

TEACHER LEARNING THROUGH COLLABORATIVE TEACHING: A CASE STUDY IN A SECONDARY SCHOOL IN PIETERMARITZBURG

by

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ABSTRACT

Over the past few years there have been changes in the South African education system. This has necessitated the retraining of teachers to enhance their professional knowledge and skills. Teachers acquire and develop these professional skills through personal effort or learn these from others. However, focus has been placed on formal development initiatives, such as professional development workshops and seminars. There has been a great concern that these formal professional development initiatives fail to recognise that teacher learning is situated in particular contexts and has a social dimension. Therefore, more effective school-based teacher development initiatives are a necessity.

This study examined collaborative teaching as a model of teacher learning and development. The main aim was to explore the ways in which teachers engage in collaborative teaching and to what extent does collaborative teaching contribute to teacher learning. The study was located within the interpretive paradigm and adopted a qualitative case study approach. The conceptual frameworks that underpinned this study were Hord's (2004) five principles of teacher collaboration and Hargreaves' (2003) collaborative cultures as prerequisites for teacher collaboration. Purposive sampling was used to obtain the five participants (teachers) to participate in this research study. The study was based in a semi-urban secondary school in the Pietermaritzburg area, KwaZulu Natal. Semi-structured interviews and observations were used as data collection methods. Thematic analysis was used to analyse data.

The findings of this research study revealed that participants had diverse views on collaborative teaching. Their views emanated from their varied teaching experiences. Findings also revealed that lesson observations, reflection and mentoring were key collaborative teaching activities that took place in the school. Furthermore, it was discovered that constraints were more prevalent than factors supporting teachers' engagement in collaborative teaching in the school. Some of the barriers were: time constraints, heavy workload, limited access to resources, teachers themselves and lack of support from the school leadership. Teachers learnt through collaborative teaching as they shared different teaching tips and ideas, worked jointly with each other as they planned lessons together and by experimenting with what they have learnt from each other. Collaborative teaching activities did not demonstrate all the five principles by Hord (2004) and features of collaborative cultures by Hargreaves (2003). Supportive conditions, shared personal practice and shared and supportive leadership were not present as teachers engaged in collaborative teaching activities. It was also discovered that these collaborative teaching activities were not pervasive across space and time.

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Therefore, it is imperative that more in-depth research on collaborative teaching as a model for teacher learning should be conducted. Secondly, teachers should be exposed to a variety of activities that constitute collaborative teaching. Thirdly, the School Management Team should provide more time and resources for teachers to engage in authentic collaborative teaching activities. Lastly, school leadership should support collaborative teaching activities.

DECLARATION

Submitted in partial fulfilment for the degree of Masters in Education, in the Graduate Programme in the College of Humanities, University of KwaZulu Natal, Pietermaritzburg, South Africa.

I, Lungile Majola, declare that

- 1. The research reported in this thesis, except where otherwise indicated, is my original research.
- 2. This thesis has not been submitted for any degree or examination at any other university.
- 3. This thesis does not contain other persons' data, pictures, graphs or other information, unless specifically acknowledged as being sourced from other persons.
- 4. This thesis does not contain other persons' writing, unless specifically acknowledged as being sourced from other researchers. Where other written sources have been quoted, then
 - a. Their words have been re-written but the general information attributed to them has been referenced.
 - b. Where their exact words have been used, their writing has been placed in italics and inside quotation marks and referenced.
- 5. This thesis does not contain text, graphics or tables copied and pasted from the internet, unless specifically acknowledged, and the source being detailed in the thesis and in the References sections.

Student name	
Date	
-	

Name of Supervisor

Date

DEDICATION

This thesis is dedicated to my late father, Moses Majola, and my only brother Phumlani Majola, who always believed in me and encouraged me to work to the best of my ability to achieve my goals and dreams.

To my loving mother, Sindisiwe, my sister, Bathabile, my brother-in-law, Phila and my nieces Slindokuhle and Olwethu, for the love, support and prayers throughout this journey.

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- My loving and supportive mother, Sindisiwe, your prayers sustained me throughout this journey.

PREFACE

The research study described in this dissertation was carried out with five teachers from a semiurban secondary school in Pietermaritzburg, within the Umgungundlovu District in the Province of KwaZulu Natal. This project began in May 2013 and ended in February 2019, under the supervision of Dr Jacqui Naidoo of the Pietermaritzburg campus, University of KwaZulu Natal.

This study represents the original work completed by the author and has not been submitted in any form for any diploma or degree to any other tertiary institution. Where the author has made use of the work of other authors, this has been duly acknowledged in the text.

LungileMajola

Date

As the candidate's supervisor I agree/do not agree to the submission of this dissertation.

Dr J. Naidoo

Supervisor

Pietermaritzburg Campus

Date

LIST OF ACRONYMS

ATP	Annual Teaching Plan
BEd	Bachelor of Education
CAPS	Curriculum and Assessment Policy Statement
DBE	Department of Basic Education
DHET	Department of Higher Education and Training
DUT	Durban University of Technology
HOD	Head of Department
IQMS	Integrated Quality Management Systems
ISPFTED	Integrated Strategic Planning Framework for Teacher Education and
	Development
NCS	National Curriculum Statement
OBE	Outcomes Based Education
PLC	Professional Learning Community
RNCS	Revised National Curriculum Statement
SMT	School Management Team
STD	Secondary Teachers Diploma
UKZN	University of KwaZulu Natal

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CHAPTER ONE

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 Introduction

Governments across the world continue to invest a lot of money in teacher professional development and learning to enhance the quality of education. While considerable amounts of money have been spent on teacher learning and development, little evidence exists on the link between teacher learning and collaborative teaching (Rytivaara, 2012). Adding to this problem are the contested definitions of collaborative teaching, with some scholars viewing it as "team teaching", "co-teaching" and "lesson study" (Austin, 2001). Intrinsic to this is the need to explain the definition of teacher learning, yet another contested concept.

The research study explored the ways in which teachers engaged in collaborative teaching and how collaborative teaching contributes to teacher learning. The chapter begins by outlining the purpose of the study and describes the rationale and the background. Following this are the key research questions guiding this study, a brief review of the literature as well as the conceptual framework that informed it. A brief description of the research methodology, outlining how the research was conducted follows. The chapter ends by outlining the layout of the thesis.

1.2 Purpose of the study

Collaborative teaching is viewed as an alternative model of teacher learning in other countries, but there is little research in South Africa focusing on this model of teacher learning (Kingsley, 2012; Ranamane, 2006). This research study aims at examining how teachers engage in collaborative teaching and how collaborative teaching contributes to teacher learning. It also explores the factors that influence collaborative teaching in a school. Teachers with different teaching experiences, that is, experienced teachers and novice teachers were included and this might help in examining how different teaching experiences affect teachers' engagement in collaborative teaching.

It is hoped that this study might offer a more nuanced understanding of collaborative teaching, which might contribute to knowledge and understanding of teacher learning and professional

development in South Africa. This study provides insight for future planning in the professional learning of teachers.

1.3 Background to the study

Over the past few years, the South African education system has undergone numerous curriculum changes (Myende, 2016). This has resulted in various challenges for teachers, namely; a lack of sufficient training, demotivated learners, overcrowded classrooms, poor infrastructure and a lack of resources. Most teachers show a lack of subject content knowledge as there is a lack of supporting material and support from the departmental officials (Jita & Ndlalane, 2009). These challenges have necessitated the retraining of teachers to enhance their professional knowledge and skills. This has also been confirmed by Ranamane (2006) who asserted that many teachers in South Africa still experience problems in syllabus interpretation, the use of learner-centred approaches, different teaching strategies and assessment techniques.

In light of these challenges, literature has highlighted that collaborative teaching offers a platform for continuous teacher learning and development (Thibodeau, 2008). For teachers to grow professionally, it is essential that they share ideas and resources, thus learning from each other. Working together and sharing of ideas through joint planning, peer observation and reflection involves collaborative teaching. Collaborative teaching is defined by Little (2003, p. 915) as "a level of collegiality at which teachers in successful schools discuss, design, conduct, analyse and evaluate and experiment with their teaching". This in turn, could address some of the challenges that have been raised such as lack of subject content knowledge. Through collaborative teaching, teachers can share skills and teaching strategies, thus enhancing their professional learning. Collaborative teaching also enables teachers to share their teaching methods, knowledge, skills and resources (Rytivaara & Kershner, 2012).

The Integrated Strategic Planning Framework for Teacher Education and Development (ISPFTED) (2011) was issued by the Department of Basic Education (DBE) and the Department of Higher Education and Training (DHET). This document emphasises that collaborative learning opportunities inside and outside the school amongst colleagues is of great importance. Therefore, the importance of collaborative teaching lies in teachers' ability to share resources, teaching strategies, and the successes and failures within classrooms (Austin, 2001). Another importance of collaborative teaching is its contribution to enhance reflection among

teachers by working together (Rytivaara, 2012). It is imperative that teachers are knowledgeable about their subject content so as to teach with confidence.

My experience with collaborative teaching in schools and across departments, is that teachers share ideas regarding teaching certain aspects within their respective subjects. This enhances teacher professional learning and improves teaching. This study focuses on teacher learning through collaborative teaching. My argument is that collaborative teaching can lead to teacher learning as teachers learn best from one another. The Integrated Strategic Plan (2011 - 2025) emphasises that teachers are expected to work with each other through collaborative teaching or team teaching.

Based on the above background, it is therefore essential to examine what teachers' understanding of the concept of collaborative teaching and the nature of collaborative teaching within the school context. Given the fact that this is a qualitative study, it is unlikely to yield results that can be generalised to contexts throughout the country. The aim of this study is not to generalise as collaborative teaching is context bound, but it is to obtain in-depth information in the context in which the study was conducted.

1.4 Rationale for the study

Increasing public demand has necessitated the improvement of education because most countries invest a lot of money in education, but its outcome is unclear. Many changes have been launched in countries like Britain, Greece, Japan and Hong Kong, aimed at improving the effectiveness of teaching and learning (Kougioumtzis & Patriksson, 2009). Likewise, in South Africa, numerous curriculum changes have been implemented (Myende, 2016).

Professional teacher learning is one of the great concerns resulting from various education changes. Kwakman (2003) contends that professional learning is about the development of teachers' professional skills. These are practical knowledge skills, which are developed by teachers in order to face the challenges of education. Apart from practical knowledge, teachers also need subject content knowledge that enables them to teach effectively (Gravani, 2007). Teachers acquire and develop these professional skills through personal efforts or learn these from other teachers. However, the focus has been placed on formal types of development initiatives such as professional development workshops and seminars (Bertram, 2011).

Rytivaara and Kershner (2012) argue that many professional development initiatives do not recognise that teacher learning is situated in particular contexts and is social in nature. Different from other professions, teachers mostly work individually and this hinders their professional learning. The professional isolation in teaching is caused by the physical structure of schools and the psychological preferences of teachers. Some teachers are reluctant to capitalise on a collaborative learning context to experiment with new ideas in their classrooms. They seldom observe other teachers teaching and classrooms are seen as their private places. Psychologically, teachers prefer to work individually to avoid evaluation and critique by their colleagues (Rytivaara, 2012). The effect of professional isolation is detrimental to the growth of teachers because they have fewer opportunities to learn from each other.

Research has shown that most countries have shifted from traditional models of teacher learning to practices that involve what Lieberman and Pointer-Mace (2008) referred to as "learning schools". Within the South African context, the establishment of professional learning communities (DBE & DHET, 2011) is leaning towards the idea of "learning schools". Kwakman (2003) asserts that collaborative teaching offers a platform for continuous improvement. However, Kougioumtzis and Kershner (2009) suggest that collaborative teaching in schools, especially in secondary schools, is often not offered as part of their professional development. Thus, a knowledge gap is evident in the enactment of school-based collaborative teaching.

In recent years, greater focus has been on how teachers learn and while there is agreement among Gravani (2007), Lieberman and Pointer-Mace (2008) and Putnam and Borko (2000) that teachers learn in various ways and in various contexts, there are limited recommendations for teacher learning through collaborative teaching. Prammoney (2011) indicated that beginner teachers come to schools with a knowledge gap which serves as a barrier to their efficiency and effectiveness. Engaging in collaborative teaching enhances these teachers' professional knowledge as they work jointly with experienced teachers (Goddard & Goddard, 2007).

Collaborative teaching has been explored from an international perspective, in countries like Britain, Japan, Scotland and the USA (Kennedy, 2011). Collaborative teaching is a comparatively new practice in South Africa and its impact on the teacher learning is not clear (Ono & Ferreira, 2010). Owing to the limited literature about collaborative teaching, it is evident that not much research has been done on exploring how teachers perceive this initiative and how it can contribute to teacher learning. The need has therefore emerged to consider collaborative teaching as an alternate form of professional teacher learning. The findings of this research study will contribute to and create a basis for further research relating to collaborative teaching in South Africa.

As a teacher, I have been exposed to various challenges such as a lack of skills in different assessment strategies, lesson planning and preparation, and a lack of subject knowledge which is a major problem. These challenges are accompanied by minimal support from departmental officials. Teacher learning and professional development have been characterised by once off workshops to train teachers in a specific way. This type of learning occurs outside teachers' classrooms usually in a large group of teachers. Contextual factors and each teacher's individual needs are not considered. I believe that teacher learning should be context bound. It must relate more closely to teachers' classroom contexts. How individuals learn together offers more opportunities for learning how to teach collaboratively. It is therefore essential that collaborative teaching be studied in order for it to be understood within the South African context.

1.5 Research questions

The three key research questions that framed this study were :

- (1) In what ways do teachers engage in collaborative teaching in a semi-urban secondary school in Pietermaritzburg?
- (2) What factors influence collaborative teaching in a semi-urban secondary school in Pietermaritzburg?
- (3) To what extent does collaborative teaching contribute to teacher learning in a semi-urban secondary school in Pietermaritzburg?

1.6 Literature review and conceptual framework

The literature review described the concepts that were pertinent to this study: teacher learning and collaborative teaching. Local and international literature shed light in explaining these concepts.

Borko (2004, p. 7) defines teacher learning as "a process of increasing participation in the practice of teaching and through which this participation, a process of becoming knowledgeable

in and about teaching". Austin (2001) and Ranamane (2006) described collaborative teaching as a learning activity, where teachers engage in different teaching activities while reflecting on day-to-day classroom activities. Some teachers in schools still prefer to work individually hence, collaborative teaching encourages a shift from teacher isolation to teachers working as a unit. The concept of collaborative teaching is relatively new in South Africa however; the idea of teachers working together has been in existence for centuries (Kougioumtzis & Patriksson, 2009). Scholars view collaborative teaching as "networking" and "team teaching" (Goddard & Goddard, 2007), "co-teaching" (Rytivaara & Kershner, 2012), "joint planning, peer observation and evaluation of lessons by teachers" (Anderson & Landy, 2006). All these concepts from literature emphasise the notion of teachers sharing and working together to optimise their learning and development.

Literature reveals that when teachers collaborate in teaching, they share knowledge, teaching methods and resources, while reflecting on their successes and failures. Sharing and experimenting with colleagues through collaborative teaching, overcomes the frequent isolation experienced by teachers thus leading to changes in their classroom practice (Thibodeau, 2008). Literature has further elaborated on the factors that influence and hinder collaborative teaching in a school and lastly, how teachers learn through collaborative teaching (Ranamane, 2006; Thibodeau, 2008).

The study used the conceptual framework outlined by Hord (2004), drawing on the five principles of teacher collaboration, namely; shared beliefs, values and vision; shared and supportive leadership; collective learning and application; supportive conditions and shared personal practice. According to Hord (2004), shared beliefs and values and vision are attributes that teachers have as a common goal as they work together, while planning with colleagues and delivering instruction in the classroom. For shared and supportive leadership, Hord (2004) asserts that power; authority and decision making are shared and encouraged. The principle of collaborative learning and application states that teachers study collegially and work collaboratively, thus continuously learning together. Related to the principle of supportive conditions, Hord (2004) asserts that the school context should be conducive for teachers to work productively together. Finally, elated to the principle of shared personal practice, the process of teacher learning is grounded in individual and community improvement based on trust and mutual respect. Lastly, the study used Hargreaves' (2003) collaborative cultures. These conditions stipulate that teacher collaboration should be spontaneous, voluntary, development-oriented, pervasive across space and time and unpredictable. This conceptual

framework was used to analyse data. It was suitable for this study as it enabled the researcher to understand the nature of collaborative teaching in the school and how it contributed to teacher learning.

1.7 Design and methodology

This research study aimed to get an understanding of the nature of collaborative teaching in a semi-urban secondary school in Pietermaritzburg and how it contributed to teacher learning. Therefore, this study used an interpretive paradigm. Niewenhuis (2007, p.58) asserts that "interpretive studies attempt to understand the phenomenon through the meanings that people assign to it". Therefore, the interpretive paradigm allowed a better understanding on how teachers engage in collaborative teaching and factors that influence collaborative teaching in a school. This research study used a qualitative approach to generate data. Maree (2007, p. 57) describes a qualitative approach as "research that attempts to collect rich and descriptive data in respect of a particular phenomenon with the intention of developing an understanding of what is being observed or studied".

A case study approach was used. Cohen, Manion and Morrison (2012) defined a case study as a methodology used in social science research to investigate a single phenomenon in depth over a specific period of time and a case study is defined by Rule and John (2011, p.6) as "a systematic and in-depth investigation of a particular instance in its context in order to generate data". This research study measured up to the above mentioned definitions. I have used a descriptive case study as I aimed "to describe a phenomenon and the real-life context in which it occurred" (Baxter & Jack, 2008, p. 548). The participants' views and thoughts on collaborative teaching in a semi-urban secondary school in Pietermaritzburg were described.

Purposive sampling was used for the study as I purposely chose five participants: three experienced teachers and two novice teachers. Cohen *et al* (2011) describe purposive sampling as handpicking the participants to be used. Purposive sampling is aligned to qualitative research as Polkinghorne (2005, p.139) asserts that "participants in a qualitative study are not selected to fulfil representative requirements for statistical use". Participants in this research study were chosen to fulfil the structure and character of the investigation. This was done to examine teachers' engagement in collaborative teaching based on their varied teaching experiences. This choice was based on convenience, accessibility and availability of participants.

To generate data, this study used semi-structured interviews and observations. Leery and Ormond (2010) assert that semi-structured interviews allow the researcher to follow up ideas, probe responses and investigate motives and feelings. This involved pre-set questions, which helped in initiating the discussion. Semi-structured interviews allowed the researcher to follow a specific line of enquiry as more questions were added (Rule & John, 2011). This allowed new insights, probing and clarification. Polkinghorne (2005, p. 143) defined observation as "a technique of gathering data through direct contact with an object, usually another human being". Lessons conducted by the participants with their peers were observed. Departmental meetings and participants daily activities were also observed. Observations allowed for an indepth understanding of teachers' engagement in collaborative teaching activities. Participants were interviewed and observed within a school context.

For data analysis, this study used thematic analysis. Kalof, Dan and Dietz (2008) assert that thematic analysis focuses on the analysis of spoken and written word and reason why it is that way. Data from semi-structured interviews and observations were coded. Rule and John (2011) assert that coding involves the identification of patterns, such as similarities and differences. These codes were then grouped into categories. These categories were further analysed which led to the emergence of themes. This is referred to as "thematic analysis" in the literature (Rule & John, 2011, p.78). Hord's (2004) principles for teacher collaboration and Hargreaves' (2003) collaborative cultures as features of teacher collaboration were used as an analytical frameworks.

1.8 Overview of the dissertation

This study on teacher learning through collaborative teaching in a semi-urban secondary school in Pietermaritzburg is presented in five chapters.

Chapter One explains the background to the study. It then outlines the purpose and describes the rationale of the study. It outlines the research questions guiding this study, gives a brief review of the literature and conceptual framework and outlines the research methodology used. The chapter concludes with an overview of the five chapters.

Chapter Two discusses the literature review, where the key concepts of teacher learning and collaborative teaching are explained. Factors enhancing and hindering collaborative teaching are described. The chapter also elaborates on the characteristics and benefits of collaborative

teaching, considering how collaborative teaching contributes to teacher learning. Local and international literature is discussed. The chapter concludes by explaining the conceptual framework used to analyse the data presented in Chapter Four. The frameworks were drawn from Hord's (2004) five principles of teacher collaboration and Hargreaves' collaborative cultures as features for teacher collaboration.

Chapter Three gives a detailed account of the research design and methodology used in the study. It describes the interpretive paradigm, qualitative approach and a case study research design. It also elaborates on the use of a case study and describes the purposive sampling technique. Semi-structured interviews and observations were used as data collection instruments. The chapter also explains how the data is to be analysed. Lastly, the chapter concludes by describing the issues of trustworthiness and ethics.

Chapter Four begins by profiling the five participants in the study. Data is then presented according to the three key research questions and the themes that emerged. Lastly, a detailed discussion of the data analysis is provided, drawing from the conceptual frameworks and literature.

Chapter Five presents the discussion of the findings, recommendations and areas for future research and the conclusion.

1.9 Conclusion

The chapter introduced the study by explaining the background. It outlined the purpose and rationale of the study. Research questions guiding this study were presented. A brief review of literature and conceptual framework used to analyse data was also given. This chapter also outlined the research methodology used. The chapter concluded with an overview of the five chapters. The next chapter presents the reviewed literature and the conceptual framework.

CHAPTER TWO

LITERATURE REVIEW AND CONCEPTUAL FRAMEWORK

2.1 Introduction

As outlined in Chapter One, this research study examined the way in which teachers in a semiurban secondary school in Pietermaritzburg engaged in collaborative teaching and how this contributes to teacher learning. This chapter reviews local and international literature focusing on current thinking and debates on the concepts of teacher learning and collaborative teaching.

The review is structured around four broad areas that informed this study. The first section focuses on the concept of teacher learning, how it is defined in the literature and the theories of teacher learning. The second section reflects on the concept of collaborative teaching as it has been linked to the enhancement of professional teacher learning. The history and context of collaborative teaching will also be discussed. The characteristics and benefits of collaborative teaching, and teacher learning through collaborative teaching will also be highlighted. The third section will reflect on the factors that influence collaborative teaching in the school. The chapter concludes with a conceptual framework used for data analysis and discussion.

2.2 Defining teacher learning

There are various debates and understandings of what constitutes teacher learning as it is defined in various ways in literature. Kelly (2006) defines it as "a process by which teachers move towards expertise" (p.506). Borko (2004, p.6) defines teacher learning as "a process of increasing participation in the practice of teaching, and through which this participation, a process of becoming knowledgeable in and about teaching". These definitions show that teacher learning is a lifelong process which leads to a change in teachers over a period of time. However, this research study has adopted Borko's (2004) definition of teacher learning.

Teacher learning can take place in different ways; it can be formal or informal and planned or incidental (Bertram, 2011). Formal learning is seen as learning that occurs in a controlled environment, with structured activities and specific outcomes (Govender, 2016). Experts are responsible for delivering the curriculum within specific time frames in which goals and objectives need to be achieved. Contrary to this, informal learning is defined by Van Eekelen, Boshuizen and Vermunt (2006) as learning that occurs within the working environment, which is planned. This

type of learning is incidental and spontaneous in nature. It can take place in collaboration or in isolation.

Wilson and Demetriou (2007, p.214) define teacher learning "as the process of reflection and action through which teachers develop their skills and acquire knowledge and expertise". This definition emphasises that learning brings about constant adjustment and change of practice. Kwakman (2003) maintains that teacher learning has four categories: reading, doing, experimenting and collaboration. As the concept of teacher learning is contested in literature, the researcher saw the need of unpacking it by examining the nature of learning activities that are prevalent when teachers engage in collaborative teaching. Collaborative teaching can be regarded as informal learning, as it may occur spontaneously and also as formal learning as it can be planned for learning to be successful. Scholars Hoekstra, Brekelmans, Beijaard and Korthagen, (2009); Kennedy (2011) and Wilson and Demetriou (2007) argue that both these forms of learning cannot work successfully in isolation, than they are essential in teacher learning.

Learning can be understood by engaging with theories of teacher learning. Learning has both individual and socio-cultural features (Borko, 2004). The cognitive approach to learning advocates that "teacher expertise resides entirely in the individual's mind" (Kelly, 2006, p.506). This approach has been widely used in formal teacher workshops, with the main tenet that teachers would transfer the acquired knowledge to their classroom practices. According to Kelly (2006), the cognitive approach ignores the social context in which teachers learn. Cognitivism posits that individuals obtain skills, knowledge and understanding in one place and these can presumably be used anywhere.

The socio-cultural approach has a different view of learning to that of the cognitive approach. The main focus of this approach is that knowledge does not reside solely in the individual's mind (Kelly, 2006); it is shared among people and in the context of this study, among teachers. This suggests that through collaborative teaching, each teacher has knowledge that he needs to share with colleagues. The social learning approach suggests that knowledge is shared among people within a social context. This means that social interactions can be an important site for reflection and learning. Through collaborative teaching, learning can take place other than in isolation. Teacher learning occurs in social contexts such as groups, subject committees and departments, workshops and on school verandas. Both these theories are essential to the teacher learning process. Engagement in wider social contexts allows teachers to work together, sharing their knowledge with other teachers within the school context. The social learning approach is suitable with the model of collaborative teaching.

From the above definitions and discussions, it is evident that there is no clear cut definition of teacher learning. However, the above-mentioned scholars have come up with an understanding that teacher learning involves participation in various activities. Secondly, teacher learning is considered not only to be individual, but social in nature. This research study clearly articulates the importance of teachers' learning with and from each other, which leads to their professional development.

2.3 History and context of collaborative teaching

The above section has defined teacher learning, however, the way it effectively occurs is still debated. There is much focus from literature that teachers learn best from each other through collaboration. The term 'teacher collaboration' has been widely used by scholars such as Datnow (2011), Little (2003) and Kelchtermans (2006). In defining teacher collaboration, Little (2003, p.331) sees it as "a level of collegiality at which teachers in successful schools discuss, design, conduct, analyse, evaluate and experiment with their teaching". Likewise, Datnow (2011, p. 152) defines teacher collaboration as "sharing of expertise in delivering a lesson, solving a problem or working together on a project". From these definitions, one can conclude that teachers agree to work together, sharing their teaching advice while using their varied expertise.

However, different from other professions, teachers still prefer to work individually, which hinders their professional learning. Similarly, this view is shared by Maloney and Konza (2011) who argue that teachers work within the confines of their classrooms, with little time to engage in collegial conversations about their practices. From my own teaching experience, teachers seldom observe other teachers' teaching and the classroom seems to be their private domain. Psychologically, teachers prefer to work individually, avoiding evaluation and critique by their colleagues. Without the flow of ideas and sharing of professional skills, teachers remain uncertain about their performance. Rytivaara and Kershner (2012) and Austin (2001) agree that the role of teachers has changed from them being transmitters of knowledge, into facilitators of learning. From this, one can conclude that teachers are now required to provide diversified learning experiences to learners.

Central to this debate, is the contested concept of collaborative teaching. Collaborative teaching is a strategy that has been used across different countries in the world. Historically, collaborative teaching has been seen as a panacea for student learning (Roth &Tobin, 2005). More recently, collaborative teaching has been situated in the context of school improvement. Collaborative teaching was introduced to teachers to encourage them to work as a unit, thus enhancing their

development (Rytivaara &Kershner, 2012). Studies by Ranamane (2006) and Kingsley (2012) revealed that teachers were motivated to use collaborative teaching as a model for teacher learning to become knowledgeable about teaching and improve their teaching practices. Although collaborative teaching is a new teacher learning model in South Africa, it has been used in Japan and Sweden (Kougioutmtzis & Patriksson, 2009).

The meaning of collaborative teaching is challenging for many stakeholders in the educational arena (Goddard &Goddard, 2007), with many terms reciprocally used in literature such as networking, team teaching, peer coaching, mentoring and co-teaching. Some teachers consider these terms to be the same while others attribute different meanings to the concepts, depending on the context from which they are discussed. In her study, King (2012) asserts that teachers align collaborative teaching with the model of education involving what someone does to someone else, which involves teachers changing their practices to enhance learner achievement. This may be due to collaborative teaching being viewed as similar to other teacher learning activities where teachers are expected to adhere to their requirements. Austin (2001) suggests that this may result in teachers engaging with it in a compliant and non-critical manner, thus hindering teachers' professional learning.

Collaborative teaching has been defined as "joint planning, peer observation, implementation and post evaluation of lessons by teachers, in order to have well prepared lessons and thus, fostering the process of learning for both teachers and learners (Anderson & Landy, 2006, p.2). For this to take place, teachers need to work together, sharing their expertise and teaching strategies. Furthermore, sociocultural studies emphasise that knowledge is learned in groups. However, in defining collaborative teaching, teacher educators focus on the procedure of collaborative teaching which includes pre-lesson planning, peer observation and post-lesson reflection by teachers. This is similar to the views of Ranamane (2006) and Austin (2001) who contend that collaborative teaching is a learning activity, where teachers engage in different teaching activities while reflecting on day-to-day classroom activities. This provides opportunities to enhance teacher professional learning which is described by Kelly (2006) as the growth of teacher expertise that results in a change in classroom practice, leading to improved student learning. The definitions above focus on the establishment of collegiality.

Similar to other teacher learning models, collaborative teaching also faces enormous criticism. Hargreaves (2003) challenged the effectiveness of collaborative teaching in the professional development of teachers. He argues that teachers in schools mainly engage in short term, enforced and task-oriented collaborative planning, in that teachers "rarely extend to critical, collective and reflective views about teaching" (p.103). He further identified two types of teacher collaboration: collaborative cultures and contrived collegiality. Collaborative cultures is characterised by spontaneity, teacher-centeredness, unpredictability and is development-oriented. Contrived collegiality is administratively-regulated, compulsory, implementation-oriented and predictable (Hargreaves, 2003). Collaborative teaching activities in some secondary schools have elements of both contrived collegiality and collaborative cultures.

Ranamane (2006) argues that collaborative teaching can promote teacher learning. In his study, he focused on collaborative teaching in Mathematics teaching as a model of professional learning. He viewed collaborative teaching as "shared learning and support between colleagues, on a sustained basis, that allows them to develop creative solutions to mutual problems" (p.56). This means that teachers continuously share ideas, lesson plans and teaching strategies, while reflecting on their successes and failures. This deepens their knowledge, thus promoting learning and development. Learning is more effective through collaborative interplay with others, the key being the social element in collaborative teaching.

In accordance with these views above, there is a need to focus on teacher collaborative activities within schools, rather than on teachers working alone behind the closed doors of their classrooms. With this in mind, the study is situated within the social context of a school and has a particular focus on teacher learning through collaborative teaching.

2.4 Benefits of collaborative teaching

Collaborative teaching is seen as a key aspect of teacher professional development and a vehicle to increase teacher knowledge. According to Stanley (2011), when teachers collaborate in teaching, they share knowledge, teaching methods and resources, thus creating a set of common beliefs. Recently, schools are seen as contexts for teacher learning and professional development. They are organised in ways that offer more opportunities for teacher collaborative activities (Shah, 2012).

Thibodaeu (2008) asserts that, in recent years, teachers have become more open to new ideas, teaching methods and resources. Teachers are able to talk intensely about methods and processes of learning, thus improving their instruction. This relates to the first benefit of collaborative teaching. The second benefit of collaborative teaching is that of increased teacher satisfaction and adaptability. Roth and Tobin (2005) argue that collaborative teaching breaks classroom isolation and brings about career rewards and daily satisfaction for teachers. Sharing and experimenting with

colleagues overcame the frequent isolation felt by teachers, thus leading to a change in their classroom practice.

Collaborative teaching also provides more comprehensive assistance to beginner teachers. De Paul (2000) asserts that collaborative teaching avoids the sink or swim and/or trial and error mode that beginner teachers face during the initial stages of their career. He further claims that senior teachers should look after beginner teachers in the school. This means that expert and beginner teachers. For example, the incorporation of beginner teachers into a learning community of experts can help to reinforce their teaching styles. Roth and Tobin (2005) further argue that collaborative teaching provides expanded opportunities for all teachers, when activities include new and expert teachers. Rytivaara and Kershner (2012) view collaborative teaching as a 'lead and support' model relationship between novice and expert teachers. Likewise, Goddard and Goddard (2007) assert that collaborative teaching provides systematic assistance to novice teachers, thus encouraging a reciprocal relationship among colleagues and enhancing professional development.

Creese (2010) suggests that collaborative teaching creates a sense of belonging among teachers therefore, teachers become more committed to school improvement, their goals and to their students. This serves as motivation for teachers to improve their classroom practices.

Troen and Boles (2010) identified four benefits of collaborative teaching: (a) Better learning outcomes for students. (b) Breaking professional isolation of teachers. (c) Professional development of teachers. (d) The establishment of collegiality in schools.

Troen and Boles (2010) argue that collaborative teaching offers opportunities for teachers to frequently exchange ideas so as to produce better ways of teaching. Teachers become facilitators for student learning as they provide new learning experiences to learners. Thibodeau (2008) argues that the way schools are structured, provides few opportunities for teachers to learn from each other. However, it is widely accepted that teachers learn the art of teaching from one another. Creese (2010) asserts that teachers view visiting each other's classrooms as providing them with a rich professional resource. This view is also shared by Johnson (2003) who contends that through lesson observation, teachers become resources for one another to share. This gives teachers an opportunity to reflect on their classroom practice. They share their successes and failures, thus becoming what Darling-Hammond and Richardson (2009) regard as 'critical friends'. However, Mednick (2004) claims that lesson observations are less prevalent in secondary schools due to school culture and structural conditions. Collaborative teaching improves the personal skills of teachers. Teachers can build up their content, pedagogical and experiential knowledge to improve

their overall knowledge. Collegiality is established when teachers engage in intense discussions relating to planning of lessons, teaching strategies and learner assessment. Shared values and norms are then built up to deal with the complexity of learning. Engaging in collaborative teaching activities strengthens mutual relationships among colleagues with shared norms and values. This will enhance teacher professional learning and improve learner achievement.

2.5 Characteristics of collaborative teaching

There are numerous characteristics of collaborative teaching that have been identified. Thibodeau (2008) claims that successful collaborative teaching activities should exhibit the following characteristics: (a) Parity in collaboration: Each teacher's contribution is equally valued and each teacher has equal power in decision making. (b) Voluntary: Teacher collaborative relationships are most successful when they are entered into freely and exist by choice. (c) Mutual goals: There is a need that is jointly shared by teachers. (d) Shared responsibility: Teachers should share responsibilities and, in the decision, making it entails. (e) Shared accountability: Teachers have equal accountability for the outcome of their endeavour. (f) Shared resources: Teachers should share material and human resources.

Stanley (2011) notes the following characteristics of collaborative teaching: (a) Shared values and vision. Collaborative teaching emphasises shared goals aimed at improving teachers' performance in the classroom and learner performance. (b) Collective responsibility. This is demonstrated when teachers share teaching responsibilities which eases isolation. (c) Reflective personal inquiry. Here teachers converse about serious content issues and share knowledge through joint planning. (d) Collaborative. This is demonstrated when teachers work together, exchanging ideas, jointly reviewing each other's work and providing feedback. (e) Group learning. This emphasises collective knowledge creation, shared meanings and a sense of belonging which leads to increased understanding and learning opportunities for teachers. Other characteristics of collaborative teaching are: mutual trust, respect and support and openness. These are needed when teachers engage in regular discussions about their classroom practices as they receive supportive feedback.

2.6 Teacher learning through collaborative teaching

Professional learning of teachers still remains a top priority in different countries across the world. Little (2003) asserts that professional learning of teachers often occurs when teachers engage in frequent, continuous and increasingly concrete and precise talk about their teaching practice. This view is shared by Parise and Spillane (2010) and Elster (2010) who contend that teacher learning occurs through interactions with colleagues around teaching and learning, asking for help, seeking advice and giving advice about instruction.

Ranamane (2006) claims that there is a possible link between collaborative teaching and teacher learning. Collaborative teaching is viewed as a new model for teacher learning and development as opposed to the traditional clinic model that is so pervasive in other professional development practices. Collaborative teaching aims at providing opportunities for teachers to work together. Kwakman (2003) argues that teachers learn from one another through (a) collaboration: teachers share their teaching successes and failures through interaction with one another. They share skills and competencies related to their subjects and classroom teaching; (b) experimenting: teachers try out new strategies with each other with the purpose of improving their professional practice; (c) reflection: teachers engage in activities that provide opportunities for them to review and analyse what has worked and not worked in their classrooms and (d) knowledge exchanging: teachers share teaching tips, resources, good practices and new teaching ideas. This results in their mastery of certain teaching techniques, thus enhancing their learning and development.

Creese (2010) claims that collaborative teaching aims at providing teachers with opportunities to learn from each other through networking and supporting one another to improve their classroom practice. Creese (2010) further asserts that collaborative teaching enhances teachers' content and pedagogical knowledge as they share their experiences and successes and reflect on their failures. Similarly, Goodnough (2010) agrees that collaborative teaching aims at content knowledge development, active learning and collective participation among teachers. Collaborative teaching also creates a supportive environment by addressing the isolation created by traditional forms of teaching. Collaborative teaching is thus viewed as a teacher-centred model of teacher learning as teachers are responsible for their own learning and development. This research study aims at examining the collaborative teaching activities that take place within a school and how these collaborative teaching activities contribute to teacher learning.

2.7 Factors that help or hinder collaborative teaching

Drawing from literature, there seems to be more focus on why collaborative teaching fails than why it succeeds. While there are no definitive characteristics to ensure success, certain conditions have been accepted as advantageous for successful collaborative activities.

2.7.1 Factors enhancing collaborative teaching

In schools, certain conditions are required to support and sustain collaborative teaching activities. Scholars, (Richardson, 2003; Stanley, 2011, Thibodeau, 2008) highlight a number of factors that enhance collaborative teaching in schools. The following discussion illuminates important conditions essential for successful collaborative teaching activities in schools. These include: a collaborative school culture, on-site professional learning communities and professional development of teachers.

2.7.1.1 A collaborative school culture

A collaborative school culture is defined as "the existence of high levels of collaboration among teachers which is characterised by mutual respect and trust, openness, shared work values and cooperation among teachers" (Erikson, Minnes, Brandes, Mitchell, & Mitchell, 2005, p.788). This means that the context of a school is crucial when teachers engage in collaborative teaching activities. Johnson (2003) further argues that although teachers' different values, skills and personalities affect their ability to collaborate, the context of the school is important for successful collaborative teaching activities. This implies that school structures should enable teachers to share and learn from each other spontaneously. From the above views, it is clear that schools cannot improve without teachers working as a unit.

The concept of collaborative teaching has a variety of meanings, with notions such as networking, mentoring, joint work and teamwork in which teachers engage in a school. This means that a collaborative school culture provides conditions for collaborative teaching to succeed, thus transforming a school into a learning community. From the above discussion it is evident that collaboration and collegiality are essential for collaborative teaching activities. I, therefore, argue that collaboration and collegiality help to develop a working consensus conducive to teachers helping one another. Through various forms of collaborative teaching, a shared school vision among teachers can be developed. Literature suggests that schools that are characterised by a collaborative culture are "places of hard work, strong commitment, collective responsibility and dedication" (Munthe, 2003, p. 806). Therefore, a school's culture impacts on collaborative teaching activities and teacher learning and development.

Hargreaves (2003) asserts that a collaborative culture within a school represents collaborative working relationships between teachers and their colleagues. He identifies five key elements that make up a collaborative culture: spontaneous, voluntary, development-oriented, pervasive across time and space and unpredictable. This kind of culture encourages the need for teachers to learn

from each other. Furthermore, Johnson (2003) lists the benefits of a collaborative school culture for teacher collaborative activities to thrive: (a) providing moral support; (b) promoting confidence; (c) increasing efficiency and effectiveness of teaching; (d) reducing workloads and setting boundaries to teachers' tasks and (e) promoting teacher reflection. Therefore, a collaborative school culture is important for collaborative teaching activities to succeed, which leads to school improvement, professional development of teachers and better learning outcomes for students.

Darling-Hammond and Richardson (2009) claim that teachers learn how to teach from one another. Effective schools should break the mind set of teachers working in isolation and should encourage peer assistance and collaboration. A supportive school culture is important for the professional growth of teachers and it is within this context that collaborative teaching activities can succeed. However, developing collaborative cultures is a challenge in South African schools as Kingsley (2012) and Ranamane (2006) argue that transforming a school culture from an autonomous mindset to one of shared values and collaboration remains a challenge in South African schools. Nevertheless, policy initiatives and legislation introduced by the Department of Basic Education and Training (DBET) is encouraging schools to promote collaborative cultures through the establishment of school-based learning communities (Integrated Strategic Planning Framework for Teacher Development in South Africa, 2011-2025).

The above discussions suggest that schools should establish collaborative cultures to promote collaborative teaching activities. This involves time allocated for teachers to talk intensively on issues related to lesson planning and teaching strategies, reflection on lesson presentations, follow up support and capacity building among colleagues. Teachers should be encouraged to work with each other and be actively involved in their own learning and development.

2.7.1.2 School-based professional learning communities

Teacher collaboration within a school can be measured by ongoing mutual support, sharing, interaction and professional development among teachers. This often leads to professional learning communities (PLC's) within a school. Elster (2010) defines a professional learning community as "a group of individuals who share the same set of concerns, problems and interest in a particular topic" (p.2187). This approach on teacher learning differs from other learning models, in that it focuses on teachers working in a community. Lavie (2006) argues that when schools have on-site professional learning communities, teacher collaboration flourishes. This suggests a view that schools should be promoted as learning communities with the purpose of sustaining teacher learning and continuous professional development. It has become evident from various scholars (Friend & Cook, 2013; Kougioumtzis & Patriksson, 2009; Lavie, 2006; Stanley, 2011) that schools

need professional learning communities where teachers work together, focusing both on their development and student learning. I believe that through collaborative teaching activities, schools can be transformed into professional learning communities.

Stanley (2011) identified 'hunger for collaborative opportunities' within schools, where teachers can exchange ideas and best practices for their classrooms (p.72). School-based professional learning communities offer an infrastructure for such opportunities. Furthermore, Servage (2010) argues that learning communities allow teachers to reflect on their practices and enhance their collaborative ways of learning. However, these PLC's must have the following features as outlined by Stoll *et al.* (2006): (a) Teacher driven: when teachers take initiative for their own learning within a school context (b) A collective responsibility: this entails that each member within a community is responsible for the actions of each member. (c) Reflective personal inquiry: teachers often examine and reflect on their classroom practice through the help of their peers. (d) Collaboration: this involves teachers working together for a shared purpose. (e) Group and individual learning: teachers work and engage in the creation of knowledge together, instead of learning as individuals.

In these professional learning communities, teachers work together, sharing their collective professional wisdom of good practices. Ideas are shared in interaction with each other, expanding each other's knowledge, which is part of their learning experience. Professional learning communities provide a context of collegiality which supports teachers in improving their classroom practices. These collegial relationships require openness, trust and respect among colleagues (Kelchtermans, 2006). With this, sharing of teaching methods and strategies becomes a trusted and valued practice within a school. In addition, Darling-Hammond and Richardson (2009), state that professional learning communities deepen teachers' knowledge, build their skills and improve instruction. Lavie (2006) further expands on this argument by claiming that the most powerful form of teacher learning and development occurs in ongoing teams that meet regularly. Through collaboration teachers learn from each other within their learning areas (subjects), departments and respective schools.

I believe that since the practice of collaborative teaching is in its teething stage in South African schools, the challenge is to create an environment of trust and mutual respect among teachers so that they can openly engage in collaborative teaching activities. For this to happen, supportive conditions should be provided for teachers to go about their daily work and engage in learning together. This can be attained by collaboration among teachers who teach the same subject or within the same department. Collaborative teaching thrives when teachers are given opportunities

to talk about and discuss the subject matter (content); teaching; student learning; there is shared planning and preparation; teachers involved in peer teaching and observation. It has been argued that such activities should be teacher-specific and facilitate professional development based on teachers' actual needs within the school setting (Stanley,2011).

Researchers agree that teachers should be part of a learning community so they can tackle the challenges brought on by new curriculum changes (Borko, 2004; Jita & Ndlalane,2009; Steyn 2013). When teachers are part of a learning community, they are able to share their classroom problems and discuss strategies and solutions. Through collaborative teaching activities, teachers become resources to one another across different learning (subject) areas and departments.

2.7.1.3 Professional development

Teachers value professional development that provides a coherent connection between their experiences and their actual classroom practice, engagement in content-area learning and communication with other teachers (Stanley, 2011). Schools as organisations need to develop and support teachers to continuously improve. There must be constant professional development activities to keep teachers abreast of the latest educational trends, subject developments and policies.

Literature suggests that professional development through collaborative teaching needs to focus on developing teachers' skills and knowledge (Friend & Cook, 2013). Knowledge and skills for teachers include practical knowledge and pedagogical content knowledge. According to Stuart, Akyeampong and Croft (2009) and Stanley (2011) state that practical knowledge includes knowledge of the subject matter, while pedagogical content knowledge is the knowledge of how to teach a particular subject. Successful collaborative teaching activities largely depend on teamwork, collaboration and capacity building among teachers in a school context. Skills such as peer teaching, peer observation, mentoring and working collaboratively with others need to be incorporated into professional development activities.

Teachers in a school vary in competencies and experience, therefore the support given to teachers must be contextualised. Stanley (2011) argues that professional development activities should promote sharing of knowledge, creation of a set of common beliefs and the incorporation of both beginner and experienced teachers into professional learning communities. Teacher education scholars (Ono & Ferreira,2010) argue that although South African teachers receive intensive preservice training it seems to be inadequate for their life long careers. From this argument, it is evident that there is a need for ongoing teacher professional development activities in South

African schools. Schools need to provide supportive conditions for teachers where they are able to share and learn from each other spontaneously. For collaborative teaching to flourish, teachers should be given opportunities, in and out of their classrooms to discuss teaching and learning.

The above discussion suggests that provision of supportive conditions is a key element in nurturing and promoting collaborative teaching activities in schools. Therefore, for collaborative teaching to be successful, schools must provide cultures that foster collaborative work amongst teachers, create time and space for teachers to meet occasionally for planning and preparation, share teaching tips and strategies.

In this section, I have discussed the factors that enhance collaborative teaching in a school, but I have further argued that collaborative teaching is not without its problems as literature pinpoints that there are also hindrances to collaborative teaching activities in a school. In the next part of my literature review, I discuss the factors that may hinder collaborative teaching in a school.

2.7.2 Barriers to collaborative teaching

2.7.2.1 School culture and structural barriers

Research has proven that a school culture can impact on teacher collaboration (Spillane, 2000). Bush and Middlewood (2005, p.69) define structure as "the physical manifestation of the culture of an organisation" and Mkhwanazi (2014) defines school culture as: "A place where teachers are socialised to the existing organisational norms through the policies and procedures that give direction of the organisation and also, control how personnel in these organisations conduct themselves" (p.44).

There are numerous elements that may hinder collaborative teaching activities within a school such as limited access to professional development, lack of administrative support. For instance, schools focus more on what Maloney and Konza (2011) referred to as 'operational procedures'. These include examination curriculum, participation in staff meetings, syllabus coverage, submission of workbooks, homework and supervision of learners. These procedures do not take into account teacher development, thus hindering engagement in collaborative teaching activities.

Kougioumtzis and Patriksson (2009) argue that collaboration in schools is not only scarce but difficult to promote and sustain. Provision of time is one of the powerful tools in supporting collaborative teaching activities. Expanding on this argument, Datnow (2011) states that allocation of time for instructional planning meetings is considered "sacred" (p.152). However, the way timetables are arranged hinders collaborative teaching in most South African schools. Some schools are characterised by teacher shortages and diversity in the curriculum, leading to timetables being

arranged to maximise teachers' teaching time. School timetables do not permit teachers to meet and discuss challenging classroom practices or plan and prepare lessons together. In other words, timetables do not promote collegiality among teachers. Leonard and Leonard (2003, p.7) argue that "teachers still complain that the scarcity of opportunities to collaborate is promulgated by decreasing time availability and increasing work demands". It is still difficult for teachers to have time together to engage in collaborative teaching activities. Kennedy (2011) contends that teachers "view their non-contact time as their time for marking and preparation, relaxing before the next period" (p.34). Moreover, teachers are given extra supervisory work to do, which further limits opportunities for collaborative teaching activities. This is confirmed by Brodie and Borko (2016) who contend that teachers have heavy workloads, which limit their time to engage in meaningful collaborative work.

In secondary schools, the division of teachers into departments and subject learning areas also hinder teacher's ability to work together. This culture emphasises teacher autonomy rather than collaboration. As a result, this hinders attempts for teachers to regularly talk with and observe one another. This is in contrast with Stoll *et al.* (2006) principle of collective responsibility. Failure to hold collective responsibility for student learning can impede teachers' professional growth. From the above argument, schools still need to adapt practices to encourage teacher learning and development.

Limited access to resources e.g. books, instructional materials, laboratory material and computers make it impossible for teachers to carry out effective teaching. Austin (2001) argues that sharing teaching methods and collaboration in the classroom becomes much easier where teachers have access to resources. From my teaching experience, I have witnessed schools where more than two learners have to share a book and teachers have to improvise when they have to do experiments as there is no laboratory equipment in the school.

2.7.2.2 School leadership

Research has proven that school leadership's role in nurturing teachers' professional growth, is of paramount importance when teachers engage in various collaborative work activities (Hord, 2004). The necessity of supportive conditions offered by school leadership is further reiterated by Spillane (2004) who asserts that the school management monitors teacher learning of its teachers and lack of teacher development opportunities.

Surprisingly, one of the barriers to collaborative teaching in a school is the School Management Team (SMT). Schools are characterised by few opportunities of professional development activities

and lack of a supportive role from the school management (Chassels & Melville, 2009) which further results in teachers having difficulty in implementing their teaching practices. The above views imply that teachers experience minimal support from the SMT or lack thereof to engage in collaborative teaching activities.

The school leadership's role has been redefined to that of instructional leadership. Instructional leadership promulgates that the school management should encourage sharing of expertise among teachers and create opportunities that encourage collaborative teacher activities (Parise & Spillane, 2010). However, Kingsley's (2012) findings revealed that the school leadership is not supportive of collaborative teaching activities. This may be due to their lack of understanding of how collaborative teaching works. Expanding on this argument, I have observed that the school leadership fails to set up opportunities for teachers to plan lessons together and evaluate their classroom practice. The focus is much more on management and other administrative tasks.

Austin (2001) contends that teachers need more support to increase subject knowledge to refine their teaching skills. However, school leadership's main focus is on managerial duties such as learner discipline, parental involvement and public relations. This kind of leadership fails to encompass teacher collaborative activities that influence instructional practices and other teacher professional development activities that may enhance teacher learning and learner performance.

Rytivaara and Kershner (2012) assert that secondary school teachers still work alone with limited support and guidance from the school management. Furthermore, Maistry (2007) argues that more often than not, teachers receive little or no encouragement to experiment with new teaching techniques. Moreover, school leadership fails to promote teacher professional growth that includes encouraging positive relationships amongst teachers, time for reflection and assistance regarding teachers' classroom practice. Maistry (2007) further argues that school leadership's focus is on ensuring the execution of administrative tasks by teachers, for example, syllabus coverage. These kinds of settings deter teachers from engaging in meaningful collaborative teaching activities.

2.7.2.3 Teachers as barriers themselves

School 'micropolitics' is another factor that hinders teacher collaboration in schools (Fullan, 2007). I am of the opinion that secondary school teachers often resist participating in discussions and evaluation of practices that result in improved teaching and professional growth. There is evidence in some schools of a negative attitude of some teachers to collaborative teaching activities (Rytivaara & Kershner, 2012). They further elaborated that teachers lack commitment towards

these activities. Similarly, Thibodeau (2008) talks about 'lazy' teachers who wish to avoid extra work and those that find it difficult to work collaboratively, preferring to work alone. These teachers view their individuality and creativity as being restricted by collaborative work.

Teaching is also grounded in teachers' backgrounds, biographies, the types of teachers they have become, as well as their skills. Mkhwanazi (2014) argues that teachers' collaborative work activities are influenced by their past experiences which have an impact on their learning and classroom practice. These encompass how teachers themselves were taught both at school and teacher colleges. As teachers bring along their own teaching attitudes and values, this definitely influences their decision to engage in any collaborative activities within the school.

In some South African schools, unwilling novice teachers pose a barrier to collaborative teaching. Ono and Ferreira (2010) allude to the fact that novice teachers resist working collaboratively with experienced teachers as they prefer to stay in their own comfort zones. They regard engaging in these activities as an encroachment of their valuable time.

Schools are often characterised by dynamic relationships between teachers who have diverse personalities. These relationships can also impede collaborative teaching activities. Tensions often emerge as a result of differing personal experiences, expertise, knowledge, authority and values, and approaches to collaborative teaching (Kougioumtzis & Patriksson, 2009). This resulted in what Kingsley (2012) refers to as pseudo-collaboration. The impact of teacher collaborative groups has negative effects on the success of collaborative teaching" (Kelchtermans, 2006, p.229). The implication of this is that unhealthy competition among teachers often results in a level of "ill-feelings" among colleagues. However, De Clercq and Phiri (2013) maintain that a competitive spirit among colleagues is important in teachers' continuous learning to develop their knowledge, skills and competencies.

Another barrier to teacher collaboration is the existence of cliques among colleagues. This often defeats the purpose of successful collaborative teaching activities in schools. Kelchtermans (2006) confirms that close personal ties among members of a team often inhibits collaboration and professional learning. Expanding on this argument, Camburn (2010) states that friendships or animosity between teachers makes it difficult for teachers to collaborate in an effective way. These kinds of relationships work against teachers acquiring new skills and knowledge as they avoid all forms of collaboration that could possibly threaten bonds within these cliques. Hargreaves (2003) warns that such collaboration can be comfortable, cosy and complacent.

2.8 Conceptual framework

Jabareen (2009) asserts that a conceptual framework is made up of concepts that provide a deeper understanding of a phenomenon being studied. It is also used to obtain, analyse and interpret data. This research study draws on two conceptual frameworks: Hord's (2004) five principles of teacher collaboration and Hargreaves' (2003) collaborative cultures, as conditions for teacher collaboration. These conceptual frameworks are used to understand ways in which teachers engage in collaborative teaching and the extent to which collaborative teaching contributes to teacher learning in the school studied.

2.8.1 Hord's principles of teacher collaboration

Hord (2004) identified five principles of teacher collaboration, clarifying what ought to be when teachers engage in collaborative work. These principles are shared beliefs; values and vision; shared and supportive leadership; collective learning and its application; shared personal practice and supportive conditions. A short description of each principle is given below.

2.8.1.1 Shared beliefs, values and vision

Hord (2004) asserts that beliefs and values guide the behaviour of individuals in a workplace. A vision and purpose is important when teachers engage in collaborative teaching activities. When teachers work from shared values and beliefs, they are able to make collective decisions that impact on their professional learning and learner achievement.

2.8.1.2 Shared and supportive leadership

Hord (2004) posits that the principal's role in nurturing teachers' professional growth is more important than that of his 'omnicompetence'. Hord (2004) asserts that teachers collaborative work relations involve continuous adult learning, strong collaboration, democratic participation and consensus about the school environment and culture. In such a collegial atmosphere, teachers talk with one another on subject related matters, share knowledge and observe one another. This relationship among the school leadership and teachers lead to shared and collegial leadership in the school, where all staff members grow professionally as they work towards a common goal.

2.8.1.3 Collective learning and its application

Hord (2004) argues that staff from all departments and grade levels work collaboratively. They engage in reflection and discussions, focusing on instruction and student learning. Staff also identified areas that need their attention. This also includes collaboration, where teachers learn together and build shared knowledge bases, to improve teaching and learning. Teachers in the

school studied (a) share teaching ideas, their experiences, failures and successes; (b) discuss instructional practices and make suggestions to improve learner performance; (c) visit each other's classrooms and observe their peers teaching and (d) work collaboratively as teams within their respective subject specialisations.

2.8.1.4 Shared personal practice

Hord (2004) argues that evaluation of a teacher's behaviour by colleagues is a prerequisite for collaborative work and teacher professional learning. She further argues that this is not an evaluation process, but a peer-helping-peer model. Teachers visit each other's classrooms for lesson observations, taking notes and having discussions about what they have observed. This process is grounded in individual and community development and supported by mutual trust and respect amongst colleagues.

2.8.1.5 Supportive conditions

Establishing a time to meet is an essential feature for teacher collaboration. Hord (2004) argues for the availability of resources, schedules and structures that minimise teacher isolation, foster collaboration and provide for teacher learning and development.

2.8.2 Hargreaves collaborative cultures

Hargreaves (2003) established that collaborative cultures are key features of teacher collaboration. He identified the following features as characteristics of collaborative cultures: (a) spontaneous meaning teachers should emerge themselves into a social group and teacher collaboration should be free from being administratively regulated; (b) voluntary where collaborative work relations are teacher initiated and arise from a perceived value of professional development among teachers; (c) development-oriented where teachers work together to develop initiatives on their own; (d) pervasive across space and time where Hargreaves (2003) argues that working together is not a scheduled activity, that can be administratively regulated, but it can happen anywhere and at any time; and (e) unpredictable where teachers have control over what will be developed and the results of such collaboration are not easily predictable.

Hord's (2004) five principles of teacher collaboration and Hargreaves' (2003) collaborative cultures were used as a conceptual framework for this research study, as the features of these models assisted in understanding the nature of collaborative teaching and factors that influence collaborative teaching in the school studied. The elements of these conceptual frameworks helped in analysing the three key research questions and served as guidelines to the key findings and discussions presented in Chapter Four.

2.9 Conclusion

This chapter reviewed local and international literature in order to understand the concepts of teacher learning and collaborative teaching. This was followed by a review of the history and contexts of collaborative teaching, their characteristics as well as benefits of collaborative teaching, teacher learning through collaborative teaching and lastly, a reflection on the factors that influence collaborative teaching in a school. The chapter concluded by presenting Hord's (2004) principles of teacher collaboration and Hargreaves' (2003) collaborative cultures as conceptual frameworks used to analyse and interpret data in this research study. The next chapter will discuss the research design and methodology used in this study.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The focus of this chapter is to provide an account of the research methodology and the design used to address the key research questions guiding this study.

Firstly, I will discuss the interpretivist paradigm which this study is located in, followed by an outline of the qualitative approach. I will then describe the case study as the methodological approach as well as its strengths and weaknesses. Next, the data collection methods used in this study, namely; semi-structured interviews and observations will be described, justifying the suitability of each data collection method for this study. Additionally, I will describe the ethical issues considered and the issue of positionality in this study. Lastly, a description of the limitations I encountered during the research process and how I attempted to overcome them will be discussed.

3.2 The research aim and questions

This study aimed to examine the nature of collaborative teaching in a semi-urban secondary school in Pietermaritzburg and the extent to which collaborative teaching contributed to teacher learning. The following key research questions guided this study:

- (1) In what ways do teachers engage in collaborative teaching in a semi-urban secondary school in Pietermaritzburg?
- (2) What factors influence collaborative teaching in a semi-urban secondary school in Pietermaritzburg?
- (3) To what extent does collaborative teaching contribute to teacher learning in a semi-urban secondary school in Pietermaritzburg?

3.3 The research paradigm

Cohen, Manion, and Morrisson (2011) defined a paradigm as a way of looking at the world or a phenomenon. There are various theoretical paradigms such as positivist, constructivist, interpretive,

critical and pragmatist paradigms (Mackenzie & Knipe, 2006). This study is located within the interpretivist paradigm. According to Neuman (2000) the interpretivist paradigm involves

A systematic analysis of social meaningful action through direct, detailed observation of people in their natural setting in order to arrive at an understanding and interpretation of how people create and maintain their social world (p. 71).

From this view, observation is at the centre of interpretive research. As a researcher, I wanted to explore how the five participants in my study understood and responded to the idea of collaborative teaching, as well as the factors that influence collaborative teaching within the school. I needed to understand the social dynamics of these teachers and view the phenomenon of collaborative teaching from their perspective.

Cohen, Manion, and Morrisson (2007, p.24) explain that when emphasis is placed on "explaining and understanding of the unique and a particular case, where the interest is in the subjective relativistic social world", then the most appropriate paradigm to locate this study is the interpretivist paradigm. It provides a thick description of the phenomenon under study. It will further create an opportunity for participants to express their experiences and views, based on their context. I believe the ontological assumption in this study is that there are multiple realities. This implies that there are multiple interpretations of a phenomenon, based on the individual's social and cultural context. In other words, the concept of collaborative teaching may be understood and described differently by the participants in the research study.

With regards to the epistemological assumptions made in this study, about knowledge and understanding, its nature and form, how it is acquired and how it is communicated (Cohen *et al.* 2007); I believe that knowledge was created in the interaction between myself and the research participants which occurred during the semi-structured interviews. Cohen, Manion, and Morrison (2012) assert that the interpretivist paradigm uses certain methods to collect and generate data. This includes interviews, observations, conversations, notes and memos. These methods of data collection, supported by the interpretivist paradigm, were used in this study.

3.4 A qualitative approach

A qualitative research approach was used in the study, which explored the ways in which teachers engaged in collaborative teaching in a semi-urban secondary school. Maree (2007, p. 50) describes a qualitative approach as "research that attempts to collect rich, descriptive data in respect of a particular phenomenon with the intention of developing an understanding of what is being observed

or studied". Qualitative research involves a small number of people. Data is analysed and interpreted to make sense of it by finding trends and themes. A qualitative approach is suitable for this study as it focuses on a small group of teachers from the Language and Science departments who teach in the context of their own school. Teachers were interviewed to explore their perceptions and understanding of collaborative teaching and how it contributed to their professional learning and development. Semi-structured interviews and observations of teachers in their natural setting were used to collect data. This concurs with Cohen, Manion and Morrisson (2012) and Kalof, Dan and Dietz's (2008) view that qualitative research always seeks to study the human action from an insider's perspective. A qualitative research approach will help me as a researcher to gain insights not only of the teachers' experiences, but also their feelings and attitudes. In view of my chosen qualitative approach, the next section focuses on the research method; a case study.

3.5 A case study approach

This study uses a case study approach. A broad definition of a case study is given, while focusing on its strengths and weaknesses. Its applicability to this study is also highlighted.

3.5.1 Defining a case study

Case study is used in qualitative research as one of the methods to collect data. Although there are various ways of defining a case study, it can be defined as a methodology used in social science research to investigate a single phenomenon in depth over a specific period of time (Cohen, Manion, & Morrison, 2012). There is a common belief in literature that a case study focuses on the idea of a bounded unit which is examined, observed, described and analysed to capture key components of the case (Baxter &Jack, 2008; Hamilton, 2011; Rule & John, 2011). Likewise, Yin (2003) agrees that a case study is an investigation of a single unit in its context. In this study, three lessons from each participant was observed to explore one of the ways in which teachers engaged in collaborative teaching and how they learnt from this activity.

My choice of case study was underlined by Baxter and Jack (2008, p.548) who argue that a case study is descriptive as it aims "to describe a phenomenon and the real-life context in which it occurred". To research this phenomenon, the case study method provided me with various ways of gathering data. However, in this study, two instruments: semi-structured interviews and observations, were used to collect data. Through the use of multiple data sources, I was able to get a fuller and in-depth picture of the case. Baxter and Jack (2008, p.554) contend that using a variety of sources "ensures that the issue is not explored through one lens, but a variety of lenses". A detailed

discussion and analysis of data was completed to make sense of the findings. All the abovementioned points enhanced the credibility of the case.

3.5.2 Components of a case study

The components of a case study are made up of two entities, namely; the case study and the unit of analysis. Rule and John (2011) further assert that case studies are classified according to their purpose and that the case itself tells you what the case study is about. The case in my study is explored collaborative teaching in a semi-urban secondary school. Hamilton (2011) emphasises that the unit of analysis highlights the contextual detail of a case. The unit of analysis within my case study is each individual teacher. Therefore, to understand and interpret case studies, a researcher must describe the contexts of the case study in detail.

3.5.3 Types of case studies

There are many types of case studies that are used in educational research. Yin (2003) identifies three types: explanatory, descriptive and exploratory. An explanatory case study explains the relationships in the real-life phenomenon. It also examines the phenomenon that has not been investigated and can lay the basis for further research (Rule &John, 2011). A descriptive case study describes the phenomenon within its context. An exploratory case study investigates the situations where the intervention is evaluated and can be used as a basis for other research studies. Rule and John (2011) also mentioned two other types of case studies, namely; intrinsic and instrumental. Intrinsic case studies are used by researchers to focus on a particular issue and examine cases to explore this issue in depth. Instrumental case studies are used to obtain an understanding of a particular situation, issue or theory and that helps in refining a theory. My case study is intrinsic and in-depth study to understand the ways in which teachers are engaged in collaborative teaching and an how collaborative teaching contributes to teacher learning.

3.5.4 Strengths and weaknesses of case studies

Rule and John (2011) maintain that the greatest strength of case studies is that the researcher has access to the case. The strength of my case study is supported by Baxter and Jack's (2008) view that case studies emphasise understanding and tacit knowledge. Since I chose to understand the phenomenon of collaborative teaching and teacher learning in more detail, I was able to tap into each individual's knowledge in order to achieve this. Cohen *et al.* (2007, p. 256) further highlight that a case study "recognises the complexity and embeddedness of social truths by carefully attending to social situations". In addition, case studies can present the discrepancies and or

conflicts between viewpoints held by participants. Furthermore, Rule and John (2011) assert that a case study allows a researcher to go into greater depth and more detail on the case being studied. This is of benefit to this study as I aimed to get a clearer picture and an in-depth understanding of collaborative teaching and teacher learning in a semi-urban secondary school context.

However, case studies have also weaknesses. Cohen *et al.* (2011) contend that case studies are not easily open to cross-checking and may be selective, biased, personal and subjective. I firmly believe that no interpretive study can escape the element of subjectivity and bias. Nevertheless, I used reflexivity and triangulation to minimise my personal bias. Rule and John (2011) assert that the findings of the case study cannot be generalised to other case studies. My intention was not to generalise, but to get an in-depth understanding of the phenomenon of collaborative teaching being studied. The goal of qualitative research is not to generalise findings across populations, rather it seeks to provide an understanding from the participants' perspective.

3.6 The research setting

The research setting refers to a place where data is collected. My research case study was conducted at my own school. The enthusiasm to use my own school was that I had never worked in another school. I have been teaching at the same school for more than 20 years and I have become intimate with its culture and the people who work there. However, I did not compromise any of my duties and responsibilities during the duration of this study. Based on the premise that collaborative teaching and teacher learning applies to individuals within a work context, I believe that a description of the context in which this study was conducted is important for understanding teachers' thoughts and perceptions of the phenomenon.

The school is a semi-urban secondary school in Pietermaritzburg, KwaZulu Natal. Initially the school used prefabricated buildings and leased some classrooms at a nearby primary school. In 1996, it moved to new buildings. It is a historically disadvantaged school, but now it is regarded as a section 21 school according to the South African School's Act (1996). This means that the school is classified as self-managed and can finance itself. Recently, it has been categorised as a no-fee school as it serves a poverty-stricken community. The School Governing Body (SGB) had recommended that parents contribute R70.00 per annum towards the school fund, but most parents are unable to pay.

The school has an administration block, with the principal and deputy principal's offices, the clerk's offices and the staffroom. The staffroom is fairly resourced, with twenty computers, but

only two are functioning. It is here where the staff holds meetings, briefings and lunch. The atmosphere is more relaxed and jovial. It is here that I observed how teachers in my study shared their experiences and successes.

The school has four buildings, with two laboratories and a library which is in its teething stage. There is also a computer laboratory which is infrequently used by both teachers and learners. There is a multi-purpose classroom, which was later converted to a school hall, but cannot accommodate all learners.

There is a steady rise in learner enrolment, from 950 learners in 2001 to 1350 learners in 2018. The school draws learners from in and around Pietermaritzburg. The school is for predominantly black learners. Eighty percent of the learners travel on foot to and from school and twenty percent learners commute using the local taxi and bus services.

The staff comprises 40 teachers who are all state paid. There is gender imbalance as out of 40 teachers, only 11 teachers are males. Teachers are always punctual, disciplined and properly attired. Teacher absenteeism is relatively low and a culture of teaching and learning prevails in the school. The school offers an academic curriculum for grades 8-12. Class sizes are quite high with 60 learners per class in grades 8, 9 and 10 with variations in Grades 11 and 12. The medium of instruction is English, though most learners are Zulu first language speakers. Learner attendance ranges between 70-90%, based on the observations I made. The two laboratories have been recently upgraded but are not yet functioning.

Teachers work under constant pressure to provide high quality education amidst shortages of books and desks. At the time of this study, the matric pass rate was 84% after years of being classified as an underperforming school. The principal's main focus at the time of this research study was to improve the matric pass rate. Morning briefings are the order of the day and most decisions are made during these meetings. I observed that the school day seldom started at the same time everyday due to long morning briefings characterised by tensions, debates and issues that arose. The school context is important in the context of this study as it impacts on the factors that influence collaborative teaching in the school. It is with the above descriptions of the school context that I now focus on the participants.

3.7 Participants and sampling

This section explains the selection procedure of the participants in the study. Maree (2007) defines sampling as a process of selecting a small number within a population for the study. Furthermore, Hill (2012) argues that the main consideration in qualitative research is choosing a sample that will be able to answer the research questions. There are two main methods of sampling, namely; probability sampling and non-probability sampling. In probability sampling, everyone in the wider population has an equal chance of being included in the sample. Non–probability sampling focuses on a particular group which does not represent the wider population (Cohen *et al.* 2011).

In this study, purposive sampling was used to select participants and convenience sampling was used to select the school. Cohen *et al.* (2011) defines purposive sampling as handpicking the participants to be used and convenience sampling as a process involving choosing the nearest individuals to serve as respondents and continuing that process until the required sample size is obtained. Purposive sampling is aligned with qualitative research as Polkinghorne (2005, p.139) asserts that "participants in a qualitative study are not selected to fulfil representative requirements for statistical use". Participants are chosen because they substantially contribute to the structure and character of the investigation. The sample used in this study comprised of five participants, 3 experienced teachers and 2 novice teachers. Purposive sampling was an appropriate method for this study as I wanted to examine how both experienced teachers and novice teachers engaged in collaborative teaching.

Maree (2007) and Dawson (2007) assert that convenience sampling is when individuals selected to participate in the research study are suitable for the study, accessible or conveniently available. As I work in the school where the study was conducted, convenience sampling was used in selecting the school. This was convenient for me as a researcher in terms of accessibility, time and the financial implications.

3.8 Data collection instruments

Informed by the key research questions, the study used qualitative methods for data collection. Baxter and Jack (2008, p.554) argue that "a qualitative case study is an approach to research that allows the use of multiple sources of data". This ensures that the issue is not only explored through one lens, but a variety of lenses. Semi-structured interviews and observations were the methods used to collect data. The data collection process lasted for 3 months which included semi-structured interviews, observations and taking field notes of various situations during the research process.

The reason for using multiple sources of data was so that data can be verified and cross-checked during the research process. The following section describes each method I used, by defining them and explaining how they fitted the purpose of my research design.

3.8.1 Semi-structured interviews

Interviews are "one-on-one discussions between the researcher and the research participants, a sort of guided conversation" (Rule & John, 2011, p.64). To generate data, the study used semistructured interviews. Niewehuis (2007, cited in Maree 2007, p.87) contends that "semi-structured interviews define a line of enquiry". They allow for probing and clarification of answers. Likewise, Leery and Ormond (2010) contend that semi-structured interviews allow the researcher to follow up ideas, probe responses and investigate motives and feelings.

A brief summary of the researcher's intentions were given. Interviews were written and also addressed verbally to participants. These provided a more relaxed and a friendly atmosphere in which to collect data. Semi-structured interviews were conducted at the deputy principal's office and at the school library during lunch breaks and non-teaching periods. Semi-structured interviews created a platform where the participants could talk freely about their experiences. An interview schedule was designed for this study (Appendix 5). I used the same questions for each interview but probed further for more clarifications. During the interviews, an audio recorder was used with the permission of the participants to capture the discussions for the purpose of analysing data. I also noted feelings and body language for reflections on their responses.

Some of the strengths of semi-structured interviews are that they allow the researcher and the participants to meet face-to face for probing and to encourage the participants to provide rich data. According to Hamilton (2011), semi-structured interviews allow the researcher to observe the participants' behaviour and offer a comfortable atmosphere for data collection. The limitations of semi-structured interviews are that they are time consuming and costly. Cohen *et al.* (2011) contend that participants can provide biased responses and the results of the interviews cannot be generalised.

3.8.2 Observations

The second data collection instrument used in this study was observations. Lessons, departmental meetings, informal chats in the staffroom were observed. Polkinghorne (2005, p.143) defines observation "as a technique of gathering data through direct contact with an object, usually another human being". He further asserts that participants' behaviours, facial expressions, gestures and other non-verbal gestures are observed, so as to shed light on the participants' oral comments.

Observations are used to supplement and clarify data obtained from participant interviews. On the other hand, Bless & Higson-Smith (2000) define observation as a data collection technique which relies on direct observation of the participants in the research study. As a researcher, I was able to see and hear what occurred naturally on the research site.

Cohen *et al.* (2011) mention that there are two categories of observations: unstructured observation and structured observation. In an unstructured observation, a researcher will be less clear on what he is looking for and has to enter the situation without any specified patterns of behaviour. The researcher will observe what is taking place before deciding on the significance of the research. In a structured observation, the researcher will know in advance what he is looking for and come into the setting, with pre-specified patterns of behaviour (Cohen *et al.* 2011).

This study used structured observation as I had to observe the ways in which teachers engaged in collaborative teaching and how they learnt through these collaborative teaching activities. An observation schedule (Appendix 6) was designed indicating activities and when the activities took place for record purposes. I was also an observer participant (Maree, 2007) as I remained uninvolved and "did not influence the dynamics of the setting" (p.85). To avoid being overly intrusive, and to reduce observer effect, observation dates, especially lesson observations, were arranged beforehand.

Some of the strengths of observations include supplementing information obtained from interviews and gathering of live data from naturally occurring situations as they provide first hand data (Bless & Higson-Smith, 2000). The limitations of observations are that the observer's bias may be present and participants' behaviour may be influenced by the presence of an observer. Lastly, they do not give an observer an opportunity to probe for clarity.

3.9 Data analysis

Rule and John (2011) assert that data analysis is a process of arranging data into categories and patterns and later interpreted to make sense of it.

Thematic data analysis was used in this study to analyse data from semi-structured interviews and observations. Kalof, Dan and Dietz (2008) state that thematic data analysis focuses on analysing the meaning of the spoken and written word and the reason why it is the way it is. Interviews were audio-recorded and transcribed. Common ideas were identified and were categorised which led to

the emergence of themes that answered the research questions. Findings were validated with the participants to ensure the accuracy of their responses.

3.10 Limitations

I had attempted to undertake this research study fully aware of some limitations and I was able to overcome them. Firstly, the research was undertaken at my own school. I was aware that this would raise questions about the influences and biases that I may have as a researcher. Using my own school, whilst having many disadvantages, did leave me with moments of unease, especially when I questioned my participants' responses. To alleviate this, I explained that my role is that of a researcher and this would not influence my views on the school's effectiveness. Secondly, the findings of this research study cannot be generalised to all secondary schools in the Pietermaritzburg area, because this was a small-scale study focusing on a semi-urban secondary school, involving five participants in two subject departments. Thirdly, findings would not be representative of all teachers in the school. However, the research study provides insights into the ways in which teachers engage in collaborative teaching and the extent to which collaborative teaching contributes to teacher learning. Findings can therefore be used in similar contexts.

3.11 Trustworthiness

When a researcher selects a procedure for collecting data, it should always be examined critically to assess to what extent it is likely to be reliable and valid (Shenton, 2004). Shenton (2004) also claims that trustworthiness in a qualitative research "is a framework for ensuring rigour and transparency" (p.63). Trustworthiness is achieved through the following four criteria: credibility, transferability, dependability and confirmability. Credibility refers to the ability of the researcher to present a true picture of the phenomenon being researched. This means that conclusions made are from the data collected. Transferability is a process whereby the reader of the research study can ascertain that the findings can be justifiably applied to other contexts. Dependability maintains that the study should allow a future researcher to repeat the study (Shenton, 2004). Lastly, to achieve confirmability, a researcher must demonstrate that the findings emerge from the data and not his own predispositions.

I also used other strategies to ensure the trustworthiness of this research study. Firstly, I explained my positionality as a researcher to the participants so that this was not confused with my position as

a member of staff in the school studied. I explained that the results would not be influenced by my position as a teacher in the school, but my role was that of a researcher. Triangulation was also employed in this study by using different methods of collecting data. Data from semi-structured interviews and observations was combined for analysis and interpretation. Data was also verified with the participants, which enabled them to verify the accuracy of what had been written about them. Field notes were also recorded during observations for full and accurate notes of what I observed as it happened. Maintaining the participants' confidentiality and anonymity also ensured the trustworthiness of this research study.

3.12 Ethical considerations

Successful fieldwork is usually determined by the accessibility of the setting and the researcher's ability to build up and maintain relationships with the gatekeepers (Maree, 2007). For a researcher to gain access and be able to conduct research, one needs to obtain ethical clearance from the institution in which the study is undertaken which was obtained from the University of KwaZulu Natal (Appendix2). Permission to conduct research in the school was also granted by the Department of Basic Education (DBE) (Appendix 1) and was forwarded to the school principal and the School Governing Body (SGB) to gain access. A letter seeking permission to conduct research in the school was given to the principal (Appendix 3), indicating the purpose of the research study.

After gaining access from the principal and the SGB, I asked for permission to address the staff about my research study. This helped me to select participants in a transparent manner. The researcher is required to obtain informed consent from the participants to be part of this research study (Macmillan& Schumacher, 2001). Participants were briefed about the purpose of this study and their role in the research was clearly explained. Participants were further informed they had the right to withdraw from this research at any time without any negative consequences. An informed consent letter (Appendix4) was given to participants to read and sign. This served as a confirmation that they would participate in this research study voluntarily.

Anonymity was also ensured as the participants' identities and the school's name were not revealed for their protection. Participants were given pseudonyms and confidentiality was ensured. Participants were assured that all the information was used solely for research purposes, would be kept confidential and the data collection methods were explained. This assured that the integrity of the participants was protected. They were also assured that the data would be stored in a locked cabinet, in my supervisor's office, for a period of five years and thereafter will be destroyed.

3.13 Conclusion

This chapter described the research methodology and the design of the study. It described the interpretivist paradigm and the qualitative approach. The methods of data collection, namely; semistructured interviews and observations were also discussed, as well as the strengths and limitations of these. This chapter further discussed purposive sampling and the data analysis. The limitations of this research study and how I chose to overcome them were outlined. Lastly, trustworthiness and the ethical considerations of this research study were discussed. The next section focuses on the presentation of data and discussion of the findings.

CHAPTER FOUR

DATA PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents and analyses data gathered in this study. Data was obtained from semistructured interviews and observations of collaborative teaching activities the five participants engaged in within the school. Interview transcripts and notes from observations were repeatedly read to gain a better understanding of them and to make a clear sense of the nature of the data. Data were coded and categorised to identify common themes, which displayed the views of participants clearly and accurately. Themes were created to understand the nature of collaborative teaching in the school and the extent to which collaborative teaching contributes to teacher learning. Direct quotations were used to echo the participants' views. Participants' responses are written in italics. This section is a response to the following key research questions:

- (1) In what ways do teachers engage in collaborative teaching in a semi-urban secondary school in Pietermaritzburg?
- (2) What factors influence collaborative teaching in a semi-urban secondary school in Pietermaritzburg?
- (3) To what extent does collaborative teaching contribute to teacher learning in a semi-urban secondary school in Pietermaritzburg?

The first part of this chapter outlines the biographical details of the five participants in the study. This is followed by the participants' perceptions of collaborative teaching. Part two of this chapter presents the data analysis according to the three key research questions this study aimed to address.

4.2 Profile of participants

Five participants were purposefully selected for this study: three males and two females. For protection and anonymity, participants were given pseudonyms. Their biographical data included their qualifications, teaching experience in years, subjects and grades they taught and their age category.

Participants	Teaching subject	Grades	Qualifications	Teaching experience in years	Gender	Age
Nkosi	Mathematics	10 - 12	Bachelor of Education degree	3	Male	20-30
Lunga	English	11	Bachelor of Arts degree and Postgraduate Diploma in Education	18	Female	40-50
Mandla	English	10	Bachelor of Education Degree	3	Male	20-30
Mike	English and History	10	Honours degree in Education	20	Male	40-50
Siwe	Life Sciences and Mathematics	8, 11 and 12	Bachelor of Education degree	30	Female	50+

 Table 4.1: Biographical details of participants

The table above illustrates that all participants in this study had a minimum of a four- year qualification in education. It was also evident that the participants' teaching experience varied as the study included both experienced and novice teachers.

4.2.1 Nkosi

Nkosi is a young and hardworking Mathematics teacher. He has been in this school for three years. He holds a Bachelor of Education degree where he majored in the Physical Sciences and Mathematics. He obtained his degree from Durban University of Technology (DUT). In addition, he recently obtained an Honours degree in Mathematics Education from the University of KwaZulu-Natal (UKZN) and is currently doing a Master's degree at the same university. He is a Post Level 1 teacher at the school, teaching Grade 11 and 12 Mathematics. In 2017, he attended a six-month course at Hilton College on how to improve teaching strategies and the incorporation of teaching media in Mathematics. This was beneficial to him as he explained "...*that was an eye*

opener for me as it reinforced my teaching style." He expressed how he enjoyed teaching Mathematics by saying, "...I'm so in love with numbers, it's like I am breathing Mathematics. I feel Maths enhances the reasoning skills among learners". However, he mentioned that learners who do not want to work and those that lack basic mathematical skills always frustrate him.

4.2.2 Lunga

Lunga is a senior English teacher in the school. She has been in this school for eighteen years. She obtained her Bachelor of Art degree, majoring in English at the University of KwaZulu Natal. She then later did her Postgraduate Certificate in Education while employed at the school. She is currently doing her Postgraduate Diploma in Library and Information Sciences at UKZN. She is a Post Level 1 teacher, teaching English in Grade 11, and has been appointed as a teacher librarian in the school. She is so passionate about English that she hardly converses in any other language. She believes that English, "...enables learners to explore their language abilities other than their home language". She verbalised that most learners in the school cannot read or express themselves in English. Lunga then pioneered a drive that, once a week, the school should have a reading hour, where learners, with the help of other teachers are encouraged to read so as to overcome this literacy barrier.

4.2.3 Mandla

Mandla has been in this school since 2015. He has three years teaching experience, which indicates that he is still in his professional infancy. He holds a Bachelor of Education (BEd) degree from the University of KwaZulu Natal and later completed his Honours degree in Language Teaching. He teaches English to Grade 10's and enjoys teaching literature as he stated, "...engaging with literature develops analytical skills or thinking among learners". Since he came to this school, he has been paired with experienced English teachers who teach the same grade. During the interview he stated that, "I rely more on the expertise of my senior colleagues and this has developed my knowledge of the subject and has subsequently exposed me to different teaching methods". From this quote and others reflected in this chapter, it is evident that Mandla has been engaged in collaborative teaching activities. From what I have observed, he was not aware that he was practising collaborative teaching.

4.2.4 Mike

Mike has been teaching for 20 years and has been in this school for 18 years. He has a Secondary Teachers' Diploma (STD), majoring in English and History and has recently obtained his Bachelor of Education Honours degree. He is a Post Level 1 teacher, teaching English in Grade 9 and History

in Grade 12. Mike believes that schools should be the heart of teacher learning and development. He argued that teachers within the school should be given opportunities to develop one another. He mentioned that he had started team teaching activities within his department, "...where each one is helping the other so as to overcome the notion of teacher isolation".

4.2.5 Siwe

Siwe is a senior teacher at Post Level 1. She has taught for 23 years and has been in this school for 10 years after teaching in three different schools before this. She has a friendly and warm personality and seems to take life as it comes. Siwe teaches Life Sciences in Grade 11 and 12 and Mathematics in Grade 8. She is also vocal in matters related to teacher welfare as she is currently serving as a site steward. She is passionate about teaching and her love for Life Sciences was evident as we conversed. "*My daughter is doing her second year in teacher training specialising in Life Sciences....you see it runs in the family*". Siwe has been rewarded by the Department of Basic Education (DBE) for producing the best results in Life Sciences. However, she has had mixed emotions about teaching recently due to learners who are not committed to their work and who perform very poorly in tests and examinations. She felt that teachers should work together, sharing their successes and failures, making themselves better teachers.

4.3. Participants' perceptions of collaborative teaching

This section describes the participants' perceptions of collaborative teaching and their understanding of the concept of collaborative teaching. Common ideas and contradictions on the concept were evident.

4.3.1 The concept of collaborative teaching

Austin (2001) and Ranamane (2006) described collaborative teaching as a learning activity, where teachers engage in different teaching activities while reflecting on day-to-day classroom activities. It emerged from the data that the participants had a different understanding of collaborative teaching. However, they all agreed that collaborative teaching is based on the premise that teachers can accomplish more when working together than working alone. Teachers understanding of collaborative teaching in the school. This is consistent with Austin's (2001) view that teachers' understanding of collaborative teaching varies in terms of usage and context.

Ranamane (2006) described collaborative teaching as activities, strategies and reflections done by teachers based on their day-to-day classroom experiences. Participants' responses to their understanding of collaborative teaching seemed to resonate with this description. Nkosi showed his understanding by defining collaborative teaching as, *"teachers working together in improving their classroom teaching"*. The other participants viewed collaborative teaching as a team teaching activity. Mike further expanded on these descriptions by stating that two or more teachers, teaching the same subject, plan lessons together. Through this they share ideas, methods, expertise and teaching material.

As outlined in Chapter 2, various authors described collaborative teaching in different ways. Rytivaara (2012) identified the following features of collaborative teaching: joint planning, lesson observation, peer coaching and a lot of guidance from expert teachers. Goddard and Goddard (2007) view collaborative teaching as networking, team teaching, mentoring, peer observation and co-teaching. Anderson and Landy (2006) see collaborative teaching as joint lesson planning, peer observation, post evaluation of lessons and post reflection of lessons by teachers. Drawing from these descriptions, these authors have some common understanding of collaborative teaching which emerged as joint lesson planning, lesson observation by peers and mentoring.

In response to the question on their understanding of collaborative teaching, participants expressed some of the features mentioned above. Noosa viewed collaborative teaching as, "the pairing of a beginner teacher with an experienced teacher for guidance, support and sharing of skills." I believe that this view is associated with mentoring. Siwe pointed out that "collaborative teaching is all about teachers observing each other teaching". She further explained by listing the activities teaching methods and materials, and sharing expertise and skills. Lunga viewed collaborative teaching as, "It's all about devising strategies together in teaching a particular topic and later evaluating what worked and did not work". I noted that Siwe's view is associated with lesson observation and that of Lunga with reflection. The above responses confirm Hord's (2004) dimension of teacher collaboration which involved reflective inquiry. Participants also raised the issue of evaluating each other's lessons, reviewing what worked and what did not work as they shared their classroom experiences.

From their responses and my observations, I noted that participants further viewed collaborative teaching as cross curricular teaching. I observed the following:

During lunch break, a History teacher mentioned that he would be conducting a lesson on Japan's attack by America during the Second World War. Lunga was thrilled about that as she was planning to have her learners study a poem about Japan (Observation).

She shared the following information, "We later agreed to coordinate our lessons so that learners can have what they are learning in History supported by a poem found in the literature".

This response illustrates that the two teachers worked together to make connections across subjects (Stanley, 2011). This maybe the reason why teachers, across different subjects often jointly plan lessons and share resources. Lunga's view of collaborative teaching is supported by Thibodeau's (2008, p.55) definition of collaborative teaching as "when teachers work together to construct fully structured bridges between learning areas".

When Mandla was asked about his understanding of collaborative teaching, he merely said he did not understand what the concept was about. When probed further about the activities he engaged in with other teachers in the school, he then realised these activities were part of collaborative teaching. He explained:

We are often involved in joint lesson planning and discussions about teaching methods and activities to be used during our classroom teaching. Sometimes we go as far as sharing instruction in the same class...looking at each other's teaching practice, while offering support and assistance...Now I can confidently say that's my understanding of collaborative teaching.

From the participants' responses and what I observed, coming up with a single definition of collaborative teaching, was challenging. This resonates with the literature reviewed, which highlighted there are various definitions of collaborative teaching. The difficulty in finding a universal definition is reflective of the various perceptions teachers have regarding this concept. Participants' understanding of collaborative teaching emerged from their experiences of collaborative teaching activities within the school. However, there was a general consensus that collaborative teaching was all about shared learning.

4.4 The ways in which teachers engage in collaborative teaching in a semi-urban secondary school

This section responds to research question 1: In what ways do teachers engage in collaborative teaching in a semi-urban secondary school in Pietermaritzburg? My aim was to understand the way

in which participants engaged in collaborative teaching in the school studied. From the data drawn from the participants' discussions and comments and the observations, three key themes emerged: lesson observation, reflection and mentoring.

4.4.1 Lesson observation

The data from the semi-structured interviews indicated that lesson observation was the main collaborative teaching activity in the school. Participants mentioned that they visited each other's classrooms where they observed a colleague delivering a lesson to learners. Lunga explained:

Being observed and observing a colleague is one of the activities that have empowered me as a teacher. It has allowed me to check my tendency to slip back to the mindset where I saw my learners as passive.

Similarly, Mandla stated, "I often ask my friend to come and observe me teaching. He will come with a pen and paper and sit down at the back, scribbling some notes as I delivered my lesson."

He further stated:

I always feel so content after such observations as my colleague thought my teaching methods have improved, that he will use them in his lessons. This was an inspiration for me to do more in class.

The participants' responses highlighted that through lesson observations, some teachers acted as role models for other teachers to improve on their lesson planning and presentation. These statements are in line with Johnson's (2003) view that through lesson observation, teachers become resources for one another. Mike also shared the following, "*I sometimes invite my colleague with whom I teach the same subject to observe my teaching and make comments so as to improve my teaching*". Mike's statement is congruent with Austin (2001) who asserts that when teachers engage in lesson observation and feedback is provided, they may learn from colleagues and become what Darling-Hammond and Richardson (2009) referred to as 'critical friends'. Nkosi also emphasised:

As a beginner teacher, I quite often observed more experienced Mathematics teachers teach and they in turn, observe me so as to develop my teaching skills. Being observed or observing my colleague has given me a platform of getting advice and information for my Mathematics teaching.

Even though participants viewed lesson observation as a good instrument for their learning and development, in contrast, Siwe indicated that it had limited benefit for her. She explained, "*I hardly*

learn anything from such an activity. For me it's more about being scrutinised and surveillance on how I conduct my lessons". This statement revealed that Siwe's approach to lesson observation was more reactive than proactive. One may argue that Siwe's view illustrates Hord's (2004) dimension on shared vision and values when teachers engage in any collaborative teaching activity, since she did not share the same vision or values in lesson observations as beneficial to collaborative teaching.

From my observation, I noted that among the participants and teachers in the school, only Nkosi, a novice teacher, engaged in lesson observation intensively. Unlike Siwe, for Nkosi the purpose of lesson observation was not evaluative. This is in line with Hord (2004) who contends that the process of lesson observation is not to assess, but it is about peers helping their fellow peers. Participants concur that lesson observation is a major activity for collaborative teaching however; it is not a norm in the school. Some teachers did not expect to be visited by a colleague in their classrooms except during formal observations for Integrated Quality Management Systems ((IQMS) purposes. Participants also mentioned that other teachers had a conservative attitude towards lesson observation as Mike stated, *"Teachers value their privacy and cannot shift away from the mind-set that they work best alone, without the interference from colleagues"*. This confirms Mednick's (2004) assertion that in secondary schools, lesson observation is less prevalent due to school culture and structural conditions.

4.4.2 Reflection

Govender (2016) and Stoll *et al.* (2006) assert that reflection assists teachers to find areas of development within their practice. Furthermore Govender (2016, p.16) asserts that "reflection is essential for learning from blunders and recognising mistakes since it is the process through which we think about our experiences which is vital to learning". Collaborative teaching has been viewed as a platform where there is frequent examination of teachers' practices. These examinations are undertaken by teachers themselves or their peers and involve deep conservations about classroom issues involving application of new knowledge. Mandla explained, "*After each lesson observed, we reflect on our teaching strategies looking intensively on what worked or did not work during classroom and how to improve on it*". Similarly, Mike emphasised:

We often sit down....eh so much of a reflective dialogue....where we reflect and compare our classroom activities and examine intensively areas that work and those that posed challenges, and we work out on those that need changes. These participants' responses highlighted that collaborative teaching enabled them to scrutinise their classroom practices in order to identify what worked and what did not work so they could enhance their teaching. Kwakman (2003) maintains that change starts with unlearning traditional practices and adopting new strategies to improve the quality of teaching. This was evident in Mike's explanation:

I often ascertain learner's knowledge through testing the old way....where learners had to reproduce what they have learnt in class. However, as I observed my colleagues and converse with them about my teaching, I experienced a tremendous change in how I assessed my learners, how I planned my lessons and time and again, reflected on the feedback given by my colleagues.

Participants also revealed that through continuous and detailed dialogue with their colleagues, more chances to thoroughly reflect on their teaching practices were created. Lunga explained:

I share Grade 10 with my colleague. At the end of the first term, we often reflect on our teaching experiences, conversing about our classroom challenges and causes of bad learner performance. After such discussions I realises where I have gone wrong, where do I need to adapt.

She further stated:

Such conversations confirmed my fears that there was something I was not doing right. There is more I have to do to improve learner performance, but I never knew which teaching strategies to use.

Lunga's explanation is in accord with Schon's idea (1997, cited in Kelly, 2006, p.510) of a teacher being 'a reflective practitioner'. This involves teachers evaluating and explaining their classroom teaching practices. One may therefore argue that, collaborative teaching provides teachers with opportunities of critically looking at each other's work with the aim of improving classroom practices.

4.4.3 Mentoring

Mentoring has been mentioned by participants as a collaborative teaching activity. When asked about participants' engagement in mentoring as part of collaborative teaching, Mike stated:

It is a process whereby we experienced teachers, give guidance and support to beginner teachers. Usually, I invite beginner teachers in my department – for joint lesson planning,

unpacking of the subject content, discussions on a variety of teaching methods. This helps them to overcome the notion of teacher isolation.

The response given by Mike above demonstrates the collaborative nature of mentoring, where both experienced teachers and novice teachers work together as part of their professional learning and development. This correlates with Hord's (2004) dimension of collaboration. In addition, it supports the notion of teacher learning as being social.

Nkosi, a novice teacher, mentioned that he relied on mentoring as part of collaborative teaching by explaining:

For me, experience counts. An expert Mathematics teacher has assigned herself to me to provide help and support in specific areas in Mathematics teaching. I have this one-on one relationship with my colleague, where I need to learn various teaching strategies. Her support and guidance have deepened my understanding of the subject matter.

This view was also shared by Lunga who said, "As an experienced English teacher I have made it my task to assist and guide beginner teachers who are teaching English for the first time".

This collaborative teaching activity is further confirmed by De Paul (2000) who asserts that it is important for schools to create opportunities for novice teachers to work with experienced teachers. De Paul (2000) further contends that senior teachers should look after novice teachers in the school. Nkosi and Lunga's views are also supported by Goddard and Goddard's (2007) view that collaborative teaching provides systematic assistance to novice teachers.

Data further revealed that experienced teachers mentored each other as part of collaborative teaching. Siwe offered a broader view of this activity:

We often rotate when it comes to teaching Life Sciences, meaning that a teacher is assigned to teach another grade in the following year. So, we mentor each other, sharing knowledge, resources, guiding each other for best classroom teaching. So, we support each other even as experienced teachers.

Siwe's response indicated that mentoring as a collaborative teaching activity, extends far beyond the notion of a relationship between a novice and an experienced teacher. Experienced teachers also support each other as they become critical friends; provide support networks and a community of learners. Moreover, the above participants' responses were in line with Goddard and Goddard's (2007) view that mentoring encourages a climate of reciprocal relationships among peers and

allows for professional development. This signifies a link between mentoring, as a form of collaborative teaching and teacher learning.

However, a contrasting view on mentoring was expressed by Mandla who clearly conveyed a different response when asked about mentoring as a form of collaborative teaching. He stated, "My HOD paired me with an experienced teacher in the department. I have not seen it as any form of guidance and support, but it is mere monitoring...."

Mandla's view suggested that mentoring does take place in the school but was an obligatory process. Mandla further stated, "*My so-called mentor will tell me this is how I should plan my lessons, organise my workbook, hardly giving me any opportunity for input*". The differing views on mentoring indicate that plausibility is not given to mentoring as a form of collaborative teaching in other departments within the school. It thus challenges the collaborative nature of teacher learning.

Data presented another activity that did not fall under the themes that have been discussed. Participants' responses and my observation also indicated that they used co-teaching as part of collaborative teaching. Roth and Tobin (2005, p.7) viewed co-teaching as "when two teachers deliver substantive instruction to a group of learners in a single physical space." One of the participants, Nkosi, mentioned that he often shared one lesson where each teacher was assigned a task. He shared the following information:

I often share teaching in the same class with the other Mathematics teacher. The other teaches the first half of the period and the other observes and the other half will be taught by the other.

In one of the lessons I observed between Nkosi and his colleague, they co-planned, looked for resources together and jointly did a class presentation.

The lesson was about expressions of probability. The two teachers assigned each other part of the lesson among themselves, which allowed for impromptu interruptions from another educator. They decided who will go first. The class was also divided into two groups. While the other teacher was explaining the concepts, the other teacher was interacting with the learners on each group. They also took turns in marking learner class activities. (Observation)

Nkosi also mentioned:

I was conducting a lesson on geometry and asked my learners questions based on the sum given, not a single learner was able to give an answer. When my colleague saw that the question did not elicit learner response, she stepped in and rephrased the question there and there.

From the above discussions and observation, it was noted that the two teachers compared their teaching philosophies, methods and expectations. They were able to work on each other's strengths and weaknesses. Nkosi confirmed, "*If I am teaching in a certain way, my colleague can explain it in a different way and connect with learners I could not reach better than me*". He mentioned that co-teaching it's more about a sense of belonging: As you share a lesson with a colleague, you are more at ease.

The above views and observations confirm Roth and Tobin's (2005) assertion that:

Co-teaching is not about two teachers being in the same classroom together to make their job easier, but about developing as teachers while teaching, continuously participating in a process of becoming a better teacher in the process (p. 10).

However, Nkosi raised the issue of maintaining each other's individuality when engaging in such an activity. It was also noted that co-teaching activities were usually done with a colleague with whom there was mutual understanding, usually a 'close friend'. Nkosi said, "You must choose a person who does not have a need for power and a control freak". This indicates that co-teaching requires two individuals that complement each other.

In summary, the data indicated that in the school studied, the three key features of collaborative teaching that were evident were lesson observation, reflection and mentoring.

4.5 Factors that influence collaborative teaching in a semi-urban secondary school

This section responds to research question 2: "What factors influence collaborative teaching in a semi-urban secondary school in Pietermaritzburg?" Participants' responses obtained from semistructured interviews and observations of daily activities within the school were used to address this research question. The data revealed that in the school studied, both factors that promoted and hindered collaborative teaching were evident. It was evident from the data that participants discussed; there were more barriers to collaborative teaching than support for collaborative teaching. The first part of this section will discuss the factors that serve as barriers to collaborative teaching.

4.5.1 Barriers to collaborative teaching

With regard to teachers engaging in collaborative teaching in the school the following barriers or challenges emerged from the data: school culture and structural barriers and teachers themselves.

4.5.1.1 School culture and structural barriers

Spillane (2000, p.324) describes a school culture as "where teachers are socialised to the existing organisational norms through policies and procedures that give direction of the organisation and control how personnel in these organisations conduct themselves", whereas Bush and Middlewood (2005. p.69) define the structure as "the physical manifestation of the culture of the organisation". The school culture and structure comprise among other things, the size and location of the school, as well as availability of time for collaborative teaching activities. Various elements within the school can either be a limitation or a support for collaborative teaching and may have an impact on teacher learning (Kingsley, 2012). This is confirmed by Govender (2016) in her study where she claims that unsupportive conditions within the school have a direct impact on the implementation of new teaching strategies within the classroom. Data revealed the following elements of school culture and structural barriers to collaborative teaching: time constraints, heavy workloads, limited resources, and school leadership.

(a) Time constraints

It is my belief that the success of any collaborative teaching activities within the school is time availability for teachers to engage in such activities. Kougioumtzis and Patriksson (2009) argue that provision of time is one of the powerful tools in supporting collaborative teaching activities.

All participants agreed that time was a restrictive factor which prevented them from engaging in authentic collaborative teaching activities. Similarly, Brodie and Borko (2016) contend that time, particularly in secondary schools, is insufficient for extended, substantive collaborative work. Participants maintained that collaborative teaching was beneficial for their learning and development, however, time constraints were the main hindrances. In response to this Siwe explained:

Collaborative teaching is good for us, but there is limited time for us to engage in such an activity. The school timetable does not allow us to work closely with each other. Sometimes we have to use our non-contact time and lunch hour to plan lessons together. This does not work as we normally use this time for marking and other administrative duties.

The impact of time constraints was also observed. Nkosi would come early in the morning before school commenced and would plan the lesson with his Mathematics colleague for the day. During this time, they shared teaching ideas, notes and devised strategies to solve classroom challenges that they might encounter during lesson presentation. Sometimes, they did not finish these discussions before the start of the school day. This indicated that teachers often went an extra mile for their professional growth. However, for other participants it seemed inappropriate to use their lunchbreaks and non-contact time for collaborative teaching activities as Mandla complained, "*it's an encroachment of my me time*".

Teachers also expressed concern that the school timetable does not make allowance for collaborative teaching, which they viewed as part of their learning and development. They also questioned whether the school's timetable could provide time required for authentic and meaningful collaborative teaching activities. This was confirmed by Lunga who stated:

It was better when we had five teaching periods in an 8-day teaching cycle. The last period ran till 14h00 and we had 30 minutes at our disposal to use for sharing teaching ideas and other tips related to teaching and learning.

This indicated that the availability of time was essential for effective collaborative teaching activities in a school. This is further confirmed by Rytivaara (2012) who argues that time for teachers to engage in collaborative teaching activities is a crucial element of success in schools where collaborative teaching is implemented.

Mandla also raised the issue of time in terms of a tight teaching schedule, expressing that it made it difficult for teachers to engage in collaborative teaching. This was a challenge as they could not find time as some teachers had 36 periods in a seven-day teaching cycle. He explained:

My teaching schedule is too tight. I have 36 periods in a seven-day cycle, where in some days; I don't have a free period. Where on earth would I ever find time to share my classroom challenges with my colleagues? This is such a burden as it is has a direct impact on our professional development.

Mandla's view was also echoed by Mike who stated:

I just wonder how the school management Team (SMT) operates, there is no time allocated for collaborative teaching activities, except for IQMS purposes. I am always in class alone, where I hardly have a mirror in human form, to reflect on my teaching. My timetable is always full as I have more classes to teach. Time constraint issues raised by participants was an important concern as time was considered a significant factor, when teachers engaged in collaborative teaching activities. Not surprisingly, these reflections concerning time were echoed in the findings by Kingsley (2012) where practising and experienced teachers often bemoan the lack of time in planning collaborative teaching activities within schools. Similarly, Brodie and Borko (2016) contend that time, particularly in secondary schools, "is insufficient for extended, substantive collaborative work". (p.3). I therefore believe that schools should make time available for teachers to engage in collaborative teaching as this may enhance their professional learning and development.

(b) Heavy workload

There is little tradition of collaborative teacher work in South African schools as teachers have heavy teaching loads and teach large classes (Brodie & Borko, 2016). Increased workloads and large number of learners in class make it difficult for teachers to engage in collaborative teaching activities. Brodie and Borko's (2016) views were confirmed when Mike and Mandla pointed this out as a challenge they faced in the school. Mandla explained:

The amount of workload that we have makes it difficult for us to engage in authentic and meaningful collaborative teaching. We just don't have time to interact with our colleagues. For instance, I have more classes that I teach, with a large number of learners per class. This increases the amount of paperwork I have to do.

Mike also shared the same sentiments:

There are so many programs and activities that we do within the school. For example, we have to conduct extra classes for Grade 12, have to rush to finish the syllabus and can hardly find time to engage in any form of activities that will develop us professionally. This really holds us back. We have a lot of responsibilities but less time for our professional growth.

Lunga also pointed out:

We have a very heavy workload, so much paperwork, with so much marking as learners' workbooks have to be controlled too. There is so much to do that we have to bite off more than we can chew. Really, how can we find time to work with our peers?

She further stated:

We have to submit workbooks, conduct class tests which have to be marked, submit pacers regarding syllabus coverage. Moreover, you are a class teacher and classroom management tasks are required of you. All this use most of our time.

It was also noted during my observation in the school, that there was an unevenly distributed workload among teachers, especially between post level one teachers and the School Management Team (SMT) members. I also noted that there were a large number of learners in classes, which posed a challenge in managing them during co-teaching activities. The heavy workload and too many administrative duties clearly hindered teachers' engagement in collaborative teaching. These reflections had an impact on teachers' classroom practices as this prevented them from learning collectively through collaborative teaching.

(c) Limited resources

Resources are important when teachers engage in collaborative teaching. Participants remarked about the non-availability of or limited resources as a hindrance to their work. This largely affected their daily classroom practices. From the semi-structured interviews, it emerged that the shortage of textbooks, especially in the lower grades, was still rife in the school. Lunga said, "*Books are not enough for my learners, especially literature books. Two to three learners have to share a book…which hinders effective teaching and learning*".

She was frustrated by this as she sometimes had to co-teach with her peer. Although there was a shortage of books, Mandla mentioned, "the photocopier is out of bounds, especially for Grade 8 - 11". From what I observed, the SMT had unlimited access to the photocopier to make copies for their classes irrespective of the grades they were teaching. I also noted that only Grade 12 had enough books for each learner.

On the contrary, Nkosi did not have a problem with resources. The school had supplied the Mathematics classroom with a smart board, a projector, laptop and sets of mathematical instruments for each learner. This made it easier for him to conduct co-teaching activities with his colleagues. As an example of how limited access to resources hampered collaborative teaching, Siwe shared the following:

For Life Sciences, learners have to do experiments now and again. Teachers have to demonstrate to the learners how an experiment is conducted. The school has a state-of-the –

art laboratory, fully equipped, but it's off limits. It's difficult to work with my colleagues in conducting practical demonstrations with the learners.

Siwe's frustration was evident during one observed practical lesson, which she was conducting with another Life Science teacher. They conducted the lesson in a normal classroom, where they had to write the procedures on the chalkboard and do a 'verbal experiment' with the learners. Sometimes they had to omit the section on the practical part of the subject. This was a limitation, in the sense that Siwe could not share her expertise on conducting experiments with a novice teacher in her department.

The impact that the shortage of teaching materials had on teacher learning corresponds with Rytivaara and Kershner's (2009) view that for collaborative teaching to thrive, teachers should employ different teaching methods and approaches, using a variety of resources. Responses from the participants made it clear that shortage of resources was a barrier to collaborative teaching activities in the school. This too may impact on teachers' learning through experiments and demonstration.

(d) School leadership

School leadership refers to the school management team (SMT), which comprises of the principal, deputy principals, heads of department (HOD) and senior teachers. However, in the school studied, senior teachers were not part of the SMT. For collaborative teaching to flourish; teachers need more guidance and support from their school management teams. Austin (2001) asserts that teachers need more support to increase their subject knowledge and refine their teaching skills. Regarding the school's leadership, participants had differing views on how the SMT supported or hindered collaborative teaching in the school. It emerged from the data that the school management support or lack thereof was based on the provision of teaching resources, organisation of a clear program for collaborative work, assigning time for collaborative teaching activities and encouraging teachers to engage in meaningful collaborative teaching activities to improve classroom practices.

Mike had a sceptical outlook on how the school management encouraged collaborative teaching in the school. This is how he put it:

Our school has not yet established the culture of collaborative teaching. The focus is more on Grade 12, where teachers are encouraged to network with each other, engage in team teaching activities, sharing their teaching experiences, strategies and methods for the improvement of Grade 12 results. The other classes fall short of this. Siwe and Lunga pointed out that there is minimal support from the SMT that encouraged collaborative teaching in the school. Siwe explained, "*We are just thrown in the deep end, on our own to develop each other*". Similarly, Lunga shared the same sentiments:

We are like two streams flowing parallel to each other, no help whatsoever when it comes to creating opportunities for collaborative teaching activities. It is only when term or yearend results are analysed that we are rebuked. Where was the SMT all this time?

Participants also raised the issue that the SMT did not provide them with time to share information after attending workshops related to their respective subjects. Mandla explained, "We are hardly given an opportunity to share with colleagues subject related information from the workshops. Sometimes, it's only done in passing, during one of the departmental meetings".

In contrast, Nkosi acknowledged that his HOD was supportive. He shared the following on how his HOD contributed towards enhancing his subject knowledge and refinement of his teaching skills:

I am a new teacher in the school and Mathematics is a challenging subject to teach and learn. My HOD sourced the help of an experienced Mathematics teacher, who mentors and support me in whatever way. Twice a week the teacher will come to my class and we share lesson presentation. We often sit down and share knowledge of the subject, teaching methods. We kind of reinforce each other's teaching style.

Most of the participants felt that the SMT did not support collaborative teaching which has an impact on their teaching and learning. They commented on the lack of support in their classroom teaching through peer observation, mentoring of beginner teachers and other team teaching activities. I observed that more focus was on administrative tasks: submission of workbooks (which often came back without any meaningful feedback), syllabus coverage which Kingsley (2012) refers to as 'monitoring' and 'policing'. This was an indication that the SMT is failing to give support to activities that deepened teachers' subject knowledge and enhanced their classroom teaching. This, however, defies Hord's (2004) principle that supportive conditions are a necessity for teachers to work collaboratively. Therefore, it is necessary for the school management to create a supportive environment where teachers can learn from each other, which unfortunately was not the case in this school. In summation, participants were of the opinion that the SMT was unsupportive towards collaborative teaching activities.

4.5.1.2 Teachers themselves

It emerged from the data that teachers' backgrounds had an impact on them engaging in collaborative teaching activities. Richardson (2003) pointed out that teachers' backgrounds refer to

each teacher's experience on how he was taught at school and at teacher education colleges. Three of the participants (Lunga, Mike and Siwe), were taught and trained during the old education dispensation in South Africa and had different views on collaborative teaching compared to the other two participants (Mandla and Nkosi), who had recently qualified as teachers. The use of phrases such as "in those days", "in the past", "in our times" and "previously" were noted, when they compared their perceptions on collaborative teaching then with the current education context. Siwe explained:

Previously, we used to work on our own inside the closed doors of our classrooms, not knowing what the other teachers were doing in their classrooms. Now we have to move away from what we knew, how we were taught, to work collaboratively with our colleagues. She further stated: I guess that's one of the major barriers to collaborative teaching as old teachers still prefer to work alone.

This was also confirmed by Mike who stated:

Some teachers still prefer to stay in their comfort zones, falling back on how they were taught at school, more of a teacher-centred approach, in a way resisting change which will empower them.

These responses suggested that experienced teachers still found it challenging to engage in collaborative teaching activities as they had to apply new knowledge and adapt their teaching styles. From my observation, I noted that teachers in the school still relied heavily on old teaching methods where learners had to copy notes from the chalkboard and the use of the textbook method.

Data from an observed lesson between Nkosi (a novice teacher) and his colleague (an experienced teacher) confirmed that teachers' backgrounds could hinder their development of new knowledge and classroom practices. As a new teacher, Nkosi had used a different approach where learners had to do presentations and his lesson was more demonstrative. This was in contrast to what his colleague knew and how he taught his subject. Therefore, it seems that the way teaching is done now versus the old ways of teaching, has resulted in some of the older teachers being reluctant to engage in collaborative teaching activities for fear of being viewed as a failure.

It was also noted that the participants' teaching experiences and other teachers in the school, varied widely, consequently leading to different perceptions on collaborative teaching. This impacted on their engagement in collaborative teaching activities. Richardson (2003) confirms that as teachers engage in professional learning opportunities, they bring their past experiences that may affect how they learn and teach in their classrooms.

Participants also mentioned that different teaching styles were another limitation. Teachers have different ways of presenting lessons in class. Siwe noted that during a lesson, a teacher observing her told her, "*I still believe in writing notes on the board for my learners, stand in front and talk for the entire period; working with you now compels me to relinquish my old teaching style, no ways!*"

Thus, it is possible that even though teachers are aware of new teaching styles, they are hesitant to adapt as Lunga shared her experience with one of her colleagues who blatantly stated, "*Why should I change my teaching style, this is how I was taught and it works for me*".

Finally, participants also commented that teachers still have different views towards collaborative teaching as Mike explained, "Some colleagues view it as a fault finding mechanism..." This concurs with Richardson's (2003) view that when teachers have to collaborate in any teaching endeavour, they bring their own attitudes. This may serve as a motivation to learn new knowledge and classroom practices or an underlying factor in resisting to unlearn what they believe, know and how to do it. These views resonate with that of Austin (2001) who contends that teachers' attitudes and experiences are a barrier to collaborative teaching, which hinders teachers' shared values and vision (Hord, 2004).

4.5.2 Factors that support collaborative teaching in a school

This section describes the factors that support collaborative teaching in the school. Data revealed the following factors: a sharing culture and school-based learning communities.

4.5.2.1 A sharing culture

For collaborative teaching to flourish, a sharing culture among teachers should prevail. There was a general consensus among participants that there was a comfortable working climate within the school. Lunga exemplified this sharing culture as she explained, "*There is a willingness of some teachers to help one another....each one pulling the other*".

In exploring the effect of a sharing culture on collaborative teaching, Mike also shared, "*Experienced teachers often share their expertise and wisdom and on the other hand ,beginner teachers bring new ideas on board*. The utterances of both these participants confirmed the importance of collegiality among colleagues for collaborative teaching to thrive.

From my observation, I noted that informally, teachers raised their concerns about learners who excel and those that underperform. From these discussions, they often shared teaching ideas on how to help learners who were struggling and how to accommodate those that excel in their lessons. This was evident in Siwe's explanation:

What I normally do, I divide my learners into groups. Each group will have a peer leader, taken from those that excel. These learners will be responsible for the group, assisting with tasks and preparations for the tests and examination.

This indicated that teachers helped one another to improve their classroom teaching. In other words, participants shared their expertise, thus increasing their knowledge. Likewise, Mandla and Nkosi highlighted that teachers had a commitment to each other in helping the other to deal with new practices. Nkosi highlighted:

In subject committee meetings, a platform is created for us to share knowledge, and other information pertaining to our classroom teaching. And outside these meetings, we also make time to engage in discussions about our daily work.

He further stated:

I am not good at teaching data handling and in these meetings; I openly share this problem with my colleagues. They will volunteer to help me, discussing how to go about teaching this aspect, even offering to teach this section for me.

Mandla confirmed this by also highlighting the existence of good interpersonal relationships with some colleagues in the department as this made it easier for the teachers to share resources and other learning materials.

I also noted that informally, teachers' workshopped each other on different aspects pertaining to their respective subjects. Drawing from these discussions, it is clear that teamwork strengthens collaborative teaching and this affirms Creese's (2010) assertion that collaborative teaching leads to a sense of belonging among teachers.

4.5.2.2 School-based learning communities

Literature (Elster, 2010; Lieberman & Pointer- Mace, 2010) has shown that in most countries there is a shift from traditional models of teacher learning to practices that involve what Lieberman and Pointer-Mace (2008) referred to as 'learning schools". Within the South African context, the Strategic Plan (2011- 2015) is leaning towards this idea, by advocating the establishment of school-based learning communities. Elster (2010, p.2187) defines a learning community as "a group of individuals who share the same set of concerns, problems and interest in a particular topic". These learning communities can also be within the school context. From the semi-structured interviews and observations, participants in this study belonged to "learning groups" within the school, in the form of subject committees, subject departments and networking groups. These learning

communities had been created for the purpose of sharing information related to their classroom practice. Siwe explained, "We often meet as teachers teaching the same subject. In these meetings we discuss teaching and learning. We share our classroom experiences, teaching ideas and subject related information".

It was also noted that participants belonged to subject committees, where they shared knowledge, and devised strategies on how to tackle classroom challenges together. Mandla also shared this sentiment by saying, "*I am part of a learning team*. *We informally meet, talk about teaching, plan and prepare together, discuss student learning and performance*".

These responses indicated that learning communities within the school supported collaborative teaching. These communities gave teachers opportunities to talk about subject matter, teaching, students and their learning. This concurs with Servage (2010) who contends that learning communities allow teachers to reflect on their practices and enhance their collaborative ways of learning.

Lastly, participants commented that they often met as teachers in their respective departments as Lunga stated, "...in these groups, we explore ways of improving our classroom teaching practice for empowerment and support". Participants' views are in line with what Borko (2004, p. 13) refers to as 'communal responsibility' where group identity and norms of interaction are developed, thus encouraging teachers to engage in activities that foster growth and development.

4.6 The extent to which collaborative teaching contributes to teacher learning

This section responds to research question 3: To what extent does collaborative teaching contribute to teacher learning in a semi-urban secondary school in Pietermaritzburg? From the data drawn from participants' responses and observations, the themes of collaboration and experimentation emerged.

4.6.1 Collaboration

Collaboration is a learning activity, supported by Kwakman (2003), which promotes learning by sharing information and challenges and through interaction with other people. Moreover, it channels the extent to which teachers share their practices and work together in order to improve teaching and learning. It emerged from the data that teachers learnt best from each other on a personal and informal basis. The subthemes of asking for and giving help, sharing and joint work are discussed below.

4.6.1.1 Asking for and giving help

It is widely accepted that teachers learn how to teach from one another (Fullan, 2007). I established from the data that participants often asked for and gave help and support to their colleagues to improve their classroom teaching. Mandla stated, "We have a variety of expertise, which helps us to teach and learn at the elbow of one another". He further explained:

When I came into the school, I taught English in Grade 8. For me, it was plain sailing with the younger ones at school. This year, I was assigned to teach Grade 11. This was a big task for me. I had to seek assistance and advice from my colleague who has been teaching Grade 11 for quite some time. She gives me help in terms of subject content, planning and how to use a variety of teaching methods.

Similarly Nkosi explained, "I usually call my "friend" who also teaches Mathematics to assist me with teaching strategies when learners do not understand certain Mathematical concepts".

From these responses, it is clear that peer support forms part of collaborative teaching as teachers help and support each other rather than compete with each other. Both Mandla and Nkosi pointed out that as new teachers, they relied heavily on the support of experienced teachers within their respective departments. However, Nkosi also highlighted another aspect by saying, "As new teachers, we often have the same teaching problems. Quite often we share failures with colleagues who have the same teaching problem".

From Mandla and Nkosi's responses, an element of trust was evident as they seeked advice and help from their colleagues, which is one of the features of teacher collaboration mentioned by Stanley (2011). However, I noted that teachers also seeked help and advice from colleagues they were comfortable with. One may argue that the issue of trust is vital when teachers engage in collaborative teaching as lack thereof, may hinder the success of any collaborative teaching activity.

4.6.1.2 Sharing

Participants mentioned that they shared different ideas with each other as part of their learning and development. Mandla shared his experience as:

She taught me how to mark learners' transactional writing using an assessment grid. She designed a few activities on learner assessment and showed me how to do them with my learners.

I always struggled with the assessment of learners regarding oral presentation. My colleague conducted a practical demonstration on how to structure oral presentation tasks and mark them. My teaching skills were thus sharpened and I saw it as a means of reviewing and reflecting on how I conducted assessment in oral presentations. I always struggled with the assessment of learners regarding oral presentation.

This was evident as I observed teachers who taught the same subject engage in informal meetings in the staffroom. They taught each other how to set question papers, compile worksheets and how to use marking grids. These teacher activities link to Kwakman's (2003) idea of teacher learning through interaction.

Participants also mentioned that they shared teaching methods. This was evident as I observed what happened in the Life Sciences Department:

Siwe organised Life Sciences teachers into a class, conducting a lesson on evolution. She brought all her resources and taught them like she was teaching her Grade 12 learners. This way, they experienced real classroom interaction that promotes learner participation. Teachers, just like the learners, were also asking questions, seeking clarity.

After this lesson one teacher pointed out, "*I was able to reflect on my own teaching methods and really I had to adapt*." Likewise, Lunga shared the following:

As an experienced English teacher, it does not mean I am immune from learning from a novice teacher. One of the newly qualified colleagues taught me how to incorporate media in my lessons to stimulate learner participation. It has become my "testament" in my everyday teaching, especially when I am teaching language usage.

Nkosi also explained:

Teaching Mathematics is now a challenge in that the use of media is more prevalent. Smart boards, laptops and projectors have been incorporated in the teaching of the subject. Even though I received training in this regard, my colleague has taught me more ways in using the technology in my lesson presentations.

The above discussions emphasise that sharing ideas and information with peers promotes the opportunity to expand the skills of one another as Mike put it, *"through sharing teaching methods, we are able to expand what the other has, blending it with your own teaching skill to create a new*

field of exploration". Teachers in this school created opportunities of working together as they shared information, thus encouraging collective learning.

Participants also mentioned that they shared teaching material with each other. Mike explained:

We share notes, study guides, textbooks and other teaching material. I also noted that besides these teaching materials, teachers became resources themselves. For example, a Tourism teacher was invited by a Mathematics teacher to come and teach his learners how to calculate distance between various cities using maps and distance tables as this was an aspect in both Mathematics and Tourism.

An element of sharing prevailed from most of the participants as part of their learning through collaborative teaching. However, Mike expressed disappointment with the attitude of some teachers:

Some of the teachers are not the easiest to work with. You find a teacher 'owning' the subject, even going to an extent of hiding resources and being selfish with information. This can hinder collaborative teaching in the school.

4.6.1.3 Joint work

It emerged from the participants' responses that teachers within the school often worked jointly with each other. This included joint lesson planning and preparation. Nkosi stated:

We often sit down and plan lessons together. A lot of instructional activities will be discussed for the lessons to be conducted. Two heads planning together are surely better than one.

Similarly, Siwe echoed Nkosi's sentiments:

Before the start of the day or during our non-contact time, I often plan and prepare the lesson with my colleague with whom we teach the same grade. We design teaching strategies and compile notes for the learners. From these joint ventures, my colleague raised new ideas that I have never thought about in teaching, evolution. It was so interesting.

Participants also mentioned that joint planning and teaching collaboratively has developed their skills and subject knowledge as Mandla stated:

As we plan lessons together, my classroom instruction has quite improved because we bring different expertise in our discussions. I have been able to plan my lessons and pace myself in relation to the Annual Teaching Plan (ATP).

Siwe further stated:

Working jointly with my colleagues in the science department, has been beneficial. I had a problem with the practical side of my subject. I have since learnt to prepare my equipment for my practical lessons. I have also acquired knowledge on how to conduct experiments verbally with my learners, as our laboratory is still not in use.

The above responses concur with Rytivaara and Kershner's (2012) view that collaborative teaching increases the capacity to use new instructional techniques. I have also noted that joint work through collaborative teaching fosters capacity building among educators. These statements are in accordance with Shulman (1997), cited in Rytivaara (2012) that when teachers collaborate, they can work together in ways that support each other's learning and in ways that supplement each other's knowledge. This implies that there are classroom tasks that are more challenging that teachers cannot tackle alone but can be addressed with the assistance of others.

4.6.2 Experimenting

Experimenting refers to learning both inside and outside the classroom situation and trying out new strategies with the purpose of improving one's professional practice (Kwakman, 2003). This indicates that experimenting promotes active learning. This section outlines the learning of participants through experimenting as they engaged in collaborative teaching. Through experimenting, they gained insight into using different teaching strategies. Nkosi stated:

My colleague demonstrated how to teach Mathematical concepts to my learners, using their everyday travel to school. It was so informative and interesting in that I have learnt how to prepare my lessons incorporating learners' daily lives. This has helped me in making lessons more interesting for my learners.

Mandla also explained:

After listening to my colleague explaining her strategy of using learners as peer educators.....I tried out this teaching technique and it has worked wonders. I have also learnt to divide my learners according to their capabilities.

The above responses indicated that experimenting is encouraged by teachers' eagerness to learn to develop their knowledge and skills. They also support Goddard and Goddard's (2007) view that collaborative teaching leads to modification in instruction.

Lunga also shared another view on experimenting:

After observing my colleague teaching drama (literature), where she used soapies we watch on television, I decided to practise this technique alone at home, using my Grade 10 daughter as my learner. I could see from the nodding of her head that I was on the right track. I am now confident in teaching drama to my learners.

Even though participants mentioned experimenting as important in their learning, it was also clear that more time is needed for them to experiment with what they have learnt from each other.

4.7 Conclusion

In this chapter I presented findings and the analysis of data I obtained from the semi-structured interviews and observations. This information was obtained from five participants teaching in the same secondary school.

The first part of the chapter outlined brief biographical profiles of the five participants from the Science and Language departments who participated in the study. It was then followed by the participants' perceptions of collaborative teaching. I then discussed the ways in which teachers engaged in collaborative teaching in the school. This section was followed by a discussion of various factors that influenced teachers' engagement in collaborative teaching in the school. The chapter ended by looking at how collaborative teaching contributes to teacher learning.

From the findings, it can be noted that participants had different perceptions regarding collaborative teaching, as their explanations emanated from their experiences of collaborative teaching within the school. Regarding the nature of collaborative teaching in the school, participants highlighted three key elements: lesson observation, reflection and mentoring. Teachers' engagement in collaborative teaching activities was characterised by factors that both promoted and hindered collaborative teaching. From their responses it was clear that factors that served as barriers were more evident than factors that supported collaborative teaching. It was also evident that by collaborating and experimenting, they engaged in collaborative teaching, these activities contributed to their learning and development. Throughout the chapter, attempts were made to link the analysis and discussions

to the literature reviewed and the conceptual framework underpinning this study. The next chapter outlines the findings and provides recommendations and a conclusion.

CHAPTER FIVE

DISCUSSION OF FINDINGS, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This study aimed to examine the ways in which teachers engaged in collaborative teaching and the extent to which collaborative teaching contributed to teacher learning in a semi-urban secondary school in Pietermaritzburg. This chapter discusses the key findings that emerged in the study. The study begins with the summary of the findings. Next, the limitations of the study are discussed and the chapter concludes with the recommendations and possible directions for future research. The study aimed to address the following research questions:

- (1) In what ways do teachers engage in collaborative teaching in a semi-urban secondary school in Pietermaritzburg?
- (2) What factors influence collaborative teaching in a semi-urban secondary school in Pietermaritzburg?
- (3) To what extent does collaborative teaching contribute to teacher learning in a semi-urban secondary school in Pietermaritzburg?

The findings were centred on these three research questions and linked to the literature reviewed and the conceptual framework.

5.2 Summary of findings

The discussion below summarises the key findings of the study. The following four aspects are discussed: participants' views on collaborative teaching, the ways in which teachers engage in collaborative teaching, factors that influence collaborative teaching and how collaborative teaching contributes to teacher learning.

5.2.1 Discussion

5.2.1.1 Teachers had diverse views on collaborative teaching

The first finding of this study was that teachers expressed diverse views about collaborative teaching, which resonated with the various definitions of collaborative teaching in the literature. It was evident that a shared vision, mission, values and goals were the key features of teacher collaboration. Collaborative teaching in the school was driven as a response to the teachers'

own developmental needs, that is, teachers who shared the common goal of improving their teaching practice.

Teachers were asked to define collaborative teaching to help ascertain their perceptions of this concept and to compare their definitions of collaborative teaching with the literature. Findings indicated that participants had different views on collaborative teaching. However, they all agreed that collaborative teaching was based on the premise that teachers could accomplish more working together than working alone.

Participants saw collaborative teaching as a form of interaction, "*where teachers work together in improving their classroom teaching*" (*Nkosi*). This definition given by the participant reflected the promotion of shared values, goals and mutual dependency as described by Hord (2004).

The definition of collaborative teaching by participants also reflected the different activities that teachers engaged in within the school. Participants mentioned joint lesson planning, reflection, sharing teaching tips and ideas. This was evident as I observed Siwe sharing teaching tips with her colleagues on how to teach genetics. These views concur with Roth &Tobin (2005) who argued that collaborative teaching is all about shared learning.

Participants also defined collaborative teaching by mentioning various forms of teacher collaborative work as outlined by Goddard & Goddard (2007). They viewed collaborative teaching as networking, team teaching, mentoring, peer observation and co-teaching. These views of collaborative teaching are in line with Kelly's (2006) socio-cultural approach which promulgates that teacher learning is social in nature.

Participants' definition of collaborative teaching also emanated from their varied teaching experience. This was evident when Nkosi defined the concept as, "*the pairing of a beginner teacher with an experienced teacher for guidance and support*". Nkosi's understanding of collaborative teaching is linked to mentoring as a form of collaborative teaching. Furthermore, his understanding of the concept is mostly related to his experience as a novice teacher.

Finally, collaborative teaching was viewed as cross curricular teaching as Mike mentioned that he coordinated an English lesson with a History teacher in teaching a poem about Japan. This concurs with Thibodeau (2008) who mentioned that collaborative teaching can expand between different learning areas.

The implication one can draw from these views, is that collaborative teaching does not have a universal definition. Teachers defined the concept either by mentioning different forms of collaborative teacher work, teaching activities that they engaged in collaboratively within the school or the way they themselves experienced it at school.

5.2.1.2 Lesson observations, reflection and mentoring as key collaborative teaching activities in the school

This section aimed to address the first research question, which was based on the ways in which teachers engaged in collaborative teaching in a semi-urban secondary school in Pietermaritzburg. It emerged from the data that although teachers were not sure about their engagement in collaborative teaching, their responses and observations suggested that they do participate in collaborative teaching. Ranamane (2006) and Rytivaara (2012) mentioned that collaborative teaching has been used in schools, with the main focus on learner performance and was administratively regulated. However, the data showed that collaborative teaching was focused on teacher learning and development in the school of this study. Various activities had been outlined as part of collaborative teaching. From the semi-structured interviews and observations, three collaborative teaching activities were identified: lesson observation, reflection and mentoring.

The second finding of this study was that lesson observations, reflection and mentoring were key collaborative teaching activities that took place in the school. All five participants concurred that lesson observation was the key collaborative teaching activity. With regards to lesson observations, teachers visited each other's classrooms where they observed each other teaching. They observed each other so as to improve their classroom teaching. This activity was teacher driven as Hargreaves (2003) contends that teacher collaborative activities should be voluntary. However, from my observations, this was not a norm in this school. Lesson observation was more prevalent for Integrated Quality Management Systems (IQMS) purposes, which also defied Hargreaves' (2003) assertion that teacher collaboration should be developmentally oriented. Some teachers viewed lesson observation as an evaluative measure which made them shy away from such activities. I also observed the issue of 'role clarity' was evident when lesson observation occurred. The observer and the observed did not understand what was expected of them. Secondly, regarding reflection, teachers discussed their observations, giving each other support in the implementation of changes to their classroom practice. Through reflection, teachers were learning from each other. This is consistent with the key features of collaborative teaching as outlined by Austin (2001) (see Chapter Two).

Thirdly, it emerged that mentoring was a one-on-one relationship between an experienced teacher and a novice teacher, where support and guidance was given. Experienced teachers shared their knowledge with novice teachers through joint lesson planning and sharing teaching skills. However, Mandla viewed this activity as more of monitoring than giving support and guidance. Mentoring extended beyond a relationship between an experienced teacher and a novice teacher, as experienced teachers also mentored each other. Lastly, participants were also involved in co-teaching activities, where they shared instruction in the same class to reinforce each other's teaching styles.

The history of isolation experienced by teachers in schools influenced how they engaged in collaborative teaching. However, participants mentioned that through engaging in the abovementioned activities, they had developed a sense of working collaboratively. This indicates that collaborative teaching was rooted in the individual and community improvement. However, this can be undertaken meaningfully if there is trust and respect among teachers (Hord, 2004).

5.2.1.3 Constraints more prevalent than factors supporting teachers' engagement in collaborative teaching in the school

This section aimed to respond to the second research question based on the factors that influence collaborative teaching in a semi-urban secondary school in Pietermaritzburg. The third finding indicated that while there were factors that influenced collaborative teaching in the school, there were also several constraints. It also emerged that constraints to collaborative teaching were more prevalent than support thereof.

A number of contextual factors that hindered collaborative teaching were presented. Finding time to engage in collaborative teaching was the most common barrier among participants. The school's timetable and their tight teaching schedule did not provide opportunities for teachers to engage in collaborative teaching activities. This confirms Leonard and Leonard's (2003) assertion that "teachers still complain that the scarcity of opportunities to collaborate is promulgated by decreasing time availability and increasing work demands" (p. 7). To overcome this challenge, participants had to use their non-contact time, lunch breaks and morning time before the start of the school day. This is a concern as collaborative teaching plays a significant role in teachers' classroom practices. Therefore, this finding challenges Hord's (2004) principle of supportive conditions for teacher collaboration to thrive.

Heavy workload was another challenge raised by participants. Participants had many classes to teach, with a large number of learners. This meant that teachers could not employ different teaching strategies encouraged by collaborative teaching. The more classes they had, the more

administrative duties they had to complete. Findings indicated that there was an uneven distribution of workload among teachers, between post level one teachers and the School Management Team and among post level one teachers themselves.

Another challenge revealed was limited access to resources. There was a shortage of books in the lower grades, where learners had to share them compared to the Grade 12 learners who each had their own books. Teachers had limited access to the photocopier, whereas the HOD's had full access to it. To overcome this barrier, teachers had to write notes on the chalkboard, which had a bearing on lesson presentations. On the contrary, Nkosi had no problem with resources, as he had a fully resourced classroom, with modern technology for effective teaching and learning.

Support by the school management can influence or hinder collaborative teaching in a school. In this study, participants felt that the school leadership was not supportive of collaborative teaching activities. For other participants engagement in collaborative teaching was mandatory, and seen as a top-down initiative, as it was regulated by the HOD. This is what Hargreaves (2003) referred to as "contrived collegiality". Findings indicated that the school leadership did not support teachers by encouraging peer observation and mentorship of novice teachers by experienced teachers. Instead, the SMT's focus was only on Grade 12, where teacher networking was encouraged. This indicated that the SMT's focus was more result oriented rather than on teacher learning and development. Furthermore, the school leadership focused on monitoring whether teachers did their work – through workbook submissions and pacing of the syllabus. This is in contrast to Hord's (2004) dimension of shared and supportive leadership, since the SMT did not nurture development and learning by supporting collaborative teaching in the school. Contrastingly, Nkosi acknowledged the SMT's support through the mentoring programme organised by his HOD, which has enhanced his subject knowledge and refined his teaching skills.

Finally, findings established that teachers' experiences varied. This had an impact on their engagement in collaborative teaching. Veteran (experienced) teachers still used traditional teaching methods used when they were at school and more teacher-centred methods when compared to learner-centred methods used by novice teachers. It was also established that some teachers still preferred to work alone as they viewed collaborative teaching as a fault finding initiative.

On the positive side, a sharing culture and school-based learning communities enhanced collaborative teaching in the school. The participants remarked that they acquired a deeper understanding of their subject matter and new teaching methods by exchanging ideas with other teachers within the school. Sharing among teachers was fostered through these learning communities, which exposed them to different ways of tackling their teaching problems and classroom challenges. This was an indication of improved teaching approaches through sharing, as each brought his expertise to the subject. This resonates with Hord's (2004) principle of shared personal practice, as there was evidence of peer-to- peer support among teachers.

5.2.1.4 Teachers learn a variety of teaching strategies and acquire knowledge through collaborative teaching activities which contribute to teacher learning

This section addresses the third research question based on the extent to which collaborative teaching contributes to teacher learning. The study used Hord's (2004) five principles of teacher collaboration and Hargreaves (2003) conditions for teacher collaboration to understand how they learn through collaborative teaching. Borko (2004) defines teacher learning as "a process of increasing participation in the practice of teaching, and through which this participation, a process of becoming knowledgeable in and about teaching (p.7). This means that teachers have to be actively involved in their teaching practice to acquire the knowledge and skills to improve their classroom teaching. The data indicated that most collaborative teaching activities in the school were initiated by teachers in response to their developmental needs. Therefore, they were involved in their own learning. Hargreaves (2003) stated that collaborative work should be voluntary and arise from perceived value among teachers.

The fourth finding of this study highlighted that participants acquired knowledge on how to use a variety of teaching strategies from seeking help and advice from their colleagues. This was evident as Lunga and Nkosi mentioned that they learnt the new skill of how to incorporate modern technology and media in their classroom teaching. Participants also taught each other how to set question papers, compile worksheets and how to use the marking grids. In terms of teacher learning perspectives, the sharing of expertise among teachers was underpinned by the socio-cultural approach, which stipulates that knowledge does not only reside in the individual's mind, but shared among people (Bertram, 2011). In this case, participants learnt through interaction with others. From Hord's (2004) principle on shared personal practice, participants learnt a new teaching practice through peer-to-peer support. This was evident as Siwe, organised Life Science teachers into a class and taught them different teaching methods for genetics. This was beneficial for the teachers as they acquired knowledge and skills collectively. Collective learning was evident as teachers were involved in different learning tasks, asking questions and seeking clarity. According to Hord (2004), collective learning occurs when teachers are engaged in collegial inquiry that includes discussions focusing on instruction and student learning. In this case, this group of teachers learnt together by reinforcing their teaching skills and improving their classroom instruction and learner performance. Findings indicated that teachers worked collaboratively to capacitate each other. These kinds of collaborative activities are development oriented (Hargreaves, 2003). Findings also indicated that teachers became resources for one another, thus enhancing collective learning.

The findings of the study suggested that participants learnt from each other through experimentation. This led to the modification of their classroom instruction. This was evident as Lunga mentioned that she experimented with the teaching technique she learnt from a colleague with her daughter at home. This emphasises the notion that teacher learning is both individual and social in nature.

Anderson and Landy (2006, p.6) view collaborative teaching as "joint planning, implementation and evaluation of lessons by teachers". This requires that teachers work together and share their expertise and teaching strategies, which ensured a strong support base among teachers. Some teachers were not willing to share resources and expertise with their colleagues as they still preferred to work alone for fear of being labelled incompetent by engaging in collaborative teaching. However, the main aim of collaborative teaching is to promote teacher learning and development through a collaborative culture amongst teachers.

5.3 Limitations and delimitations of the study

This case study was conducted in a semi-urban secondary school in Pietermaritzburg. Rule and John (2011) argue that data generated from a case study, cannot be generalised to other situations. However, a case study allows a researcher to go into greater depth and more detail in the case being studied. Since data was collected in one school, there may be an opportunity to expand my study to other secondary schools within the Pietermaritzburg district. This would enable school leadership and policy makers to support collaborative teaching as a mechanism for teacher learning and development in schools.

The research was also affected by the withdrawal of three participants. One had to leave the school as he got a promotional post in another school and the other two participants cited non-

availability of time and inconvenience due to their workloads. Participants were then selected because of their willingness to participate in this research study.

The research was conducted in a secondary school where I am a member of the teaching staff. This was necessitated by financial constraints and the time needed for travelling to different schools. More than one school would have enabled me to have a comparative study. My position as a teacher in the school might have influenced the participants' responses. This may have resulted in them giving responses that may be pleasing and convenient for me as a researcher. However, I clarified that my role as a researcher was to collect data for the research and this did not influence my views of the school's effectiveness. The research was al limited to teachers in two departments, Sciences and Languages. Other departments were not explored as I wanted an in-depth understanding of collaborative teaching within these departments as they were the largest departments in the school.

5.4 Recommendations

This section focuses on the recommendations based on the findings of the three key research questions. A summary of these recommendations is given below.

5.4.1 Further research on collaborative teaching as a platform for teacher learning for development

Based on the findings of this study, I recommend that more in-depth research on collaborative teaching as a springboard for teacher learning and development should be conducted. This will help other researchers to explore this phenomenon and get a broader view on how it contributes to teacher learning and development, as there is minimal research on collaborative teaching within the South African education system. I also recommend that further research be conducted using different schools to do a comparative study on how teachers engage in collaborative teaching activities.

5.4.2 Exposure to a variety of activities that constituted collaborative teaching

Findings indicated that collaborative teaching leads to improved classroom practice and it is therefore essential that collaborative teaching be part of teacher learning and development activities within schools. As participants mentioned three key activities, I recommend that teachers be exposed to different activities that form part of collaborative teaching. One may also argue that it is not sufficient for teachers to be in the same classroom with another teacher. There needs to be a much more engagement between the observer and the observed, where shared interests and problems are identified and explored.

5.4.3 Availability of time and resources for collaborative teaching

This study revealed that finding time to engage in collaborative teaching activities was the main barrier. Therefore, it is recommended that collaborative teaching activities be incorporated in the school programme. In addition, equitable workloads and equal access to resources is essential for authentic collaborative teaching activities. This will give teachers ample time to engage in collaborative teaching, by exchanging ideas to improve their classroom performance and their learners' performance.

5.4.4 Supportive conditions within the school

Findings indicated that there was minimal support from the school leadership. Mutual respect for each other irrespective of position, experience and expertise should be given. The school should increase administrative support as this is an essential prerequisite for successful collaborative teaching in terms of various tasks of teaching as Kingsley (2012) suggests.

5.5 Conclusion

The aim of this study was to examine the ways in which teachers engaged in collaborative teaching in a semi-urban secondary school in Pietermaritzburg and how it contributed to teacher learning.

I have explored how collaborative teaching contributes to teacher learning. The study shows that teachers in the school engaged in three key activities: lesson observation, reflection and mentoring. They experienced modification and reinforcement of their teaching strategies which emerged from a sharing and collaborative culture as they experienced a sense of belonging through school-based learning communities.

The findings indicated that barriers to collaborative teaching are more prevalent than supportive factors. Teachers lacked support from the school leadership as they had limited opportunities to engage in collaborative teaching, through inequitable workloads, unequal access to resources and teachers' years of experience. Collaborative teaching activities in the school were teacher driven. More opportunities should be created for teachers to learn from each other through collaborative teaching within the school.

Finally, Hord's (2004) five principles of teacher collaboration and Hargreaves' (2003) conditions for teacher collaboration were used as a lens to explore the nature of collaborative teaching in the school and how it contributed to teacher learning. The study found that

collaborative teaching contributed to teacher learning because most principles mentioned by Hord (2004) and some key features of Hargreaves' (2003) conditions for teacher collaboration were evident. For, example, most activities were voluntary and developmentally oriented with the main focus on collective learning. However, there were only three features of teacher collaboration that were not present. Recommendations were then made for authentic collaborative teaching activities that could contribute to teacher learning within the school.

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APPENDICES

APPENDIX 1: PERMISSION TO CONDUCT RESEARCH



education

Department: Education PROVINCE OF KWAZULU-NATAL

Enquiries: Sibusiso Alwar

Tel: 033 341 8610

Ref .: 2/4/8/445

Ms Lungile Majola P. O. Box 2508 PIETERMARITZBURG 3200

Dear Ms. Majola

PERMISSION TO CONDUCT RESEARCH IN THE KZN DoE INSTITUTIONS

Your application to conduct a pilot and research entitled: **Teacher Learning Through Collaborative Teaching**: a Case Study in a Secondary School, 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.
- Learners, Educators, Schools and Institutions are not identifiable in any way from the results of the research.
- 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 01 July 2013 to 31 July 2015.
- 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.
- Should you wish to extend the period of your survey at the school(s), please contact Mr. Alwar at the contact numbers below.
- 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 Director-Resources Planning, Private Bag X9137, Pietermaritzburg, 3200.
- Please note that your research and interviews will be limited to the following school/s in the KwaZulu Natal Department of Education:

1. Nyonithwele Secondary School

Nkosinathi S.P. Sishi, PhD Head of Department: Education 22 July 2013

 Medicated to service and performs

 Medicated to service and performs

 POSTAL:
 Private Bag X 9137, Pietermaritzburg, 3200, KwaZulu-Natal, Republic of South Africa
 Degrad the call of duty

 PHYSICAL:
 Office G25, 188 Pietermaritz Street, Pietermaritzburg, 3201. Tel. 033 3418610 Fax : 033 341 8612
 Saturd ADDRESS:

 EMAIL ADDRESS:
 sibusiso.alwar@kzndoe.gov.za; CALL CENTRE: 0860 596 363;
 www.kzneducation.gov.za

APPENDIX 2: ETHICAL CLEARANCE LETTER





Ms Lunglie Majola 212559523 School of Education Pietermaritzburg Campus

Dear Ms Majola

Protocol reference number: HSS/0458/013M Project title: Teacher learning through collaborative teaching: A case study in a secondary school.

Full Approval – Expedited Application

In response to your application received 13 August 2013, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application 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.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

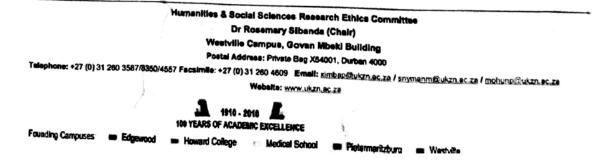
Yours faithfully

ando

Dr Shamila Naidoo (Deputy Chair) Humanities & Social Sciences Research Ethics Committee

/pm

cc Supervisor: Ms Jaqueline Naidoo cc Academic Leader Research: Dr SB Khoza cc School Administrator: Ms Sheryl Jeenarain



APENDIX 3: LETTER TO THE PRINCIPAL

School of Education

College of Humanities University of KwaZulu Natal Pietermaritzburg Campus

The principal

Dear Sir/Madam

Request to conduct research at your school

My name is Lungile Majola. I am currently studying towards a Master of Education degree at the University of KwaZulu-Natal, Pietermaritzburg. I am presently engaged in a research project which aims at examining the nature of collaborative teaching in the school and how it contributes to teacher learning. Collaborative teaching is an emerging field of research in South Africa, and I believe it has a powerful role in enhancing teacher learning in our South African schools. In this regard I have chosen your school to conduct my research. I would very much like to conduct research into collaborative teaching as it relates to issues of teacher development and learning in your school, and work particularly with five post level one teachers who are willing to work closely with me to extend boundaries of our knowledge on this concept.

Please note that this is not an evaluation of performance or competence of your teachers and by no means a commission of enquiry. The identities of all participants will be protected in accordance with the code of ethics, as stipulated by the University of KwaZulu Natal. I undertake to uphold the autonomy of all participants and they will be free to withdraw from the research at any time without negative consequences to themselves. In this regard participants will be asked to complete a consent form. Furthermore, in the interest of the participants, feedback will be given to them at the end of this research project.

Please feel free to contact my supervisor, Dr J. Naidoo, on 033-260 5867, at the Faculty of Education, Room 47, University of KwaZulu Natal, Pietermaritzburg campus, at any time if

you have queries you will like to be answered. You can even contact me on my cell on 0826806459.

Thanking you in anticipation

Yours sincerely

Ms Lungile Majola (Researcher) Dr J. Naidoo (Supervisor)

DECLARATION

I.....(full name) hereby confirm that I understand the contents of this document and the nature of this research project. I am willing for my school to participate in this research project. I understand that I reserve the right to withdraw from this project at any time.

Signature of principal

Date

APPENDIX 4: LETTER TO THE PARTICIPANTS

School of Education

College of Humanities University of KwaZulu Natal Pietermaritzburg Campus

Dear colleague

Informed consent letter

My name is Lungile Majola and I am currently studying towards a Master of Education degree at the University of KwaZulu Natal, Pietermaritzburg campus. I am presently engaged in a research project which aims at examining the nature of collaborative teaching in your school and how it contributes to teacher learning. Collaborative teaching is an emerging field of research in South Africa, and I believe that you have the potential and can provide valuable insight to extend boundaries of our knowledge on this concept.

Kindly note that this is not an evaluation of your performance or your competence as a teacher. Your identity will be protected in accordance with the code of ethics as stipulated by the University of KwaZulu Natal. Anonymity will be ensured as pseudonyms/codes will be used instead of your name. I undertake to uphold your autonomy. Your participation is voluntary and you are free to withdraw from the research at any time without any negative consequences.

I would conduct my research by asking you to participate in two stages of this research study. You will be interviewed and observed in various contexts (departmental meetings, classroom and staffroom). Interviews will be conducted at your convenient time for approximately one hour. I will record your views using an audio recorder for data analysis purposes. All information given will be solely used for research purpose and will be kept confidential. You will be provided with a transcript of the interview to peruse in order to verify the descriptions and interpretations of data. The data will be safely locked in my supervisor's office cabinet for a period of five years, thereafter, be destroyed. If you have any queries about my project, my supervisor, Dr J. Naidoo, can be contacted on 033-260 5867 at the Faculty of Education, Room 47, University of KwaZulu Natal, Pietermaritzburg.

Thanking you in anticipation

Yours sincerely

Ms L. Majola (Researcher) Dr. J. Naidoo (Supervisor)

DECLARATION

I(full name of participant) hereby confirm that I understand the purpose and nature of the research project, and I consent to participate in this research project.

I understand that my participation is voluntary, all information I give will be treated confidentially, my anonymity will be protected, that I am at liberty to withdraw from the research project at any time, should I desire. I understand that my decision to withdraw or not to participate will not result in any form of disadvantage. I hereby grant permission to be interviewed and audio-recorded.

Signature of participant

Date

APPENDIX 5: INTERVIEW SCHEDULE

SECTION A: BIOGRAPHICAL DATA

1. Gender of participants

Male

- 2. How many years have you been working as a teacher?
- 3. How long have you been teaching in this school?

Female

- 4. What is your position in this school?
- 5. Which department do you belong to in this school?
- 6. Which subject (s) do you teach and what do you like about the subject(s)?
- 7. How long have you been teaching the subject?

SECTION B: QUESTIONS ADDRESSING RESEARCH QUESTION 1

- 8. Explain more about collaborative teaching activities in your department
- 9. What is your role in such collaborative teaching activities?
- 10. Which of these activities do you find most useful and why?
- 11. What do you learn from these activities? Give examples?
- 12. Which activities of collaborative teaching help you in your subject knowledge development and also promote teacher learning?
- 13. Is there anything that you have been doing differently as a result of you engaging in collaborative teaching activities? Explain.
- 14. Which subject(s) do you teach and what do you like about the subject (s)?
- 15. How long have you been teaching the subject(s)?

SECTION B: QUESTIONS ADDRESSING RESEARCH QUESTION 2

- 16. What factors promote collaborative teaching in your school? Explain.
- 17. What factors serve as barriers to collaborative teaching in your school? Explain.

SECTION C: QUESTIONS ADDRESSING RESEARCH QUESTION 3

- 18. What do you understand by collaborative teaching? Give examples.
- 19. What is the purpose of collaborative teaching in a school context?
- 20. To what extent do trust and respect influence collaborative teaching in the school?

- 21. How often do you talk about your classroom experience /activities during collaborative teaching activities?
- 22. How do you ensure that collaborative teaching activities promote teacher learning and development?
- 23. How does collaborative teaching promote collective responsibility among teachers in your department?
- 24. How does collaborative teaching promote shared vision and goals?
- 25. Which subject(s) do you teach and what do you like about the subject (s)?
- 26. How long have you been teaching the subject(s)?

SECTION C: QUESTIONS ADDRESSING RESEARCH QUESTION 2

- 27. What factors promote collaborative teaching in your school? Explain.
- 28. What factors serve as barriers to collaborative teaching in your school? Explain.

SECTION D: QUESTIONS ADDRESSING RESEARCH QUESTION 3

- 29. What do you understand by collaborative teaching? Give examples.
- 30. What is the purpose of collaborative teaching in a school context?
- 31. To what extent do trust and respect influence collaborative teaching in the school?
- 32. How often do you talk about your classroom experience /activities during collaborative teaching activities?
- 33. How do you ensure that collaborative teaching activities promote teacher learning and development?
- 34. How does collaborative teaching promote collective responsibility among teachers in your department?
- 35. How does collaborative teaching promote shared vision and goals?

APPENDIX 6: OBSERVATION SCHEDULE

Purpose: To examine the ways in which teachers engage in collaborative teaching and how it contributes to teacher learning

Teacher Name:					
Observation Date:					
Subject:					
Grade:					
Торіс	• • • • • • • • • • • • • • • • • • • •				
Number of teachers present					

.....

		Yes	No	Comment	S S	
1.	Desks					
2.	Books					
3.	Other resources					
	Lesson presentation					
	Task		Duration		Comments	
	General comments					

Other situations observed:

Key focus points:

- Ways in which teachers engage in collaborative teaching
- How teachers learn from each other through collaborative teaching
- Factors influencing collaborative teaching

APPENDIX 7: PROOF OF EDITING



19th of February 2019

To whom it may concern

EDITING OF MASTER'S DISSERTATION FOR MS LUNGILE MAJOLA

I have a master's degree in Social Science, Research Psychology and TEFL qualification from UKZN. I also have an undergraduate and honour's degree Bachelor of Arts in Health Sciences and Social Services from UNISA.

I have 15 years of teaching experience and have been editing academic theses for students from UKZN, UNISA, the University of Fort Hare, and DUT for the past seven years. I have further done editing, transcribing and other research work for private individuals and businesses.

I hereby confirm that I have edited Lungile Majola's dissertation titled "Teacher learning through collaborative teaching: A case study in a semi-urban secondary school" for submission of her master's dissertation in education at UKZN. Corrections were made in respect of grammar, tenses, spelling and language usage using track changes in MS Word 2010. Once corrections have been attended to, the dissertation should be correct.

<u>PLEASE NOTE:</u> Should the student add content to their dissertation after my editing and suggested corrections, I <u>cannot</u> guarantee their work is correct in respect of grammar, tenses, spelling and language usage.

Yours sincerely

Buttleworth

Terry Shuttleworth (TEFL, UKZN, MSocSc, Res Psych, UKZN).

APPENDIX 8: TURNITIN CERTIFICATE

1	Turnitin Originality Report						
	Processed on: 27-Feb-2019 3:55 PM CAT						
	ID: 1077520605 Word Count: 28404						
	Submitted 3						
	teacher learning through collaborative teaching By Lungile Majola						
	1% match (Internet from 25-Jun-2018)						
			Similarity by Source				
		Similarity Index	Internet Sources. 3% Publications: 2%				
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	https://pdfs.semanticscholar.org/f093/42eb95df	fb4d09d0d0f33da17b0	61838ed8e4.pdf				
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	< 1% match (student papers from 30-Mar-2011) Submitted to Grand Canyon University on 2011-03-30						
	< 1% match (Internet from 22-May-2018) http://ubir.bolton.ac.uk/18/1/bbs_dissertations-4.pdf						
	< 1% match (publications) <u>Rytivaara, Anna, and Ruth Kershner. "Co-teaching as a context for teachers' professional learning and joint</u> <u>knowledge construction", Teaching and Teacher Education, 2012.</u>						
	< 1% match (Internet from 07-Feb-2019) https://repository.up.ac.za/bitstream/handle/2263/23674/Complete.pdf?isAllowed=y&seguence=8						
	< 1% match (Internet from 10-Feb-2019) https://www.reachinst.org/wp-content/uploads/2016/12/William-Nee-Action-Research-Final-Draft-2016.pdf						
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	< 1% match (Internet from 16-Sep-2017) https://digital.lib.washington.edu/researchworks/bitstream/handle/1773/26215/Mkhwanazi washington 0250E 134 isAllowed=y&seguence=1						
	< 1% match (Internet from 21-Jan-2015) http://uir.unisa.ac.za/bitstream/handle/10500/11892/dissertation_binduko_s.pdf.txt?sequence=3						
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	< 1% match (Internet from 07-Jan-2019) http://www.diva-portal.org/smash/get/diva2:877020/FULLTEXT01.pdf						
	< 1% match (student papers from 20-Mar-2012) Submitted to University of KwaZulu-Natal on 2012-03-20						
	i <u>CHAPTER ONE INTRODUCTION AND BACKGROI</u> across the world continue to invest a lot of mone enhance the quality of education. While consider learning and development, little evidence exists teaching (Rytivaara, 2012). Adding to this proble teaching, with some scholars viewing it as "team 2001). Intrinsic to this is the need to explain the concept. The research study explored the ways I and how collaborative teaching contributes to te purpose of the study and describes the rationale	able amounts of mone on the link between te em are the contested (teaching", "co-teachi e definition of teacher i n which teachers enga acher learning. The ch and the background.	And development and learning to ey have been spent on teacher sacher learning and collaborative definitions of collaborative ing" and "lesson study" (Austin, learning, yet another contested aged in collaborative teaching lapter begins by outlining the Following this are the lear				
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