Just wanted to explore

Eighteen(18) of the possible 20 respondents responded to the question. Of the 18 responses, ten reported that other principals influenced them, and seven responded that they only wanted to explore. Only one response indicated a lack of support. From the data, most of the respondents to the questions reported that other principals influenced them to join the network.

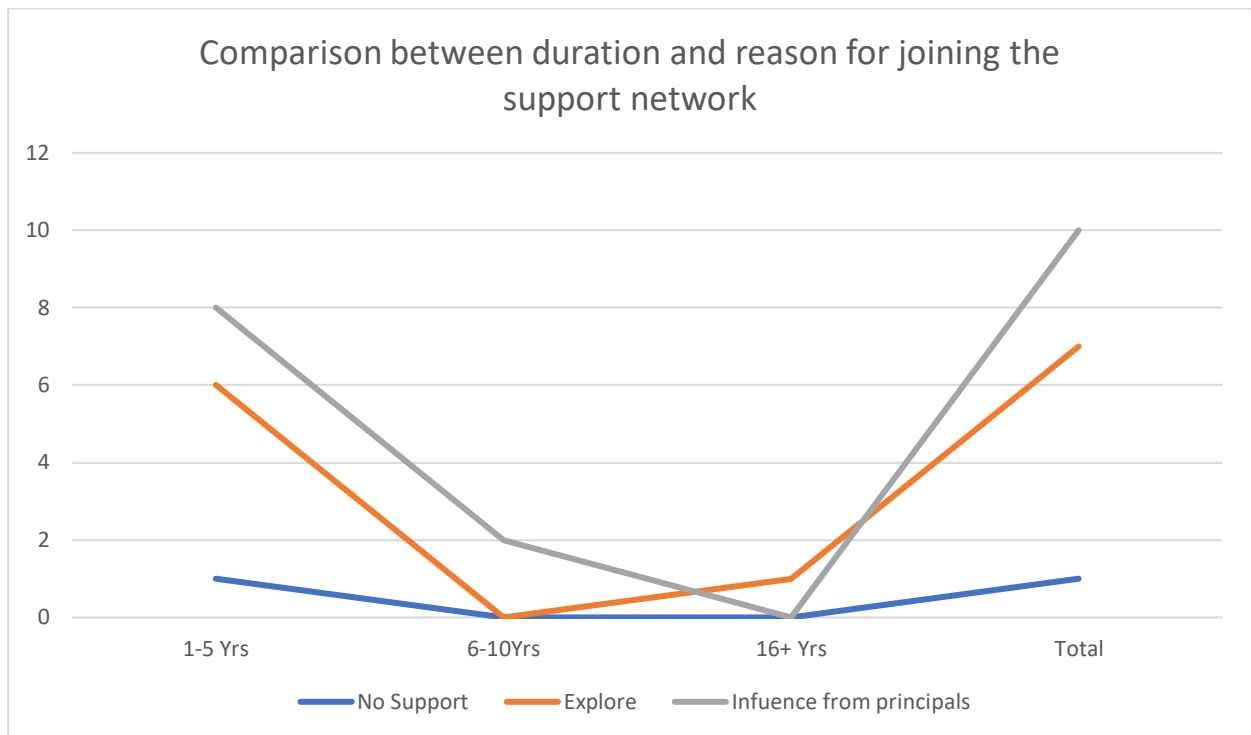


Figure 4.7: Comparison between the duration of a principal in a PLC network and the reasons for joining the network

i) Comparison between the duration of a Principal in a PLC network and their experience of participating in the network

In Figure 4.8 below, respondents were asked how long they were members of a PLC network. Their responses were compared to another question where respondents were asked to relate their experience participating in a PLC network. The respondents were asked to choose the answer that best described their feelings from the following possible explanations:

- a) It has made no difference
- b) It made me feel supported and empowered
- c) It is just an extra burden

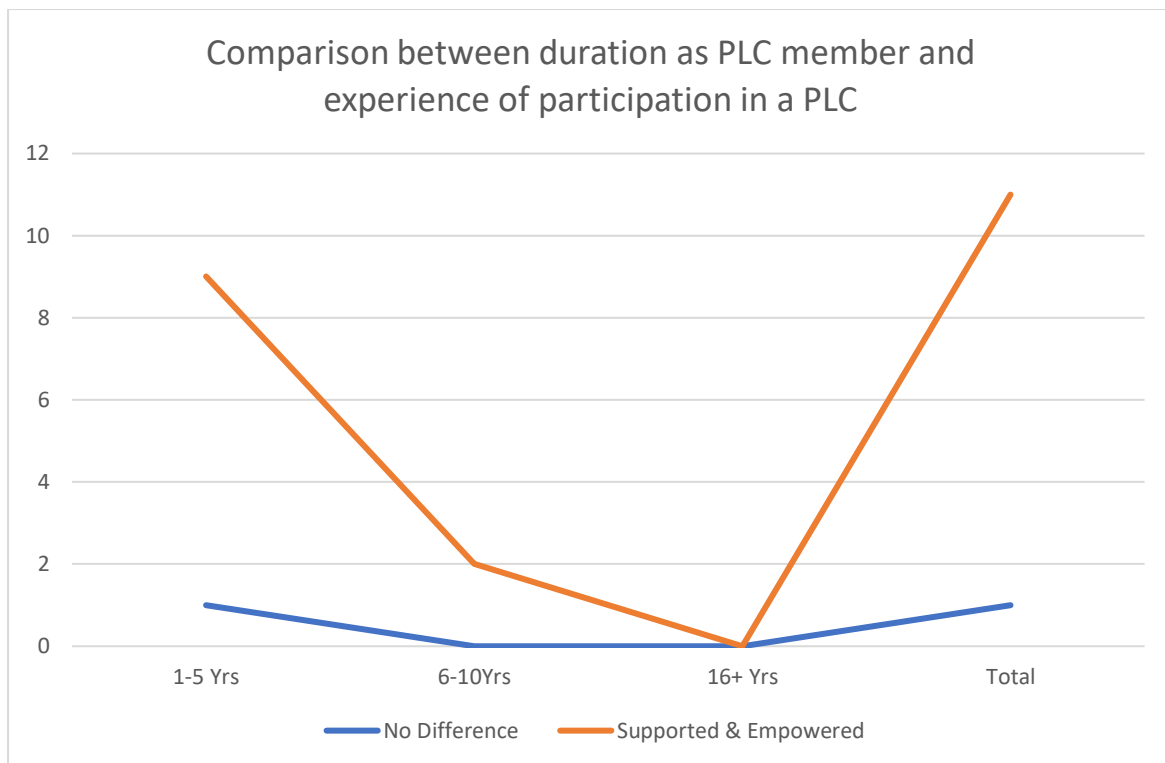


Figure 4.8: Comparison between the duration of a Principal in a PLC network and their experience of participating in the network

Seventeen (17) respondents responded to the question out of a possible 20. Of these respondents, those whose experienced ranged from between 1 to 5 years reported that they felt supported and empowered through their participation in a PLC network.

j) Comparison between the duration as a member of a PLC and what they liked most

In Table 4.2. below, respondents were asked what they liked most about being members of a support network for female principals. Three possible answers were provided, from which respondents had to choose the answer that best described how they felt. The following possible answers were provided:

- It helps me to learn from other principals
- It keeps me away from family problems
- I am able to meet new people and get to know them

Table 4.2: Comparison between the duration as a member of a PLC and what they liked most

Duration as PLC Member	Learnt from other Principals
1-5 Yrs	15
6-10Yrs	2
16+ Yrs	1
Total	18

Eighteen (18) respondents reported that participating in a PLC network helped them to learn from other principals. The respondents in all age categories felt the same way.

k) Comparison between the duration as a member of a PLC and what they disliked most

Table 4.3 below was the opposite of the question asked in Table 4.2 above. In Table 4.3. respondents were asked what they disliked most about being members of a support network for female principals. Similarly, three possible responses were provided, from which respondents had to choose one that best describes how they felt. The following options were provided:

- a) It distracts me from my work
- b) It creates additional workload for me
- c) There is too much travelling

Out of a possible 20 responses, only seven responses were received. Five of the seven respondents indicated that participating in a PLC network had created an additional workload.

Table 1.3: Comparison between the duration as a member of a PLC and what they disliked most

Duration as PLC Members	Distracts from work	Takes free Time	Increased workload
1-5 Yrs	1	3	5
6-10Yrs	0	0	1
16+ Yrs	0	0	1
Total	1	3	7

I) Comparison between the duration as a member of a PLC network and the quality of decision –making in their work

Figure 4.9 below compared the time the respondents have spent as members of a PLC network with what they perceived as the quality of their decision-making in their daily responsibilities.

Respondents were asked to choose one answer that represented how they felt from three possible answers. The following options were provided:

- a) It has improved significantly
- b) It has improved slightly
- c) It has remained the same

Eighteen individuals responded. Fifteen (15) were those whose experience as members of the PLC network ranged between 1 to 5 years, while two of the respondents had between 6 to 10 years and one, over 16 years.

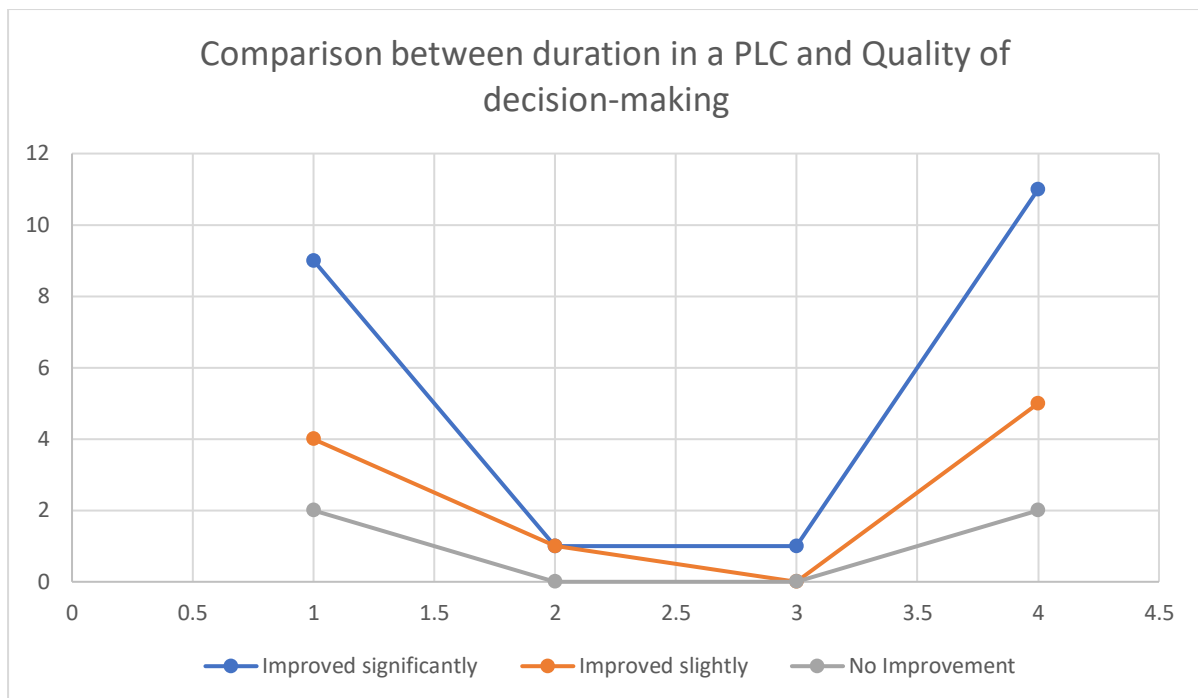


Figure 3 : Comparison between the duration as a member of a PLC network and the quality of decision –making in their work

A total of 11 respondents indicated that their decision-making had improved significantly since becoming members of a PLC network. nine of the 11 respondents came from the 1-5 years category. Five of the respondents indicated that the quality of their decision-making improved slightly, four of which were in the 1-5 years' category. Only two respondents indicated that it had remained the same.

m) Comparison between the duration as a member of a PLC network and feelings about themselves as members

Figure 4.10 below compared the time respondents had spent as members of a PLC network to how they felt about themselves since becoming members. Respondents were asked to choose one answer that represented how they felt about themselves from three possible answers. The following options were provided:

- I am free and open to express myself than before being a member
- I am less open to express than before being a member
- Being a member has had no influence on my ability to express myself

Fourteen of the 17 respondents were those whose experience as members of the PLC network ranged between 1 to 5 years. Two respondents had between 6 to 10 years and one had over 16 years.

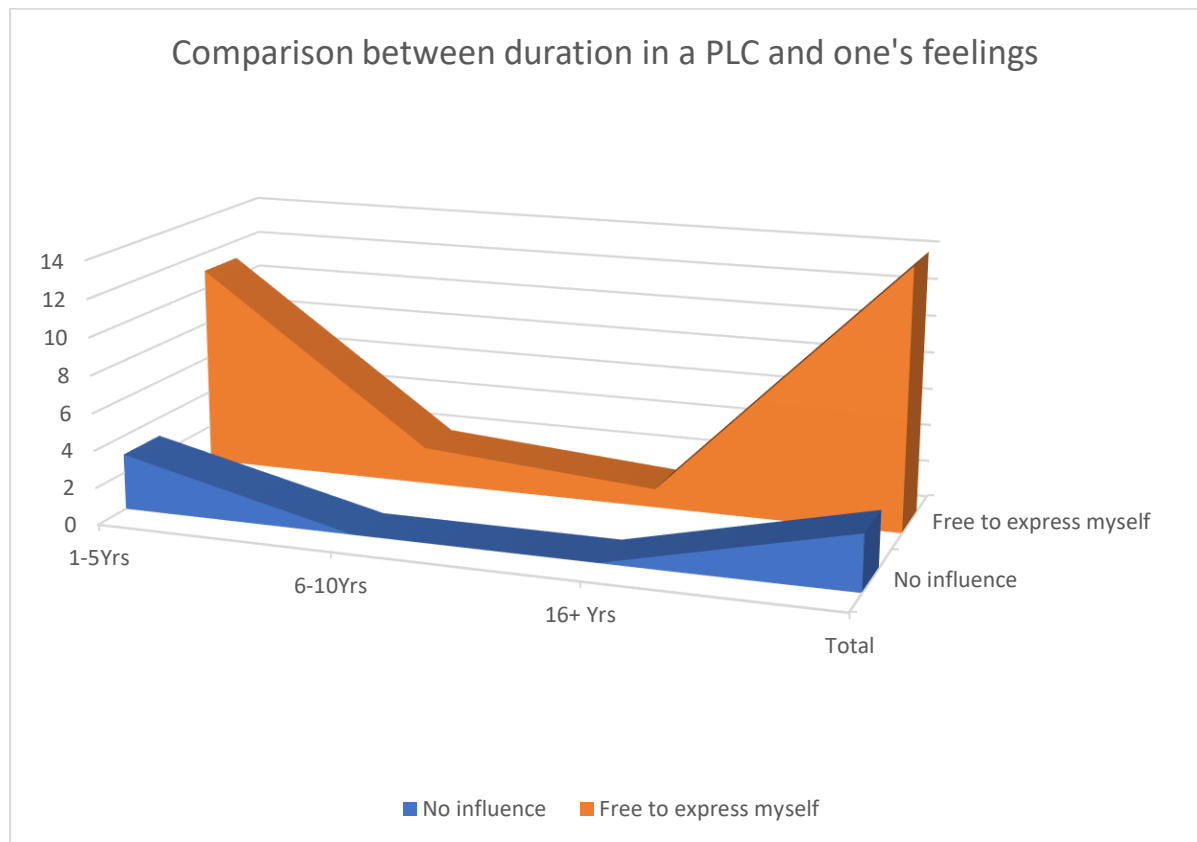


Figure 4.10: Comparison between the duration as a member of a PLC network and feelings about themselves as members

A total of 14 respondents indicated that they were free to express themselves since they became members of a PLC network. Of the 14 respondents, 11 came from the 1-5 years category. Only three respondents indicated that being a support network member has not influenced their ability to express themselves.

4.3. Qualitative analysis of data

As explained in the previous chapter, data collected from the five interviewed respondents was transcribed into five different transcripts. Once data was cleaned, a deductive coding technique was used. Some of the codes emerged from the responses of the respondents. One hundred eighty different codes emerged, which were categorised into four main themes. Development of themes required that the different codes were grouped according to how they were aligned to the specific research questions. The four main themes are discussed below.

4.3.1. Theme One: Reasons for joining a PLC network

In developing the theme, all five respondents were asked, "*What influenced your decision to join a support network for female principals?*" In response to the question, several sub-themes emerged. These were the following:

a) Growth and Competence

Four of the five respondents cited personal growth as a reason for joining a support network for female principals. The following key statements attested to the fact that the respondents were of the view that they needed to grow and that being a member of a support network would assist them in their quest for growth. The following statements were attributed to **respondent number one**:

I have time to share with people and listen, and by so doing it also helps me because as an individual I grow. It assisted me a lot because I have achieved so many things looking at where I am teaching for now. I am a principal of a school. Respondent one (personal communication, July 12, 2022)

Respondent number one clearly indicated that she experienced growth in various aspects of her life, which also assisted her in being an effective school principal. Similar sentiments were expressed by respondent number two, who also cited professional growth as a reason why they opted to join a PLC network. **Respondent number two** highlighted the following,

I have grown a lot. I have professionally grown a lot, honestly. I will give you an example, when I became a principal. I was a PL (Post Level) 1 educator before I became a principal. I didn't get a chance to be a Head of Department. I didn't grow in leadership and management, but through the process, I managed to become a secondary school principal and successfully so, rising to the standard and expectation of the department." Respondent two (personal communication, July 13, 2022).

Respondent number three brought the dimension of networking to the conversation, where the PLC network was used as a platform to network with other principals. During that networking, opportunities arose to learn and share best practices. The following statements by **respondent number three** reflected the above sentiments:

I always engage with the principals of the neighbouring schools to check how they are doing in terms of training and everything, so it assists me a lot to network with people who are doing well. I need to be assisted and also to develop and to grow professionally and to bring improvement in the school" This shows that what is learned through the networking process is used for the betterment of self and the entire school. Respondent three (personal communication, July 13, 2022).

It became clear from the engagement that a PLC network was viewed as a forum that assisted new principals in acclimatising to their new working environment. It provided the opportunity for new principals to learn, as highlighted by respondents 2 and 3, respectively. That was echoed by respondent number 4 when she indicated, "*The program actually assists; it even assists upcoming female principals.*" The statement was evidence that even new principals had expectations that by participating in a PLC network, they would be able to learn quickly from their counterparts.

The statements above, as attributed to respondents 1 to 4, showed a strong feeling amongst the respondents that they had experienced personal and professional growth by participating in the network.

Other than growth, competence was also cited as a reason. There was a feeling that participants expected to be more competent in their work by belonging to a network. In support of that notion of competence, the following statement was made by **respondent number one**, "*actually, I wanted to be competent. I'm also able to improve the level of other people's competency*". The expectation of improvement and growth, thereby improving one's competence, came out very strongly in the interview.

b) Sharing good practices

The following sub-theme that came out strongly was the need to share good practices. Three of the five respondents highlighted sharing of good practices as one of the reasons why they opted to become members of a PLC network. The following statements confirmed this. **Respondent number three** indicated: "*Sharing good practices and implementing those practices. It really assisted me a lot because I also visit neighbouring schools that are doing well, requesting assistance from their teachers that are doing well to come and assist me at school.*"

Similar sentiments were expressed by **respondent number four**, who also emphasized sharing good practices. She stated the following: *"Sharing good practices, that was the first. So there are some times when you share your experience with others then you at least understand that this is actually something that you need to pass by"*.

A similar line of argument was detected in the response provided by **respondent number five**. Although she did not specifically mention sharing good practices, it was implied in her response in that she talked about copying what others are doing. Copying can happen when others are observed, or it can happen through sharing of information or knowledge. **Respondent number five** indicated the following: *"And also to can know what other people are doing and to just copy the right things in order to prosper."* Since a PLC network is something that involved a group of people, sharing through regular interaction was likely to happen all the time.

c) Networking

The third critical sub-theme that came out strongly were networking. Respondents expected that a PLC network would allow them to network with other principals. Two out of the five respondents highlighted the need for networking as a reason why they needed to belong to a PLC network. **Respondent number two** stated the following: *"So these fora helped me a lot especially in order for us to be able to network especially with stakeholders. "*

Although the respondent used the term stakeholders, the context of the discussions was about other principals. Similar views were expressed by respondent number three when she indicated the following, *"I'm just practicing those activities, like going out networking with other people."* Although mentioned explicitly by two respondents, the notion of networking was broadly implied in the responses of other respondents as it was closely related to the previous sub-theme on sharing good practices.

d) Self-Motivation

One respondent stated self-motivation as a reason why they opted to belong to a PLC network. The concept of self-motivation was also closely linked to the first concept of

growth and competence. That was reflected explicitly in the responses provided by **respondent number five** when she stated the following, *"to join this is to motivate myself and to gain experience and to be in line with the developments."* Gaining experience and being in line with developments was a form of growth, hence the assertion that the concepts were closely linked.

In summary, growth and development emerged very strongly among the respondents as a primary reason why they opted to belong to a PLC network. All the highlighted sub-themes support the notion of learning from others through networking and sharing of best practices in order to facilitate growth and development.

4.3.2. Theme Two: Benefits of being a member of a PLC network

The second theme to be examined was what respondents had highlighted as the benefits of belonging to a PLC network. The respondents were asked the following question: *"What would you regard as the most beneficial thing that you derive from participating in the PLC network?"* The responses to the question solicited a wide range of responses from participants. The following key sub-themes were looked at:

a) Improved Leadership and Management.

Whilst the previous theme looked at what influenced respondents to join a PLC network, the current theme looked at what they derived as benefits for being members of a PLC network. The response to this theme were overwhelming, and this was reflected in the number of sub-themes that emerged from the engagements. One of the issues that came out more strongly from participants was the feeling that their leadership and management capabilities had improved due to their participation in the network. This was reflected in four of the five respondents to the questions. To support that view, the following was what **respondent number one** had to say:

a vast improvement in my management style, like for example, I said at the beginning that in everything that I'm doing there is transparency and I don't keep things on me. Always I need to, before I can take a decision or before, I do something, i always consult with my colleagues. Respondent one (personal communication, July 12, 2022).

The emphasis of the response was on improved management style. Although other vital elements were raised, such as transparency and consultation, these were all embedded in improved management style.

Respondent number two also added to the notion of management, although the focus was on conflict management. Respondent number 2 stated the following,

"I always refer to especially the conflict management part. You know as a female principal, we have to learn to manage conflict in our schools, especially looking at our personality as females, our mood swings etc. as a women principal, it helped me a lot, especially on conflict management." Respondent two (personal communication, July 13, 2022).

There is no doubt that conflict management was another component of management that has a bearing on the overall management capability of an individual and hence should not be looked at in isolation.

The statement by **respondent number four** also aligned with what was indicated by respondent number 1 and 2, respectively, when she stated the following: *"It has improved a lot. I now have really mastered that effectiveness and efficiency is of high importance in my leadership and management of the school."* The aspect of leadership was added to the conversation.

The response by **respondent number three** also aligned with the overall notion of management and leadership, although it expanded it to include governance, another form of management. Furthermore, the response was more specific concerning governance and curriculum management. Respondent number three stated the following, *"improvement especially in terms of curriculum and governance."*

In summary, the theme of management and leadership came out very strong as a benefit, which indicated that it was potentially one of the strengths of a PLC network.

b) Improved Confidence and Motivation

The previous sub-theme was about improved leadership and management. The second sub-theme focused on improved confidence and motivation, which also came out strongly during the interviews as one of the benefits. It could be argued that there was close alignment between the two sub-themes. For the second sub-theme, four (4)

of the five (5) respondents cited improved confidence and motivation as one of the key benefits. The following statements supported this view:

This was expressed by **respondent number two**: *"I can say I'm a very confident leader, a very assertive leader through this program."* The subject of leadership addressed in the previous sub-theme was now emerging in combination with confidence, which was evidence of the close association between the two sub-themes.

Furthermore, **respondent number three** indicated the following: *"My confidence has improved a lot, because I engage with other people. It has assisted me a lot to improve the confidence."* The element of engagement was also linked to the previous theme that dealt with networking and sharing of good practices. Similar sentiments were expressed by **respondent number four** when she indicated the following, *"you could hear even while I'm talking that I'm really confident. I'm a very confident person. But confidence you gain from certain things that influences your life like being in a PLC."*

Finally, precisely the same views were shared by **respondent number five**:

I'm so confident even in meetings, when I stand up even at school, I'm very much confident of what I am doing because in the past you could not stand up clearly in front of people to express your views. But since being a member of the PLC, I can stand up, I can even contribute in debates and people will take my inputs. Respondent five (personal communication, July 13, 2022).

It was clear from the responses above that improved confidence, in particular, and motivation, to some extent, were some of the most beneficial things gained by respondents by participating in a PLC network.

c) Improved Performance and learner outcomes

The third sub-theme during the interviews was improved performance and learner outcomes. Improved performance was aligned with other areas of improvement, as discussed in the previous two sub-themes. Three (3) out of the five (5) respondents cited improvement in their own performance, the performance of their schools, and the learning outcomes. Supporting this view, respondent number 1 highlighted the

improvement of learner performance as well as improvement in the behaviour of the learners. **Respondent number one** indicated the following,

improvement, when looking at the results, there is a lot of improvement. And also when coming to the learners, I have learned that I must take learners very seriously to an extent that if you look there is a lot of improvement in our learners behaviour. Respondent one (personal communication, July 12, 2022).

The improvement in learner behaviour had potentially reflected in the overall discipline of the school. In support of this view by respondent number 1, **respondent number two** also reported an improvement in the performance of her learners. She said, *“I did fairly well, including to produce results above 80 per cent for the past eight to ten years.”* The implication was that when discipline improves, so will the performance and the outcomes.

d) Gaining knowledge and expertise

The respondents in that sub-theme spoke very strongly about how their participation in the PLC network has boosted their knowledge and expertise in different areas. The previous subthemes on improved leadership and management also relate to gaining more knowledge and becoming competent. Four out of the five respondents reported that their knowledge significantly improved since becoming members of a PLC network. In support of this view, **respondent number one (1)** indicated the following: *“I am very much competent. I’m also able to improve the level of other people’s competency like I said, in the community. You find that there are people who are growing they even share together,”*

Respondent number two (2) also aligned with respondent number one regarding her emphasis on competence and knowledge. The focus of her response was on expertise in relation to management. She stated the following: *“You know when you are a female leader it is important to network with other leaders in order to gain more knowledge and expertise especially with issues that deal with the management and discipline in our schools.”*

The response of **respondent number four** focused more broadly on the growth they were experiencing by participating in the network. Whilst the response of respondent number two was more focused on growth in management expertise, respondent number four seemed to suggest that she has grown in various aspects of her life. She

stated: *"I've developed a lot since being a member both in the PLC and outside the PLC"*. That implied that skills gained within the PLC were also used outside the PLC.

The last respondent to comment on that sub-theme was **respondent number five (5)**. She stated, *"to join this is to motivate myself and to gain experience and to be in line with the development"*. The response of respondent number 5 was also aligned with that of number four in that it talked broadly about gaining experience without specifying the development area. It also talked about being in line with developments, which might imply that the respondent gained more knowledge through sharing with other members within the PLC, thereby informing them of new developments in the process.

The sentiments of using a PLC as a platform for information sharing were also highlighted by **respondent number two**:

"but what encouraged me most is that we found time to unwind and talk about issues that I could not discuss with my junior colleagues. So that work environment gave me space to discuss problems without being embarrassed or overwhelmed in terms of being judged." Respondent two (personal communication, July 13, 2022).

The important point highlighted by respondent number two was that over, and above a PLC being a platform for sharing knowledge and experiences, it also served the purpose of discussing problems to find relevant solutions.

Respondent number one also aligned with respondent number two regarding how the PLC has become a safe space to share problems without being judged. It meant that members have developed trust among themselves. Respondent number one said the following regarding trust: *"and if we do some of these things we end up having trust amongst each other."*

4.3.3. Theme three: Challenges of being a member of a PLC network

Theme two focused more on the benefits that participants derived from being members of the PLC network. We were able to identify expressions that showed that respondents benefitted a lot from being members of a PLC network. This theme is now focussing on the challenges that they have. Whilst there has been an overwhelming expression of happiness and benefits in participating in the network, we could not assume that their participation was without challenges. In this regard, they were asked the following: *"What would you consider to be the most difficult thing about being a member of the PLC network?"*

Very few sub-themes emerged from this question since very few respondents were able to respond to the question. The following sub-themes emerged from the discussion:

a) Lack of support

Two respondents cited lack of support as one of the most challenging things about being a member of a PLC network. **Respondent number 2** was more specific about the lack of financial support to run the network affairs. She cited that reliance on personal finances was posing a serious challenge. The following statement was made by respondent number 2:

Finance, especially if I have to continue the network on personal basis. Finance is a challenge because a venue, let me say maybe at a hotel or conference room and the like, it will need SGB to be involved, it will need the support of the department or schools that have been invited, something for catering. Finance is a challenge. Respondent two (personal communication, July 13, 2022).

The response of respondent number two showed that it was strenuous to sustain the affairs of the network without any support. The lack of support was also raised by respondent number 3, although the focus was not on financial support but other forms of support. Respondent number three stated the following:

“I can say the most difficult thing is that I initiate a lot of things on my own and there are no other people who are coming to me to support me from the site. I must go out on my own to look for assistance from other people.” Respondent three (personal communication, July 13, 2022).

Respondent number three was more generic about the nature of support. However, her response clearly showed that a lack of support was creating frustration on her part.

b) Lack of continuity

The previous sub-theme looked at a lack of support. The other challenges cited are a lack of consistency due to interruptions and a lack of follow-up on issues. Three respondents expressed views on the sub-theme. **Respondent number 2** lamented the disruptions brought about by the Covid-19 pandemic. She highlighted the following, *“the programme stopped especially due to Covid and all that, so we lost touch.”*

Respondent number 2 also cited a lack of follow up on issues as one of the issues that contributed to lack of continuity. She highlighted the following, *“Honestly speaking, follow up neh. Follow up about issues.”* The fact that issues that had been discussed were not followed up was creating an information vacuum that paralysed the network's activities.

Furthermore, **respondent number 1** lamented the lack of communication among the members. She indicated, *“maybe we did not communicate”* Lack of communication would also have likely impacted the network's activities negatively. Similar sentiments were echoed by **respondent number 5** when she said, *“I want you to time and again keep in touch to check on the network not after a long period”*. The statements by respondent number 5 also align with the sub-theme on lack of support.

c) Informal nature of the program

Issues were also raised about the informal nature of the programme. Respondent number 3 stated, *“I was never involved in a formal programme of PLC, I’m just practicing those activities, like going out networking with other people.”* On the other hand, respondent number 1 highlighted the following. *“I am no longer an active member”*. The responses of the two respondents indicate that, in some cases, the PLC may not be a formally constituted structure.

4.3.4. Theme 4: Overall perceptions about a PLC network

The previous theme examined some of the challenges respondents had about being members or participating in the activities of a PLC network. That theme was about the overall impression of a PLC, despite its benefits and challenges, as discussed above.

All five respondents expressed positive sentiments about being members of a PLC network and wanted to continue participating. That was stated explicitly by **respondent number 2** when she indicated, *“It’s sad that there was a break due to Covid. It must be resuscitated. Even if the program could be, we could meet once again maybe once a semester or once a quarter”*. Another respondent who felt strongly about continuing with participation was **respondent number 4**, who indicated the following, *“So this now is the platform, at least me, myself as serving principal and others, we really, really need because there’s a lot of challenges to lead people.”* There is a clear expression of need from the two respondents above. Respondent

number 4 further stated, *“I think you should ensure that other colleagues of ours know about this network.”*

In support of the above sentiments, respondent number three also stated, *“I think I’m happy to be a member of the PLC”*. Respondent number five also highlighted the following in her response, *“I want you to time and again keep in touch to check on the network not after a long period”*. Although highlighted under challenges, a positive sentiment was expressed about ensuring the continuity of activities of the network. A similar expression of happiness can be attributed to respondent number 1, who said, *“I don’t remember anything that was difficult”*. By implication, respondent number one did not think participating in the network’s activities was a challenge, which can be taken as a positive sentiment.

4.4. Conclusion

Chapter 4 presented the results collected through a mixed methods approach using quantitative and qualitative data. The quantitative data was collected by administering a structured questionnaire to 30 respondents, of which 20 responded to questions. Stata data programme was used to put data in numerical values that allowed for quantitative analysis. An MS Excel programme was used after that to provide a graphical representation of all the quantitative results.

Furthermore, five respondents were randomly selected from the 20 that responded to the structured questionnaire. Telephonic interviews were conducted with the five randomly selected respondents using an unstructured questionnaire. Responses from the participants were recorded and later transcribed into a folder that was password protected to ensure data security. After the data was cleaned, it was coded using Atlas.ti 8 programme. Four main themes were identified after clustering several codes,

each with a few sub-themes. Each of the themes and subthemes was then analysed and discussed using the information provided by the participants.

CHAPTER 5: DISCUSSION OF FINDINGS

5.1. Introduction

Chapter 4 offered the presentation of the results. As explained in the previous chapter, data was collected through a mixed-method approach. The first part of data collection looked at responses to a structured questionnaire whose results were quantitatively presented. The data was collected from 20 participants who were respondents to the questionnaire. The quantitative presentation took the form of graphs and tables. The second part of data collection focused on the qualitative data collected using a semi-structured questionnaire. Data was then presented in four main themes, together with several sub-themes.

The collection of the data and the design of the data collection instruments were influenced predominantly by the research objectives since the collected data must be used to respond to the research objectives. The subsequent discussion highlighted

how the collected evidence through responses to the questionnaire and the interviews responded to the stated objectives. The first main objective was to record the experiences and challenges of female principals in their working environment.

5.2. Investigate the experiences and challenges of female principals in their working environment

In the following analysis, seven (7) sub-themes were used to compare a number of variables, which assisted in understanding the context within which female principals work in terms of their experiences and challenges. Data in this regard was collected using a quantitative method. The variables were as follows:

- 5.2.1 Table 4.1: Comparison between the age of respondents and the number of times they applied to become principals.
- 5.2.2 Figure 4.1: Comparison between the location of the school and the composition of staff;
- 5.2.3 Figure 4.2: Comparison between the location of the school and the composition of the school governing body;
- 5.2.4 Figure 4.3: Comparison between the location of the school and the gender of the supervisor;
- 5.2.5 Figure 4.4: Comparison between the location of the school and the reaction to the instructions of the principal;
- 5.2.6 Figure 4.5: Comparison between the location of the school and the level of support the principal is receiving, and
- 5.2.7 Comparison between the location of the school and where support is mostly received

Table 4.1 examined the correlation between the age of respondents and the number of times they applied to become principals. The purpose of the correlation was to establish if there were any difficulties experienced by female principals when they first applied to become principals. The data shows that most younger principals (ages 41-50) did not experience much difficulty since they only applied once before being appointed. Five (5) out of seven (7) respondents in the age category reported having applied only once, constituting 71% of the respondents. The trend seemed to change in the following age category of 51-60 years, with a spread of respondents who applied once, twice and more than three times. Four (4) of the respondents reported applying once; another three reported applying three times, while another four reported

applying four times. The analysis showed that there seemed to be more preference for younger females to become principals than older females since it seemed easier for them to be appointed than the older ones.

The study by Moorosi (2007) found that many women struggled to be appointed as principals when they applied. That gave rise to the notion that some form of a "glass ceiling" exists for females (Moorosi, 2007, p.590).

In the study, the fact that some of the older principals (51 to 60 years) reported having had to apply multiple times before they were appointed corroborated the findings by Moorosi. The same, however, could not be said for younger principals. That raised the question of whether the issue was about age and not gender. The findings of that study did not adequately resolve the question of whether females struggled when they applied to become principals.

The second set of variables was the comparison between the school's location and the staff's composition, as depicted in **figure 4.1**, in chapter 4. The responses showed that in all three categories of location, the village, township and suburb, the number of females on the staff was more than that of males. The representation of males in the townships was slightly higher than in other locations. Similarly, the village had more instances where there was equal representation between males and females, but overall, females were in the majority. Out of the 20 respondents to the questionnaire, 15 reported that females were more than males, representing 75% of the responses. The outcome of that comparison confirmed the findings of the Organization for Economic Co-operation and Development's (OECD) "Teaching and Learning International Survey" (TALIS) 2018, which highlighted that women constituted 60% of the teaching cohort. (OECD, 2018). The main observation in that comparison was that women principals worked in an environment where women already dominated.

Figure 4.2 examined the correlation between the school's location and the governing body's composition. Comparing those two variables resulted in similar outcomes to figure 4.1. The only exception, in that case, was the suburbs, where males in the SGB outnumber females. In both the village and the townships, the females were in the majority. It was also important to note that whilst females were in the majority, the male representation in the SGB remained strong at 38%. The respondents in the study by Moorosi (2007) reported that it was difficult to appoint females as principals because the interview panels were male-dominated. This was consistent with the findings by

the OECD (2018), which found that only 22% of females were principals despite females constituting 60% of the teaching core. It was therefore possible that the interviewing panels were dominated by males despite females being in the majority in SGBs.

Figure 4.3 looked at the correlation between the location of the school and the gender of the supervisor. The data showed that 55% of the respondents reported that their supervisors were male. The exception was in the village, where there were more female supervisors than males. That finding was consistent with the reports cited above that as one went higher in the hierarchy and into managerial positions, the males dominated.

Figure 4.4 compared the relationship between the location of the school and the staff reactions to principals' instructions. The data as represented on the graph showed that in most cases, both males and females reacted the same way to the instructions of the principal. The previous data demonstrated that the environment was already dominated by females, particularly at the school level and the SGB. The key question was whether that dominance by females influenced how the female principal's instructions were being followed. Would the situation have been different if males dominated the environment?

Muzvidziwa (2013) and Moorosi (2007) seemed to create an impression that women did not do well in male-dominated environments since males tended to undermine them. However, the report by Cheng and Wu (2016) suggested that, on average, institutions led by women were more productive than those led by males, irrespective of the gender composition.

Figure 4.5 examined the relationship between the location of the school and the level of support the principal receives. The results from the data depicted by the graph showed that support was always available in both village and township. It was only in the suburb where respondents reported that support was sometimes available, meaning that it was not in all instances where support was received when needed. Overall, 60% of the respondents reported that support was always available.

Figure 4.6 was a follow-up to figure 4.5 as it examined where the support was mostly received. 60 % of the respondents reported that they received support from their supervisors. This was a very interesting finding, considering that the data in figure 4.3 demonstrated that 55% of the supervisors were male. The impression created by the

findings from Moorosi (2007) was that in instances where males were in charge, females were likely to be prejudiced by gender stereotypes. The findings in that study demonstrated that male-dominated leadership was still able to provide support to females.

In summary, the study's data showed that, overall, female principals worked in environments dominated by females at lower levels and males at supervisory levels. It was also interesting to note that the female principals seemed to be depending on the male-dominated supervisory level for support when they experienced challenges even when they had other options. Worth noting was that it was a legal requirement in terms of the Employment Equity Act that there would be gender balance at all levels in the workplace. However, that study did not show overwhelming evidence that female principals were prejudiced and discriminated against by their male counterparts, particularly at the supervisory level. In the current study, there was no evidence to support the notion of an imaginary glass ceiling, as alleged in the report by Moorosi (2007).

5.3. Assess the experiences of female principals who are members of Professional Learning Communities (PLC)

5.3.1. Reasons for joining a PLC network.

The analysis of that topic relied on data collected both quantitatively and qualitatively. The first key question to be examined was why the principal opted to join a PLC. **Figure 4.7** depicted data on the comparison between the duration as a principal and the reasons for joining a PLC. 55% of the respondents indicated that other principals influenced them. A further 38% indicated that they wanted to explore. Only 1% indicated that it was due to a lack of support. The fact that the major influence came from other principals meant that a potential benefit influenced members of the PLC to recruit other members. Even those who wanted to explore might have been influenced by the benefits shared by those who were already members.

In the qualitative responses, the sampled respondents were asked to outline what influenced their decision to join a PLC network. The following sub-themes emerged from the main theme. These were the following:

- a) Growth and Competence
- b) Sharing of good practices

- c) Networking
- d) Self-motivation

The sub-themes are discussed below:

a) Growth and Competence

As highlighted in chapter 4, four of the five respondents cited personal growth as a reason they decided to join a PLC network. Respondents expressed strong sentiments on how they experienced growth in different forms, including professionally. One of the respondents also brought the element of competence into the mix, highlighting how their capacity had improved. The respondents' sentiments were consistent with what Fullan (2004, p.3) described as "lateral capacity building". That was the learning that happened amongst and between colleagues, and PLCs were one of the effective platforms for lateral capacity building. That finding supported the quantitative study's findings in that people who feel growth, empowerment and competence were likely to share with others and inspired them.

b) Sharing of good practices and networking

Three out of the five respondents highlighted sharing best practices as a reason they opted to join a PLC. The DBE report on Schools that work highlighted a variety of practices that were adopted by those schools, which made them effective. One of the common themes from the report was the issue of professional development and collaboration by teachers and school leaders in those schools. The report highlighted how teachers in these schools collaborate, network and share best practices. It further highlighted how sharing could eliminate unnecessary competition amongst colleagues, and encouraged peer mentoring and coaching, accompanied by observing each other in practice (DBE,2017).

c) Self-motivation

Self-motivation was one of the sub-themes that emerged, although not very strongly, since only one respondent specifically mentioned it. It was, however, implied in the other responses. The DBE report on schools that work specifically highlighted that teachers in those schools were self-driven and highly motivated. They were not afraid to make mistakes since they worked in a supportive environment (DBE, 2017; Owen, 2015) indicated that the power and effectiveness of professional learning communities

were being recognised in research as an instrument that provided onsite support and helped improve participants' confidence and effectiveness. The findings from that study supported Owen's statement and corroborated the DBE report's findings on schools that work.

In summary, it was evident from the report that the respondents were influenced by big expectations when they opted to join a PLC. These expectations were raised by other principals who were already enjoying the benefits of collaboration. There was corroboration between the quantitative and the qualitative approaches' findings regarding the question.

5.4. Identify the benefits and challenges of participating in a Professional Learning Communities (PLC)

5.4.1. Benefits

Table 4.2 provided data comparing the duration as members of a PLC and what they liked most. 90% of the respondents indicated that their participation helped them to learn from other principals. That confirmed the idea of lateral capacity building, as discussed earlier.

Improved leadership and management

Qualitatively, respondents were asked what they found most beneficial for participating in a PLC. Four of the five respondents indicated that their overall leadership and management improved. Some respondents cited improvement in their leadership style, others cited improvement in conflict management, and others cited improvement in how they managed the curriculum. The benefits the respondents cited were consistent with the findings of the DBE report on schools that work. The report highlighted how those schools had good and effective leadership due to their ability to collaborate and network. The report also talked about the improvement in instructional leadership, specifically, curriculum management (DBE,2017).

Improved performance and learner outcomes

Three out of the five respondents also cited improvement in their own performance and the performance of their schools. One of the respondents reported how the overall school culture had improved, improving learner behaviour and performance. This indicated that participation in the PLC had transformed them into effective and

competent leaders. Their transformation had also rubbed off on their learners and teachers. Fullan (2004) argued that a good leader could instil a culture of good performance in a school and must be able to transform it into a learning organisation. The OECD also supported this view in their categorisation of a school as a learning organisation (OECD:2016). The feedback received from the respondents was consistent with the views of Fullan and the OECD.

Gaining Knowledge and expertise

That sub-theme was primarily supported by what had already been reported above. The improvements cited above, on performance as well as on leadership and management, were a result of new knowledge gained through participation in a PLC network. As described by Fullan (2004), the concept of lateral capacity building was also applicable in this case.

Participating in the PLC enabled those principals to experience personal growth and an overall change in how they behaved and managed their schools. Alvos (2011) highlighted that co-learning and networking were among the most effective ways of bringing about meaningful change in behaviour and deepened learning and understanding. Networking was a powerful instrument for PLCs since knowledge could be sourced from other similar bodies or institutions to complement what already existed.

The effectiveness of co-learning stemmed from the fact that the PLC environment was non-threatening since participants operated on an equal basis. A well-functioning PLC build a culture of mutual trust and respect, enabling participants to share honestly without fear of prejudice or victimisation (Alvos,2011). Some of the quotes in chapter 4 reflected how participants acknowledged that they could share their weaknesses in a space they knew was protected. The feedback received from respondents gave credence to how Alvos described the advantages of a PLC.

5.4.2. Challenges

Additional workload

Respondents selected the issue of additional workload in the quantitative study. The question raised was what they disliked most, which was a follow-up question to the previous one on what they liked most. The responses were depicted in **table 4.3**. Only seven (7) responses were received, making it the question with the fewest responses. Five (5) out of the seven (7) respondents indicated that participation in the PLC was creating an additional workload for them. The fact that very few responses were received from respondents on this question might indicate that many might have felt that they had nothing to say about it. We could not rule out the possibility that some respondents might not have wanted to disclose what they disliked for unknown reasons. Several sub-themes also emerged from the qualitative study. Those were the following:

Lack of support

Three out of the five respondents to the questions cited a lack of support for the network as one of the challenges they experienced. Respondents cited a lack of financial support since they sometimes had to use their own money to book accommodation and other resources. The other two respondents cited a lack of support in a general sense and not necessarily financial support. It was clear from those respondents that this lack of support was a source of frustration for them.

As raised by the respondents, the issue of support was noteworthy because one had not seen any reference in the literature of financial support to a PLC. Various researchers had depicted PLCs as self-sustainable structures dependent on the support of their members and their networks. Portman and Prenger (2018) indicated in their definition of a PLC that it should operate as a "collective enterprise". From the definition of a PLC as a collective enterprise, it must depend on its members for sustainability. Zhang & Pang (2016) who emphasised that the operation of PLC must be a collective responsibility by its own members further support this view. However, the respondents in the current study expected some form of external support for the PLC to be sustainable.

The issue of support for the PLC needed to be subjected to further research to establish how the availability of support or lack thereof impacted its functioning and sustainability.

Lack of continuity

Two of the respondents cited a lack of continuity as one of the challenges. The issue of a lack of continuity should be viewed in the context of the disruptions caused by Covid 19. PLCs rely on members meeting in person, and many in-person meetings were disrupted by Covid-19. Furthermore, there seemed to be a correlation between the lack of continuity and support, as raised in the previous sub-theme. Suppose the activities of the PLC depended on the availability of resources from its members. In that case, the absence of resources will likely disrupt the PLC's activities, resulting in a lack of continuity.

The issue of poor communication were also raised, which was very interesting. That indicated that many researchers focussed on the PLCs' macro benefits but do not focus much on some structural challenges at micro level. That indicated that, like any other structure, there were challenges that were being experienced and, if not attended to, might lead to a failure of the structure.

Informal nature of the program

Two respondents raised the issue of the informal nature of the program. There seems to have been an expectation that the structure should be formally constituted and have elected leadership with proper recordkeeping. It is evident from the various definitions of PLCs that the structure's informal and voluntary nature drives its success. Leadership should emerge from within and must be based on knowledge and expertise (Portman and Prenger 2018). There seems to be an underlying assumption that people are drawn and kept to the structure by what they are likely to gain. Thus, even though respondents in the current study cited challenges such as time and lack of resources, they were still determined to continue participation in the PLC. This was due to the benefits derived from being members of the PLC.

In summary, the theme under challenges had demonstrated that participants did not seem to have a collective understanding of what to expect. As much as they benefitted from gaining knowledge and expertise and improving their practice, there seemed to have been other expectations regarding the structure's operations. The notion that they were expected to sustain the structure as members seemed to be something they did not expect.

5.5. Evaluate the extent to which participation in Professional Learning Communities (PLC) affects confidence and motivation

Four (4) of the five (5) respondents cited that they were very confident, assertive and motivated due to being members of a PLC. It was clear from their inputs that increased levels of knowledge and competence had increased their confidence. The positive feedback they received from staff members and colleagues, as well as the visible improvements in the performance of their schools, had motivated them even more, to do better in the future. It was evident that the PLC had provided them with a platform where they could express themselves, make mistakes and be corrected without being judged.

Those principals' expressions about their confidence were consistent with what Artino called "Self-efficacy" (Artino, 2012, p.76). According to Artino, the principle of self-efficacy was based on the belief in one's capability and competence and the likelihood of succeeding. The principle of self-efficacy described in the theoretical framework was underpinned by the two constructs of confidence and motivation. The knowledge the principals gained through participation in the PLC had given them the courage and assertiveness to implement what they had learned. The fact that what they learned was bringing about changes in the form of improved learner behaviour and improved school and learner performance reinforced their belief in themselves and in what they did. The positive results were then the drivers of confidence and motivation.

5.6. Conclusion

The primary purpose of that chapter was to present the analysis of the data collected through a mixed-method approach. The data collected was used to answer the main research question, through addressing the research objectives of the current study. The findings emanating from the analysed data were then linked to the reviewed literature. It became evident that the findings of the current study were supported by the literature reviewed in chapter 2. However, it was established that some issues emerged from the data that existing literature was not addressing. These areas might be subjected to further research as recommended in chapter 6 below.

CHAPTER 6: SUMMARY AND CONCLUSION

6.1. Introduction

Chapter 5 presented the analysis of data collected to address the main research question and objectives. Each research objective was examined according to the analysed data findings. In addition, the findings were linked to the literature reviewed to check whether the collected data supports what is in the literature. Reference was also made to some of the statements by the respondents in concluding the findings.

Chapter 6 presented the summary and the conclusions of the current research and made recommendations on how the study findings could strengthen the policy options for the Education sector in general and the Department of Basic Education in particular. The chapter linked the research questions to the findings and offered a summary and conclusions. The Chapter concluded by providing recommendations for both management and research.

6.2. The research question

The key research question to be responded to was how participation of female principal in a PLC affect their approach to dealing with complex school environment. In building up a response to the question, several research objectives were explored, which were used to respond comprehensively to the question. The following were the research objectives:

- a. To investigate the experiences and challenges of female principals in their working environment*

Data from the analysis in the previous chapter had demonstrated that there might be some difficulty experienced by females to be considered for appointment as principals. Although some principals reported that they were appointed in their first attempt, a

considerable number of female principals reported that they were only successful after their fourth (4th) attempt. Data from literature by Moorosi (2007) indicated that females struggled to be appointed as principals, but there was no overwhelming evidence in the current study to support the view by Moorosi (2007). Therefore, in the context of the current study, it is inclusive to either support or refute the claims by Moorosi (2007) due to the sample size. Thus, the sample size of the current study might be small for us to reach a definitive conclusion. Therefore, the researcher encouraged more studies exploring the dynamics of female principals in relation to appointment in principal positions.

The fact that the number of females who applied more than once were significant indicated that it was a matter that could not be ignored. Whether female principals found it challenging to be appointed as principals was a matter that needed to be explored further. It needed to be established whether females were not sufficiently represented at managerial levels because they did not apply or were ignored when they applied.

It also emerged from the data that female principals worked in an environment where females dominated. In all instances, females were in the majority among staff members and the members of the School Governing Bodies. That confirmed the finding by the OECD that females dominated the education sector. The fact that females dominated the environment was expected to be a source of comfort by the principals since such an environment was not expected to be hostile towards female leadership. Instead, it was expected to be more receptive. Data confirmed that the principals were not struggling with enforcing their authority since both males and females followed their instructions without any problems.

The third critical area was regarding the gender of their supervisors. As chapter five (5) reported, 55% of the respondents stated that their supervisors were male. This also confirmed the findings by the OECD that the representation of females in managerial positions was less than in lower levels. It also supported the notion that interview panels were male-dominated, which might be why females were excluded from promotions (Moorosi:2007). However, it was also interesting to note that the female principals relied mainly on their male supervisors for support when facing challenges. The male figure might still be associated with power and authority; hence, they were preferred as managers and relied upon to support the female principals.

The fact that female principals did not rely on their female-dominated staff or their female-dominated SGBs when they experience challenges was very interesting. Thus, it appeared that there was no sense of discomfort in seeking support from the male-dominated supervisory level, despite availability of other options.

The South African Human Rights Commission report cited a consistent lack of support for females in leadership positions, generally, resulting in a high turnover rate (SAHRC, 2019). There was no evidence in the study to support this view, in the education sector context. The majority of the principals indicated that support was always available when needed and that the support came from their supervisors, the majority of whom are male.

In summary, the key findings were that female principals might experience difficulties when they applied to become principals. Secondly, female principals worked in an environment dominated by females that was not hostile to them. Finally, female principals had predominantly male supervisors and relied mainly on those male supervisors for support when they experienced challenges.

b. To assess the experiences of female principals who are members of PLCs.

The findings from the study have shown that female principals benefitted a lot from being members of a Professional Learning Community. Most principals (55%) reported that they were influenced by other principals to join. It was only people who enjoyed or who benefitted that might deem it necessary to recruit others. The issue of recruitment and growth was a sign that being members of a PLC was beneficial to them.

Furthermore, those principals expected something positive when they joined. The record showed that some expected to grow and to be more competent, others expected to have the opportunity to network and to share good practices, whilst others expected to use the network to motivate themselves. There were big expectations, all of which were positive when those principals opted to belong to a PLC network.

c. To identify the benefits and challenges of their participation in PLCs

Overwhelming evidence from the data showed that the respondents benefited immensely from participating in the PLC. Participants were able to list various areas where they benefitted. These included areas such as improved leadership and

management, improved performance as well as improved learner outcomes. Respondents referred to how they gained more knowledge and expertise through participating in the PLC. That increased knowledge enabled them to manage their schools better, and the results showed improved performance of their schools and improved learner performance.

The improvement in the management and leadership of their respective institutions rubbed off on their learners. Many reported that the behaviour of their learners improved, resulting in an improvement in their overall performance. The respondents were able to confirm that they have been able to improve themselves through their participation in the PLCs.

Challenges

Respondents also cited several challenges that they experienced. One of the challenges cited was that of additional workload. That was triggered by the fact that respondents had to use personal time to attend the activities of the PLC since no time was set aside by the DBE for teachers to participate in those activities. It was expected by employers that employees must set aside time for professional development, and teachers were no exception. It might be appropriate for the DBE to explore the possibility of allocating time to enable teachers to participate in activities such as PLC, especially considering the benefits that are likely to be accrued. Such time needed to be set aside preferably within the school timetable. In that case, it would encourage more participation and potentially better outcomes since teachers would not have to bother about finding time for PLC activities.

Respondents also raised the issue of a lack of support for the PLCs. Chapter five emphasised how PLCs must be self-sustainable like any organisation. Based on the responses, it appeared the respondents were unfamiliar with the PLC model regarding how it was expected to operate. There seemed to be an expectation that the DBE must support the PLC activities in one way or another and not rely on the members. Furthermore, one had not come across literature where a PLC structure received external support from non-members. The issue of support for the PLC must be researched further, including the support's possible impact on the effectiveness of the PLC. It was possible to assume that the success of the PLC was based on the fact that members owned it and could control its activities other than if it was to be controlled from somewhere else. This was evident from Portman and Prenger (2018)

who suggested that PLC should be viewed as a collective enterprise for self-sustainability.

The related point was that some respondents complained about the informal nature of the program. The informal nature of the program allowed members to have the necessary freedom and flexibility. It might be better for the DBE to conduct more advocacy programs to understand better how PLCs were expected to function.

d. To evaluate the extent to which their participation in the PLCs is affecting their confidence and motivation

It became very clear from the respondents that their confidence and motivation improved tremendously since their involvement with the PLC. There was testimony about how they were free to express themselves in various forums and how they were able to initiate new things because of improved confidence. They also felt more authoritative so they could change their schools' operations for the better. That was consistent with the principle of self-efficacy as articulated by Artino (2012).

6.3. Summary and recommendations

The data collected and the analysis thereof in chapter 5 responded to the main research question. Data has demonstrated that female secondary school principals in the Bojanala District of the Northwest Province were able to address challenges they experienced in their complex environments. That they were able to achieve through the benefits they derived from their participation in the PLC. The benefits included, amongst others, improved confidence and motivation; improved knowledge and competence; knowledge sharing as well as improved performance of their schools.

The research outcomes were also aligned with the conceptual framework in terms of the behaviourist and cognitive models, which formed part of the social learning theory advocated by Bandura (1977). It was evident from the data that PLCs provided a platform for the acquisition of knowledge through observation as well as through knowledge exchange, in what Molla and Nolan described as human capital. (Molla & Nolan, 2017). The data has further confirmed Molla and Nolan's assertion that the improvement of professional capital contributed to improved confidence, including the ability to make informed decisions, called decisional capital. (Molla and Nolan, 2017).

6.3.1. Recommendations for literature

Under-representation of women in leadership positions

The under-representation of women in leadership positions in education in South Africa was well-researched. What remained unclear were the reasons for such under-representation. The assumptions were that women were not interested in applying or they were overlooked. As a researcher, I was not able to find research on the reasons why women were underrepresented.

Recommendation no.1: It was recommended that further research be undertaken on why women were not sufficiently represented in leadership positions within the education sector in South Africa.

Support for Professional Learning Communities

Data from the respondents indicated that many seemed to have expected some form of external support for their PLCs. Respondents complained about having to use their own resources to sustain the activities of the PLC. Research did not seem to focus much on the potential risks and challenges of being a member of a PLC. The focus seemed to be more on the advantages and the benefits.

Recommendation no.2: It was recommended that further research be undertaken to establish the challenges and risks of being a member of a PLC.

Recommendation no.3: It was recommended that further research be undertaken on the possible impact of external support on the functioning and effectiveness of a PLC

6.3.2. Recommendations for the Department of Basic Education

Capacity development on PLCs

Some respondents believed that the Department of Basic Education should be more involved in supporting the PLCs with resources and other logistics. Literature on PLCs showed that those structures were self-driven and run like a corporation. It was, however, evident from the respondents that they were being burdened by carrying the responsibility to sustain the PLCs.

Recommendation no.4: The Department of Basic Education should conduct more training programs to educate teachers and principals about the functioning of PLCs. More supporting documents and guidelines should be developed in this regard.

Time for participation in PLCs

The respondents have indicated that part of their challenge with participating in PLCs was that it created an additional workload, and they did not have time. Since it has emerged from the study that PLCs could improve performance and learning outcomes, it was necessary to invest time in PLCs

Recommendation no.5: It was recommended that the Department of Basic Education should create time, at least once per week, for teachers to participate in PLCs and other forms of self-development.

Recommendation 6; It was recommended that the Department of Basic Education strengthened its policy positions by encouraging the use of a PLC model to address under representation of females in other management levels within the basic education sector.

6.3.3. Contribution to Literature

The findings of the current study made direct contribution to the literature on social learning theory through studying the benefits of the PLC as one of the learning models.

The findings from this study also contributed to the body of literature on how the PLC model could be used to address the under-representation of females in leadership positions within the education sector in South Africa.

6.4. Conclusion

Chapter 6 presented a summary and conclusions of the current research as well as concluding the findings. The chapter reflected on the literature and examined correlations between the findings and the literature. Finally, the findings and the summary were used to make recommendations for literature and the Department of Basic Education and indicated how they would contribute to future literature.

The current study has confirmed that social learning theory as a learning model has the potential to make a meaningful contribution in addressing some of the challenges in the basic education sector.

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