UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

Exploring Rural Primary School Teachers' Experiences of Learning and Participation in Professional Learning Communities.

BY

Nomkhosi Mzobe

210502178

Submitted in partial fulfilment of the requirements for the degree of

MASTER OF EDUCATION

In the School of Education

University of KwaZulu-Natal

Pietermaritzburg

October 2024

Supervised by Dr Bongiwe Zulu

DEDICATION

I dedicate this piece of work to the loving memory of my late grandmother: **Zondani Lena Cele**

DECLARATION

I, Nomkhosi Mzobe, declare that:

i. The research reported in this thesis, except where otherwise indicated, is my original research.

ii. This thesis has not been submitted for any degree or examination at any university.

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Student Name: Nomkhosi Mzobe

Date: October 2024

Signature

Supervisor: Dr Bongiwe Zulu

Date: October 2024

Signature

Abstract

Professional development of teachers is a concern internationally and locally, however, all tried professional development methods like workshops have not been much productive since they usually occur on a once-off rather than ongoing basis. The purpose of this study was to explore the different kinds of learning activities that teachers engage in, how these teachers learn from each other in their PLCs and to examine the types of skills and knowledge that teachers in a rural school context acquire in their PLCs. The study was framed by Kwakman's (2003) professional learning activities and Grossman's (1990) models of teacher knowledge. Purposive sampling was used to select six participants: three participants from the Foundation Phase PLC and three participants from the Intermediate and Senior Phase PLC. Data was generated through semi-structured interviews. The findings reveal that in both PLCs, teachers engaged in reading curriculum support documents for lesson planning and regularly reflected on learners' barriers and performance. Foundation Phase teachers collaboratively set assessment tasks, tackled addition in mathematics and developed their teaching aids. Intermediate and Senior Phase teachers demonstrated natural science experiments, created teaching aids and resources, and shared methods for using social media platforms to access resources. The findings also reveal that in both PLCs teachers collaborated; through sharing useful teaching resources and teaching strategies, through sharing content knowledge, through team teaching and peer teaching. In both PLCs teachers collaborated to implement the Department of Basic Education (DBE) programs, such as Jikimfundo for the Foundation Phase and PSRIP for the Intermediate and Senior Phases. The findings revealed that Foundation Phase teachers learnt pedagogical content knowledge for teaching phonics, while Intermediate and Senior Phase teachers gained pedagogical content knowledge for teaching the fundamentals of poetry in English as a First Additional Language. This study recommends that the PLCs should allocate more time for their PLCs in schools.

Keywords: *Collaboration, professional development, PLCs, teacher knowledge, teacher learning*

ACKNOWLEDGEMENTS

I would like to convey my warm appreciation to the following:

- I thank God almighty for being my pillar of strength throughout this journey, I do not think I would have been able to make it on my own.
- My sincerest gratitude goes to my supervisor Dr Bongiwe Zulu for your undying support, guidance, encouragement and patience. This endeavor would not have been possible without your massive contribution, commitment and expertise. Thank you for inspiring my greatness.
- To my parents Jimmy Mzobe and Thobekile Mzobe, your support has been amazing. Words can never be enough to express my gratitude for your prayers and giving me hope in times of despair and for always waking me up to work on my thesis.
- My deepest appreciation goes to my siblings for sharing my responsibilities and taking care of my chores and giving me space to focus on my thesis.
- To my role models: Dr Bongi Ntombela and Mr Lucky Lushaba, I will forever be indebted to you for your support and kindness. Thank you for being my shoulder to cry on, your words of encouragement have brought me this far. Thank you so much for your invaluable support and expertise, I will forever be grateful.
- Lastly, I extend my appreciation to my participants. Thank you so much for being part of my journey.

ACRONYMS

ACE	Advanced Certificate in Education
ATP	Annual Teaching Plan
CoP	Communities of Practice
DBE	Department of Basic Education
D.H	Departmental Head
DHET	Department of Higher Education and Training
EFAL	English First Additional Language
FSDoE	Free State Department of Education
GPK	General Pedagogical Knowledge
H.L.	Home Language
HSSREC	Human and Social Sciences Research Ethics Committee
ISPFTED	Integrated Strategic Planning Framework for Teacher Education and Development
KZN	KwaZulu-Natal
NECT	National Education Collaboration Trust
PCK	Pedagogical Content Knowledge
PTD	Primary Teachers Diploma
PLCs	Professional Learning Communities
PSRIP	Primary School Reading Improvement Programme
SIAS	Screening, Identification, Assessment and Support
UKZN	University of KwaZulu-Natal

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CHAPTER 1: INTRODUCTION AND OUTLINE OF THE STUDY

1.1. Introduction

This chapter introduces the study which explored teachers' experiences of learning and participation in two professional learning communities (PLCs) within a rural primary school context. The PLCs were from the same school, one from the Foundation Phase and one from the Intermediate and Senior Phase. In this chapter, I discuss the background to the study, its focus and purpose, and the problem statement. Furthermore, the research questions and objectives will be described. Then, I will briefly discuss this study's research design and methodology. Lastly, I end the chapter with an overview of the chapters of the dissertation.

1.2. Background to the Study

With the introduction of the Integrated Strategic Planning Framework for Teacher Education and Development (ISPFTED) in 2011, South African continuous professional development (CPD) models began to shift away from the traditional approaches, which are now seen as "fragmented and offering short courses or workshops that do not emphasise content knowledge" (Taylor, 2002, p. 5, as cited in Zulu & Mukeredzi, 2021). Normally, workshops were the form of professional development available for teachers, however, they were not regarded as providing sufficient professional development as they usually occurred on a once-off basis. According to Kennedy (2014), workshops are part of the cascade and training models of continuing professional development. The training and cascading model requires teachers to attend a workshop or training and then go back to cascade the information to the colleagues who did not attend the workshop. These models were not very useful because some information was left out when one teacher cascaded information to other colleagues who did not attend the workshop. The models of professional development are discussed in Chapter Two. The failure of workshops led to the formation of PLCs to support and enhance the professional development of teachers since clusters did not have a major impact.

There has been a growing emphasis on PLCs as a model for CPD, promoting collaborative learning among educators. In the ISPFTED, PLCs are defined as:

> "Communities that supply the setting and required assistance for groups of classroom teachers, school management teams and subject advisors to take part jointly in defining

their developmental paths and creating their activities that will promote their development and growth." (DBE & DHET, 2011, p.14)

South African studies on PLCs such as Jita and Mokhele (2014) and Zulu (2017) established that in the South African context, existing clusters and groups can operate as PLCs. However, much depends on external factors such as the leadership, time, resources, and size, as well as the autonomous decision-making of what should be learnt, and how it should be learnt. According to Jita and Mokhele (2014) a cluster is a group of subject teachers from different schools within the same geographical area. Clusters were common before the introduction and formation of PLCs. Subject advisors formed groups of subject teachers from neighbouring schools where teachers met to discuss their subject issues. The Department of Basic Education (2011) stipulated various roles to be played by stakeholders in ensuring that PLCs are functional. The school management teams and provincial and district officials all had a role to play in ensuring that PLCs do not fail. The teachers' clusters worked as PLCs that operate outside the school, while the other form of PLCs operates within the school.

1.3. Purpose and Focus of the Study

The purpose of the study was to explore the experiences of learning and participation for teachers in PLCs within a rural primary school context. It aimed to understand the activities teachers engage in within their PLCs. It also sought to uncover how teachers learn from each other in these communities and to identify the skills and knowledge they acquire from this learning environment. The study focused on teachers' experiences of learning and participation in a deep rural primary school in UGU District, KwaZulu-Natal (KZN). The school was a quintile 1, needy school that relies on state funding and lacks resources. The study focused on two PLCs within the same school: The Foundation Phase PLC and the Intermediate and Senior Phase PLC.

1.4. Problem Statement

This study seeks to address the problem of lack of research on PLCs at primary schools' level and PLCs in the rural context. After realising the challenges faced by teacher professional development in South Africa, the Department of Basic Education (DBE) came up with the concept of (PLCs) because it believed that PLCs could be more effective and appropriate for teacher professional development. The formation of PLCs was recommended in the Integrated Strategic Planning Framework for Teacher Education and Development in South Africa, 2011-

2025 (ISPFTED). It was put forward as a tool that can be used to ensure that teacher professionalism is strengthened. The main concerns of the ISPFTED were to reinforce progress and address the challenges of ensuring quality, professional teachers.

1.5. Rationale of the Study

PLCs were seen as the best solution to teacher professional development because of a shortage of teacher education and development opportunities. They were identified as a factor that influences improving teaching practices and student learning (Darling-Hammond & Richardson, 2009). As argued by Brodie and Borko (2016), PLCs improve teacher learning through collaborating with other teachers rather than learning in isolation. The critical function of PLCs is to develop the effectiveness of teachers as professionals for the vital benefit of students (Morrissey, 2000).

The research has shown that fewer studies have focused on researching early childhood education or primary schools (Thornton & Cherington, 2019). More international studies have focused on PLCs but at the secondary level. The implementation of PLCs in Malaysian secondary schools was researched by Tai and Omar (2021). The study revealed that the schools ranked quite well in implementing PLCs. In the South African context, Zulu and Mukeredzi's (2021) study also focused on two teacher-learning communities in secondary schools. This study established that PLCs from settings in developing countries may be operational when all relevant stakeholders take part in supporting them.

The Integrated Strategic Planning Framework for Teacher Education and Development of the Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET), put forward enhanced and extended teacher education and development opportunities, with the aim of improving the quality of teaching and learning in schools. This policy positions teachers at the center and aims at assisting them with the creation of PLCs and the development of opportunities near the places where they work (DBE & DHET, 2011). This study is significant because it focuses on PLCs that are in a rural school context where there is little information known about these.

My motivation to conduct this study largely comes from the realisation that the time frame (2011-2025) set for the formation and operation of PLCs in South Africa as per the ISPFTED policy, is towards the end. While there is increased attention paid to PLCs operating outside of

the school as teacher clusters, there has been less attention given to PLCs operating within schools, particularly in primary schools. Hence, I was inspired to do this study to contribute insight into how teachers experience learning and participation in PLCs within a rural primary school context. As highlighted in DBE and DHET (2011) that teachers in rural contexts experience significant difficulties in accessing and receiving support, resources and continuing professional development opportunities close to where they live and work. The findings of this study might be useful for teachers in to understand the value of learning and sharing information through PLCs in a rural context near their places of work.

1.6. Key Research Questions

The following research questions drove this study:

1. What kind of learning activities do teachers engage with in their PLCs within a rural primary school context?
2. In what ways do teachers learn from each other in their PLCs within a rural primary school context?
3. What skills and knowledge do teachers acquire from being part of a Professional Learning Community within a rural primary school context?

1.7. Objectives

1. To identify the different kinds of learning activities that teachers engage with in their professional learning activities.
2. To study how rural primary school teachers learn from each other in their PLCs.
3. To examine the types of skills and knowledge that rural primary school teachers acquire in their PLCs.

1.8. Research Design and Methodology

For this study, I used an exploratory case study as a research design. An exploratory case study is an approach to research that aids the exploration of a case within its background using various sources (Baxter & Jack, 2008). The exploratory case study was also used because this study aimed at exploring the teachers learning and participation in PLCs. A case study was the most suitable methodological approach to use for this research study because it allows the researcher to pay more attention to the case in question (Cohen et al., 2018). This study used an exploratory case study that explores conditions where the intervention being examined has no clear, single set of consequences (Yin, 2003).

This study was located within the interpretive paradigm which is often used by qualitative researchers when they want to understand reality from the participants' point of view (Cohen et al., 2018). The interpretive paradigm was used for this study because it aimed to understand the experiences of learning and participation for rural primary school teachers.

The purposive sampling method was used for this research study since it was suitable, as a case study research design was used. The participants in this study were teachers from two PLCs, namely one Foundation Phase PLC and the other an Intermediate and Senior Phase PLC, selected for observations and six participants for interviews. Data was generated using two data generation methods, namely semi-structured interviews and unstructured observations. Data was analysed deductively using the conceptual framework of Kwakman (2003) on professional learning activities and Grossman's (1990) model of teacher knowledge. The permission to conduct this study was obtained from the Department of Basic Education (DBE) and the Human and Social Sciences Research Ethics Committee (HSSREC) from the University of KwaZulu-Natal (UKZN).

1.9. Overview of Chapters in the Dissertation

Chapter One outlines the general overview of the study, taking into consideration aspects such as its focus and purpose. It discusses the rationale and background of the study around PLCs in a rural primary school context. The research questions and objectives that are employed by the study are clearly outlined.

Chapter Two reviews the literature related to PLCs. Furthermore, Kwakman's (2003) and Grossman's (1990) conceptual frameworks will be discussed in depth.

Chapter Three discusses the research design and methodology of the study. It includes the research approach, design, and paradigm, as well as the sampling and data generation methods used. It also describes aspects such as ethical issues, trustworthiness, and credibility that were considered to ensure that the participants were protected and that the study was valid.

Chapter Four presents the analysis of the data generated through semi-structured interviews and observations of PLC meetings guided by the conceptual frameworks.

Chapter Five discusses the findings in relation to the study's three research questions. The chapter ends with recommendations, possible future research, and the study's conclusion.

1.10. Conclusion

The main focus of this chapter was to provide an overview of the focus and purpose of the study. It presented a rationale for the study and a description of its background. Key research questions and objectives were mentioned. Moreover, the methodological approach was explained and relevant aspects were discussed to give an idea of the whole study. Finally, a brief overview of the following chapters was given. The following chapter will present a review of relevant literature in the field of the study and a discussion of the conceptual frameworks related it.

CHAPTER TWO: LITERATURE REVIEW

2.1. Introduction

In chapter one, I presented an overview of this study on the experiences of learning and participation of rural primary school teachers in a Professional Learning Community (PLC). This chapter will first present a literature review of the study and then discuss the conceptual frameworks underpinning it. This literature review takes into consideration the thoughts of various authors who have written about PLCs as a phenomenon. Ramdhani et al. (2014) argue that a literature review discusses information that has been published about a particular subject area. Therefore, the literature that I have reviewed for my study is based mainly on four aspects, namely teacher professional development, teacher learning, teacher knowledge, and PLCs. The conceptual frameworks underpinning this study are Kwakman's (2003) categories of professional learning activities and Grossman's (1990) model of teacher knowledge.

2.2. Teacher Professional Development

The concept of teacher professional development is defined by several scholars (Avalos, 2010; Day, 1999; Desimone, 2011; Evans, 2014; Kelchtermans, 2004; Kelly, 2006 & Noonan, 2018). Teacher professional development is the idea of teachers developing and empowering their teaching practices. Day (1999) defines teacher professional development as a process whereby, independently or in a team, teachers evaluate, restart, and lengthen their commitment as agents of change to the purposes of teaching. It is also a process where they obtain and develop new knowledge and skills. Evans (2014) argues that professional development refers to the process by which the professionalism of teachers is improved for a lifetime. The improved professionalism means that teachers permanently grow in their performance, work-related attitudes, professional knowledge, and production ability.

Teacher professional development is viewed as a learning process resulting from worthwhile and meaningful interaction with the context, eventually positively impacting the teacher's practice (Kelchtermans, 2004). From the aforementioned view, one could say teacher professional development is not merely about attending workshops, but also about personal growth as a process that takes place to enrich the teaching practice. Kelly (2006) defines professional development as the planned opportunities for teachers' development. This is supported by Noonan (2018), whereby teacher professional development involves developing teachers'

instructional practice; that is, their classroom teaching must improve along with their attitudes, motivation to their profession, and commitment to deepen their skills. He also states that teacher professional development must improve teacher knowledge and instruction to ensure increased student achievement. It is important to note that professional development includes activities that teachers partake in, which equip them with new skills and knowledge. From the point of view of Day and Sachs (2004), professional development refers to all the activities done by teachers in their careers that will help them advance and develop further. They also highlighted that professional development includes a variety of formal and informal activities that accomplish the intellectual, temporary, lifespan, context, and change determinants of teachers over the span of their careers.

Teacher professional development involves advancing teachers' skills and acquiring new ones. Avalos (2010) contends that professional development can be utilised with a variety of training, official education, and advanced professional learning, which are aimed at equipping educational managers and teachers to increase their professional knowledge, skills, competence, and effectiveness. Evans (2004) in the American context attests that the purpose of professional development is more about the teacher's own sake rather than about improving learners' results; it is about the individual teachers' improved ability and capacity that enable them to perform better than before the developmental practice.

2.2.1. Models of Professional Development

There are several models of professional development. These models are the training model, the award-bearing model, the deficit model, the cascade model, the standards-based model, and the coaching/mentoring model (Kennedy, 2005). According to Kennedy (2005), the training model is a model whereby a skills-based, technocratic view of teaching is supported. Teacher learning occurs in training or workshops usually arranged by subject advisors, departmental heads, or any other experts in the field concerned. The training model is similar to the cascade model, whereby one teacher is sent to attend a training or workshop and is then expected to return and give feedback on the training to the other colleagues who did not attend the workshop. This model is usually used in contexts with limited resources and insufficient money to train large numbers of teachers simultaneously in one venue. The aim of these models is usually to equip teachers with new content knowledge in a specific context and develop them professionally. For every successful person, there is someone that they look up to and learn from.

Furthermore, Kennedy (2005), also identifies mentoring, induction programs, workshops, professional meetings, and seminars as professional activities that teachers engage in to achieve professional development. Kennedy (2014) describes the coaching and mentoring models, stating that the coaching model emphasises the importance of a one-to-one relationship between a novice and an experienced teacher. This relationship is aimed at supporting continuing professional development. According to Kennedy (2014), coaching is more skills-based, while mentoring involves an element of counseling and friendship. Through the mentoring model, the novice teacher usually learns many things about work and the workplace from the expert teacher; if there are things that he or she needs to know, the expert teacher is always available to assist and support as a mentor.

2.2.2. Factors for Effective Professional Development

Effective professional development can be defined as professional learning that results in changed teacher practices and improved student learning outcomes (Darling-Hammond et al., 2017). Seven characteristics of effective professional development have been described in Table 1 below.

Table 1: Factors for effective professional development (Darling-Hammond et al, 2017)

Effective Professional Development Characteristic	Description of the characteristic
1.Content Focus	Professional development focuses on the content that teachers teach.
2.Active Learning	Teacher actively engage in the same learning activities that they design for their students.
3.Collaboration	Effective professional development supports collaboration in job-embedded contexts.
4.Uses of models and modeling	Models and modeling for effective practice in promoting teacher learning and supporting student achievement is encouraged.

5.Coaching and Expert support	Coaches and experts' model strong instructional practices or supporting group discussions and collaborative analysis of student work.
6.Feedback and reflection	Professional development offers teachers opportunities for feedback and reflection on their practices
7.Sustained duration	For professional learning to have an impact, it must be sustained.

The above Table 1 represents factors that are essential for effective professional development, however there may be professional development initiatives that do not result in teacher learning. According to Darling-Hammond et.al (2017), sometimes good professional development can go bad due to school-level failure which results from different issues in schools such as less time in the curriculum to utilise skills acquired from professional development programmes and lack of resources in some schools. Another factor that may hinder good professional development is system-level failure which may include poor management of data and failure to identify proper professional development needs of teachers.

Some professional development activities like workshops that are once-off do not always promote teacher learning as information shared by experts in these workshops is not perfectly passed on to other teachers through the cascade model. Furthermore, developing is not sufficient, hence Easton (2008) replaces professional development with teacher learning. Teacher learning is explained in the next section.

2.3. Teacher Learning

Teachers learn everything that they know. According to Kelly (2006), teacher learning is a process whereby teachers move in the direction of knowing what they did not know before. This means that they slowly become experts in their field. Furthermore, Sequeira (2012) defines learning as a permanent transformation that results from new techniques that involve the development of certain skills and attitudes, as well as understanding specific regulations within a learning environment. Where learning has taken place, a change has definitely occurred. Teachers' professional development can improve their practice as well as the results of their learners.

Teacher learning cannot occur in a single setting. According to Borko (2004), learning can occur in multiple contexts; for example, learning can occur in the classroom, school communities, development courses or workshops, or even informally, like in staffroom discussions with other colleagues. Furthermore, all planned informal and formal activities are part of teacher learning. Professional teacher learning is a complex process that entails both cognitive and emotional participation by teachers, both independently and cooperatively (Avalos, 2010). Opfer and Pedder (2011) outline that the complexity approach to teacher learning suggests that many factors should be taken into consideration when referring to teacher learning. They argue that any professional teacher development or learning should consider the context of the teachers, where they teach, what they teach, and their identities and beliefs. Furthermore, from their perspective, teacher learning is a system that is nested within other systems that influence each other: the teacher as an individual, the group of teachers working collaboratively, the school, the district, the province, and the National Department of Education.

There are other two approaches to teacher learning, namely, a cognitive approach and a socio-cultural approach (Kelly, 2006). The same author further states that a cognitive approach is one that states that teachers obtain skills, knowledge, and understanding in a single context, and then relate this learning to a classroom setting. Learning in this approach is considered an individual effort and does not consider the broader social or school context. Understanding learning from a cognitive approach is whereby learning is regarded as acquiring concepts that a teacher has to take ownership of (Sfard, 1998). As one continues learning, the greater the number of concepts that he or she will have acquired. For example, an experienced teacher would have acquired more concepts over the years than a novice teacher. What is also important to note in this type of learning is that one should be able to see how these concepts that they have acquired are linked to one another, and how they are similar or different. Once knowledge is acquired, it can be applied, transferred, or shared with others.

The second approach to learning highlighted by Kelly (2006) is the socio-cultural approach, which suggests that teachers must acquire skills, knowledge, and understanding in the workplace. The learning must be situated in the workplace. Learning is understood as a collaborative endeavor, and its context is specific and engages with teachers' identities, such as their beliefs and the contexts of their schools. Kelly (2006) states that teachers can use the knowledge that they acquire from workshops and cluster meetings, and apply it in their

classrooms, even though this seldom happens because once some teachers leave the workshop venue, they do not apply what they were taught in it. Cognitivism is an approach that advocates that teachers' expertise lives in an individual's mind and that it cannot be developed through knowledge in practice (Kelly, 2006). According to Lave and Wenger (1991) (as cited in Sfard, 1998), cognitivism does not recognise a more intimate and intricate relationship, where knowledge is disseminated across teachers, students, and resources like books and computers. According to Clark (2018) cognitivism is the study of the mind and how it acquires, processes and keeps information. Learning is not seen as the movement from being a novice teacher to being an expert teacher. A critique of this approach may be that learning cannot always be transferred easily.

According to Schön (1987) (as cited in Kelly, 2006, p. 507), expert teachers have a dynamic and fruitful relationship with their knowledge-in-practice and knowledge-of-practice. Cochran-Smith and Lytle (1999) define knowledge-in-practice as the kind of knowledge that one acquires from teaching practices, like in PLCs, where learning is shared among teachers. Knowledge-of-practice refers to a teacher's knowledge about his or her practice; for example, a mathematics teacher would know the content, concepts, and strategies to teach mathematics. The process of knowledge-in-practice is not situated in individual teachers only, but is distributed across teachers, students, and resources. Learning is understood as a collaborative endeavor; whose context is specific and engages with teachers' identities such as their beliefs and the contexts of their schools.

The socio-cultural approach focuses on knowledge-in-practice, which teachers develop through practice (Kelly, 2006). Being an expert teacher means that one can adapt to different contexts, for example, being able to teach in different subjects or grades. Kelly (2006) further elaborates that teacher learning in a socio-cultural approach, enables a teacher to move from being a novice or inexperienced teacher to gradually being an expert or experienced teacher through practice and experience. In this approach, it is imperative to note that teacher identities are important and that learning is about knowing together within a group through doing experiments, whereby an expert or a more knowledgeable other may come and introduce a new teaching strategy to teachers, and they will have to use it in their classrooms to determine whether it is valid and it assists in producing better results.

2.4. Professional Learning Communities (PLCs)

PLCs are a transformative model of professional development. PLCs are defined as an environment that fosters mutual cooperation, emotional support, and personal growth as they work together to achieve what they cannot accomplish alone (Antinluoma et al., 2018). DuFour (2004) states that PLCs refer to any grouping of people interested in education. He further goes on to elaborate that teachers who build PLCs work collaboratively to attain a shared determination of learning for all. PLCs are also described as groups of professionals that share and critically cross-examine their practice in a continuous, united, meditative, comprehensive, learning-oriented, and developmental way (Mitchell & Sackney, 2000). These groups of people come together with the aim of growing and developing professionally from others. Another view of PLCs by Wenger (2008) is that they function because they produce a common practice, as members are involved in a cooperative learning process. PLCs' development and formation are significant for capacity building and sustainable improvement (Stoll et al., 2006).

The international literature (Hord, 1997; DuFour, 2004; Stoll et al., 2006) on professional development shows that PLCs have evolved for decades as a key strategy for enhancing teacher collaboration and professional development. Vescio et al. (2008) contend that well-structured PLCs positively influence teaching practice and student achievement. According to Seashore et al. (2003), PLCs do not only show our interest in isolated acts of teacher sharing, but also in the formation of a school culture that allows for teamwork that is inclusive and consistent. The assumption is that activities that teachers engage in outside of the classroom are as crucial as those that they do inside the classroom. In terms of reforming teachers' professional development and student learning, Thornton and Cherrington (2019) researched PLCs in early childhood education (ECE). Their findings revealed that there were some challenges there due to a lack of induction for new teachers; no time for meetings; the changing of staff membership and the importance of interpersonal trust for teachers. This study was conducted in New Zealand and it highlighted that the fundamental aspects of PLCs are regular professional talks, coaching and mentoring, professional talks, and feedback.

Other international studies that focused on the practices of PLCs and teacher collaboration, such as the trends in international mathematics and science study and the progress in international reading literacy study both by Isac et. al (2015), have shown that the Frontiers in presence of

PLC practices was perceived more extremely by teachers in Eastern European countries compared to Western and Central European countries.

In the South African context, PLCs gained prominence as a form of professional development with the introduction of the Integrated Strategic Planning Framework for Teacher Education and Development (ISPFTED) in 2011 by the Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET). In this context, PLCs are a platform that gives teachers and other education stakeholders support to collaborate and work together in enhancing their professional development (DBE & DHET, 2011, p.14). According to the Department of Education (2015), the structure and relationship between subject committees and PLCs is that the former offer curriculum expertise, guidance, and leadership that is ongoing. They also provide for an evaluation of national policies, as well as national and international analyses of assessments. Additionally, PLCs provide the background and necessary provision for groups of classroom teachers, school managers, and subject advisors to take part collaboratively in determining their own development paths, and set up activities that will drive this.

Sometimes PLCs are called clusters. This aligns with the international literature (Katz & Earl, 2010; Stoll & Louis, 2007) where PLCs are defined as clusters of teachers that unite to participate in consistent, logical, and continuous sequences of inquiry-based learning. The critical feature differentiating PLCs from other teacher groups is mutual attention to professional learning. PLCs allow teachers to meditate intentionally and analytically as professionals to aid shared and maintainable swings in their practice (Chauraya & Brodie, 2018). The PLC concept is substantial in demonstrating how teachers can collaborate to recognise learner problems grounded in assessment data, and to work together in making decisions to develop teaching practices and inspire constructive learner attainment (Botha, 2012). In a study that was conducted in Mpumalanga for science and mathematics teachers, Jita and Mokhele (2014) stated that the findings revealed that clusters improved both teachers' and pedagogical content knowledge. The teachers also acknowledged another set of benefits, the so-called "process benefits" that include collaboration, instructional guidance, and teacher leadership. Teacher networks allow teachers to collaborate and solve problems that they experience in practice, and encourage their own continuing professional development as individuals and groups (Villegas-Reimers, 2003). Another term associated with PLCs is communities of practice (CoP), however these two

concepts differ. Brodie (2019) asserts that PLCs can be a special case of CoPs where members engage in professional learning. According to Brodie (2019) professional learning includes becoming competent and confident with knowledge base of the profession using knowledge base to make and justify decisions, and developing professional agency and identities (p.1).

Some education districts in South Africa have implemented initiatives that promote PLCs. VVOB (2017) reported that it worked jointly with the Free State Department of Education (FSDOE), and gave support to subject advisors and teachers to engage with lesson study activities in the format of a PLC in Motheo district, Botshabelo from February to October 2017. The study sessions aimed to target every learner and then promote differentiation and inclusive practices. To steer the lesson studies, VVOB collaborated with Jika Communication & Training. The PLCs were coherent and responded to the changes in practice compared to the once-off forms of professional development. A study was conducted in Johannesburg where four high school mathematics teachers' practices were analysed before, during, and after being part of a professional learning community. The findings from the study showed how teacher-learning activities in a professional learning community can provide support to shifts in teachers' teaching and clarify why changes vary among teachers (Chauraya & Brodie, 2018). Brodie and Borko (2016) contend that PLCs are vital for professional development, shifting teachers' opinions and approaches to the continuing changes in curriculum and learners. They continue by stating that the main thing that differentiates PLCs from other groups of teachers is that it focuses mainly on professional learning. When teachers are part of PLCs, they are privileged to have the opportunity to share their experiences in the classroom with others, as well as the benefits of developing and exploring various teaching methods and approaches (Nelson et al., 2010). They are also able to reflect on and improve their students' learning outcomes. The authors further clarify that PLCs do not necessarily focus on the individual learning of teachers; rather, they emphasise professional learning taking place in a more caring and interactive setting.

2.4.1. Characteristics of PLCs

The DBE and DHET (2011, p.14) as well as Stoll et al. (2006, p.226) mention that there are seven characteristics of PLCs which are discussed below. These seven characteristics are: shared values and vision, collective responsibility, reflective professional inquiry, group and individual learning, collaboration, regularity of meetings, and distributed leadership (Stoll, Bolam, Wallace & Thomas, 2006). Some of these characteristics have been alluded to by the definitions in the

above section. These characteristics are applicable for PLCs both within and outside of the school.

In PLCs there is *shared vision and values,* where members of the PLC agree on ensuring that learning takes place, and that quality learning and teaching are considered. The members of the PLC have a common goal: to provide quality education to their learners. A shared value base provides a framework for "shared collective, ethical decision making" (Stoll et al., 2006, p. 226). They share the same values of ensuring that they go to the classroom prepared and transparent about the curriculum content that they have to deliver.

Another characteristic of PLCs is *collective responsibility* which involves members of the PLC joining together to create a platform for improving learners' results and the content taught (Stoll et al., 2006). All members are responsible for the PLC's success. They work collaboratively to build a common understanding of improving teaching and learning, as well as breaking down their subject content so that learners can obtain better results. The international literature Cochran -Smith and Lytle (1999); Servage (2009) cited in Zulu (2017) suggests that professional learning communities as a site of learning that provides some professional autonomy when the learning content is pre-determined. The question is: Who determines the content that should be learnt in teacher learning communities? They further highlight that when a group of teachers and others come together to learn, there are issues related to negotiating agenda, sharing power and decision making, representing the work of the group, and dealing with the inevitable tensions of individuals and collective purpose and viewpoint.

Reflective professional inquiry is a characteristic of PLCs whereby members of the PLC participate in personal investigations about problems that involve applying new knowledge and improving their teaching practices (Stoll et al., 2006). After they have identified their personal problems and weaknesses, they give each other ideas on how to apply new knowledge to their teaching. In PLCs there is ongoing conversations which include frequent examining of teacher practice and joint planning for curriculum development. According to Stoll et al. (2006) when teachers are reflecting in the PLC the tacit knowledge is converted into shared knowledge.

There is *group and individual learning* in PLCs. All teachers are learners with their colleagues (Stoll et al., 2006). Collective learning is also manifested through creating knowledge

collectively, whereby the school learning community networks participate in thoughtful dialogue and reflect about information and data, interpreting it jointly and dispensing it among themselves. Group learning allows teachers to enhance learning and interaction, teachers joint work as subject committees in preparing lessons, co-teaching and writing teaching methods. On the other hand, individual learning is promoted when teachers interact with resources such as books and the internet.

Collaboration is the most fundamental characteristic of a PLC. It refers to when members of the PLC work together to assist one another, support each other, learn together and learn from each other, and share information through team teaching and observing each other (Stoll et al., 2006). Success of collaboration depends on its nature. According to Hargreaves (1994) there are two types of collaboration namely, collaborative culture and contrived collegiality. Collaborative culture involves collaboration that emerges from teachers themselves. Collaborative cultures involve evolutionary relationships characterised by openness, trust and support among the participating teachers. The contrived collegiality is characterised by administrative regulations of the teacher collaborations, where district officials of education departments provide instructions and set agendas and goals of such collaboration. Collaboration is crucial in a PLC since there is diversity, as different members come up with various ideas, experiences, and opinions.

Regularity of meetings/workshops in PLCs is essential. Stoll et al. (2006) states that the members of the PLC have formal and informal meetings regularly to engage in discussions about tasks and topics in order to effect changes in teaching and learning. These meetings take place face to face or virtual (Calhoun & Green, 2015). In the current 21st century, social media platforms such as WhatsApp have been recommended as a platform for PLC meetings (Moodley, 2019). Therefore, consistency is vital to the success of any PLC. PLCs must be alive and meet regularly to motivate and develop teachers continuously.

Another characteristic of PLCs is *shared leadership* which ensures autonomous decision-making among members of the PLC, where they make their own decisions without any control from external forces. This characteristic emphasises equality among members, where they can equally make good decisions in the best interest of their learners and teaching practices. In a PLC there

should be a facilitator who ensures that meetings happen regularly and that that the necessary resources are available (Stoll et al., 2006).

2.5. Conceptual Frameworks

This study was guided by two conceptual frameworks; Kwakman's (2003) categories of professional learning activities and Grossman's (1990): models of teacher knowledge.

2.5.1 Kwakman's (2003) categories of professional learning activities

The literature on the models of professional development has highlighted that traditional professional activities are insufficient for assisting teachers to learn to teach for understanding. The traditional ways of learning which are characterised by the transmission of knowledge can miss the mark. Teachers must acquire the skills that can help them to fulfil new roles. The working context is suggested as the most qualified place as the new teaching practices can only be achieved in practice (Hargreaves, 1997). The professional perspective posits that teachers are key in their learning and favours professional communities as a space for effective learning in addition to learning that takes place in the workplace. Kwakman's (2003) professional learning activities categories are represented in Table 2 below.

In research, a structure of notions, assumptions, expectations, beliefs, and theories that support and enlighten research are referred to as conceptual frameworks (Maxwell, 2005). Two conceptual frameworks guided this study. For research questions one and two, I used Kwakman's (2003) concepts of professional learning activities. According to Kwakman (2003), teachers' professional learning activities in their PLCs can be divided into the five categories mentioned below. These professional learning activities were relevant to this study because they aimed to identify the activities in which teachers engaged in, in their PLCs within a rural primary school context. These categories assisted me in identifying the activities that rural primary school teachers engaged in within their PLCs in response to research questions one and two.

Table 2: Kwakman (2003, p. 155) Professional Learning Activities

CATEGORIES	PROFESSIONAL LEARNING ACTIVITIES
Reading	Teachers study subject matter literature, reading professional journals, teaching manuals, and newspapers. They read all these informative materials and texts to increase their subject knowledge and learn about different teaching methods and styles. This is also good for professional development because it gives them more content knowledge.
Experimenting	Teachers assist learners with study skills, formulating lessons on their own while experimenting with new teaching approaches. Teachers also make lesson materials and tests. This is one way in which teachers may be able to create material according to their learners' needs and expectations in their own classrooms.
Reflecting	Teachers supervise student teachers, who also receive coaching and guidance. They coach other colleagues and get feedback from learners. Teachers can reflect on their practices, judging from the way in which their student teachers perform. Expert teachers mentor novice teachers and make them familiar with the field of teaching. Teachers can reflect on their practices and determine ways to advance as teachers. They also identify things that might have worked or not for their practices through reflection. In reflection, this is also where expert teachers mentor novice teachers and student teachers.
Collaborating	When collaborating, teachers ask for help and give help to each other. They share materials and ideas on different aspects, such as innovation, instructional issues, and ideas about education. Teachers also do joint work, coordination, and lesson preparation together. Teachers engage in team teaching and assist one another in and outside the classroom. They learn together and also learn from each other.

Non-fitting into categories	This category involves counselling learners, non-curricular tasks, management tasks, extracurricular tasks, and interacting with learners. This is about different tasks that do not necessarily refer to the curriculum matters, but just additional aspects that the teacher has to be part of.

2.5.2. Grossman's (1990) Domains of Teacher Knowledge

I used Grossman's model of teacher knowledge. Grossman (1990) identified four areas of teacher knowledge that can be viewed as the cornerstones of the developing work on professional knowledge for teaching. These domains are: general pedagogic knowledge, subject matter knowledge, pedagogical content knowledge and knowledge of the context (Grossman, 1990, p. 5). The four domains of teacher knowledge are depicted in Figure 1: below.

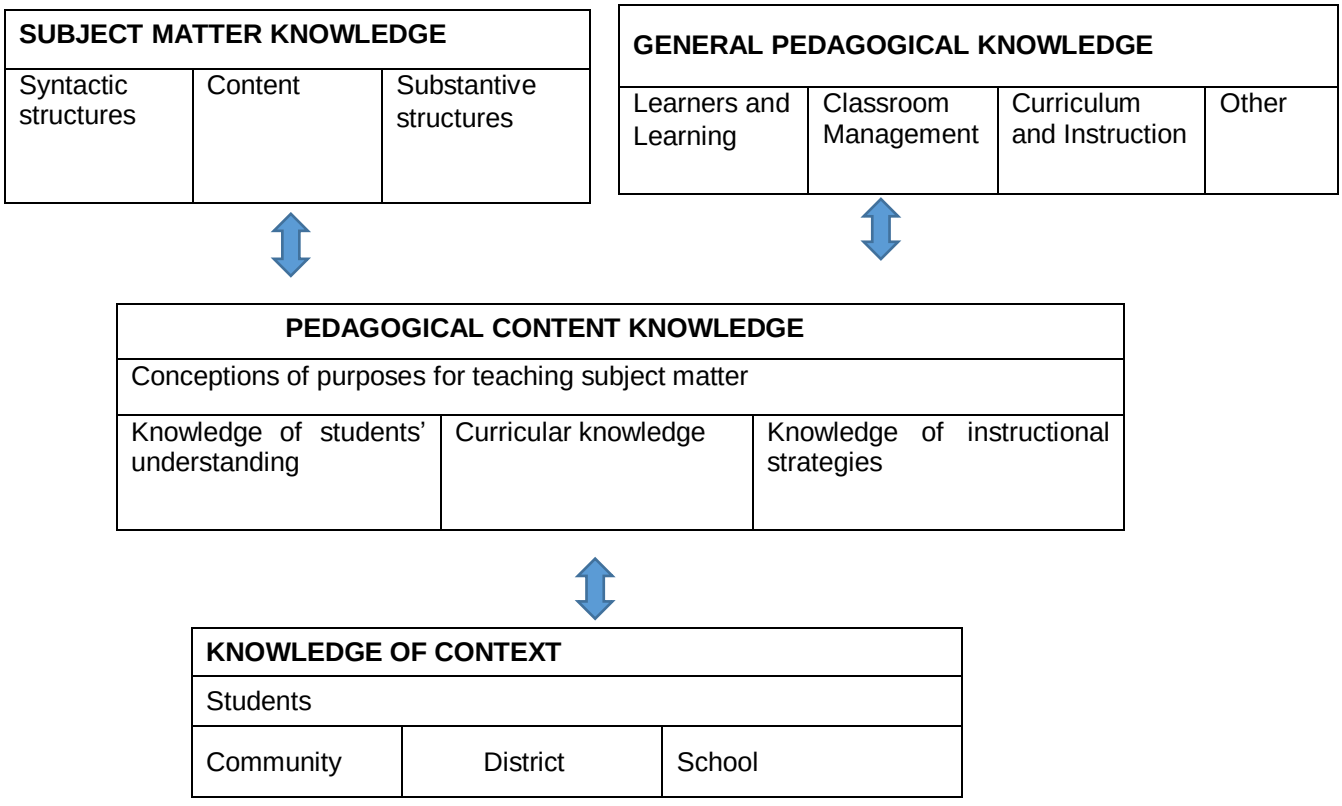


Figure 1: Grossman's (1990) four domains of teacher knowledge

Subject Matter Knowledge: This includes the teacher's knowledge of the subject, the concepts, and the content related to the subjects that a teacher teaches. Teachers need to

have substantive knowledge of the subject, that is, a profound understanding of the concepts within a field and the relationship or link between them. They must also equip themselves with syntactic knowledge, which is understanding how knowledge is formed and evaluated within a specific discipline (Grossman, 1990).

General Pedagogical Knowledge: According to Grossman (1990) this knowledge is about a teacher's beliefs, principles, and general skills related to teaching. A teacher needs to know different theories about learning and teaching Knowledge about what to assess and for what purposes is also essential for a teacher to possess. This type of knowledge is not specific to a particular topic or grade.

Pedagogical Content Knowledge: Grossman (1990) asserts that pedagogical content knowledge refers to the knowledge a teacher possesses about how his/her subject is taught. There are four components of pedagogical content knowledge: knowledge and beliefs about the purpose of teaching your subject, knowledge of the curriculum, knowledge of students' understanding, conceptions, and misconceptions of particular topics and knowledge of instructional strategies and representations.

Knowledge of Context: Grossman (1990) states that teachers need to be knowledgeable of the context and background of where they teach and the students they teach. This includes knowledge of the districts, the opportunities and expectations of the school settings, and other contextual factors. It is also very important to understand the communities from which the learners come from and how that might impact their learning.

These four domains of knowledge were relevant to this study because they describe the kinds of knowledge that teachers need to have, and this study examined what knowledge teachers in rural primary schools acquire from being part of a PLC.

2.6. Conclusion

This chapter reviewed the literature related to PLCs. The literature was divided into three subtopics: teacher professional development, teacher learning, and PLCs. After discussing the mentioned aspects, the two conceptual frameworks, namely Kwakman (2003)’s categories of professional learning activities and Grossman (1990)’s domains of teacher knowledge, were

discussed. In the next chapter, I will discuss the research design and methodology I used for this study.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1. Introduction

This study explored teachers' experiences of learning and participation in a rural primary school context. This chapter outlines and provides a rationale for the research design and methodology employed in this study. The study is foregrounded on the following research questions:

1. What kind of learning activities do teachers engage with in their PLCs within a rural primary school context?
2. In what ways do teachers learn from each other in their PLCs within a rural primary school context?
3. What skills and knowledge do teachers acquire from being part of a Professional Learning Community within a rural primary school context?

This chapter covers the research paradigm, research design, sampling procedure, data collection tools, data analysis, issues of trustworthiness, ethical considerations, and limitations of the study. The methodology provided in this chapter indicates how this study was conducted.

3.2. Research Paradigm

A paradigm is referred to as a certain worldview that informs what is adequate to research and how it should be administered (Bertram & Christiansen, 2020). The same authors continue by adding that a paradigm regulates what questions should be asked, the data collection methods to be used, and how the findings can be interpreted. Cohen et al. (2018) assert that a research paradigm is a system of "logical" ideas about the nature of the world and the positions of the researcher, which dictate their thinking patterns and research actions. There are various approaches to educational research, namely: *positivism* - where the social world is understood like the natural world*; interpretivism* - where researchers believe in socially constructed realities; and *critical theory* - which assumes that a reality exists but is culturally, politically, ethnically, gender, and religiously shaped (Rehman & Alharthi, 2016). According to Mackenzie and Knipe (2006), the ontology of the interpretive paradigm has multiple realities, is socially constructed and subjective, and is based on values, attitudes, and culture. Furthermore, Mackenzie and Knipe (2006) describe that the epistemology of the interpretive paradigm includes knowledge that is interpretive and shaped by the collaboration between the researcher and the respondent.

This study was located in the interpretive paradigm. The interpretive paradigm is often used by qualitative researchers when they want to understand reality from the point of view of the participants (Cohen et al., 2018). The interpretive paradigm requires that social phenomena be understood from the perspective of the participants and not the researcher (Cohen et al., 2007). The interpretive paradigm was used for this study because it aimed to understand the experiences of learning and participation for rural primary school teachers. Creswell (2003) also agrees that the interpretivist researcher seems to depend on the views of the participants about the phenomenon that is being studied. The participants of the study were six teachers from two different PLCs in one school, and their views about their learning and participation in a rural primary school PLC helped me to better understand PLCs in a rural context.

3.3. Research Approach

In research, researchers use various research approaches to respond to their research questions (Cresswell, 2003). According to Baxter and Jack (2008) the qualitative researcher examines the meanings of people's behaviour and actions, and the influences these have on each other. For this study, I used a qualitative approach to examine the experiences of learning and participation for teachers in a rural primary school context. Cresswell (2014) identified five characteristics of a qualitative approach namely, natural setting, researcher as a key instrument, multiple sources of data, participants meaning and interpretive inquiry.

The above-mentioned characteristics are explained in depth in relation to this study in Table 3 below.

Table 3: Characteristics of qualitative research (adapted from Creswell, 2003, 2014; Robson, 2002)

Characteristic	Explanation of qualitative characteristics in relation to the study
Natural setting:	The researcher collects data in the setting where the participants experience the issue. In this study I collected data through semi-structured interviews and meeting observations. PLCs were observed in their meetings, I observed two meetings in each PLC. I also had face to face interviews with three participants from each PLC.

Researcher as key instrument:	According to Creswell (2007, p. 54) qualitative researchers collect data themselves through examining documents, observing behaviour, and interviewing participants. Researchers are the ones who actually gather the information. In this study I was an interviewer, an observer and an analyst.
Multiple sources of data:	Qualitative researchers typically gather multiple forms of data rather than relying on a single data source. For this study, two data generation methods were used. I used semi-structured interviews and meeting observations.
Participants' meaning:	In the entire qualitative research process, the researcher keeps the focus on understanding the meaning that the participants hold about the issue, not the meaning that the researcher brings to the research from the literature. When collecting data from the participants I did not use theoretical terms that they were not familiar with.
Interpretive inquiry:	Qualitative research is a form of inquiry in which researchers make an interpretation of what they see, hear, and understand. The researchers, interpretations cannot be separated from their own background,history, context and prior understanding (Creswell, 2014). In all data that was generated was reviewed using conceptual frameworks by Kwakman (2003) and Grossman (1990).

All five characteristics of a qualitative approach were applicable in my study and they were useful in exploring the experiences of learning and participation for teachers in rural primary school PLCs.

3.4. Research Design

A case study was used as a research design because it is an approach to research that aids the exploration of a case within its background using various sources (Baxter & Jack, 2008). According to Cohen et al. (2018) a case study is a detailed study of a certain subject such as a person, group, place, event or phenomena. A case study was the most suitable methodological

approach to use for this research study because it allows the researcher to pay more attention to the case in question (Cohen et al., 2018).

There are several types of case studies, namely, explanatory, exploratory, descriptive, multiple-case studies, intrinsic and instrumental case studies (Cohen et al., 2018). *Explanatory* case study, is used to explain causal links in real-life situations; *exploratory case study,* is used to explore situations where there is no single set of consequences in the interventions that are evaluated; *descriptive case study,* is used to describe the phenomenon and the natural context it happens in, *multiple-case studies* allow the researcher to explore variances within and between cases; *intrinsic case study*, is used by researchers who have sincere interest in the case; and *instrumental* case studies, are used to make sense of something other than a particular situation. This study used an exploratory case study that explores conditions where the intervention being examined has no clear, single set of consequences (Yin, 2003). The unit of analysis for the study was the teachers in a rural primary school context, and the phenomenon was their experiences of learning and participation in PLCs.

According to Cohen et al. (2018), a case study must be holistic and consider the relationship between the circumstance and the setting. Furthermore, he argues that it has to be empirical, which means it bases the study on observations in the field. Stake (2008) also points out that a case study has the characteristic of being interpretive, whereby research is seen as an interaction between the researcher and the subject, which rests upon instinct. Lastly, a case study is empathic. It reflects the secondary experiences of the participants from their internal points of view.

Case studies have several characteristics. According to Stake (1998), a case study needs to be holistic and consider the relationship between the circumstance and the setting. Furthermore, he argues that it has to be empirical which means it bases the study on the observations in the field. Stake (1998) also points out that a case study has the characteristic of being interpretive whereby research is seen as an interaction between the researcher and the subject and rests upon instinct. Lastly, a case study is empathic it reflects the secondary experiences of the participants from their internal point of view.

On the other hand, Hitchcock and Hughes (1995) share the following characteristics of case studies. Case studies contain the rich and bright explanations of actions that are applicable to the case. They offer a sequential description of events that are related to the case in question. They merge description with analysis of proceedings and concentrate on the individual actors or groups of actors. Furthermore, case studies strive to understand their insights into occasions. They highlight detailed events that are related to the case.

In case studies, the researcher is fundamentally part of the case. Hitchcock and Hughes (1995) continue to state that case studies may be linked to the personality of the researcher and an attempt is made to portray the richness of the case in writing up the report. According to Yin (2003), a case study design needs to be taken into consideration if the study focuses on answering the how and why type of questions and when the behaviour of the participants cannot be influenced. He goes on to clarify that when a researcher wants to cover contextual conditions because they believe that they are related to the phenomenon that is being studied or when the limitations between the phenomenon and context are vague a case study may be used.

From the point of view of Cohen et al. (2018) case studies contain rich and bright explanations of actions that apply to the case. They offer a sequential description of events that are related to the case in question. In this study, the case being studied was the teachers in a rural primary school context, and the phenomenon was their experiences of learning and participation in PLCs. In case studies, the researcher is fundamentally part of the case. Cohen et al. (2018) continue to state that case studies may be linked to the personality of the researcher, and an attempt is made to portray the richness of the case when writing up the report.

According to Yin (2003), a case study design needs to be taken into consideration if the study focuses on answering the how and why type of questions, as well as when the behavior of the participants cannot be influenced. He goes on to clarify that when a researcher wants to cover contextual conditions because he or she believes that they are related to the phenomenon being studied, or when the limitations between the phenomenon and context are vague, a case study may be used. A case study also needs to answer the “how and what” questions that a researcher may have about a case. Case studies are mostly used in qualitative studies and are characterised

by the triangulation of data generation methods which assist in gathering different aspects of the case that is being researched (Yazan, 2015).

3.5. Sampling

Cohen et al. (2018) define a sample as a smaller group taken from a total population used to collect data. In this study I used purposive sampling. According to Bertram and Christiansen (2014), purposive sampling means that the researcher makes specific choices about the people, objects, or groups that he or she will include in the sample. Taherdoost, (2016) also states that purposive sampling, involves a strategy whereby particular settings or persons are selected on purpose to provide information that cannot be found from other sources. A rural primary school with two PLCs was purposively sampled for this study. The choice to use a rural primary school was driven by the urge to explore and expose the experiences of teachers in rural contexts. The PLCs were observed and six participants were purposively selected for semi-structured interviews. I interviewed six participants, with three participants from each professional learning community: The Departmental Head (D.H.), one experienced teacher, and one novice teacher. These participants were specifically sampled in order to witness how a Departmental Head learns and equally collaborates with other members of a PLC without the pressure of being a Manager. I used an experienced teacher and a novice teacher in order to discover the experiences of learning and participation in a PLC between teachers of different levels.

3.6. Data Generation Methods

Two data generation methods were used in this study: semi-structured interviews that were done face to face with each participant, and meeting observations where all members were observed in their PLC workshops. More information will be shared below.

3.6.1. Semi-Structured Interviews

Researchers collect data using various data generation methods, such as interviews, photo voices, collages, and participant observations. The first data generation method related to my study was interviews. According to Kvale (1996), interviews are an exchange of opinions between two or more people on a topic of common interest. Interviews allow the interviewer and the interviewee

to debate their understanding of their world and to communicate their thoughts about situations from their perspective (Cohen et al., 2018).

In this study, I used semi-structured interviews because the procedure for these has the benefit of asking all the participants similar core questions, with the liberty to ask follow-up questions based on the responses received (Brenner, 2006). The semi-structured interviews were done face to face with each participant and lasted about 45 minutes. This was advantageous to my research study because it allowed me to get more information from the participants by probing when necessary. This is supported by Ritchie and Lewis (2003) when they say semi-structured interviews also enable a researcher to follow up most of the time to reveal hidden information that might be useful in the data analysis stage. In semi-structured interviews, the topics and questions are given, but the questions are open-ended, while the phrasing and order may be personalized to each interviewee, and the responses given with prompts and probes (Cohen et al., 2018). Kvale (1996) argues that the function of semi-structured interviews is to attain descriptions of the life world of the interviewee with respect to interpreting the meaning of the phenomena at hand. The data from the semi-structured interviews assisted in answering all the research questions of the study. The type of data that was generated was in the form of interview transcripts. This study excluded participants who were not from a rural primary school context, and only included participants from a rural primary school context and PLC members.

There are several characteristics of interviews. Arora et al. (2018) points out that these include engaging, understanding, and interpreting the crucial factors of the experiences of the participants. Interviews use natural language to collect and understand qualitative information. He further states that interviews can disclose and discover various descriptions of the life worlds of the interviewees. They also evoke explanations of specific circumstances and actions rather than generalizations. Interviews embrace a deliberate directness to information and phenomena rather than being too pre-structured. Semi-structured interviews are characterized by and generally set around predetermined open-ended questions that allow the participants to respond freely without limitations (Batmanabane & Kfouri, 2017). The interviewer's other questions are usually a result of the participant's responses. The same authors further argue that the wording in semi-structured interviews is flexible and allows the participants to elaborate further when

answering the questions. According to Kakilla (2021), the strengths of semi-structured interviews are that they are hands-on and allow for thorough conversations. The aforementioned authors further mention that semi-structured interviews allow researchers to produce various themes to allow flexibility and offer room for free responses from the participants. Batmanabane and Kfouri (2017) argue that semi-structured interviews provide a platform for participants to express their views freely. They add that semi-structured interviews are good because they provide reliable and comparable qualitative data.

However, semi-structured interviews have weaknesses. The weaknesses of semi-structured interviews include partial probing because they involve interviewing participants with language barriers (Arora et al., 2018). There is a limited understanding of the topic, when the topic is not flexible during the semi-structured interview, would often kill the conversation. Referring to Kakilla (2021), limited responses in certain instances during semi-structured interviews could be due to distinct cultural values. He further states that semi-structured interviews are not perfect for group interviews because they demand active listening.

3.6.2. Observations

The second data generation method that was used for this research study was structured observations. According to Simpson and Tuson (2003), observation is not just about looking, but also systematically observing people, events, behaviors, and routines. There are two critical roles in observation: *participant observation*, which involves being in the setting as both the observer and the participant; and *direct observation*, which involves observing without interacting with the objects or people under study (Kawulich, 2005). In observations, researchers use field notes to provide rich and detailed descriptions of the situation that is being observed. Observations are also used to verify the information that was obtained through interviews (Kawulich, 2005).

This study used structured observation. A structured observation occurs when a researcher has a planned observation or checklist of the features that he or she needs to identify when observing a research group (Cohen et al., 2018). To generate data through observation, I visited the PLCs and sat in to observe them when they had their meetings and workshops. I wrote down field notes of what transpired in the meetings about my research questions, and I also took video recordings of the meeting observations. I had a checklist (observation schedule) that I used in the observations which guided me on the aspects that I was looking for in the PLC meetings,

please refer to (*Appendix F)*. According to Cohen et al. (2018), the strengths of the observations include providing the researcher access to the aspects of a social setting that are not observable to the public. They also allow the researcher to provide rich, comprehensive explanations of the social setting using field notes. The above-mentioned authors also state that observations are suitable for observing unscheduled events, refining interpretation, and creating new questions to be asked to participants. Observations were helpful for me in this study because they enabled me to have a greater understanding of the activities that teachers engaged in within their PLCs in a rural primary school context. Through observing the PLCs in their meetings and workshops, I identified the kinds of knowledge and skills that they acquired therein. I was also able to link what was happening in the observations with what the participants mentioned in their interviews, while also being able to pick up what was not mentioned in the interviews.

However, observations have limitations. One limitation of observation is deciding to what degree one is prepared to become involved in the lives of the participants (DeWalt et al., 1998). For example, if one is studying a sensitive issue, there might be a need to gain the participant's trust in order for them to be free to talk about the issue at hand. Ratner (2002) also claims that researcher bias can be another limitation of observation, where a researcher needs to acknowledge their own biases and put them aside to view data naturally and interpret it accurately.

3.7. Data Analysis

According to Cohen et al. (2018) data analysis is the stage whereby a researcher decides how the data that has been collected will be analysed. They also add that in data analysis planning, a researcher needs to consider what will be done with the data once it has been collected, and in what ways the data will be validated and verified. On the other hand, Rule and John (2011) argue that data analysis involves arranging data into categories and patterns to interpret it to make sense of it. The core purpose of data analysis is to summarise the data that has been gathered to give it meaning. To analyse the generated data for this study, I read it thoroughly to familiarize myself with it and a deductive approach using Kwakman's (2003) categories of professional learning activities was used for research questions one and two. Grossman's (1990) model of teacher knowledge was used as a mode of analysis for research question three. A complete analysis of the data was produced and interpreted using the predetermined themes of the conceptual frameworks.

3.8. Trustworthiness

Trustworthiness is the extent to which a study can be trusted (Cohen et al., 2018). There are four principles of trustworthiness that were considered in this study: credibility, dependability, confirmability, and transferability. Guba and Lincoln (as cited in Cohen et al., 2018) state that *credibility* refers to the level to which the data findings reveal the true lived experiences of participants. I ensured credibility of the study by using various methods of data generation such as structured interviews and semi-structured interviews. According to Cohen et al. (2018), *dependability* is whereby the researcher checks and verifies the data to ensure that it indeed supports the findings of the study; it was carried out in this study by transcribing the interviews word for word and ensuring that the data from the interviews was safely stored. *Confirmability*, on the other side, seeks to find out if the study's findings can be assured and verified by another (Cohen et al., 2018). This was done by designing an interview schedule with similar questions for all participants, and by giving out interview transcripts to confirm that the information was correct and that nothing was left out. Lastly, the *transferability* principle refers to the extent to which the study may be transferred to another context or setting (Cohen et al., 2018). Transferability was not applicable to this study because the setting of the study was strictly limited to a rural primary school with two functional PLCs.

3.9. Ethical Issues

According to Cohen et al. (2018), ethical issues are about what researchers should and should not do when conducting research. Guillemin and Gillam (2004) argue that there are two dimensions of ethics in research: procedural ethics, which involves applying to a research ethics committee to do research, as well as offering an in-depth explanation of the details of the study and how the research will be conducted. The second dimension is ethics in practice, which refers to the day-to-day ethical issues arising from doing the research (Cohen et al., 2018).

To conduct this study ethically, I firstly applied for permission to conduct my study from the gatekeepers, KZN DBE (*refer to Appendix A*), and then approached the principal of the school in which I intended to do my study to request for permission to use the school and get access to the teachers for my study. Thereafter, I applied for ethical clearance from the University of KwaZulu-Natal (UKZN) Human and Social Sciences Research Ethics Committee (HSSREC) (*refer to Appendix B)*. After obtaining ethical clearance, I requested a meeting with the school principal to talk to the teachers and recruit them to participate in my study. As a researcher, I

considered the research ethical requirements and ethical flow principles that are set to protect the participants from being harmed by the researcher: *autonomy*, *non-maleficence*, and *beneficence* (Bertram and Christiansen, 2020).

Autonomy refers to getting permission from the participants that they are willingly agreeing to take part in the study (Bertram & Christiansen, 2020). In this study, *autonomy* was applied by giving participants consent forms to sign and agree to be part of the study and to be audio and video recorded. I also explained to the participants that they had a right to withdraw from the study at any time. *Non-maleficence* means participants should not experience any harm when participating in a study (Bertram & Christiansen, 2020). I guaranteed my participants that participating in my study would be harmless to them. I also assured them that their information and video recordings from the observations would be kept confidential and shared only with my supervisor, and that their names would not be revealed. They would be anonymous and pseudonyms would be used. *Beneficence* means that the study must benefit the participants and contribute to their welfare (Cohen et al., 2018). The participants of this study benefited by receiving the transcripts of their interviews and the findings of the study. That would be useful and beneficial to them when reflecting about their PLCs and improving their practices.

3.10. Conclusion

This chapter presented the research design and methodology that was used in this study. It described the research paradigm and design, sampling method used, and data generation methods such as the semi-structured interviews and meeting observations, which assisted in getting information from the participants about their experiences of learning and participation in PLCs within a rural primary school context. The chapter also touched on trustworthiness and ethical issues. The presentation and analysis of the study will be presented in the next chapter.

CHAPTER FOUR: DATA PRESENTATION AND ANALYSIS

4.1. Introduction

The preceding chapter offered a thorough discussion of the research design and methodology that were used in this study. This chapter presents the data and its analysis on teachers' experiences of learning and participation in two PLCs within a rural primary school context. The data was generated through semi-structured interviews and PLC observations. The chapter begins with a description of the context of the study. Secondly, it introduces the participants' profiles, giving a clear picture of who they were and their main roles in their PLCs. Following that, a description of the PLC workshops is given. The third section of the chapter discusses the data that was analysed deductively through the use of Kwakman (2003) and Grossman (1990)'s conceptual frameworks.

4.2. Context of the Study

This study was conducted in one primary school, but two PLCs from this school were researched. Nkanyezi (pseudonym) Primary School starts from grade R to grade 7 with very low enrolment; there are approximately 200 learners. There are eight teachers including the principal of the school. The school is located in a deep rural area. According to Dlamini and Zulu (2024) rural schools are situated in areas that are under the tribal leadership of *Izinduna* (headmen) and *Izinkosi* (chiefs). Nkanyezi Primary School is categorised as a quintile 1 school located in a low socio-economic community. The school is experiencing a great shortage of teachers, reflected by the fact that when the participants were describing the context of their school, they all highlighted that it was multigrade. Thaba-Nkadimene (2020, p. 20) defined multi-grade teaching in the South African context as the teaching of learners of different grades in the same classroom setting at the same time. The multigrading resulted in some teachers teaching in both the Foundation Phase, Intermediate and Senior Phase due to the scarcity of teachers. For example, one of the participants who is a Departmental Head in the Foundation Phase, Miss Gumede, also teaches subjects in the Intermediate and Senior Phases. There are two PLCs: the first one is the Foundation Phase PLC, while the second PLC combines Intermediate and Senior phase teachers.

The Foundation Phase consists of Grades R to Grade 3. The Foundation Phase PLC comprised of four members including a student teacher that was doing her teaching practice during the time of research. Generally, in the Foundation Phase, teachers do not rotate and take turns to teach

subjects; they are classroom based and teach all four subjects, namely Mathematics, Life Skills, IsiZulu, and English in their classrooms. However, in this PLC, Miss Gumede who is a Departmental Head (DH) in the Foundation Phase also taught some subjects in the Intermediate and Senior Phase, due to the shortage of teachers at the school. The Intermediate and Senior Phase PLC consists of teachers teaching grades 4, 5, 6, and 7. The Intermediate and Senior Phase PLC was made up of four members including Miss Gumede from the Foundation Phase, but only three members were interviewed because she had already been interviewed in the Foundation Phase. The next two sections; 4.3 and 4.4 present the profiles of the teachers in these two PLCs.

4.3. Profiling of Foundation Phase PLC Participants

Pseudonyms have been used for the names of the participants in order to protect their identities and apply the principle of confidentiality.

4.3.1. Miss Gumede

Miss Gumede is a Departmental Head in the Foundation Phase. She has a Bachelor of Education, Honours Degree that she obtained at the University of KwaZulu-Natal. She has 26 years of teaching experience. She is a qualified Foundation Phase teacher, but in this school, she teaches out of her field, as she teaches in the Intermediate phase as well. Currently, in the Foundation Phase, she is teaching English First Additional Language (EFAL), while in the Intermediate Phase, she is also teaching EFAL to Grade 4 and Natural Sciences to Grade 5. When Miss Gumede explained her roles in the PLC, she highlighted that she participates in both Foundation Phase PLC and Intermediate and Senior Phase PLC, as well as being the English coordinator.

4.3.2. Mrs. Zondi

Mrs. Zondi is a post-level 1 novice teacher. She has taught for one year and six months including a substitute post. She has a National Professional Diploma in Education that she acquired from North-West University. She is the class teacher of a multigrade classroom that is comprised of grades 1, 2, and 3. She teaches Mathematics and Life Skills. In the Foundation Phase PLC, she highlighted that her role is coordinating Mathematics and Life Skills.

4.3.3. Mrs. Msomi

Mrs. Msomi is a post-level 1 educator. She has a PTD (Primary Teachers Diploma), from Rand Afrikaans University. She has 22 years of teaching experience. She teaches IsiZulu Home

Language (HL) to grades 1, 2, and 3. When Mrs. Msomi responded to the question about her portfolio in the PLC, she stated that she is the subject head for IsiZulu.

4.4. Profiling Intermediate and Senior Phase PLC Participants

4.4.1. Miss Gumede

Miss Gumede is a Foundation Phase Departmental Head. Her profile was highlighted in Section 4.3. with the other profiles of the Foundation Phase PLC members. She appears in both phases as she has subjects that she teaches in the Intermediate and Senior Phase as well.

4.4.2. Miss Sithole

Miss Sithole is a Departmental Head in the Intermediate and Senior Phases. She has been teaching for 28 years. She studied for her National Diploma in Education at the University of KwaZulu-Natal and later completed her Advanced Certificate in Education (ACE). She teaches Social Sciences to Grade 4, English First Additional Language (EFAL) to Grade 5, and Social Sciences, EMS, and Creative Arts to Grade 7. When Miss Sithole responded to the question about her portfolio in the PLC, she stated that she is a coordinator of the languages IsiZulu HL and English FAL.

4.4.3. Miss Mtolo

Miss Mtolo is a novice teacher and she teaches in the Intermediate and Senior phase. She has a Bachelor of Education degree from the University of South Africa. Her teaching experience goes back only seven months. The subjects that she teaches are Natural Sciences and Technology to Grade 4 and Life Skills to Grade 6. Miss Mtolo has no portfolio in the PLC and is just an ordinary member of it.

4.4.4. Miss Mqadi

Miss Mqadi is a post-level 1 educator. She has been teaching for seven years. She obtained her Bachelor of Education degree from the University of South Africa. This year she teaches Grade 5 (Mathematics and Natural Sciences and Technology) and Grade 6 (English First Additional Language and Natural Sciences and Technology). She is the secretary for languages in the PLC, and takes minutes when there is a meeting; she also writes invitations to invite colleagues to meetings.

The above mentioned Intermediate and Senior phase teachers teach some subjects that they were not trained to teach because of a shortage of teachers in the school.

4.5. Workshops of the PLCs

The following table (Table 4) provides a summary of the workshops observed in two PLCs, which occurred in the second term of 2023 at Nkanyezi Primary School. Four workshops were observed, two from each phase. However, in the interviews, teachers stated that they had attended seven workshops so far, with some being external

DATE	PLC	SUBJECT AND GRADES	NATURE OF THE WORKSHOP	RESOURCES DURING THE WORKSHOP	NO. OF TEACHERS ATTENDED	FACILITATOR
11 May, 2023	Foundation Phase PLC	IsiZulu (Grades 1-3)	Weekly planning focusing on phonics	CAPS document, ATP, Jikimfundo lesson plans and tracker, DBE workbook for learners, small readers	4	IsiZulu Coordinator (Mrs. Msomi)
12 May, 2023	Intermediate and Senior Phase PLC	English (Grades 4-7)	Poetry	CAPS document, ATP, PRISP tools, teacher and learner book	4	Languages Coordinator (Miss Sithole)
18 May, 2023	Foundation Phase PLC	Mathematics (Grades 1-3)	Addition	CAPS document, ATP, Jikimfundo lesson plans and trackers, counters	4	Mathematics Coordinator (Mrs Zondi)

19 May, 2023	Intermediate and Senior Phase PLC	Mathematics (Grades 4-7)	Problem solving	CAPS document, ATP, teacher and learner book	4	Mathematics Co-ordinator (Miss Mqadi)

curriculum support workshops that were arranged by the Department of Education.

Table 4: Workshops for the PLCs

In the Foundation Phase PLC, two workshops were observed. The first one was on the 11th of May 2023 and it focused on IsiZulu weekly planning for the foundation phase. It was facilitated by Mrs Msomi who is the co-ordinator for IsiZulu. The second workshop was facilitated by Mrs Zondi the Mathematics co-ordinator. The focus of the workshop was on addition. The workshop was held on the 18th of May 2023. The common resources that were used for both observations are the CAPS documents, Annual Teaching Plans (ATPs) that guide techers on the curriculum to be covered in the classroom, teacher and learner books, DBE workbooks and Jikimfundo material. Additionally, counters were also used in the mathematics workshop.

In the Intermediate and Senior Phases PLC, two workshops were observed as well. The first workshop observed took place on the 12th of May 2023. It was an English workshop that was facilitated by the languages co-ordinator, Miss Sithole. The main focus of the workshop was on teaching poetry in the Intermediate and Senior phase. The last workshop took place on the 19th of May 2023 and was facilitated by the Intermediate and Senior phase Mathematics co-ordinator. Its focus was on problem solving in grades 4-7 mathematics. The resources that were used in these workshops included Caps documents, ATPs, PSRIP Tools, Teacher and learner books.

4.6. Data Presentation and Analysis

In this section, I used the two conceptual frameworks by Kwakman (2003) and Grossman (1990) to present, analyse, and interpret the data of the study, regarding teachers' experiences of learning and participation in two PLCs in a rural primary school context. I decided to present the data comparatively because the PLCs are in the same school, and one teacher who is a Foundation Phase Departmental Head, teaches some subjects in the Intermediate and Senior phase, therefore, she belongs in both PLCs.

4.7. Teacher learning and participation in the two PLCs

I used professional learning activities by Kwakman (2003) as a conceptual framework to explain the kinds of learning activities teachers engage in, and ways in which teachers learn from each other in their PLCs. Kwakman (2003) points out that there are five categories of professional learning activities that teachers take part in, in their PLCs, namely reading, experimenting, reflecting, collaborating, and not fitting into categories.

4.7.1. Reading

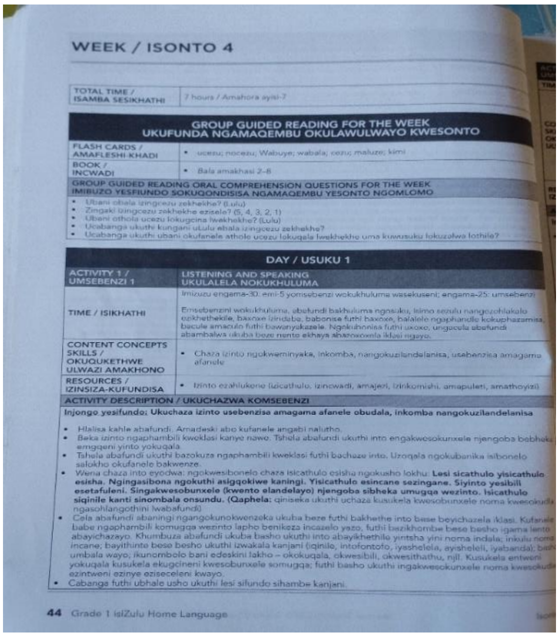
Kwakman (2003) explains that reading in this context refers to when teachers read informative texts and journals, with the aim of empowering themselves and increasing their knowledge of their subject. The data from the interviews seems to suggest that teachers in the Foundation Phase PLC engaged in individual and group reading to enhance their professional development. However, the individual reading took place outside the PLC. The individual reading was highlighted by Mrs. Msomi, who is the coordinator for isiZulu, when she said:

> *I buy and read newspapers and I go to the library to read and get information. I also encourage my learners to read as well.*

Miss Zondi who teaches Mathematics and Life Skills in a multigrade classroom, which consists of grades 1, 2, and 3, reported that they read together the Jikimfundo and CAPS documents. Mrs. Zondi explained it in this manner:

> *We were reading the support documents from Jikimfundo, which is a CAPS aligned programme that is used by teachers in the Foundation Phase. Jikimfundo offers teachers with lesson plan toolkits and trackers for Isizulu, English, and Mathematics.*

The Foundation Phase PLC workshop that was observed on the 11th of May 2023 also confirms the aforementioned interview extracts, during the Foundation Phase workshop, the members read together the curriculum support documents from Jikimfundo lesson plans, together with the CAPS document. The pictures in Figure 2 below show the Jikimfundo lesson plans that the teachers were reading.

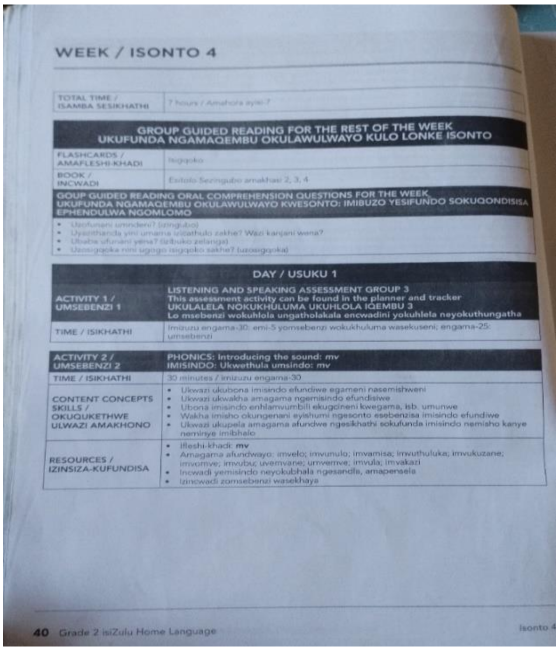


WEEK / ISONTO 4

TOTAL TIME / ISAMBA SESIKHATHI

GROUP GUIDED READING FOR THE WEEK
UKUFUNDA NGAMAQEMBU OKULAWULWAYO KWESONTO

DAY / USUKU 1



WEEK / ISONTO 4

TOTAL TIME / ISAMBA SESIKHATHI

GROUP GUIDED READING FOR THE REST OF THE WEEK
UKUFUNDA NGAMAQEMBU OKULAWULWAYO KULO LONKE ISONTO

DAY / USUKU 1

Figure 2: Grade 2 and 3 Jikimfundo IsiZulu Lesson Plans

Similarly, the findings from the interviews with participants from the Intermediate and Senior PLC suggest that reading took place. Miss Mtolo explained:

> *In our PLC, we read thoroughly our Annual Teaching Plans, CAPS documents, teacher's guides and textbooks, in order to fully understand the concepts as well as the expected activities before teaching our learners in the classroom.*

In the Intermediate and Senior phase PLC workshop held on the 12th of May 2023 focused on English, I noted that the teachers spent their time reading through their teacher's guides and Primary School Reading Improvement Programme (PSRIP) management documents. When Miss Sithole explained about PSRIP, she said:

> *PSRIP is an intervention by the Department of Basic Education (DBE) in partnership with the National Education Collaboration Trust (NECT) that supports the teaching of English First Additional Language (EFAL) in primary schools. It is structured for teachers to follow on a daily basis and scripted lesson plans are provided for the programme.*

The above extracts reveal that teachers in both PLCs adhered to the implementation of the programmes by the DBE. The Foundation Phase followed Jikimfundo and the Intermediate and

Senior Phase was using PSRIP documents that aim at increasing the level of reading in primary schools.

4.7.2. Experimenting

One of the professional learning activities that teachers engage in when they are in their PLCs, includes experimenting whereby one member of the PLC demonstrates something to the other members. For instance, Mrs. Zondi shared her experience in a PLC as follows:

> *In our PLC, we learn how to use counters in number patterns in different activities, as our Mathematics coordinator demonstrated to us.*

In the Foundation Phase PLC meeting that was held on the 18th of May 2023, when the teachers were engaging with Mathematics, the coordinator, Mrs Zondi, was demonstrating how to tackle simple addition sums using counters.

> *Mrs Zondi: When using counters for addition, use different colours. First count the counters equal to the number before the plus sign and then count the counters for the number you are adding, when you are done put them together and count how many you have altogether*

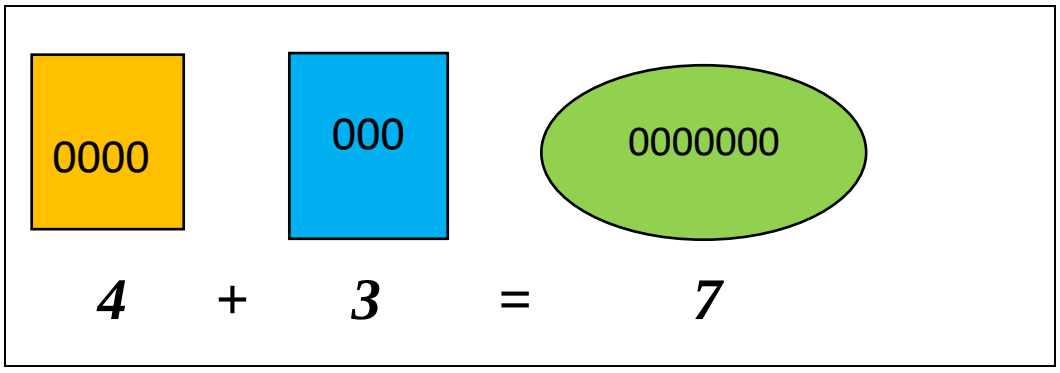


Figure 3: Maths addition using counters in Foundation Phase PLC

Mrs Zondi facilitated the session and she provided the other teachers with counters that were used during the demonstration process.

The interview data from the Foundation Phase PLC members suggests that learning occurred when they were preparing assessment tasks. For example, Miss Gumede highlighted their

experimenting activities when she said:

> *We set assessment tasks according to the cognitive levels, using Bloom's taxonomy, in our PLC.*

In the Foundation Phase PLC workshop that occurred on the 11th of May 2023, the teachers were busy experimenting by developing resources and teaching aids for their lessons in IsiZulu.

> *Mrs Msomi: First we need to make flash cards for the week's phonic and its words*

> *Miss Gumede: We also need to make flashcards for the sight words*

The Foundation Phase teachers worked together as they were developing resources for themselves. It was a fruitful session and they all managed to develop their own teaching aids. All the teachers took part and they were helping each other, they chose Mrs Msomi to write the flashcards for them as she had a beautiful handwriting. The other

teachers were laminating the flashcards with sellotape and cutting them neatly.

In the Intermediate and Senior Phase PLC, learning took place through experimentation, demonstration of how to get information from the internet, teaching strategies, and demonstration of subject-specific practicals. When Miss Sithole was responding to the question on how she thought she learned from other colleagues, she said:

> *In our PLC, my young colleagues showed me how to research information using the internet rather than to rely on textbooks only. I learn[ed] how to develop resources according to my teaching subjects and how to teach in a productive way.*

Miss Mqadi reported about demonstration from Natural Science practicals:

> *In one of our meetings, Miss Sithole demonstrated to me how a simple circuit is done in Natural Sciences Grade 6. We used wired globe and insulation tape as resources.*

The aforementioned interview excerpts suggest that in both the PLCs, the teachers learned through demonstration. Teachers were learning through hands-on practical activities that were demonstrated.

4.7.3. Reflecting

Reflecting is significant for teachers to better understand themselves and their practices (Kwakman, 2003). It allows them to look back and examine their teaching practices, and discover ways in which they can constantly improve them for the better.

In the Foundation Phase, not much reflecting was mentioned by the participants, however, in the meeting observation held on the 11th of May 2023, there was some reflecting done by the teachers. As the teachers were planning for the week, they reflected about their learners with barriers and how they could help them to achieve better. In this respect, Mrs. Zondi said:

Some of my learners struggle to construct their own sentences.

Mrs. Msomi added:

My learners even fail to come up with words of a given sound.

Regarding the above-mentioned reflections, the Departmental Head, Miss Gumede, said:

The best way to deal with these learners is to come up with intervention strategies specifically for them and assist them after school.

The Intermediate and Senior phase PLC teachers seemed to reflect about learners' performance and those with difficulties. This reflection was expressed by Miss Mqadi:

We discuss about learners that have barriers in learning and come up with solutions to assist them. As members of the PLC, we engage in discussions about learner's progress.

In the observation meeting that was held on the 18th of May 2023, the teachers also spoke about the challenges they had with regard to their learners with barriers. Miss Sithole said the following:

With the Grade 4s, it is very difficult for them to adapt into the new phase since every subject is now taught in English.

Miss Mqadi added*:*

Having extra classes to help our learners with barriers may be a solution to achieving better results.

It seems as if reflecting in these PLCs helped the teachers to find out the common challenges that they face, and discuss ways to deal with these.

4.7.4. Collaboration

According to Kwakman (2003) collaboration is viewed as one of the vital and main characteristics of PLCs. Collaboration is about unity, sharing of knowledge, resources, assisting each other, and working jointly together as members of a PLC with the common goal of learning from one other. Instances of collaboration emerged from the above-mentioned learning activities. In the Foundation Phase PLC, Mrs. Zondi explained:

We share information on how to teach IsiZulu, Mathematics, and EFAL; each member gets a chance to facilitate the meeting and to share information on a topic that needs to be discussed in a certain subject with other PLC members.

Mrs. Msomi agreed with the above statement by Mrs. Zondi when she said:

We divide topics so that everyone has something to share about how to teach the content of a particular subject.

When Mrs. Zondi was asked to mention an activity that she thought helped her PLC to stay alive and contribute to teacher professionalism and development, she answered by saying:

Sharing information on what needs to be taught and how to teach phonics and reading with each other and meeting regularly, helps our PLC to stay alive because we are willing to grow professionally as educators.

The above extract is an indication that when teachers are consistent in their meetings, collaboration like sharing of knowledge and resources takes place, which is something that would not happen easily if they were not part of a professional learning community that is active. Although Mrs. Zondi did not specify how they grow in their PLC, the meeting observation clarified this. During the PLC meeting that was on the 11th of May 2023, teachers were busy sharing various strategies and techniques that they used in their classrooms to teach phonics, as expressed in the following extracts.

Mrs. Zondi stated:

For me, the best way to introduce phonics is by using rhymes and songs with the sound to be taught.

Miss Gumede added:

Look and say is one strategy that is useful to use - the one at the end of the Jikimfundo lesson plan toolkits in the resources section.

Mrs. Msomi also said*:*

I find the look and say words helpful, every day after assembly that's what I start with. Also building up words and breaking them down is useful.

The above extracts from the observation notes indicate that teachers shared teaching strategies and techniques, and worked together to try and close the gaps. The aforementioned quotes also

suggest that the teachers are at the same level, and no teacher is treated as superior or as an expert, and as such, they all have equal chances of sharing information. Miss Sithole also highlighted that in their PLC there was two-way mentoring, where expert teachers mentored novices and vice-versa.

Miss Sithole highlighted being mentored by Miss Mtolo, a novice teacher, when she pointed out:

> *Miss Mtolo, the novice teacher, mentors me by sharing information and showing me how to use technology in the classroom effectively, since she is young and fresh from university.*

In a similar way to Miss Sithole, Miss Mtolo shared her most valuable learning experience in this manner:

> *The most valuable learning opportunity that professional learning community offers me as a teacher, is that (sic) to learn from expert teachers through sharing of information and supporting each other to promote good teaching and learning.*

The members of the PLC engaged in activities that led to the sharing of knowledge and resources among each other.

4.7.5. Non-fitting into categories

Non-fitting into activities refer to those that do not fit into any of the above-mentioned and discussed categories.

In the Foundation Phase PLC, one of the participants, Mrs. Zondi who is a novice teacher, said:

> *Being in a PLC offers me an opportunity for growth and boosts my self-esteem.*

Miss Mtolo, a novice teacher from the Intermediate and Senior phase, commented on the skills that she had acquired from being in a PLC, saying:

> *I have acquired communication skills as I interact with other teachers often.*

Teachers commented that PLCs made them more confident as they were platforms where they often interacted with other teachers from their own PLCs. The items that they mentioned did not fall under any of the categories of the professional learning activities.

4.8. Kinds of Teacher Knowledge in the Two PLCs

In this section, I used Grossman's (1990) domains of teacher knowledge to describe the kinds of teacher knowledge and skills that were learnt in the PLCs. The kinds of knowledge acquired were classified according to four domains of teacher knowledge: subject matter knowledge,

pedagogical content knowledge, general pedagogical content knowledge, and contextual knowledge.

4.8.1. Subject Matter Knowledge

Subject matter knowledge involves knowledge of the content of a subject, and of the substantive and syntactic structure of the discipline (Grossman 1990). The Foundation Phase teachers that were interviewed reported that in their Foundation Phase PLC, they learned more content of the subjects that they were teaching. Mrs. Zondi reported about her learning experience in this way:

> *I have a good learning experience in Mathematics where we learnt how to do Foundation phase addition sums using counters in our PLC.*

When Miss Gumede lamented about teaching subjects that she was not trained to teach, she reported about learning the basics of Social Sciences:

> *As our school is a multigrade school, some of the subjects we teach are subjects we did not train in, so from my colleagues in the PLC, I learn about the basics of Social Sciences and curriculum*

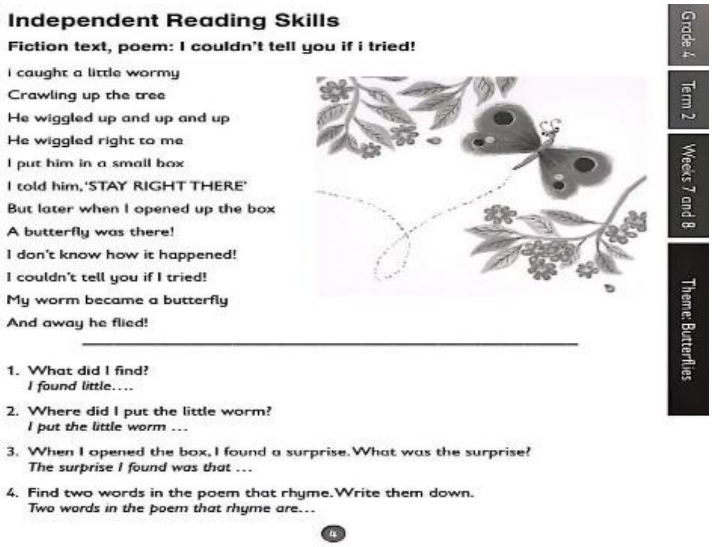
The teachers from the Intermediate and Senior phase PLC also shared their experiences regarding subject matter knowledge. Miss Mqadi put in this manner:

> *I got knowledge about the electricity chapter and how to make simple circuits in Natural Sciences in my PLC.*

Miss Mtolo added:

> *In our PLC, we learnt about gender stereotyping in Grade 6 Life Skills. This learning experience was facilitated by Miss Sithole, our Departmental Head.*

On the 12th of May 2023, during the English PLC meeting for Intermediate and Senior phase teachers, I noticed that they were discussing poetry in Grade 4 and Grade 5, specifically the basics of its internal and external features. Miss Sithole was facilitating the session and she gave teachers the poem shown in Figure 4 below



Independent Reading Skills

Fiction text, poem: I couldn't tell you if i tried!

I caught a little wormy
Crawling up the tree
He wiggled up and up and up
He wiggled right to me
I put him in a small box
I told him,'STAY RIGHT THERE'
But later when I opened up the box
A butterfly was there!
I don't know how it happened!
I couldn't tell you if I tried!
My worm became a butterfly
And away he flied!

1. What did I find?
   I found little....
2. Where did I put the little worm?
   I put the little worm ...
3. When I opened the box, I found a surprise. What was the surprise?
   The surprise I found was that ...
4. Find two words in the poem that rhyme. Write them down.
   Two words in the poem that rhyme are...

4

Grade 4 | Term 2 | Weeks 7 and 8 | Theme: Butterflies

Figure 4: Poem distributed in the Intermediate and Senior Phase PLC

Miss Sithole elaborated during the interview session about what they learn in their PLC:

> *Our PLC assists us to deal with particular topics in depth. In our PLC recently, we discussed the fundamentals of poetry in English*

The data indicates that teachers seemed to be using their PLCs to deepen their subject matter knowledge. The discussions on specific topics like poetry basics in EFAL suggest a collaborative effort to enhance teaching strategies and improve content understanding.

4.8.2. Pedagogical Content Knowledge

According to Grossman (1990), pedagogical content knowledge (PCK) enables teachers to represent and convey the subject content to his or her learners in a way that will be easy for them to grasp. When the participants were responding to the interview question on new knowledge and strategies that they had gained as result of participating in the PLC activities, their responses seemed to indicate acquiring PCK. From the Foundation PLC, Miss Gumede responded by saying:

> *I have gained new knowledge and strategies on how to make teaching meaningful and interesting using different learning styles. I have also gained knowledge on how to be an innovative teacher in a digitally constructed world even though we are in deep rurals (sic).*

Mrs. Msomi also mentioned that:

My colleagues have helped me prepare relevant teaching aids as well as contacting various sources of information. Being part of [a] PLC has assisted me in acquiring skills on how to integrate related subjects like IsiZulu and Life Skills.

These responses relate to pedagogical content knowledge, whereby teachers are able to identify ways to make their subjects representable and link them to others, as evidenced from Mrs Msomi' learning experience with subject integration in the PLC.

In the Intermediate and Senior phase PLC, when looking at pedagogical content knowledge, this is what teachers had to say. Miss Mqadi stated that:

In my PLC, I learn how to apply new knowledge to my learners in the subjects I teach.

Miss Sithole responded to the same question by saying:

I learnt how to develop resources according to my subjects and how to teach in a productive way.

When participants responded to the question to give an example of an activity or something that she learned from a colleague in a PLC, Miss Mqadi elaborated in this manner:

A colleague of mine taught me how to set assessment papers that are balanced in terms of cognitive levels as well as how to use differentiation in the classroom.

The above extracts reveal that in the Intermediate and Senior phase PLC, the teachers were equipped with pedagogical content knowledge (PCK) to enhance their teaching strategies.

4.8.3. General Pedagogical Knowledge

Grossman (1990) defines general pedagogical knowledge as the knowledge that a teacher acquires about general skills, beliefs, and principles which are not related specifically to curriculum, content, grade, or topic.

In the Foundation Phase, one teacher reported that:

I have learnt how to solve problems (problem solving) and classroom management skills in our PLC.

Miss Gumede highlighted a few things around general pedagogical knowledge when she said:

The skills I have acquired in my PLC have helped me to better manage my department as a Foundation phase Departmental Head.

She added:

In our PLC, we learn to establish conducive classroom environments and how to manage our classrooms (classroom management).

Mrs. Zondi's response, when she described her experiences in a PLC, was as follows:

By being in a PLC (sic) has taught me to do proper planning of my lessons in every subject I teach using ATPs, Caps planner, and trackers.

In the Intermediate and Senior phase, general pedagogical knowledge was evident from the interviews. When responding to the question about the skills acquired in her PLC, Miss Sithole, the Departmental Head, replied by saying:

I have acquired a very important skill of being creative in my lesson preparations, and setting tasks that allow my learners to achieve the expected knowledge, skills, values, and attitudes.

This response corresponds with general pedagogical knowledge, as Miss Sithole pointed out general skills that she had gained from her Intermediate and Senior phase PLC. In this instance, she acquired a skill that has made her competent in any grade or subject.

The aforementioned response correlates with the findings of the observation of the English workshop that took place on the 12th of May 2023. During the PLC meeting, the teachers moved from discussing the contents of the English curriculum to talking about how to maintain discipline in their classrooms, especially for Grade 4s. This is depicted in the following extracts from the observation notes. Miss Mtolo started by saying:

The Grade 4s are very problematic when it comes to discipline; they like to play during teaching and learning.

Miss Sithole added:

The best way to deal with them is to keep them occupied and keep asking questions and they will focus; that has worked for me over the years even in other grades I teach.

Miss Mqadi also said:

> *I also have the same problem and some of them do not even write when I give them activities to complete.*

The general pedagogical knowledge that the participants acquired in their PLCs was essential for them in their different subjects and grades. The participants expressed that the general skills that they have were because of being part of PLCs.

4.8.4. Knowledge of Context

Knowledge of context refers to knowledge that relates to the background information that teachers have about the community and context in which they teach (Grossman, 1990). It is about knowing the background of the learners, their strengths and weaknesses, and the community, and using that knowledge to close all the gaps that may hinder the effective process of teaching and learning.

In answering the question about an example of a learning activity or something that she learned from a colleague in the PLC, Mrs. Zondi responded by saying:

> *I was educated on how to use counters in number patterns in different activities; I collect cold drink bottle tops from my yard, and my learners also bring them from home, and we use them as counters.*

In my observation of the Foundation phase PLC on the 11th of May 2023 and 18th of May 2023, I encountered a situation that allows me to conclude that the teachers had acquired knowledge of the context they work in. They discussed the differentiation of tasks and the importance of adhering to the Screening, Identification, Assessment and Support (SIAS) policy. SIAS is an inclusive education policy that is used to identify the challenges and learning difficulties that learners are faced with, assess the problems, and give them support (DBE, 2014).

In the Intermediate and Senior phase PLC, Miss Mtolo showed knowledge of context when she said:

> *I have acquired skills on how to use curriculum differentiation when teaching my learners as they have different learning abilities.*

Miss Mtolo's experience displays knowledge of context which has equipped her to make use of the context and background of her learners, so that she is able to weigh their abilities and prepare her differentiated lessons to accommodate all of them.

4.9. Conclusion

In this chapter, I have made an analysis and interpretation of the data and findings of the study using the conceptual frameworks of Kwakman (2003) and Grossman (1990). The data was collected from semi-structured interviews that were conducted in a rural primary school, and from meeting observations in the same school's different PLCs, namely the Foundation phase PLC and Intermediate and Senior phase PLC. The next chapter presents a discussion of the findings, recommendations, and conclusion.

CHAPTER FIVE: DISCUSSION OF FINDINGS, RECOMMENDATIONS AND CONCLUSIONS

5.1 Introduction

In Chapter Four, Kwakman (2003) and Grossman's (1990) conceptual frameworks were used to present and analyse data generated from the semi-structured interviews and observations. This chapter deliberates on the findings in response to the three research questions of this study. The study was grounded in the following research questions:

1. What kind of learning activities do teachers engage with in their PLCs within a rural primary school context?
2. In what ways do teachers learn from each other in their PLCs within a rural primary school context?
3. What skills and knowledge do teachers acquire from being part of a Professional Learning Community within a rural primary school context?

This chapter starts with a discussion of the key findings in relation to the research questions, followed by the recommendations and ideas for further research based on the findings of the study. The chapter ends by providing concluding comments based on the key issues that arose from the recommendations, while possible research extension and a conclusion of the study are also presented.

5.2. Discussion of Findings

The findings of the study will be discussed below in relation of the three research questions that underpinned this study.

5.2.1. What kind of learning activities do teachers engage with in their PLCs, within a rural primary school context?

The findings of this study suggest that participants from the two PLCs participated in different learning activities in response to their own contextual challenges. These contextual challenges included a great shortage of teachers and resources, which led to multiphase, multigrade teaching and teaching outside of one's field. Out-of-field teaching was a challenge which involves teaching in a subject area for which a teacher is not specialized, and was a concern to the participants. These challenges hinder curriculum delivery in rural context schools. The aforementioned challenges are confirmed in Du Plessis and Mestry (2019), namely that in a

South African rural school context, teachers are faced with contextual challenges coupled with a lack of resources. The following Table 5 provides a summary of the learning activities for each PLC.

Table 5: Professional learning activities of the PLCs guided by Kwakman (2003)

Kwakman's (2003 & 2005) Categories	**Learning Activities of the Foundation Phase PLC**	**Learning Activities of the Intermediate and Senior Phase PLC**
Reading	Teachers read: • Newspapers • Jikimfundo Toolkits • Annual Teaching Plans • CAPS Documents	Teachers read: • PSRIP documents • CAPS Documents • Annual Teaching Plans • Poems
Experimenting	Teachers experimented by: • Setting assessment tasks in their PLC according to the cognitive levels • Demonstrating how to tackle addition in mathematics • Developing teaching aids and resources for each subject • Coaching and guiding	Teachers experimented by: • Creating and developing teaching resources • Demonstrating to each other how to use technology and social media • Showing each other how to do Natural Sciences experiments
Reflecting	Teachers reflected on: • The learning barriers that their learners encounter in their classrooms	Teachers reflected on: • The performance of their learners and how they can improve their results. • The learning difficulties and barriers that their learners experience
Collaborating	Teachers collaborated by: • Sharing useful teaching resources • Sharing various teaching strategies with other	The collaborated by: • Sharing content knowledge in their PLC and through social media • Team teaching and peer teaching • Collaborative mentoring between novice and expert teachers
Non- fitting into categories	Mrs Zondi shared that by being part of the Foundation Phase PLC she gained: Professional growth and self esteem	Miss Mtolo stated that she expanded the level of her communication skills through being part of a PLC

The findings indicate that teachers in their PLCs engaged in reading for lesson planning purposes, using their curriculum support documents like Annual Teaching Plans (ATPs) and CAPS documents. Reading was mostly done to increase their general pedagogical knowledge through policies and curriculum programmes initiated by the Department of Basic Education, such as Jikimfundo toolkits and PSRIP documents. However, in the Intermediate and Senior phase PLC, the participants read for content as they read poems that they teach in the subject of English First Additional Language (FAL). To support the activity of reading in a professional learning community, Kwakman (2003) stated that the core purpose of reading is to be advanced with innovative perceptions and developments that influence the professional field. Hence, in the Foundation Phase PLC, the participants also indicated that they read newspapers independently to enhance their professional development.

The findings also suggest that there was reflection in the PLCs. Brodie and Borko (2016) state that PLCs require collective reflective inquiry to improve practice, and the capacity to express and validate verdicts, thoughts, and actions on the basis of a firm foundation of knowledge. Participants mentioned that in their Foundation Phase PLC they reflected on the learning barriers that their learners encountered in their classrooms. However, in the Intermediate and Senior Phase, the participants reflected on the performance of their learners and how they could improve their results. The Intermediate and Senior Phase participants also reflected on the learning difficulties and barriers that learners experience. Their discussions led to reflective professional enquiry where they made a personal investigation into the problems that they had in applying new knowledge with their learners, and then jointly came up with solutions to these problems. This finding is comparable to what Jita and Mokhele (2014) found in their study about the experiences of South African teachers with the cluster approach to professional development. Teachers in their study articulated that in their clusters, one of the consistent activities was the discussion of content knowledge and pedagogy.

5.2.2. In what ways do teachers learn from each other in their PLCs, within a rural primary school context?

The ways in which teachers learn from each other in two PLCs within a rural primary school context is depicted in Table 6. The findings in response to the above question indicate that participants of the study learnt from each other through experimenting. In the Foundation Phase PLC, experimenting focused on how to set assessment tasks according to the cognitive levels of

the learners. The Foundation Phase PLC participants also experimented by demonstrating to each other how to tackle addition sums in Mathematics. The findings also indicate that they learnt from each other how to develop teaching aids and resources for each subject that they teach. These findings seem to corroborate with findings of the study conducted in two PLCs by Zulu (2017) in one of the districts in KZN, where Commerce teachers' learning in the PLC was for meaning and content of the subject; meanwhile, in Mathematics the learning was also content-based, as the teachers participated in group tasks to demonstrate to each other how to teach differentiation.

The participants experimented and learnt from each other through coaching and guiding each other on how to teach specific subjects like Mathematics, Natural Sciences, English First Additional Language (FAL) and IsiZulu Home Language (HL). The findings of the study also suggest that there was collaborative mentoring in the PLCs. According to Long (2009), formalized mentoring refers to identifying mentors who have the role of helping new teachers in their first years of practice. These findings highlight the importance of PLCs as a platform for collaborative mentoring. This is supported in Hudson et al. (2013), that PLCs can be premediated controls for mentors and novice teachers in establishing the mentoring process. The experienced teachers mentored the novice teachers about a number of things that are work related and prepared them for the workplace. The novice teachers also mentored the experienced teachers on how to use social media platforms like Telegram and WhatsApp to access teaching resources. In the Intermediate and Senior phase PLC, the findings of this study also reveal that the participants learned from each other through demonstrations, where they demonstrated how to teach the different topics that are stipulated in their ATPs. The participants reported that in their PLC, they experimented by creating and developing teaching resources. Participants from both phases experimented and came up with ways and strategies that were more useful in their teaching. Kwakman (2003) supports this activity because it makes it easy for teachers to teach and set tasks according to the abilities and needs of their own learners.

Teachers also learned from each other through collaboration. Collaboration is crucial not only because it is imperative for teachers to learn through it, but because it is the main characteristic of PLCs (Hairon et al., 2017). Collaboration was mentioned by the participants as a way of learning from each other in their rural PLCs. Participants in the Foundation Phase PLC collaborated by sharing useful teaching resources and various teaching strategies with each other.

Teachers collaborated in order to share information that is relevant to their teaching subjects. They shared information about how to prepare for lessons and how to differentiate the curriculum in order for all learners to be accommodated. Teachers did this as a way of learning from each other as they understood that two heads are better than one. In agreement with Vangrieken et al. (2017) and Zulu and Mukeredzi (2021), the findings of this suggest that PLCs provided room for constant, continuing professional development for teachers in a rural school context. When the ISPFTED was initiated in South Africa through PLCs, the DBE and the DHET (2011) envisioned that support and resources for teachers, and access to professional development opportunities, would be enhanced at a local level by the establishment of PLCs in schools.

Collaboration also awarded members of the Foundation Phase PLC a fair opportunity to share ideas about pedagogy, observe each other, and grow together with the aim of producing good learner results in their school. These findings are similar to those of a study conducted in a junior secondary school in China by Chen (2022), which investigated the learning experiences of teachers in subject-based PLCs. This study established that the teachers shared and developed new understandings and practices within their PLCs through collaboration.

In a similar way to the Foundation Phase PLC, the Intermediate and Senior Phase PLC displayed acts of collaboration by sharing content knowledge through social media, team teaching, and peer teaching. The findings of this study are in line with those of a study by Chimbunde et al. (2024) that was conducted in uMgungundlovu district in KwaZulu-Natal, South Africa, where history teachers reported that in their PLCs they collaborated through sharing their views, experiences, and teaching methods with each other. On the whole, the findings from this study seem to suggest that in both PLCs there was a collaborative culture among the teachers, as they shared teaching strategies and learnt from each other willingly. Collaborative cultures include evolutionary relationships symbolized by openness, trust, and support among the participating teachers (Hargreaves, 1994, as cited in Zulu and Betram, 2019). While the findings indicate that there was collaborative learning in both PLCs, the findings from the observations and interviews show that teachers in both PLCs met during breaks, as there was no time for meetings due to their teaching loads.

5.2.3. What skills and knowledge do teachers acquire from being part of a Professional Learning Community, within a rural primary school context?

The findings suggest that teachers of both PLCs appeared to benefit from being part of these because it exposed them to different types of skills and knowledge. Table 6 below provides a summary of the findings in relation to the skills and knowledge that teachers acquire from being part of a Professional Learning Community.

Table 6: Types of knowledge learnt in two PLCs in a primary school (Models of teacher knowledge) adopted from Grossman (1990)

Types of Teacher Knowledge Grossman (1990)	**Examples of learning tasks and topics for Foundation Phase PLC**	**Examples of learning tasks and topics for Intermediate and Senior Phase PLC**
Subject Matter Knowledge	• Knowledge of Mathematics-Addition • Knowledge of Phonics	• In Natural Sciences they learn how of make a simple circuit • In English they learn the basics of poetry for grades 4 and 5
Pedagogical Content Knowledge	Teachers acquired knowledge on how to: • Use counters in Maths • Teach differentiated curriculum • Use different teaching strategies	Teachers gained skills on how to: • Use resources for different subjects e.g. Natural Sciences and English (Charts, flashcards) • Teach according to different learning styles of their learners.
General Pedagogical Knowledge	Teachers learnt how to: • Use ATP's, Jikimfundo Lesson Plans and Trackers • The D.H. improved on how to manage the foundation phase	• How to plan using for teaching using PSRIP and CAPS documents • How to set balanced examination papers according to cognitive levels of the learners
Contextual Knowledge	• Learning barriers • Using teaching aids that relates to learners' local knowledge e.g. bottle tops as counters	• Learn how to cater for different learners' abilities

As depicted in Table 6, the findings indicate that in the Foundation Phase PLC, the participants reported that they acquired subject matter knowledge when their knowledge of Mathematics was increased, particularly in teaching addition in a simplified manner. The participants also mentioned that they acquired knowledge on how to teach phonics in the Foundation Phase. Correspondingly, in the Intermediate and Senior Phase the participants reported that they acquired knowledge on how to make a simple circuit in Natural Sciences for Grade 6. They also reported that they gained knowledge on teaching the basics of poetry in English First Additional Language for grades 4 and 5. The findings of this study are similar to those of a study that was conducted by Jita and Mokhele (2014); their study focused on the experiences of South African Mathematics and Science teachers in Mpumalanga province. The participants in that study reported that they assisted each other with the content of their subjects, if there were kinds of diverse topics that included different learning areas (or subjects). So, if there was a topic that one could not teach, they would ask somebody else from the PLC to teach it to them until they had sufficient knowledge of the subject. They sat together and planned for that lesson.

In the Foundation Phase PLC, the participants said that they acquired pedagogical content knowledge on how to use counters in Mathematics. The participants were also equipped with knowledge on how to teach a differentiated curriculum using different teaching strategies. In the Intermediate and Senior Phase PLC, the participants reported that they had gained knowledge on how to teach using their learners' different learning styles. They added that they acquired skills on how to use resources for different subjects like Natural Sciences, Mathematics, Social Sciences, and Languages. Teachers had agency over what kind of knowledge and skills they needed to acquire. According to Calvert (2016), teacher agency refers to the ability of teachers to act firmly and positively for their professional development.

In relation to general pedagogical knowledge, the findings indicate that the Foundation Phase participants gained skills on how to efficiently and effectively use Annual Teaching Plans (ATPs) and Jikimfundo material in their PLC. Miss Gumede, the Foundation Phase Departmental Head, who was a member of both PLCs stated that she also gained knowledge on how to better manage the Foundation Phase. In the Intermediate and Senior Phase PLC, the participants indicated that they had acquired skills on how to plan lessons using PSRIP and

CAPS documents. They further reported that they had gained knowledge on how to set balanced examination papers according to their learners' cognitive levels.

The findings of the study alluded that in both PLCs, teachers had acquired skills to set assessment tasks that afforded learners an opportunity to achieve the expected skills, values, and attitudes. This skill has made it easy for the participants to love their work because they are always ahead of what is expected from them as teachers. Teachers also said that they were motivated to always have charts of the work covered displayed on their classroom walls to make their learning spaces learning friendly. The displaying of charts does not only allow for the space to be conducive to learning, but also assists learners to have access to what has been taught daily, with the aim of improving their results during both formal and informal assessments. The findings of this study are in line with those from a study conducted by Bertram and Mxenge (2023), which reports that the two core resolutions of the activities in the PLCs' meetings included upgrading learner results and keeping track of curriculum coverage and assessment practices for teachers.

The participants in both phases said that through knowledge of context, they were now able to identify which gaps they needed to fill when preparing their lesson plans. They further stated that because of the knowledge they had of the learners' background, they were now able to prepare lessons that are strictly relevant to their learners and their context. They understood the learners and the community they came from, and that made their lessons effective and productive. All the learner's abilities were now taken into consideration and extra help was given to those with barriers where necessary.

The findings suggest that in both PLCs, teachers focused on the knowledge of context. In the Foundation Phase PLC, the participants stated that they gained knowledge on how to accommodate learners with learning barriers and use resources that relate to their contextual backgrounds. For example, in Mathematics, instead of the teacher requesting the learners to buy their own counters, she suggested that the learners pick up bottle tops and bring them to school to use as counters. The Intermediate and Senior Phase PLC participants, on the other hand, mentioned that they acquired knowledge on how to cater for different learners' abilities. These findings indicate that the participants adhered to the Screening, Identification, Assessment and Support (SIAS) policy of the Department of Basic Education, whose objective is to manage and

provide essential support to teaching and learning processes for learners with barriers to learning (DBE, 2014).

Lastly, the findings of this study suggest that PLCs, as envisioned in the Integrated Strategic Planning Framework for Teacher Education and Development (ISPFTED), could serve as platforms for teachers' professional development near their places of work (Zulu & Mukeredzi, 2021). PLCs are a great way for teachers in rural contexts to be exposed to professional development, for them to have autonomy and take control of their professional development with the aim of improving their teaching practices.

5.3. Recommendations

Based on the findings of this study, it is recommended that the PLCs should be allocated more time for their meetings to take place because the break time is not sufficient. The participants need to make use of social media platforms to conduct their PLC meetings and not only to share resources. It is suggested that since the PLCs are already functional, the Department of Basic Education should offer support to them, such as more training and providing them with resources. The DBE should also support the PLCs to address the challenges that they have in a rural context.

5.4. Possible Research Extension

In order to get a clearer picture of the experiences of learning and participation of teachers in a rural primary school context, in future this research can be extended to other schools' PLCs rather than focusing on the PLCs in one school. The findings from those studies could lead to more literature on primary school PLCs and the results could give an indication of what really happens in primary schools in a rural context. Further research could also compare the experiences of teachers in PLCs in urban and rural contexts. As we are moving towards the end of the ISPFTED time frame (2011-2025), research could be done to check if the goal for the formation of PLCs was achieved and to what extent.

5.5. Conclusion

The aim of this study was to explore rural primary school teachers' experiences of learning and participation in PLCs. Two PLCs from the Foundation Phase and Intermediate and Senior Phase from a rural primary school were researched. The findings showed that the teachers engaged in activities such as reading, experimenting, reflecting, and collaboration in their PLCs.

Additionally, there were some no-fitting activities that the participants engaged in. Lastly, the findings of the study also revealed that the teachers acquired knowledge such as subject matter knowledge, pedagogical content knowledge, general pedagogical content knowledge, and knowledge of context in their PLCs.

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APPENDICES

Appendix A: DBE Permission Letter

KWAZULU-NATAL PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

OFFICE OF THE HEAD OF DEPARTMENT

Private Bag X9137, PIETERMARITZBURG, 3200
Anton Lembede Building, 247 Burger Street, Pietermaritzburg, 3201
Tel: 033 392 1063
Email: Phindile.duma@kzndoe.gov.za

Enquiries: Phindile Duma **Ref.**:2/4/8/8

Miss N Mzobe
PO Box 360
SCOTTBURGH
4180

Dear Miss Mzobe

PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct research entitled: **"EXPLORING RURAL PRIMARY SCHOOL TEACHERS' EXPERIENCES OF LEARNING AND PARTICIPATION IN PROFESSIONAL LEARNING COMMUNITIES",** in the KwaZulu-Natal Department of Education Institutions has been approved. The conditions of the approval are as follows:

1. The researcher will make all the arrangements concerning the research and interviews.
2. The researcher must ensure that Educator and learning programmes are not interrupted.
3. Interviews are not conducted during the time of writing examinations in schools.
4. Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
5. A copy of this letter is submitted to District Managers, Principals and Heads of Institutions where the Intended research and interviews are to be conducted.
6. The period of investigation is limited to the period from 30 January 2023 to 31 January 2026.
7. Your research and interviews will be limited to the schools you have proposed and approved by the Head of Department. Please note that Principals, Educators, Departmental Officials and Learners are under no obligation to participate or assist you in your investigation.
8. Should you wish to extend the period of your survey at the school(s), please contact Miss Phindile Duma at the contact numbers above.
9. Upon completion of the research, a brief summary of the findings, recommendations or a full report/dissertation/thesis must be submitted to the research office of the Department. Please address it to The Office of the HOD, Private Bag X9137, Pietermaritzburg, 3200.
10. Please note that your research and interviews will be limited to schools and institutions in KwaZulu-Natal Department of Education.

UGU DISTRICT

[redacted]

Mr GN Ngcobo
Head of Department: Education
Date: 30 January 2023

GROWING KWAZULU-NATAL TOGETHER

Appendix B: Ethical Clearance Approval Letter

UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

28 March 2023

Nomkhosi Mzobe (210502178)
School Of Education
Pietermaritzburg Campus

Dear N Mzobe,

Protocol reference number: HSSREC/00005336/2023
Project title: Exploring rural primary school teachers experiences of learning and participation in professional learning communities.
Degree: Masters

Approval Notification – Expedited Application

This letter serves to notify you that your application received on 10 March 2023 in connection with the above, was reviewed by the Humanities and Social Sciences Research Ethics Committee (HSSREC) and the protocol has been granted **FULL APPROVAL**.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number. PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

This approval is valid until 28 March 2024.
To ensure uninterrupted approval of this study beyond the approval expiry date, a progress report must be submitted to the Research Office on the appropriate form 2 - 3 months before the expiry date. A close-out report to be submitted when study is finished.

HSSREC is registered with the South African National Health Research Ethics Council (REC-040414-040).

Yours sincerely,

[redacted]

Professor Dipane Hlalele (Chair)

/dd

Humanities and Social Sciences Research Ethics Committee
Postal Address: Private Bag X54001, Durban, 4000, South Africa
Telephone: +27 (0)31 260 8350/4557/3587 **Email:** hssrec@ukzn.ac.za **Website:** http://research.ukzn.ac.za/Research-Ethics
Founding Campuses: Edgewood Howard College Medical School Pietermaritzburg Westville

Appendix C: Principal's Letter

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001, Durban, 4000, KwaZulu-Natal, SOUTH AFRICA

Tel: 031 2604557

Fax: 031 2604609

Email: HSSREC@ukzn.ac.za

CONSENT

I ……., the principal of ……. primary school, hereby grant the researcher (Nomkhosi Mzobe) permission to conduct her research study at my school.
I have been informed about the study titled: **Exploring rural primary school teachers' experiences of learning and participation in PLCs**.

I understand the purpose and procedures of the study.

I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.

If I have any further questions/concerns or queries related to the study I understand that I may contact the researcher, supervisor or UKZN Humanities & Social Sciences Research Ethics Committee.

_____ _____

Principal **Date**

Appendix D: Participants' Consent Form

INFORMED CONSENT FORM FOR PARTICIPANT

MASTERS RESEARCH TITLE: **Exploring rural primary school teachers' experiences of learning and participation in PLCs.**

School of Education, College of Humanities, University of Kwa-Zulu Natal

RESEARCHER: Nomkhosi Mzobe

Date: 10 February 2023

Dear Sir / Madam

RE: REQUEST FOR PARTICIPATION IN A RESEARCH STUDY

I, Miss. N. Mzobe, studying towards my master's in education degree at the University of KwaZulu-Natal. As part of the requirements for this degree, I am conducting a research on PLCs within a rural primary school context. The title of my study is: **Exploring Rural Primary School Teachers' Experiences of Learning and Participation in PLCs**. I am looking to research at a school that has PLCs both in the Foundation phase and Intermediate and Senior phase. Thus, I kindly request permission to conduct my study at your school.

The study aims to explore the experiences of learning and participation of teachers within a rural primary school context. It also seeks to understand the kind of activities that teachers engage with in their PLCs within a rural primary school context. It also intends to find out ways in which teachers learn from each other in a professional learning community within a rural primary school context. Lastly, the study aims to understand the skills and knowledge that teachers acquire from being part of a professional learning community within a rural primary school context.

This research will involve the following procedures to gather data from participants for this study:

- Observation of PLC meetings. I will observe PLC meetings to identify factors such as the kinds of professional learning activities teachers participate in, kinds of teacher knowledges shared, resources used and the characteristics of a PLC to understand how

teachers learn within the selected PLC within a rural primary school context. These observations will be recorded in writing.

- There will be interviews with 3 selected members of each PLC, a novice teacher, an experienced teacher and a Departmental Head. This interview will follow PLC meetings to gather information of teachers' experiences of learning and participation in a PLC within a rural primary school context.

- The duration of this interview should be approximately 1 hour at a time convenient for the participant. Please note that interviews will be audio recorded using my cell phone and participants' responses will be recorded in writing as well. Should there be information from interviews that needs to be further investigated, a follow up interview will be scheduled.
- In addition, I request permission to analyse documents used during PLC meetings.

This study has been ethically reviewed and will be supervised by my Supervisor, Dr. Bongiwe Zulu, a lecturer at UKZN, Pietermaritzburg (School of Education, College of Humanities). In the event of any problems, concerns or questions you may contact me, the researcher, my supervisor or the UKZN Humanities & Social Sciences Research Ethics Committee on the contact details provided below. This research will not involve any risks and/or discomforts to you. Participation in this research is voluntary and you may withdraw participation at any point with no obligation. Your confidentiality will be protected. All your personal information will be kept confidential and will be presented using pseudonyms to protect your identity.

Thank you for considering my request to participate in this research study.

Yours faithfully

Nomkhosi Mzobe

Cellphone no: [redacted]

Email address: 210502178@stu.ukzn.ac.za

Supervisor's details

Dr. Bongiwe Zulu

Faculty of Education

University of KwaZulu-Natal

Pietermaritzburg Campus

Tel: 033-260-5723

Email: ZuluF1@ukzn.ac.za

HUMANITIES & SOCIAL SCIENCES RESEARCH ETHICS ADMINISTRATION

Research Office, Westville Campus

Govan Mbeki Building

Private Bag X 54001, Durban, 4000, KwaZulu-Natal, SOUTH AFRICA

Tel: 031 2604557

Fax: 031 2604609

Email: HSSREC@ukzn.ac.za

CONSENT

I …… (name in full), hereby willingly consent to participate in the research study mentioned above.
I have been informed about the study titled: **Exploring Rural Primary School Teachers' Experiences of Learning and Participation in PLCs**.

I understand the purpose and procedures of the study.I have been given an opportunity to ask questions about the study and have had answers to my satisfaction.
I declare that my participation in this study is entirely voluntary and that I may withdraw at any time without affecting any of the benefits that I usually am entitled to. If I have any further questions/concerns or queries related to the study, I understand that I may contact the researcher, the supervisor or UKZN Humanities & Social Sciences Research Ethics Committee.

I hereby also provide consent to: (Please tick the box of your choice).

	Yes	**No**
Be observed during PLC meetings		
Audio-record my interview		

Participant **Date**

_____ _____

Appendix E: Interview Schedule

Semi-structured Interview Schedule for teachers

Title: Exploring Rural Primary School Teachers' Experiences of Learning and Participation in PLCs.

Thank you so much for being available for an interview and thank you for signing the consent form, so you are aware that this project is part of my studies at UKZN. Everything that you say will be kept confidential. Your responses will be confidential and will only be shared with my supervisor, I will use pseudonyms to protect your identity. This interview should take about 45-60 minutes**.**

Biographical Information

1. What tertiary qualifications do you have?
2. How long have you been teaching?
3. What grades do you teach this year?
4. Briefly describe your school context. (Where your professional learning is operating).
5. What is your portfolio in the professional learning community? (If there are any portfolios)
6. How often do you meet as a professional learning community or primary school teachers' group?
7. How many PLC meetings/ workshop have you attended in the current year?

Section B: Learning activities teachers engage with in their PLCs, within a rural primary school context

8. Describe the learning experience that you have experience in your teacher learning community. Who pre-determined it? Who facilitated it? What were activities? What was the focus? What were the resources that were used and who provided them?
9. When does your PLC meet and why at that time?

Section C: Ways in which teachers learn from each other in their PLCs, within a rural primary school context?

10. Describe the experiences of working in a PLC.
11. Mention an activity that you think helps your PLC to stay alive and contribute in teacher professionalism and development.
12. How do you share responsibilities such as facilitation in your PLC to ensure that all activities are done?
13. Discuss how you think other colleagues learn from you in your PLC and also how you learn from them.
14. Give an example of an activity or something that you learned from a colleague in your PLC.

Section D: Skills and knowledge teachers acquire from being part of a Professional Learning Community, within a rural primary school context?

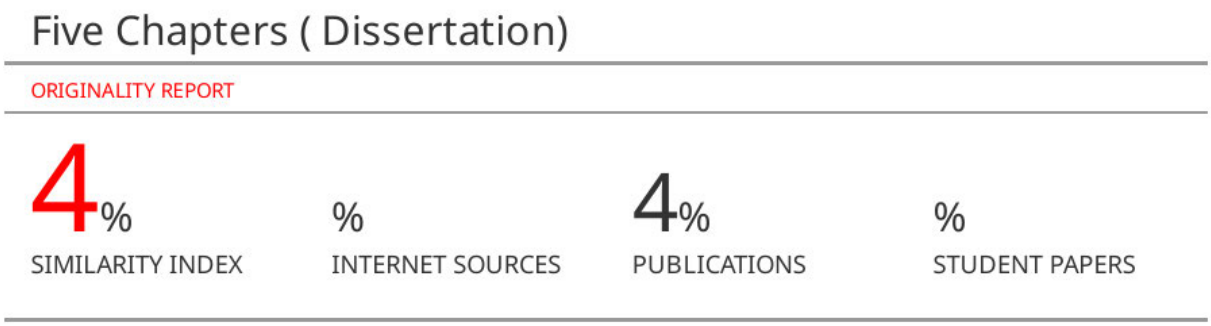
15. What is the most valuable learning opportunity that professional learning community offers you as a teacher? Please relate to the subject (s) that you are teaching.
16. What are some of the skills that you think you have acquired by being part of a PLC?
17. How do you think the skills that you have acquired from being part of a PLC contribute to your professional development as a teacher?
18. What new knowledge and strategies have you gained so far? Please explain

Appendix F: Observation Schedule

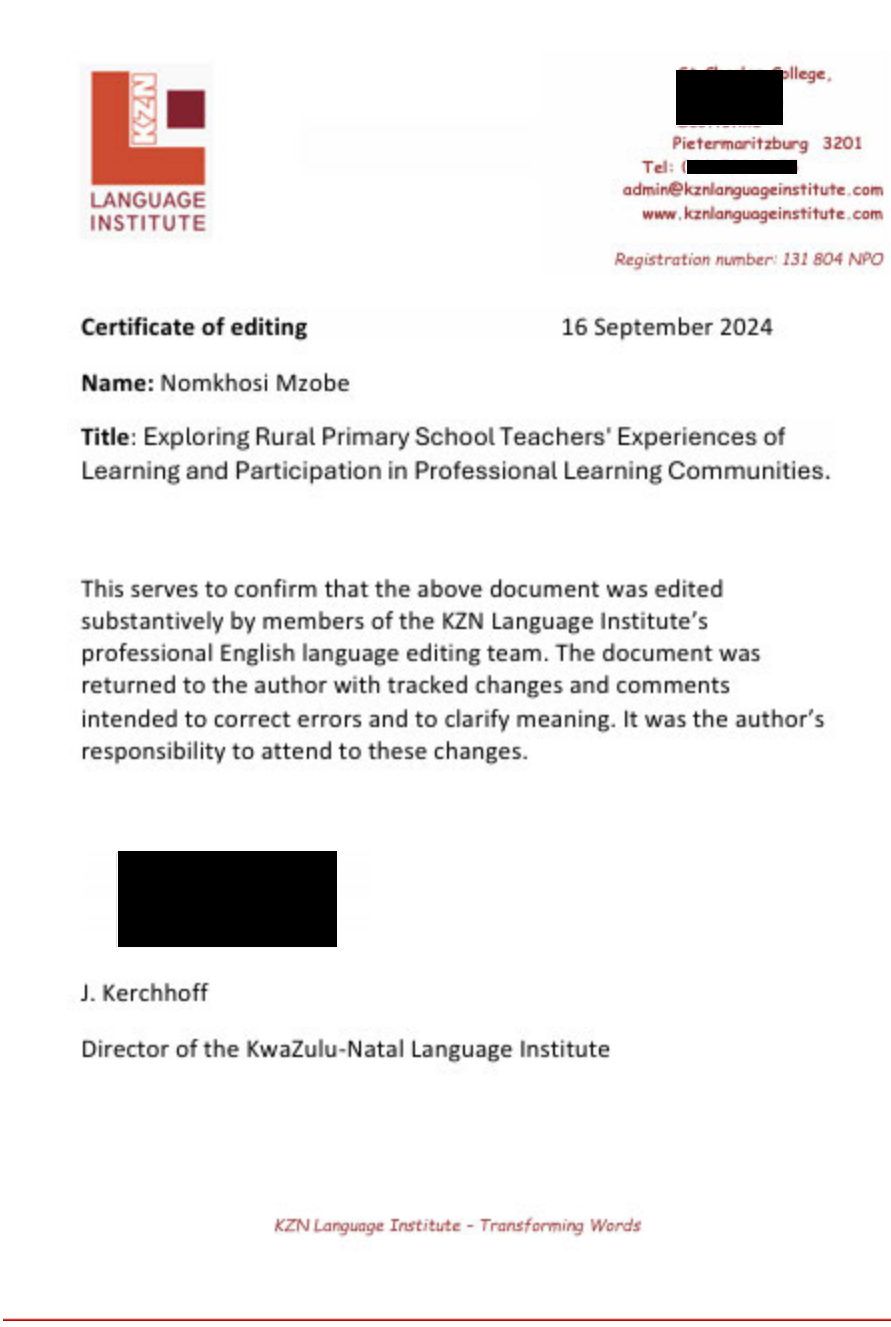
Name of PLC: **Date of observation:** **Time: Began: 12h10** **Venue:** **Number of participants present:** **Observer:** **N. Mzobe** **Topic of discussion:**	
1.What professional learning activities teachers engage in, in this PLC? Using Kwakman (2003)'s categories of activities (*Reading, experimenting, reflecting, collaborating and not fitting into categories*)	
1.1.Reading:	
1.2. Experimenting:	
1.3. Reflecting:	
1.4. Collaborating:	
1.5. Not fitting into categories:	

2.Who leads the PLC meetings / Workshop?	
3. What resources were used during the PLC meetings?	
4. Description of the participation of all participants during the PLC meetings:	
5. Skills and knowledge acquired by teachers? use Grossman's (1990) model of teacher knowledge. (*Subject matter knowledge, General pedagogical knowledge, pedagogical content knowledge, knowledge of context*)	
5.1. Subject matter knowledge:	
5.2. General pedagogical knowledge:	
5.3. Pedagogical content knowledge:	
5.4. Knowledge of Context	

Appendix G: Turnitin Report



Appendix H: Editor's Certificate



[redacted]llege,
[redacted]
Pietermaritzburg 3201
Tel: [redacted]
admin@kznlanguageinstitute.com
www.kznlanguageinstitute.com

Registration number: 131 804 NPO

Certificate of editing 16 September 2024

Name: Nomkhosi Mzobe

Title: Exploring Rural Primary School Teachers' Experiences of Learning and Participation in Professional Learning Communities.

This serves to confirm that the above document was edited substantively by members of the KZN Language Institute's professional English language editing team. The document was returned to the author with tracked changes and comments intended to correct errors and to clarify meaning. It was the author's responsibility to attend to these changes.

[redacted]

J. Kerchhoff

Director of the KwaZulu-Natal Language Institute

KZN Language Institute – Transforming Words