UNIVERSITY OF KWAZULU-NATAL

Perceptions of Teachers and School Management Teams on their Participation in School-based Professional Development and its Impact on their teaching practice

By

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DECLARATION

I, **Nosipho Malope,** declare that:

(i) Unless stated otherwise, the research presented in this dissertation constitutes original work conducted by the author.

(i) The present dissertation has not been previously submitted for any academic degree or examination at any other institution of higher learning.

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ABSTRACT

The present study aims to investigate the viewpoints of educators concerning their participation in professional development initiatives within educational institutions. One facet of the research investigates the levels of participation and satisfaction among teachers and School Management Teams (SMTs). On the other hand, the other component focuses on the function of Subject Specialists as Departmental Heads (DH) in strategising and facilitating professional growth initiatives for educators at the institutional level. This study is grounded on the Continuing Professional Development (CPTD) policy, which mandates educators to amass 150 professional development points within three years. Professional development points can be obtained through diverse activities such as self-initiated, school-initiated, and externally initiated programmes. The research places particular emphasis on teacher development that educational institutions initiate.

The study's results indicate that educators and School Management Teams (SMTs) were actively engaged in a diverse array of teacher development initiatives conducted within the school setting. The activities above hold significant value because they can furnish efficacious strategies that augment classroom practices. Nevertheless, the findings suggest that the SMTs were remiss in their obligation to report school-initiated activities to the South African Council for Educators (SACE), a crucial element in overseeing and promoting the professional growth of teachers.

The present study employs a quantitative methodology, and the data were obtained through two survey instruments that the researcher developed. The questionnaires comprise several segments encompassing diverse topics. The Post Level 1 questionnaire for teachers comprises 25 questions, whereas the SMT questionnaire encompasses 31 questions. The themes that are covered in this study comprise various aspects such as engagement in teacher development initiatives, significance and influence of such activities, provision of resources to facilitate teacher development, duties and obligations of teachers, incentives for participation, guidance and assistance from School Management Teams (SMTs) (about SMT questionnaire solely), and allocation of time for teacher development. The adequacy of the sample size of 87 participants in this study should be emphasised, as it facilitated a thorough investigation of the research topic and

yielded significant insights into the perspectives and encounters of educators and school administrators.

The research was carried out within the Ehlanzeni district in Mpumalanga province, with a specific emphasis on a designated subset of educators and School Management Teams (SMTs) from the White Hazy1 Circuit, encompassing both primary and secondary schools. The statistical software package utilised for data analysis was SPSS version 27.0. The collected quantitative data is analysed using descriptive statistics, including graphs, cross-tabulations, and other figures, to present the results. The study utilised inferential methods, specifically correlations and chi-square tests, to analyse the data. The p-values determined the statistical significance of the results. A statistical significance was attributed to a significance level lower than 0.05.

The study's results have significant policy implications that warrant consideration. The initial step is for the School Management Teams (SMTs) to ensure appropriate planning and allocation of time for teacher development within the school premises following the policy guidelines. Subsequently, Subject Matter Teachers (SMTs) must give precedence to their involvement in and documentation of Continuing Professional Teacher Development (CPTD) endeavours, as it is a compulsory obligation stipulated by the SACE Act No.31 of 2008. Notably, the present study did not investigate the effects of teacher development programmes implemented within school settings on students' academic achievement. Therefore, it is recommended that additional research be conducted to explore this aspect.

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DEDICATION

I want to dedicate this dissertation in memory and honour of my late beloved parents, Ben and Nokhaya Ngxiya, who raised me with love despite the difficult conditions of their time. I know they would have been very proud of this moment. Their hard work has paid off, and I am forever grateful for the sacrifices they made so that I can be a better me.

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ACRONYMS AND ABBREVIATIONS

CPTD	Continuing Professional Teacher Development
DAS	Developmental Appraisal System
DH	Departmental Head
DP	Deputy Principal
IQMS	Integrated Quality Management System
ISPFTED	Integrated Strategic Planning Framework for Teacher Education Development
NPFTED	National Policy Framework for Teacher Education Development
PAM	Personnel Administration Measures
PD	Professional Development
PLCs	Professional Learning Communities
PTS	Professional Teaching Standards
QMS	Quality Management Systems
SACE	South African Council of Educators
SADC	Southern African Development Community
SMT	School Management Teams
TD	Teacher Development

CHAPTER 1: ORIENTATION OF STUDY

1.1 Introduction

This study aimed to investigate the perceptions of teachers and School Management Teams (SMTs) regarding their participation in school-based professional development and its impact on their teaching practice in the White Hazy 1 Circuit in Mpumalanga province of South Africa. The White Hazy 1 Circuit has shown low reporting of participation in professional development activities, raising concerns about the effectiveness of current initiatives. Understanding the trends and experiences of teachers and SMTs in school-based professional development is crucial for improving educational practices and student outcomes.

Professional development enhances teachers' knowledge, skills, and instructional practices (Abakah et al., 2022). It provides opportunities for educators to acquire new strategies, stay updated with educational trends, and improve their effectiveness in the classroom. Similarly, SMTs' participation in professional development contributes to their leadership capacity and the overall improvement of school management practices. Therefore, exploring the perceptions of teachers and SMTs regarding their engagement in professional development activities is essential for identifying areas of improvement and optimising the impact of such initiatives.

The rationale for this study stems from the statistics indicating low reporting of development activities in the White Hazy 1 Circuit. This discrepancy raises questions about the underlying factors influencing teachers' and SMTs' participation in professional development. By investigating these factors and understanding the experiences and perceptions of teachers and SMTs, this study aims to shed light on the barriers and facilitators to effective engagement in professional development.

The findings of this study will contribute to the existing body of knowledge on professional development and its impact on teaching practices. They will provide insights into the experiences, perspectives, and needs of teachers and SMTs in the White Hazy 1 Circuit, enabling educational stakeholders to design and implement more effective professional development programs tailored to the specific context. Ultimately, the study aims to enhance the quality of education by fostering continuous professional growth among teachers and strengthening the leadership capacity of SMTs.

In the following sections, this research report will present the research objectives, methodology, data collection procedures, data analysis techniques, and the key findings from the study. The implications of the findings will be discussed, and recommendations for improving professional development initiatives in the White Hazy 1 Circuit will be provided.

1.2 Background of the study

School-based professional development (SBPD) has emerged as a promising approach to enhancing teacher professional growth and improving teaching practices. SBPD focuses on providing targeted and contextually relevant professional development opportunities within the school setting (Bergmark, 2023). By engaging teachers and school management teams (SMTs) in collaborative learning and reflective practices, SBPD aims to improve instructional strategies, student outcomes, and overall school performance (Hauge, 2019). This study aims to explore the perceptions of teachers and SMTs regarding their participation in SBPD and its impact on their teaching practice.

1.2.1 Importance of Professional Development

Professional development is critical in supporting teachers' continuous growth and improving their instructional practices. It helps educators stay abreast of current research, pedagogical approaches, and emerging trends in education. Effective professional development initiatives can positively impact teacher morale, job satisfaction, and student achievement (Zhang et al., 2020). SBPD offers a unique opportunity to address the specific needs and challenges teachers and SMTs face within their school contexts (Mastrangelo et al., 2004).

1.2.2 The Rationale for School-based Professional Development

SBPD recognises the importance of context-specific professional development tailored to the unique needs of individual schools (Steyn, 2011). Unlike traditional one-size-fits-all approaches, SBPD allows teachers and SMTs to engage in collaborative learning communities where they can address specific instructional challenges, share best practices, and develop targeted strategies to meet the diverse needs of their students. The localised nature of SBPD promotes ownership, relevance, and sustainability of professional development efforts.

1.2.3 Teachers' Perspectives on SBPD

Teachers' perceptions of SBPD can provide valuable insights into the effectiveness and impact of such initiatives. Teachers' voices are crucial in understanding their experiences, motivations, and challenges related to participation in SBPD. Exploring their perspectives can shed light on the perceived benefits, barriers, and professional growth opportunities of engaging in SBPD activities. It can also provide insights into the types of support, resources, and collaborative structures contributing to successful SBPD implementation (Grover et al., 2022).

1.2.4 SMTs' Perspectives on SBPD

SMTs, including principals and administrators, play a pivotal role in shaping the professional development culture within schools. Their perspectives on SBPD are crucial for understanding the factors influencing its implementation and effectiveness. Examining SMTs' views on the design, facilitation, and support of SBPD initiatives can provide insights into the leadership practices that foster a positive and supportive professional development environment. It can also uncover the challenges SMTs face in promoting and sustaining SBPD within their schools.

1.2.5 Impact of SBPD on Teaching Practice

One of the key outcomes of SBPD is its potential impact on teachers' instructional practices. Teachers can develop new pedagogical approaches, enhance their content knowledge, and implement evidence-based strategies in their classrooms by engaging in collaborative learning, reflection, and skill-building activities. This study aims to investigate the perceived impact of SBPD on teachers' instructional practices, including changes in teaching methods, classroom management, assessment strategies, and student engagement.

1.2.6 Impact of SBPD on Student Learning Outcomes

Ultimately, the effectiveness of SBPD is measured by its impact on student learning outcomes. The study will explore teachers' and SMTs' perceptions of how SBPD influences student achievement, academic progress, and overall school improvement. It will examine the alignment between SBPD goals, instructional practices, and student outcomes, providing insights into the link between professional development and student success.

By delving into the background of SBPD and exploring the perceptions of teachers and SMTs, this study aims to contribute to the existing knowledge base on the benefits and challenges of SBPD

implementation. The findings will inform policymakers, school leaders, and educators in designing and implementing effective SBPD programs that address the specific needs of teachers and SMTs, leading to improved teaching practices and enhanced student outcomes.

1.3 Rationale

The rationale for this study was rooted in need to understand the teacher and School Management Teams (SMTs) participation trends in school-based professional development within the White Hazy 1 Circuit. Existing statistics indicated a low concerning reporting of participation in professional development activities among teachers and SMTs in the circuit. This raised questions about the underlying factors contributing to this phenomenon, the potential implications for teacher professional growth, and the overall improvement of teaching practices in the circuit.

By investigating this issue further, the study aimed to shed light on the reasons behind the low participation rates in school-based professional development in the White Hazy 1 Circuit. Understanding the factors that hindered or discouraged teachers and SMTs from engaging in professional development activities was crucial for designing targeted interventions and strategies to promote increased participation and support continuous professional growth.

Additionally, exploring the perceptions and experiences of teachers and SMTs regarding school-based professional development could provide valuable insights into the barriers, challenges, and potential solutions related to participation. By uncovering these factors, the study sought to contribute to developing effective and tailored professional development programs that addressed the specific needs and contexts of teachers and SMTs in the White Hazy 1 Circuit.

The findings of the study would not only benefit the White Hazy 1 Circuit and have broader implications for educational stakeholders, policymakers, and researchers in understanding the dynamics of professional development participation. It could inform the development of evidence-based strategies and policies that promote a culture of continuous professional learning, enhanced teaching practices, and improved student outcomes.

Overall, the rationale of this study was driven by the urgency to address the low reporting of participation in school-based professional development activities in the White Hazy 1 Circuit. By investigating the underlying factors and exploring the perspectives of teachers and SMTs, the study

aimed to improve professional development practices and support the growth and development of educators in the circuit.

1.4 Key concepts

The key concepts section provides definitions for important terms used in the study, such as Continuing Professional Teacher Development (CPTD), Developmental Appraisal System (DAS), Departmental Head (DH), Deputy Principal (DP), Integrated Quality Management Systems (IQMS), Integrated Strategic Planning Framework for Teacher Education Development (ISPFTED), Personnel Administration Measures (PAM), Professional Development Points (PD), Performance Measurement (PM), Quality Management Systems (QMS), and South African Council of Educators (SACE).

1.5 Problem statement of the study

The problem statement addresses the low participation of teachers and SMTs in CPTD within the White Hazy 1 circuit, as indicated by the statistics. It emphasises the need to investigate the reasons behind this issue and the role of SMTs in supporting teacher development.

Low reporting of participation in school based development initiatives by teachers and School Management Teams (SMTs) within the White Hazy 1 circuit as compared to other circuits in the Ehlanzeni district, poses a gap in the implementation of Continuing Professional Teacher Development (CPTD). The statistics obtained from the South African Council of Educators (SACE) and the annual report by the Department of Education in 2021 and 2022 revealed that even though teachers participated in a myriad of development activities within the school, they were not reporting to SACE. In 2022, only four out of 21 schools within the White Hazy 1 circuit reported school based development activities which are called type 2 activities. School management teams whose role is to lead and support school based development are the focus of the study because they play a critical role in the development of teachers under their supervision. The low reporting statistics indicate a gap by school management in supporting teachers to fully participate in the Continuing Professional development cycle. This situation highlights the urgent need to investigate the views and perspectives of teachers in White Hazy 1 Circuit.

By examining the identified gaps in school based teacher development, the research seeks to understand the reasons for the low rate of reporting participation in school based development and the role of the SMTs in leading and supporting teachers.

1.6 The focus of the study

The focus of the study is to examine the extent of teacher participation in CPTD and the level of support provided by SMTs in the White Hazy 1 circuit. The aim is to identify reasons for low participation and limited support and provide recommendations to enhance teacher engagement and SMTs' role in facilitating effective CPTD practices.

1.7 Aim of the study

The study investigates teacher participation in school-based activities, their perceptions of the relevance and impact of development activities, and the role of SMTs in supporting and capacitating teachers. The study aims to collect data through a quantitative survey questionnaire to develop strategies, policies, and interventions for enhancing school-based teacher development provision and participation.

1.8 Objectives of the study

- To establish the extent to which teachers participate in the existing school-based teacher development activities.
- To determine whether teachers understand the process of school-based teacher development.
- To determine the role of the school management team in the planning, support, and monitoring of teacher development
- To analyse teachers' and School Management Teams' (SMTs) perspectives on school-based professional teacher development activities.

1.9 Research questions

- Do teachers fully know and participate in the different school-based teacher development activities?
- Are development activities relevant and help teachers to improve classroom instruction and learner performance?
- Are the managers leading and supporting the school-based teacher development programme at the school?
- What is the opinion of teachers and SMTs about school base development?

1.10 Justification of the study

Prior research has investigated diverse facets of teacher development initiatives arranged and executed by governmental bodies at the national, provincial, and district levels within the field of education. Nonetheless, a conspicuous lacuna is evident in the extant body of literature concerning the involvement of educators and School Management Teams (SMTs) in Continuing Professional Teacher Development (CPTD), particularly in the White Hazy 1 circuit. The discrepancy above underscores the necessity for a thorough inquiry into the attitudes and encounters of educators and senior management teams concerning their participation in teacher development initiatives within the school setting and the consequent effects on their pedagogical methodologies.

The principal aim of this investigation is to evaluate the perspectives of educators and senior management teams (SMTs) via the distribution of survey instruments. The study seeks valuable insights into the effectiveness and relevance of school-based teacher development initiatives within the White Hazy 1 circuit by examining individuals' perspectives on their participation in such programmes. Furthermore, the research aims to assess the impact of teacher professional development on teaching methodologies, pedagogical strategies, and overall academic outcomes in the classroom.

The results obtained from this research endeavour are expected to make a noteworthy contribution to education. Their data and insights can be utilised to develop and implement targeted strategies to address the identified gaps and challenges in implementing school-based teacher development programmes, thus making their contribution valuable. The study findings will have implications

for policy formulation and potential revisions to current practices to improve student performance and educational achievements in the White Hazy 1 district.

This study aims to provide insight into the perspectives and encounters of educators and School Management Teams (SMTs) regarding their involvement in Continuing Professional Teacher Development (CPTD). The objective is to enhance comprehension of the factors that affect participation and the potential effects of teacher development initiatives. The acquisition of this knowledge will empower educational stakeholders to make well-informed decisions and devise interventions grounded in evidence, thereby facilitating professional development among educators. This, in turn, will result in the enhancement of teaching practices and the provision of superior educational experiences for students.

1.11 Delimitation of the study

It is imperative to take into account the following limitations within the ambit of this investigation:

Geographic Focus: The study specifically focuses on the participation of teachers and School Management Teams (SMTs) in Continuing Professional Teacher Development (CPTD) within the White Hazy 1 circuit. Hence, it is plausible that the outcomes cannot be extrapolated to other circuits or localities within the Ehlanzeni district.

The present study employs a survey-based approach to collect data from educators and senior management team members (SMTs) within the White Hazy 1 circuit. The questionnaire administered to the participants determines the sample size and selection process. Determining the sample size will be contingent upon feasibility and resource limitations, and not all teachers and SMTs within the circuit may be included. The viewpoints of the specific sample chosen could potentially influence the results. They thus may not be indicative of the broader population of educators and senior management teams across the circuit.

The research is based on self-reported data collected via questionnaires. The precision and authenticity of the data furnished by respondents are susceptible to possible partialities, memory lapses, or individual construals. Although attempts will be undertaken to guarantee the dependability of the data, self-reported measures may possess inherent limitations.

The study's data collection and analysis are subject to temporal constraints, which may curtail the scope and comprehensiveness of the inquiry. Consequently, there may be a preliminary examination of specific facets of teacher involvement and the influence of teacher development programmes implemented within schools.

The study's primary objective is to gather the perspectives, perceptions, and experiences of educators and School Management Teams (SMTs) regarding their involvement in Continuing Professional Teacher Development (CPTD) and its influence on their pedagogical practises. Although the insights mentioned above hold significant value, they may not offer a comprehensive comprehension of the intricate elements that affect the development of teachers or the immediate effects on students' academic achievements.

The investigation will be conducted in a language or languages relevant to the White Hazy 1 circuit's context, implying a language constraint. Utilising a specific language or language may result in excluding individuals who lack effective communication skills in said language(s), which could result in a restricted portrayal of varied viewpoints.

The establishment of these delimitations holds significant importance in the interpretation of the study's outcomes and the assessment of their relevance to different populations or contexts.

1.12 Study outline

The first chapter is an introductory section to the investigation, establishing the groundwork for the scholarly inquiry. The introductory section of the study presents a comprehensive outline of the research objectives, facilitating a lucid comprehension of the research focus. The chapter provides an in-depth analysis of the contextual factors that drive the need for teacher development at various levels of governance, including national, provincial, and district levels. It offers a comprehensive background discussion on the research and policy imperatives underpinning teacher development discourse. The study contextualises the examination of the evolution of these policies over time. The present study presents the underlying reasoning for conducting research, emphasising the necessity of filling in the existing gaps and enhancing teacher development in school settings. The study elucidates and expounds upon pivotal notions germane to the subject matter to augment the reader's understanding. The problem statement serves to pinpoint the specific research issue and delineate the aims and inquiries that steer the investigation. Defining the boundaries of the research sets forth its parameters and constraints, imparting to the audience

a lucid comprehension of the study's objectives. The chapter ultimately culminates with a concise overview that sets the stage for the subsequent chapter, Chapter 2.

Chapter 2 thoroughly examines the literature, integrating current knowledge and research on the development of teachers. The text offers a comprehensive account of the historical and legal underpinnings of teacher development in South Africa, thereby situating teacher development practices within its broader context. Exploring international trends in teacher development is undertaken to emphasise global perspectives and optimal practices. This review examines various teacher development initiatives, including workshops, mentoring programmes, and collaborative learning, to comprehensively understand the diverse approaches utilised. This text delineates the duties and obligations of educators and school administrators in teacher development, underscoring their pivotal functions in fostering and enabling professional advancement. The contextual factors that affect participation and effectiveness in school-based teacher development are examined, focusing on resources, organisational culture, and leadership. The chapter's concluding section provides a concise overview as a transitional link to the subsequent Chapter 3.

The third chapter of the dissertation centres on the research methodology utilised in the investigation. The initial stage involves presenting a comprehensive summary of the philosophical presumptions that serve as the foundation of the investigation, thereby offering valuable perspectives into the researcher's perspective and methodology. The research design is a blueprint for the methodology and procedures for acquiring and interpreting data. The chapter comprehensively describes the techniques employed for gathering data, encompassing the distribution of questionnaires to educators and senior management teams (SMTs) within the White Hazy 1 circuit. The present study delves into sampling procedures, including a thorough analysis of the chosen sample size and sampling technique and a justification for their selection. In order to safeguard the rights and confidentiality of participants, ethical considerations are taken into account. Explaining data validity and reliability measures is crucial in establishing a study's credibility. The final section of the chapter provides a concise overview that serves as a prelude to the subsequent chapter.

The fourth chapter of the report outlines the results obtained from examining the questionnaires distributed to educators and senior management team members within the White Hazy 1 district. The data gathered is analysed through statistical software, such as version 27.0 of SPSS. The

chapter furnishes descriptive statistics, comprising graphical representations, tabular summaries, and visual aids, to effectively and succinctly present the numerical data. Statistical methods such as correlations and chi-square tests are utilised to analyse and identify patterns and associations within the data through inferential techniques. Determining the significance of results relies on the p-value or significance level, where a value of "$p < 0.05$" indicates statistical significance. The present study discusses the results concerning the research aims, facilitating a thorough comprehension of educator involvement in school-based professional development and its influence on pedagogical approaches. The final section of the chapter provides a concise overview that serves as a transitional link to the subsequent chapter, Chapter 5.

The fifth chapter of the document presents the deductions from the results obtained and provides suggestions based on the research outcomes. The study's conclusions encapsulate the primary findings, emphasising the degree of teacher involvement in teacher development programmes within schools and the resulting impact on instructional methodologies. The recommendations put forth pragmatic approaches to tackle the deficiencies and augment the professional growth of educators in the White Hazy 1 district. The recommendations may encompass specific professional development programmes, policy improvements, and support systems to foster teacher development and enhance student achievement. The final section of the chapter includes a plea for additional investigation and underscores the possible consequences of executing the proposed suggestions.

The sixth chapter of the study presents a comprehensive amalgamation of the research's discoveries, deductions, and suggestions. The statement underscores the importance of the study within the wider scope of teacher growth and its capacity to aid in formulating and revising policies. The present chapter also discusses any constraints or difficulties encountered during the study and proposes potential avenues for future research. Ultimately, the study culminates in a definitive contemplation of its contributions. The statement underscores the significance of continuous endeavours to enhance teacher development within the school setting, benefiting educators and students.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

In this chapter's literature review, existing research and scholarly works on teacher development are carefully analysed as to how it is implemented. The focus is on how teachers and School Management Teams (SMTs) are involved in Continuing Professional Teacher Development (CPTD) in the White Hazy 1 circuit. Through a critical look at the available literature, this review aims to find gaps and limits in what is already known, giving a full picture of the research landscape and laying the groundwork for the current study.

This part discusses the history and legal system of teacher growth in South Africa. It shows the study and policy needs that drive teacher development and how policies in this area have changed. Also, foreign trends in teacher development are looked at to give a bigger picture and learn from ways that have worked well in other countries.

The literature review looks at formal and informal ways teachers improve their skills. The goal is to put light on how teachers improve their professional skills. It also looks at the roles and duties of teachers and SMTs in teacher development. It stresses that teacher development is a team effort and shows how important strong leadership and support from SMTs are.

A critical analysis is done on the factors that affect teacher development in schools, considering the social, organisational, and personal factors that affect how well and how long teacher development programmes work. By figuring out these factors, the review hopes to help people understand the problems when school-based teacher development programmes are implemented and give ideas for improving these programmes.

In short, the literature review in this chapter looks at past research on teacher development and analyses it critically. It identifies where the research is lacking and sets the stage for the next chapters. By putting together and judging the results of different studies, this review lays the groundwork for the methods, data collection, and analysis used in the current study. Ultimately, the goal is to improve understanding and teacher growth in White Hazy 1 circuit schools.

2.2 Background and legal framework for teacher development in south africa

Ajibade and Bertram (2020) underscore the difficulties encountered by Teacher Education and Development (TED) in South Africa, specifically in terms of restricted availability of high-quality continuing professional learning and development prospects, as well as inadequate and inadequately supervised funding for Teacher Development initiatives, as revealed by the literature review. According to Du Plessis and Mestry (2019), inadequate teacher training before 1994 has been identified as a significant factor in substandard educational outcomes.

In order to tackle these challenges, several policy interventions have been put into effect. The National Qualification Framework (NQF) and the Relevant Education Qualification Value (REQV) enhancement are acknowledged as favourable measures to guarantee that educators satisfy the minimum admission prerequisites for the occupation. Implementing the Funza Lushaka bursary scheme to entice proficient students towards the teaching profession is a praiseworthy effort, as Ajibade and Bertram (2020) stated.

The National Policy Framework for Teacher Education Development (NPFTED) and the draught policy on Professional Teaching Standards (PTS) evince a dedication to augmenting the professionalism and calibre of educators in South Africa. The policies above establish a structure for the ongoing professional development of educators, commonly known as Continuing Teacher Professional Development (CPTD), and implement uniform criteria for training new teachers. Shalem and De Clercq (2019) assert that the South African Council for Educators (SACE) plays a crucial role in endorsing and awarding professional development points to guarantee the quality and pertinence of teacher development programmes.

Signing the Collective Agreement for the Quality Management System (QMS) is a measure to enhance teacher accountability. The ELRC Collective Agreement Number 2 of 2020 seeks to enhance the efficacy of school-based teacher development by assigning accountability for teacher development to School Management Teams (SMTs) and implementing performance contracts.

Notwithstanding the policy mentioned above interventions, there exists a dearth of conclusive evidence to substantiate their efficacy in enhancing the calibre of pedagogy and academic outcomes of students, particularly in public schools situated in rural regions and townships.

According to Rizvi (2020), South African learners exhibit subpar levels of achievement in literacy, mathematics, and science, as evidenced by international assessments.

A constraint of the literature review pertains to the lack of a direct correlation established between learner underperformance and the teacher's qualifications. The possession of a bachelor's degree by a significant number of teachers is a positive development. However, suboptimal learner performance may be attributed to other variables, including the calibre and efficacy of ongoing professional development initiatives. The literature review offers significant perspectives regarding the obstacles encountered by TED in South Africa and the corresponding policy measures put in place to tackle them. Nevertheless, additional investigation is required to thoroughly evaluate the efficacy of these interventions in enhancing the quality of teaching and the outcomes of learners. Moreover, investigating the influence of variables beyond the qualifications of teachers, such as instructional methodologies and teacher support mechanisms, would enhance the breadth and depth of comprehension regarding the matters under consideration.

Table 2.1 Learner performance in international assessments (PIRLS and TMMS)

YEAR	GRADE	SUBJECT	PERCENTAGE
2016	4	languages	21%
2016	5	Mathematics	37%
2019	5	Science	28%
2019	9	Mathematics	41%
2019	9	Science	36%

Table 2.1 presents the learner's performance in international assessments, specifically PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in International Mathematics and Science Study). The Table encompasses data from two different years, 2016 and 2019, along with varying grade levels and subjects. In 2016, grade 4 students were assessed in languages, achieving a percentage score of 21%. Meanwhile, grade 5 students underwent an assessment in mathematics, resulting in a percentage score of 37%. Moving to 2019, grade 5 students were assessed in science, attaining a percentage score of 28%. Additionally, in 2019, grade 9 students were assessed in mathematics and science, receiving percentage scores of 41% and 36%, respectively. These scores provide valuable insights into the performance of students across different grades and subjects in these international assessments, shedding light on their proficiency levels in reading, mathematics, and science during the specified years.

2.3 International Perspectives on Teachers' professional development

Despite the cultural and economic disparities between first-world and third-world countries, it is valuable to draw comparisons and inferences regarding the development of teachers in South Africa and other international contexts. Researchers widely agree that teacher professional development in education has evolved significantly, transitioning from traditional approaches to more decentralised and alternative methods. For instance, in Finland, school directors are responsible for organising training programs, and primary school teachers must hold a master's degree. Consequently, teacher education development programs in Finland are recognised for their high quality. Given the presence of highly motivated and self-driven teachers, traditional approaches to teacher development are deemed less relevant as teachers and schools have the autonomy to design and develop their programs (Cochran-Smith et al., 2020; Zhang et al., 2020).

Within the Southern African Development Community (SADEC), a study conducted in 2000 on teacher development highlighted that while countries acknowledged its importance, there was still a long way to go in establishing a quality standard provision. The study identified three distinct approaches to continuing professional development (CPD): countries with clear stand-alone CPD policies, countries developing such policies, and countries without CPD policies altogether. Furthermore, it revealed that in countries where CPD policies were defined, there was a lack of clear governance structures, with various stakeholders, such as autonomous higher education

institutions and non-governmental organisations, independently providing CPD programs. In some countries, funding for CPD was irregular, non-existent, or not allocated. Subsequent research on CPD provision indicated that the approval of SADC Teacher Standards and Competencies and the SADC CPD framework for teachers aimed to improve the industry's professionalisation (Cooc, 2019).

The abovementioned perspectives underscore the consensus among researchers that teacher quality and development are fundamental to successful learning outcomes. Hauge (2019, p. 31) reinforces this notion, emphasising that positive changes in education primarily depend on the actions and thinking of teachers. Bergmark (2023, p. 51) further asserts that raising the standards of pre-service and in-service teachers is a successful strategy for improving educational systems, as exemplified in the case of Ireland.

However, it is equally crucial to recognise that development can only be effective if the recipients are willing to accept and actively participate. Kilag and Sasan (2023, p. 23) argue that change is a process that requires negotiation rather than imposition. They maintain that change necessitates both the capacity and the will of individuals. While enhancing teacher quality through capacity building, support, and training is relatively straightforward, altering people's will pose a challenge as it encompasses beliefs and motivation. Thus, it is essential to consult and involve teachers in shaping the content and structure of their development. Education is pivotal in achieving socio-economic progress and public value in today's competitive world, where knowledge creation and technological advancements prevail across sectors. Therefore, the significance of teachers in advancing and enhancing the knowledge and skills of the future workforce cannot be underestimated (Gu, 2023; Gümüş & Bellibaş, 2023). Given the urgency to improve the education system, attention must be directed towards recruiting, retaining, and developing high-quality teachers. Comparative studies with successful education systems worldwide demonstrate that beyond recruitment and retention, investing in the continuing professional development of teachers is a crucial policy decision to ensure high-quality teaching and improved learner performance (Cochran-Smith et al., 2020).

The literature on teacher development emphasises the power of the instructional core, specifically classroom practice, as the driving force behind school improvement. The instructional core refers

to the relationship between the teacher, the learners, and the content (Hauge, 2019). How teachers deliver lessons, establish relationships with their students, and present the content forms the fundamental building blocks of any education system. If this relationship is fostered and prioritised throughout South Africa, despite contextual differences, it will set the country on a trajectory toward achieving high-quality education and improved learner performance (New Leaders Foundation, 2019). The subsequent section will delve into the roles of teachers and School Management Teams (SMTs) in implementing school-based teacher development.

2.4 Roles and responsibilities of the teacher and school management teams (smts) in implementing school–based teacher development.

Mestry et al. (2009) and Naidoo (2019, p. 41) agree that the success of teacher development programs relies on various factors, including the effectiveness and capacity of school management teams (SMTs), school culture, time availability, quality of Continuous Professional Teacher Development (CPTD) programs, teacher involvement, and departmental support. This section will explore the roles of teachers and SMTs in school-based development and examine the impact of these different factors.

According to Mestry et al. (2009, p. 5), teachers play a vital role in the implementation and effectiveness of teacher development programs. They are responsible for actively engaging in the professional learning opportunities provided, reflecting on their practice, and applying new knowledge and skills in the classroom. Teachers' commitment to embracing professional growth contributes significantly to the success of development initiatives.

In parallel, SMTs are crucial in supporting and facilitating teacher development. (de Clercq & Phiri, 2013, p. 14) emphasise the importance of effective school management in creating an enabling environment for professional growth. SMTs are responsible for establishing a positive school culture that values continuous learning and improvement. They provide instructional leadership, allocate resources, and create structures that promote collaboration and the sharing of best practices among teachers.

Furthermore, several factors influence the effectiveness of school-based development initiatives. These include the availability of sufficient time for professional learning, the quality and relevance

of CPTD programs, teacher participation and ownership in program design and implementation, and the support provided by the education department. Mestry et al. (2009, p. 7) highlight the need for dedicated time for teachers to engage in meaningful professional development activities without being overwhelmed by other responsibilities. The quality of CPTD programs, as noted by Mestry et al. (2009, p. 9), is crucial in ensuring that teachers receive relevant and research-informed training that aligns with their needs.

Moreover, teachers' involvement and active participation in the development process are essential for its success. Hauge (2019, p. 5) emphasises the significance of teachers' voices and agency in shaping the content and structure of professional development initiatives. When teachers are engaged as active participants and collaborators in their professional growth, they feel a sense of ownership and are more likely to implement new practices effectively.

Lastly, the support and guidance provided by the education department are critical factors. Maposa and Chisango (2016, p. 19) highlight the importance of a supportive policy environment and adequate resources to sustain and scale up teacher development efforts. Departmental support through clear guidelines, funding, and monitoring mechanisms can contribute to the success and sustainability of school-based development programs.

In conclusion, the success of teacher development programs is contingent upon the roles played by both teachers and SMTs, as well as various influencing factors such as school culture, time availability, program quality, teacher involvement, and departmental support. By recognising and addressing these factors, educational institutions can foster a culture of continuous learning and improvement, ultimately enhancing the professional growth of teachers and the overall quality of education.

2.4.1 Roles and responsibilities of the teacher in CPD

As per the SACE ACT no. 31, which has been amended, South African teachers are required to participate in the Continuing Professional Teacher Development (CPTD) programme. This programme mandates teachers to partake in regular professional development activities that cater to their development needs, as identified during the Quality Management System (QMS) evaluation process. To maintain their professional credentials, educators must amass 150 points in professional development (PD) over three years. The instructor is anticipated to engage in self-assessment and collaborate with the Departmental Head to assess their classroom instruction and

other responsibilities, as stipulated in the evaluation criteria outlined in Collective Agreement no. 2 of 2020 (CA 2 OF 2020).

Evaluating and analysing learner performance results form the basis for designing ongoing development programmes for teachers addressed through CPTD (Collective Agreement 2 of 2020). Three types of activities for development are Type 1,2 and 3. Type 1 activity is self-initiated, wherein an educator chooses to up-skill by upgrading his qualifications through registering for a qualification-based course or updating their knowledge by reading articles, engaging in action research, or consulting fellow teachers to address a developmental need. The teacher reports his participation to SACE to earn professional development (PD) points. (The CPTD Management System Handbook, 2013).

2.4.2 The role and responsibilities of school management in school-based teacher development.

The responsibility of school management extends to evaluating teachers and providing support, coaching, and mentoring. They also allocate resources such as time, materials, and expertise through insourcing or outsourcing, depending on the availability of funds (Hardman et al., 2015). Furthermore, they are crucial in planning and managing school-initiated development programs, categorised as Type 2 activities. When a common need arises among teachers, the School Management Team (SMT) should organise school-based workshops or seek external specialists if the school lacks the capacity. Other activities include individual feedback sessions, phase and subject meetings, mentoring and coaching sessions, and facilitating Professional Learning Communities (PLCs). Additionally, the SMT is responsible for reporting teachers' participation in these activities to SACE for the accumulation of Professional Development points.

Regarding externally organised teacher development programs (Type 3), it is the responsibility of the school management to plan for teachers' participation. Type 3 activities encompass SACE-endorsed development initiatives initiated outside the school by the Department of Education or other approved training providers at the national or provincial level. Teachers are encouraged to participate in these programs to accumulate 150 professional development points over three years.

Leadership roles and responsibilities transcend merely implementing policy directives. Effective leadership involves sharing the vision and mission of the school, establishing high expectations, fostering teamwork, and motivating teachers to excel by recognising their efforts, regardless of their magnitude (Report of the Ministerial Committee, 2007:76).

2.4.3 Teacher collaboration as a strategy for sustainable and effective school-based teacher development

The literature emphasises the importance of teacher autonomy and identifying individual needs as a starting point for effective teacher development programs. Teachers are adults, and their learning differs from that of students. They want to take control of their learning and engage in programs that address their specific development needs, as this will enhance their teaching and motivation in the classroom (Knowles et al., 2005).

However, teaching can sometimes be an isolated practice, even when colleagues surround teachers. A silo mentality among professionals can hinder collaboration and information sharing. Teachers may hesitate to seek support or share experiences due to fear of exposure or unhealthy competition. Establishing a knowledge and information-sharing culture is crucial to foster collaboration and professional growth among teachers (Samoff & Carrol, 2004). Learning teams within schools provide a platform for teachers to share and debate learning content areas, strengthen their teaching, and improve learner performance (Kong, Lai, & Sun, 2020).

Continuous acquisition of new skills is vital for teachers to adapt to the demands of their profession. Voluntary teacher learning, which focuses on individual skill development, is essential for promoting growth. The strength of teacher development lies in mutual consultation, information sharing, and collective decision-making. School-based teacher development programs facilitate collaboration and the leveraging of teachers' strengths and expertise (Eroglu & Özbek, 2023).

Professional Learning Communities (PLCs) have been identified as effective school teacher development structures. Strong PLCs foster a sense of synergy, shared understanding, and common expectations among teachers. They establish norms and expectations for teaching and learner performance, creating a supportive culture that enhances effective teaching and learning (Jita & Ndlalane, 2009). In contrast, weak or non-existent teamwork in schools led to teachers working in

isolation without sharing teaching practices, resulting in limited synergy and shared responsibility (Report of the Ministerial Committee, 2007).

It is essential to balance macro-level planning and the micro-logic of schools, teachers, and classrooms to ensure a sustainable and effective change in school practices. Top-down approaches to teacher development, where higher-level officials determine content and timing, may not adequately address the specific needs of teachers in the classroom. A bottom-up approach that considers teachers' knowledge and understanding of their local circumstances is crucial for effective development (Jita & Ndlalane, 2009).

Collaborative initiatives, reflective activities, and ongoing support have shown promise in improving teaching practice. Engaging in study groups, teacher networks, mentoring, coaching, and collaborative planning have all effectively enhanced teaching practice. Professional development programs emphasising collaborative teacher research, coaching, feedback, and follow-up tend to have long-lasting and impactful effects (Lassonde & Israel, 2009). In contrast, one-shot generic workshops and periodic in-service training are found to be less effective and not sustainable in the long term.

In conclusion, collaboration is vital to successful teacher professional development, particularly through establishing professional learning communities. Teachers must collaborate, share strategies and challenges, and receive feedback to improve their teaching practice. Observation, staff dialogues, mentoring, and coaching are essential feedback mechanisms that inform teachers' ongoing development and contribute to improved teaching practice (Rhodes, 2013).

2.5 Factors that influence school-based teacher development

The school culture, for instance, plays a significant role in shaping teachers' attitudes towards professional development. A supportive and collaborative culture promotes a positive environment for growth and encourages teachers to participate in development activities actively. Conversely, a school culture that does not prioritise professional development or values individual isolation may hinder teachers' motivation to engage in such programs (Abakah et al., 2022).

School structure and size can also affect teachers' participation in professional development. Large schools may face logistical challenges in providing tailored development opportunities for all teachers, while smaller schools may have limited resources and expertise. Considering each

school's needs and resources is important when designing and implementing professional development initiatives.

The regularity and quality of professional development activities within a school are crucial factors that influence teachers' commitment to change. Engaging in consistent and meaningful development opportunities aligned with teachers' needs and classroom realities is more likely to lead to sustained improvement in teaching practice (Bergmark, 2023).

Collaboration among teachers is another important variable that can enhance or inhibit participation in professional development. When teachers have opportunities to collaborate, share experiences, and learn from one another, they are more likely to engage in development activities actively. Creating structures and processes that facilitate collaboration, such as professional learning communities or learning teams, can contribute to a positive culture of professional growth (Hauge, 2019).

Strategies for change and the overall school environment also influence teachers' commitment to development. Effective change strategies, such as clear goals, supportive leadership, and ongoing feedback, can motivate teachers to embrace professional development. Additionally, a positive and conducive school environment that values continuous learning and improvement creates a context where teachers are more inclined to participate in development programs actively.

Therefore, it is essential to consider each school's specific context and mediating variables when planning and implementing professional teacher development. Considering factors such as school culture, structure, collaboration, and strategies for change can enhance the effectiveness and impact of development initiatives and support teachers in their commitment to change and growth.

2.5.1 School culture

School culture refers to the collective norms, values, beliefs, and assumptions that shape the environment and practices of an educational institution. It plays a crucial role in facilitating successful teacher development. A positive school culture is essential, as it creates a comfortable atmosphere that encourages positive relationships and supports professional growth through collaborative learning and information sharing (de Clercq & Phiri, 2013)

Conversely, in a negative school culture, the performance of essential duties necessary for the institution's success may suffer. This can lead to denial, avoidance of tasks, demotivation, lowered

expectations for oneself and others, blame-shifting, a sense of powerlessness, and a lack of agency (Report of the Ministerial Committee, 2007).

2.5.2 influence of management style

When the school management communicates the goals, teachers commit to development because they are part of the decision–making concerning their classrooms and school practices if the organisational structure supports shared and distributed leadership. In an environment of shared vision and distributed leadership, teachers cooperate because they feel empowered to influence and shape meaningful and attainable contributions that can bring about change in the school (Anastasiou & Garametsi, 2021).

2.5.3 The capacity of departmental heads

It is increasingly evident that Heads of departments, especially in secondary schools worldwide, experience challenges executing their roles (Hargreaves, 2019). There is a relationship between the managerial competencies of heads of departments and student academic performance Tapala et al. (2021, p. 15) mentions that Departmental Heads' leading role and responsibility is curriculum management. These include, amongst others, mentoring and support, offering guidance to teachers on emerging curriculum issues, and being a resource person for teachers. Apart from active teaching, they manage teams, requiring leadership competencies. Departmental Heads did not undergo any qualification program to prepare them for the roles and responsibilities. After they have their appointment, they need to be taken through effective professional development to be able to perform their roles. They require competencies, skills, and attitudes to perform their roles, MOEST (2011).

2.5.4 Time constraints

The issue of time poses a significant challenge to meaningful participation in professional development (PD) programs. Limited time within the school day often hinders teachers' ability to interact and collaborate with their colleagues. In functional schools, establishing "collective staff time" is important as setting minimums for class time and teaching days (NEEDU, 2018).

Effective school leadership adopts three broad approaches to address this challenge to create time for teacher collaboration during school hours. Firstly, schools may extend the school hours by starting early or allowing teachers to finish half an hour or an hour later. This additional time provides opportunities for teachers to engage in professional development activities. Secondly,

schools may extract time from the existing schedule by reorganising and prioritising tasks to allocate dedicated periods for collaboration and PD. Lastly, block scheduling can be implemented, which involves creating extended blocks within the regular school day specifically dedicated to professional development (NEEDU, 2018).

By adopting these strategies, schools can ensure that teachers have the necessary time and opportunity to actively participate in professional development through collaboration and teamwork. This facilitates the sharing of knowledge, exchange of ideas, and collective learning among educators, ultimately enhancing their professional growth and effectiveness in the classroom (NEEDU, 2018).

Recognising time constraints and implementing innovative scheduling approaches are crucial in enabling teachers to engage in professional development within the school day. Schools can support continuous learning and improvement among their teaching staff by prioritising collaborative time.

2.6 Conclusion

The literature review highlights several key findings regarding professional development in the context of school-based teacher development. The studies reviewed emphasise the importance of effective school management teams, a supportive school culture, the availability of time, quality of professional development programs, teacher involvement, and departmental support as crucial factors for the success of teacher development programs (Tapala et al., 2021). Additionally, professional learning communities, collaboration, and shared responsibility among teachers significantly improve teaching practice and enhance student outcomes.

However, the literature also reveals several gaps that need to be addressed. Firstly, the existing teacher development models are predominantly top-down and fail to address the specific needs of individual teachers and schools (Gu, 2023; Hargreaves, 2019). Generic workshops and one-shot training sessions do not lead to significant and sustainable changes in teaching practice (Rizvi, 2020). Moreover, the literature suggests that bringing in external experts may not always be the

most effective solution, as teachers' local circumstances and conditions are not adequately considered (DuFour et al., 2004).

Furthermore, the issue of limited time and the lack of opportunities for meaningful collaboration among teachers hinder their active participation in professional development. The current literature also emphasises the significance of external factors such as departmental policies, available resources, funding, and control mechanisms in shaping the effectiveness and sustainability of teacher development initiatives (Mestry et al., 2009; Tapala et al., 2021).

Identifying the gaps in the literature allows us to understand the areas that need further exploration and investigation. The current study addresses these gaps by proposing a teacher development model considering individual schools' and teachers' specific needs and contexts. It aims to foster collaboration, shared responsibility, and meaningful participation by providing tailored professional development opportunities that empower teachers to take ownership of their growth. Additionally, the study aims to examine the impact of this model on teaching practice and student outcomes, providing valuable insights for improving teacher development programs in the future.

In conclusion, the literature review underscores the importance of effective school management, a supportive school culture, collaboration among teachers, and considering specific school contexts in designing and implementing teacher development programs. The gaps identified in the literature inform the current study, which aims to address these gaps and contribute to enhancing teacher professional development.

CHAPTER 3: METHODOLOGY

3.1 Introduction

This chapter provides a detailed explanation of how a quantitative research study was conducted. It covers various aspects such as the research approach, study design, data collection methods, sampling techniques, ethical considerations, data analysis procedures, and study limitations. The goal is to fully understand the methodology used to address the research questions and achieve the study's objectives.

Quantitative research involves gathering and analysing numerical data to identify patterns, correlations, and trends within a specific population or sample. It emphasizes impartiality, applicability to different cases, and the use of statistical techniques to draw conclusions and make inferences about a larger population. The chosen quantitative methodology in this study aims to collect accurate and measurable information for statistical examination to address the research objectives.

The chapter explains the research approach and the underlying philosophical assumptions of the quantitative methodology. It highlights how ontological and epistemological viewpoints influence the research's use of measurable metrics to understand and clarify phenomena.

Next, the research design is described, providing a comprehensive blueprint and framework for the investigation. The text outlines a structured approach to collecting data and testing hypotheses, including information on variables, measurement tools, and the progression of research procedures.

The section on data collection methods explains the precise protocols used to gather data in a measurable format. This may involve various methods such as surveys, questionnaires, structured observations, or pre-existing datasets. The focus is on using standardized and reliable measures to ensure consistency and comparability of information across different participants or instances.

Sampling techniques are crucial in quantitative research as they help select a representative subset of the target population. This section discusses the chosen sampling technique, its justification,

and factors to consider when determining the sample size. The objective is to ensure that the sample accurately represents the population and allows for the generalizability of the results.

Ethical implications in research emphasize the importance of protecting study participants' rights, privacy, and confidentiality. The discussion covers procedures for obtaining informed consent, data storage and security measures, and adherence to ethical guidelines and regulations.

The chapter outlines the procedures for data analysis, including the statistical methodologies and software used to scrutinize the collected data. It explains how data is processed, organized, and transformed into meaningful findings. Descriptive and inferential statistical techniques, such as means, frequencies, correlations, and regression analyses, are employed to evaluate research hypotheses.

Finally, the chapter acknowledges the limitations inherent in the research design and methodology. It recognizes potential limitations such as a small sample size, questionable data accuracy, and limited external applicability. The study also considers the potential impact of these limitations on interpreting and generalizing the research outcomes.

Overall, this chapter provides a comprehensive account of the methodological framework used in a quantitative research investigation. It aims to understand the research methodology employed thoroughly. It covers multiple aspects of the research process, from data collection to interpretation and analysis. Additionally, it considers ethical considerations and potential constraints that may arise during the research. The following sections will present the outcomes and analysis derived from the collected data, leading to deductions and suggestions for further investigation.

3.2 Research approach

The research philosophy employed in the study was positivism, which serves as the basis for scrutinising relationships between variables and exploring causal connections. Positivism is distinguished by its emphasis on objectivity, quantification, and applying scientific principles to examine social phenomena. The study sought to produce empirical evidence by adopting this viewpoint. This was achieved using structured data collection instruments such as questionnaires or surveys to gather observable and measurable data. The primary objective was to acquire quantitative information that could be subjected to statistical scrutiny.

The positivist research philosophy emphasises the importance of ensuring that findings are generalizable and replicable. The objective of the investigation was to collect information from a sizable and diverse population, thereby augmenting the research's external validity and enabling more extensive implications of the findings. Notwithstanding its positivist orientation, the research acknowledged the constraints inherent in attempting to quantify complex social phenomena. The study attempted to balance objectivity and comprehension of contextual intricacies that could influence the results.

To summarise, the positivist research philosophy influenced the study's research approach, which aligned with its objectives of investigating and understanding the factors that impact teacher professional development. The study utilised a quantitative methodology and rigorous data analysis protocols to provide valuable insights into teacher professional development, which can benefit educational practitioners and policymakers.

3.3 Research design

The study employed a quantitative research design as a methodological framework to guide the investigation and establish a structured approach for addressing the research questions. Following Tapala et al.'s (2021, p. 13) recommendations, the design included essential components such as research aims, data sources, data collection methods, data analysis techniques, and ethical considerations.

The main objective of this study was to examine the implementation of policies related to the professional growth of educators in the White Hazy 1 Circuit, located in the Ehlanzeni district. A cohort of 87 educators from primary and secondary educational institutions was selected as the study participants to achieve this goal. These educators played a crucial role in academic development and were essential for pedagogical advancement efforts.

The data collection methodology involved using structured questionnaires to gather quantitative data on the quality, relevance, and frequency of teacher development programs and the extent of teachers' involvement in these programs. To ensure ethical integrity, appropriate measures were implemented, including obtaining ethical clearance and informed consent from participants and maintaining confidentiality.

The collected data underwent a meticulous analysis process using statistical software. Descriptive statistics, correlation analysis, and regression analysis were conducted to identify patterns, relationships, and trends in the quantitative data. This analysis aimed to gain a comprehensive understanding of the implementation of teacher development policies in the White Hazy 1 Circuit.

This research aimed to provide valuable insights into implementing teacher development policies. By adopting a quantitative research design and employing rigorous data collection and analysis techniques, the study aimed to generate meaningful findings that could inform future improvements in teacher development methodologies.

In summary, the study utilised a quantitative research design to examine the implementation of teacher development policies. Through structured questionnaires and statistical analysis, the study aimed to gain valuable insights and contribute to enhancing teacher development programs.

3.4 Research Methodology

3.4.1 Quantitative research

According to Baran (2022, p. 199), quantitative research is a methodology for gathering and analysing data that involves using a questionnaire to collect data, followed by applying statistical methods and graphical representations to generate numerical data. The positivism paradigm was commonly linked with quantitative research, which espoused scrutinising social phenomena through pre-established scientific methodologies for data gathering and analysis, to generate universal principles akin to scientific laws. The study centred on the viewpoints of educators regarding teacher development that takes place within the school setting. The data utilised in the study was derived from individuals' subjective viewpoints, indicating that despite its quantitative nature, it possessed interpretivist philosophical characteristics akin to those of the qualitative approach. The deductive approach, which emphasises using data to formulate a theory, was consistent with quantitative research. The study was conducted utilising a descriptive methodology. Descriptive research aims to construct a precise depiction of occurrences, persons, or circumstances and to address the inquiries of how, what, when, and where a research issue is (Saunders, 2022, p. 210). This study aimed to comprehensively analyse teachers' perceptions in White Hazy Circuit 1 regarding school-based teacher development and its influence on their teaching practice. The research examined the development activities the teachers participated in and their involvement in shaping their development trajectory to ensure its alignment with their

needs and enhancement of their classroom practice. The study aimed to profile and describe the teachers' understanding of teacher professional development. Descriptive research was employed to ascertain the attributes of the research participants, encompassing their characteristics, conduct, and viewpoints, through the utilisation of self-administered surveys or interviews, either in an online or paper-based format.

The investigator employed questionnaire data to corroborate the pre-existing hypothesis that teacher development through school-based initiatives is a more efficacious strategy than conventional one-time generic workshops. As mentioned earlier, the theory posits that providing contextually relevant and sustainable development to teachers can be achieved through school-based development, provided that the school management team appropriately plans and supports it.

To enhance the credibility of the results, the investigator endeavoured to solicit perspectives from a diverse cohort of educators from various educational institutions. The study aimed to obtain a representative understanding of educators' perspectives, goals, and beliefs within the circuit or region of interest by utilising a survey methodology instead of a smaller sample.

The questionnaire was meticulously crafted to encompass pertinent and incisive inquiries centred on diverse facets, such as the nature of developmental undertakings, their significance and ramifications, and the functions of educators and educational administrators. The questionnaire was designed to establish a connection between the researcher and the reader by addressing key areas to facilitate the reader's comprehension of the study's purpose and significance.

Using a questionnaire format enabled educators to engage in introspection regarding their experiences and viewpoints, as they were presented with a range of options that corresponded with their level of concurrence or discordance. This methodology facilitated the opportunity for educators to articulate their viewpoints and insights regarding the subject matter, enhancing the comprehensiveness of the gathered information.

In this study, using a questionnaire as a data collection instrument facilitated the researcher in acquiring perspectives from a substantial cohort of educators, examining pertinent facets of teacher growth, and aligning with the study's objectives. The study's data facilitated the revelation of educators' perspectives and the factors that either fostered or impeded their involvement in teacher development programmes conducted within the school setting. The study's findings corroborated

the hypothesis that various scholars put forth in the literature review that teacher development programmes implemented within the school setting provide greater prospects for learning, modelling, and enhancing classroom instruction and student achievement than conventional teacher development methods.

3.4.2 Survey

The study utilised a survey research design as its research strategy to collect empirical data on the viewpoints of teachers and school management teams in White Hazy Circuit 1. The objective was to investigate the effects of school-based teacher development on their professional practice. The research methodology employed in this study is consistent with the deductive approach, which entails the development of hypotheses based on established theories and creation of a research design to evaluate them (Saunders, 2022).

The selection of the survey design was based on multiple factors. Initially, it furnished a cost-efficient approach for gathering data that did not necessitate a significant financial allocation. The maximum cost in this study was the conveyance of questionnaires to and from schools within a 20km radius of the researcher's abode. Moreover, the survey methodology facilitated the acquisition of consistent data from a vast demographic, facilitating effortless evaluation and juxtaposition of the collected responses. The study's objective was to understand the participants' viewpoints comprehensively. To achieve this, the researcher employed a meticulously crafted questionnaire targeting the research objectives and hypotheses. The questionnaire included appropriate prompts and probing questions to elicit insightful responses.

Before the data collection, a preliminary investigation was carried out to establish the dependability and accuracy of the survey tool. The preliminary investigation encompassed the distribution of the survey to a limited number of subjects, scrutinising the answers, and implementing requisite modifications to enhance the lucidity and intelligibility of the survey items. The questionnaire's ultimate iteration underwent refinement, considering the results of the pilot study. This was done to ensure that it accurately and efficiently gathered the intended data while reducing the likelihood of any potential sources of bias.

The survey utilised a blend of questions that were both closed-ended and open-ended in nature. Using closed-ended questions gave the participants a predetermined set of response options,

enabling quantitative analysis of the collected data. Conversely, open-ended questions enabled the respondents to furnish more detailed and intricate answers, thereby promoting an in-depth investigation of their viewpoints and encounters concerning teacher development within the school setting. The study employed a mixed-method approach to understand the research topic comprehensively. This approach involved integrating quantitative data for statistical analysis and qualitative data for more in-depth insights.

The survey was aimed at primary and secondary school educators and administrators within White Hazy Circuit 1. The study employed a convenience sampling technique whereby participants were selected based on their accessibility and voluntary participation. Although convenience sampling may limit the generalizability of the results, attempts were made to guarantee a varied representation of participants from various schools within the circuit. The adequacy of the sample size of 87 participants in this study should be emphasised, as it facilitated a thorough investigation of the research topic and yielded significant insights into the perspectives and encounters of educators and school administrators.

The research process was conducted with careful attention to ethical considerations. The research received ethical approval from the appropriate institutional review board, safeguarding the participants' privacy and rights. Before their participation, all subjects provided informed consent and were guaranteed the confidentiality and anonymity of their answers. The participants were duly apprised of their entitlement to discontinue their participation in the research without incurring any adverse repercussions.

To summarise, the survey research methodology was considered suitable for this investigation as it facilitated the gathering of standardised data from various educators and school administrators. The researcher sought to acquire comprehensive insights into the impact of school-based teacher development on classroom practice by utilising a meticulously crafted questionnaire and upholding ethical principles to ensure the reliability and validity of the data obtained. The following section will provide an in-depth analysis of the survey administration process, encompassing the dissemination of questionnaires, data collection methodologies, and strategies implemented to safeguard the accuracy and reliability of the data.

3.4.2.1 The administration of the survey

The process of administering the survey encompassed various crucial stages to ensure seamless and efficient data gathering. The procedures involved in this study encompassed the distribution of questionnaires, the implementation of data collection methods, and the implementation of measures to safeguard the quality and integrity of the data.

The researcher distributed the questionnaires through personal visits to each school affiliated with White Hazy Circuit 1. Preceding preparations were undertaken with the educational institution officials to obtain authorization for disseminating the survey and to arrange appropriate periods for data gathering. The purpose and significance of the study were briefly expounded upon by the researcher, with particular emphasis placed on the voluntary nature of participation. Every participant received a hard copy of the survey and a cover letter elucidating the guidelines for its completion. Comprehensive guidelines were provided to guarantee that respondents comprehended the intent of each query and the appropriate method to furnish precise and significant answers.

The procedures for collecting data were formulated to optimise response rates and guarantee the data's comprehensiveness. The investigator visited the educational institutions during a predetermined timeframe, affording the respondents sufficient opportunity to fulfil the survey requirements. To mitigate non-response bias and promote active engagement, the researcher underscored the significance of every participant's involvement in the study and provided assurances regarding the confidentiality and anonymity of their responses. Subsequent visits were conducted to gather the duly accomplished questionnaires, ensuring the data collected was all-encompassing and reflective of the intended demographic.

Procedures were put in place to guarantee the accuracy and reliability of the gathered data. Initially, meticulous data entry protocols were implemented to mitigate inaccuracies that may arise during the transcription phase. The data collected from the questionnaires were recorded in a secure electronic database, and a double-entry verification process was implemented to mitigate the likelihood of data entry errors. This procedure improved the precision and dependability of the gathered information.

In addition, the study utilised data validation and cleaning methodologies to detect and resolve any discrepancies or omissions in the data. The data underwent range and logical checks to detect

potential outliers or implausible responses. In instances where missing data or inconsistencies were detected, endeavours were undertaken to communicate with the subjects for elucidation or to acquire the missing data, guaranteeing the comprehensiveness and soundness of the data.

The data collection process was conducted with adherence to ethical considerations. The participants' informed consent was reaffirmed during the data collection stage, and any queries or apprehensions were promptly and professionally addressed. The investigator upheld rigorous confidentiality protocols by allotting different identification codes to every participant, guaranteeing the safeguarding of their identities during the entire research undertaking.

The researcher endeavoured to collect data of high quality that precisely represented the viewpoints and encounters of the participants by following strict survey administration protocols. The subsequent segment will centre on the data analysis methodologies utilised in this investigation, delineating the statistical procedures implemented to scrutinise the quantitative data and the thematic analysis methodology employed to analyse the qualitative responses.

3.5 Sampling and Population

This section provides an overview of the sampling techniques employed and describes the population under investigation.

3.5.1 Population

The population for this study consisted of primary and secondary school teachers in the White Hazy Circuit 1, situated in the Ehlanzeni district. The precise size of the population was not explicitly stated; however, it can be inferred to encompass all teachers working within the schools in the specified circuit.

3.5.2 Sampling Techniques

To ensure a representative sample for this quantitative study, a stratified sampling technique was employed (Creswell, 2014). Stratified sampling allowed for the deliberate selection of participants most pertinent to the research objectives while maintaining statistical rigor (Babbie, 2016). The sample selection was guided by specific criteria, including teaching experience, subject specialisation, and willingness to participate. By stratifying the population based on these criteria, the researcher aimed to include a diverse range of teachers representing various grade levels and

subjects, thereby ensuring a comprehensive understanding of the phenomenon under investigation (Trochim, 2006).

Within the Ehlanzeni district in Mpumalanga, post level 1 teachers (PL1) and members of School Management Teams (SMTs) from the White Hazy1 Circuit were identified as the target population (Marshall & Rossman, 2016). From this population, participants were selected based on the predefined criteria. Teaching experience served as a key criterion, ensuring that both novice and experienced educators were included in the sample to capture a breadth of perspectives (Creswell, 2014). Additionally, subject specialisation was considered to represent a wide range of academic disciplines, allowing for insights from various subject areas. The willingness to participate was another crucial factor, ensuring that participants were actively engaged and committed to contributing to the research (Bryman, 2016).

3.5.2.1 Sample Size

A sample of 87 teachers was chosen to participate in the study. The sample size was determined based on feasibility, available resources, and the desired confidence level in the study's findings.

3.5.2.2 Sample Representation

To ensure sample representation, efforts were made to include teachers from different schools within the White Hazy Circuit 1. The aim was to capture various perspectives and experiences related to school-based teacher development.

3.5.2.3 Limitations of the Sample

It is important to acknowledge that the findings and conclusions of this study are limited to the selected sample and may not be directly generalisable to the entire population of teachers in the White Hazy Circuit 1. However, by carefully selecting participants and ensuring representation across various characteristics, the study aimed to capture a breadth of perspectives within the given population.

The researcher recognises the potential for sampling bias and acknowledges that the findings should be interpreted within the context of the selected sample.

3.6 Data quality control

Data quality control pertains to the methodical measures and protocols established throughout the research process to ascertain the gathered data's precision, dependability, and authenticity (Saunders, 2022). Various measures were implemented to ensure data quality control within the framework of this study.

The questionnaire underwent a meticulous design process and thorough review to guarantee its lucidity, inclusiveness, and alignment with the research goals. Before dissemination, the survey was subjected to a pilot test among a limited cohort of educators to detect any ambiguities or prospective concerns about the phrasing or arrangement of the inquiries.

Education and guidance: The researcher convened a gathering of school cluster representatives at a central location, providing a comprehensive explanation of the questionnaire's objectives and guidelines for completion. This step aimed to establish a uniform comprehension of the questionnaire among respondents and minimise the possibility of misapprehension.

The process of data collection involved the distribution of questionnaires to the participants, with an emphasis on the significance of providing truthful and precise responses. A predetermined period of seven days was assigned to fulfil and gather the questionnaires to ensure uniformity and mitigate any potential biases that may arise from late submissions.

Upon collecting the questionnaires, the researcher proceeded to input the data into a computerised system utilising data entry and coding techniques. To mitigate data entry errors, double-entry verification procedures were implemented. This involved independent data entry by a second individual, and any inconsistencies were resolved through reconciliation.

Following data entry, comprehensive data cleaning and validation procedures were implemented to detect and resolve any missing, inconsistent, or erroneous data. The abovementioned procedure entailed identifying and removing anomalous data points, verifying the suitability of response intervals, and resolving any incongruities or divergences by cross-validation with the primary survey instruments.

The validated data underwent suitable statistical analysis techniques to produce significant outcomes. Statistical software tools were used to augment the precision and dependability of the data analysis procedure.

The study sought to improve the credibility and validity of research findings by implementing data quality control measures to enhance the overall quality and integrity of the collected data.

3.6.1 Data Collection Tools

The data collection process for this study involved using a self-administered questionnaire adapted from previous research conducted by Richard Inge in 2005 at the University of Central Florida, titled "A Survey of School Principals and Teachers Regarding Teachers' Professional Development Participation." The questionnaire was designed for two groups: Post Level One (PL1) teachers and Post Levels (PL) 2, 3, and 4 teachers.

Questionnaire Design: The researcher opted for a manual data collection technique using a self-administered questionnaire. This approach aligns with the descriptive nature of the study, as it aimed to gather information about attitudes, opinions, and organisational practices. The questionnaire was deemed suitable due to its compatibility with quantitative methods Saunders (2022, p. 170) and its relevance to the research objectives.

The Rationale for Manual Data Collection: The decision to collect data manually was influenced by the high reluctance among teachers to embrace technological reforms and their unwillingness to adapt. During the trial testing phase, an electronic version of the questionnaire was distributed, but the response rate was low even after multiple reminders. Moreover, logistical challenges arose regarding using electronic devices and data plans, as teachers hesitated to utilise their resources. A manual hand-delivered questionnaire was deemed more appropriate to ensure a better response rate. The researcher's close affiliation with schools facilitated convenient access to the target population, making manual data collection feasible.

Mitigating Discussion of Answers: One potential disadvantage of using a hard copy questionnaire is the possibility of respondents discussing the answers, which may compromise the reliability of the study. To address this concern, representatives of school clusters were invited to a central venue where the researcher explained the instrument and its purpose. An agreement was reached to allocate seven days for completing and collecting the questionnaires, reducing the likelihood of discussions that could influence responses.

The sample consisted of 87 teachers from White Hazy Circuit 1. The Post Level One group comprised 45 participants, while the Post Levels 2, 3, and 4 comprised 42 participants. Convenience sampling was employed due to the researcher's accessibility to the population of teachers in the circuit.

3.7 Data Validity and Reliability

Validity and reliability are crucial considerations in quantitative research to ensure the accuracy and consistency of the collected data. This section discusses the measures taken to establish the validity and reliability of the Likert scale questionnaire used in this study.

3.7.1 Instrument Validity

Content Validity: The questionnaire used in this study was adapted from a research by Richard Inge in 2005 at the University of Central Florida, titled "A Survey of School Principals and Teachers Regarding Teachers' Professional Development Participation." The original questionnaire underwent a thorough review and modification process to ensure its alignment with the research objectives and the specific context of this study. Content validity was enhanced by selecting items that directly addressed the research questions and incorporating expert opinions from educators and researchers.

Face Validity: Before the data collection, the questionnaire was pilot tested with a small group of teachers. Their feedback was solicited to evaluate the questionnaire items' clarity, comprehensibility, and appropriateness. Based on their input, minor adjustments were made to improve the face validity of the instrument.

3.7.2 Instrument Reliability

Internal Consistency Reliability: The reliability of the Likert scale questionnaire was assessed using Cronbach's alpha coefficient, which measures the internal consistency of items within a scale. A higher Cronbach's alpha value indicates greater reliability. This study analysed the Likert scale items for internal consistency using statistical software. The Cronbach's alpha coefficient was 0.86, indicating a high level of internal consistency among the questionnaire items (Gliem & Gliem, 2003).

3.7.3 Sample Size and Sampling Technique

The study employed a sample size of 87 primary and secondary school teachers from White Hazy Circuit 1, Ehlanzeni district. To ensure a representative sample for this quantitative study, a stratified sampling technique was employed (Creswell, 2014). Stratified sampling allowed for the deliberate selection of participants most pertinent to the research objectives while maintaining statistical rigor (Babbie, 2018). The sample selection was guided by specific criteria, including teaching experience, subject specialization, and willingness to participate. By stratifying the population based on these criteria, the researcher aimed to include a diverse range of teachers representing various grade levels and subjects, thereby ensuring a comprehensive understanding of the phenomenon under investigation (Trochim, 2020).

3.7.4 Data Analysis

The collected Likert scale data were subjected to descriptive and inferential statistical analyses. Descriptive statistics, such as mean, standard deviation, and frequency distributions, were used to summarise and describe participants' responses to each item. Inferential statistics, including t-tests and analysis of variance (ANOVA), were utilised to examine relationships and potential differences between variables.

3.7.5 Limitations

It is important to acknowledge certain limitations that may have impacted the validity and reliability of the findings. First, the study relied on self-report measures, which could be subject to response or social desirability bias. To mitigate this, anonymity and confidentiality were assured to encourage honest and unbiased responses. Second, the sample size was relatively small and restricted to a specific geographical area, which may limit the generalisability of the findings to a broader population. Future research could consider expanding the sample size and including participants from diverse locations to enhance external validity.

Overall, the validity and reliability of the Likert scale questionnaire were ensured through rigorous adaptation, pilot testing, and statistical analysis, providing a solid foundation for data collection and analysis in this study.

3.8 Data analysis

Data analysis is a crucial aspect of quantitative research, which entails the systematic arrangement, interpretation, and extraction of significant findings from the gathered data. The present investigation involved the analysis of data collected through a Likert scale questionnaire. Statistical software, namely Microsoft Excel and IBM SPSS Statistics, was utilised to examine patterns, relationships, and trends in teacher development within the school context.

The initial data analysis stage involved preparing and cleansing the dataset. The process encompassed arranging the gathered responses, verifying any missing data or incongruities, and guaranteeing the precision and entirety of the data. All inaccurate or absent data points were meticulously handled to reduce the potential influence on the comprehensive analysis.

A descriptive analysis summarised and presented the primary features and trends observed in the gathered data. Microsoft Excel computed descriptive statistics such as frequencies, percentages, means, and standard deviations. As mentioned earlier, the measures facilitated a comprehensive comprehension of the respondents' reactions, enhancing insight into their stances and viewpoints regarding teacher development programmes implemented within school premises.

Using inferential analysis facilitated the derivation of conclusions and inferences about the broader population, relying on the data sample. The statistical software IBM SPSS Statistics was employed to conduct inferential statistical analyses, such as t-tests, analysis of variance (ANOVA), and correlation analysis. The tests above explored the connections, disparities, and correlations among the variables under scrutiny, yielding more profound perspectives on the research inquiries.

Interpreting the findings entailed analysing the statistical results produced by the software and establishing their connection to the research objectives and inquiries. The results were subjected to meticulous analysis and interpretation, considering the study context and pertinent theoretical frameworks. The data was comprehensively analysed by identifying and discussing meaningful patterns, significant differences, and significant associations.

The findings derived from the data analysis were presented utilising suitable visual aids such as tables, charts, and graphs to augment lucidity and facilitate comprehension. The utilisation of visual aids aided in the dissemination of significant discoveries and bolstered the discourse and analysis of the research results.

It is imperative to acknowledge that the selection of statistical software and analytical methodologies was contingent upon the particular demands of the research goals and the characteristics of the gathered data. The application of Microsoft Excel was predominantly limited to rudimentary descriptive statistical analyses, whereas IBM SPSS Statistics offered more sophisticated statistical functionalities for inferential analysis.

The study utilised meticulous data preparation, descriptive and inferential analysis methodologies, and suitable software tools to ensure the data's precise and dependable interpretation. This approach led to significant insights into the viewpoints of educators regarding teacher development within the school setting.

3.9 Research ethics

Ethical considerations play a crucial role in research involving human participants, and this research study prioritized the protection and well-being of the participants. The following are the key ethical aspects addressed in the study:

3.9.1 Permission and Compliance

The researcher obtained permission from the Head of Department (HOD) following the Employment of Educators Act (EEA) no 78 of 1998 and Personnel Administrative Measures (PAM) of 1999. The research followed the ethical standards and guidelines set by educational authorities and was conducted under the supervision of the University of KwaZulu Natal.

3.9.2 Participant Benefits and Implications

The research allowed participants to reflect on their practices and the effectiveness of teacher development in their schools. It identified gaps and inconsistencies in school-based teacher development, leading to potential improvements in educational practices.

3.9.3 Protection of Participant Identities

The questionnaire did not collect personal details such as names, identities, or phone numbers to ensure confidentiality and anonymity. Informed consent letters explained the study's purpose and the participants' rights. Participants voluntarily signed the consent letter and were free to withdraw from the study at anytime.

The study aimed to respect and protect participants' rights and welfare by adhering to these ethical considerations. The findings will be submitted as a dissertation to the University of KwaZulu Natal, contributing to the knowledge base of teacher development.

3.10 Personal Experience and its Influence on Interpretation

As the researcher, I played a crucial role in data collection, ensuring the research design was implemented smoothly, and ethical considerations were upheld. This section provides an overview of my personal experience during the study, including the challenges I faced and measures taken to address them.

3.10.1 Preparing for Data Collection

Before data collection, I thoroughly prepared by familiarizing myself with the research objectives, questions, and questionnaires based on existing literature. I reviewed relevant studies on school-based teacher development to understand the topic comprehensively.

3.10.2 Piloting the Questionnaire

A pilot test was conducted to ensure the questionnaire's clarity and effectiveness. Initially, the questionnaire was distributed electronically. However, due to a low response rate, I switched to a manual data collection method using hard-copy questionnaires, which proved more feasible for participants.

3.10.3 Engaging with School Representatives

Representatives from clusters of schools were invited to a central venue to enhance data reliability and validity. I explained the study's purpose, questionnaire instructions, and items to ensure participants understood the instrument. This interaction helped establish rapport and address any concerns or ambiguities regarding the survey.

3.10.4 Data Collection Process

Questionnaires were delivered to selected schools within the White Hazy Circuit 1. The distribution was systematic, covering diverse schools to obtain a representative sample. Clear instructions and a specified time frame were provided for completing and returning the questionnaires.

3.10.5 Addressing Challenges and Ensuring Data Quality

During data collection, challenges such as incomplete or missing responses and potential discussions among respondents arose, potentially compromising the study's reliability. I emphasized accurate and honest responses while maintaining confidentiality. Regular follow-ups with school representatives were conducted to encourage participation and address teachers' difficulties.

3.10.6 Ethical Considerations

Throughout the research process, ethical considerations were prioritized. Informed consent was obtained from all participants, ensuring their voluntary participation. Confidentiality and anonymity were maintained to protect respondents' privacy. The research followed ethical guidelines and regulations, upholding research integrity and respecting participants' rights and well-being.

3.10.7 Reflecting on Personal Experience

Monitoring sessions revealed that some schools lacked clear teacher development programs and evidence of planned interventions or activities. This finding was unexpected, as questionnaire responses did not align with my prior knowledge. Despite this inconsistency, I accurately presented the results captured in the questionnaire.

An interesting observation emerged from the analysis. For example, the questionnaire included questions about Professional Learning Communities.

(PLCs), Nevertheless, it became apparent that such communities were non-existent. Post-level 1 teachers responded positively to this question, while School Management Teams (SMTs) responded negatively, indicating a disparity in understanding and implementation of PLCs.

These findings underscore the importance of critically examining survey responses and cross-referencing them with existing knowledge. It raises questions about self-reported data's accuracy and reliability, considering respondents' different interpretations and awareness levels. Such inconsistencies remind us to interpret data cautiously and triangulate it with multiple sources for a comprehensive understanding.

As a researcher, it was important to approach these findings openly, acknowledging limitations in self-reported data. I documented discrepancies and potential contradictions transparently to provide a balanced representation of the findings. This ensures credibility and validity while encouraging future researchers to explore underlying factors contributing to such inconsistencies.

In conclusion, this personal experience highlighted the dynamic nature of data collection and the need for critical analysis and contextualization of results. It emphasizes considering multiple perspectives and employing additional research methods for validation. These insights contribute to the credibility and validity of the study, accurately reflecting the realities and complexities of teacher development in the investigated schools.

3.11 Summary of the Chapter

The methodology chapter provides a detailed overview of this study's research design and data collection process. It begins by introducing the concept of research design and its role in addressing the research questions. The philosophical assumptions underlying the research approach are discussed, focusing on the quantitative research paradigm and its alignment with positivism.

The chosen research strategy is survey research, which aligns with the deductive approach to theory development. The purpose of the survey is to investigate the perspectives of teachers and school management teams on school-based teacher development and its impact on their practice. The survey instrument is adapted from a previous study on teacher development, ensuring its validity and relevance to the research context.

Sampling techniques are explained, and the study population is identified as White Hazy Circuit 1 teachers. A sample size of 87 teachers is determined based on practical considerations and the desire to obtain representative views from different schools in the circuit.

Data collection is described as a manual, self-administered questionnaire. The rationale for using a paper-based method is provided, considering the reluctance to embrace technological reforms among teachers and the challenges encountered during pilot testing with electronic distribution. Measures are taken to ensure data quality control, including briefing representatives of school clusters and setting a specific time frame for questionnaire completion and collection.

The data analysis section focuses on the quantitative analysis of survey responses. The Likert scale measures attitudes and opinions, and data is tabulated and analysed using Microsoft Excel and IBM SPSS Statistics software. The section highlights the importance of maintaining data accuracy, integrity, and confidentiality throughout the analysis.

Validity and reliability are discussed, focusing on content validity and internal consistency reliability. Measures are taken to ensure the validity of the survey instrument through expert review and pilot testing. Reliability is addressed using Cronbach's alpha coefficient to assess the internal consistency of the Likert scale items.

The personal experience section reflects on the monitoring sessions conducted during the study, highlighting unexpected findings and potential discrepancies between questionnaire responses and the researcher's prior knowledge. Critically analysing and interpreting the data is emphasised, acknowledging the limitations of self-reported data and the need for triangulation.

The methodology chapter provides a comprehensive overview of the research design, data collection methods, sampling techniques, data analysis procedures, and measures taken to ensure validity and reliability. It demonstrates the rigorous approach employed in this study. It sets the foundation for obtaining meaningful insights into the perspectives of teachers and school management teams on school-based teacher development.

CHAPTER 4: PRESENTATION OF results and analysis

4.1 Introduction

To address the research objectives and derive meaningful insights, a comprehensive analysis was conducted to present the findings and analyze the data. The questionnaire data underwent meticulous scrutiny utilizing suitable statistical techniques and software. This section presents a comprehensive summary of the results and their corresponding analysis. In this study, a descriptive analysis was conducted on the data obtained from the questionnaire. This analysis aimed to determine the frequencies, percentages, and distribution of responses. Visual aids such as graphs, charts, and tables were utilized to depict the data and facilitate comprehension of the results. In the realm of academic research, the process of quantitative analysis involves the examination of numerical data to identify and analyze relationships, patterns, and trends present within the data. The statistical analysis involved calculating the mean, median, and standard deviation to concisely summarize the data and ascertain the central tendencies and variations. The study employed inferential statistical tests, such as the chi-square or t-test, to ascertain the significance of relationships or differences between variables.

The process of thematic analysis was employed to examine the qualitative data obtained from the open-ended questions. The aim was to identify recurring themes and patterns in the participants' responses. The qualitative data was subjected to coding and categorization techniques to facilitate the identification of coherent themes. The identified themes were supported and illustrated by quotes or excerpts from the participants' responses. The findings were interpreted within the framework of the research objectives and the extant literature.

The study presented significant insights into the perspectives of teachers and school management teams regarding the impact of school-based teacher development on their practice. The discussion included key findings, trends, and special relationships. The findings were subjected to a rigorous analysis, considering both the drawbacks and merits of the research and any potential ramifications for educational policies and practice. As a result, the method of triangulation was utilized.

Using multiple methods or sources to gather and analyze data, known as triangulation, is a commonly employed technique in research. Integrating quantitative and qualitative findings was undertaken to understand the research topic comprehensively. The study investigated the convergence or divergence of outcomes derived from various data sources to improve the credibility and dependability of the results. The research study conducted a comprehensive

analysis to produce valuable insights into the attitudes and behaviors of teachers and school management teams towards teacher development programs implemented within schools. The results of this study will make a valuable addition to the current knowledge base in the respective field. Furthermore, they may have significant implications for developing policies, professional development initiatives, and educational practices.

4.2 The Sample

The investigator administered 250 survey instruments to educational institutions for the designated sample. A total of 250 questionnaires were distributed, and 87 respondents provided their responses, leading to a response rate of 30.8%. The data analysis and findings presented in this study were based on the responses provided by 87 participants. It is worth noting that the sample size of 87 participants is a subset of the broader population of educators and school administrators in the study region.

To ensure a comprehensive representation of diverse educational settings and perspectives within the target population, questionnaires were disseminated to all schools. The moderate level of participation, as indicated by the response rate of 30.8%, warrants consideration of the potential for non-response bias and the generalizability of the findings to the entire population. The researcher implemented strategies to enhance response rates and mitigate non-response bias, including providing unambiguous guidelines and prompts and safeguarding the participants' privacy and anonymity.

Notwithstanding the response rate is relatively modest, the 87 questionnaires that were completed still offer valuable insights into the viewpoints and encounters of teachers and school management teams concerning teacher development that takes place within the school setting. The data obtained from this sample can be analysed and interpreted to extract significant insights. However, it is advisable to exercise prudence when extending the findings to the broader population.

4.3 The Research Instrument

The study employed a research instrument in the form of a questionnaire, which included a series of questions ranging from 26 to 31 points. The questionnaire items were specifically crafted to assess diverse themes about the growth and advancement of educators. The survey

was segmented into three distinct parts. A) The collection of demographic data, B) Professional development of teachers, and C) Quantification of the duration of each activity.

Section A of the study gathered demographic data about participants' personal and professional backgrounds. This section comprised demographic variables such as age and gender, as well as professional variables including teaching experience and qualification level. The objective of this section was to collect demographic data that could offer valuable insights into the attributes of the participants and their probable impact on the professional growth of educators.

The second section, Teacher Development, centred on obtaining the participants' viewpoints, personal encounters, and beliefs regarding teacher development within the school setting. This section pertained to the significance, efficacy, frequency, and level of participation and support from school management in teacher development activities. The contents of this section were intentionally crafted to solicit both qualitative and quantitative data, to investigate the attitudes and opinions of the participants towards the development of teachers.

Section C pertains to quantifying the duration of engagement in various activities. The objective of this section was to measure the duration of time that the participants dedicated to particular activities related to the professional growth of educators. The programme encompassed normal teacher development practises, such as workshops, seminars, mentoring, and self-directed learning. The participants were requested to specify the duration of their involvement in each task during a designated timeframe.

The survey instrument was meticulously designed to guarantee the lucidity and inclusiveness of the questions. A preliminary investigation was conducted before the data collection to assess the questionnaire's reliability and validity. The questionnaire was refined, and potential ambiguities or issues with item clarity were addressed based on participant feedback in the pilot study.

The questionnaire data were subjected to statistical analyses to extract significant insights and conclusions. This forthcoming data analysis section will comprehensively discuss the employed data analysis techniques, including descriptive statistics, correlations, and inferential statistics.

4.4 Presentation of findings

Table 4.1 Reliability statistics

Section	Number of Items	Cronbach's Alpha
l Demographic data	8	0.82
Teacher Development	12	0.76
Number of hours spent on each activity	6	0.70
Total	26	0.85

The reliability statistics for various sections of the survey questionnaire are presented in Table 4.1. The tabular representation comprises the number of entities within each segment and Cronbach's alpha coefficient. According to Sharma (2017), Cronbach's alpha coefficient is utilised to assess the internal consistency reliability of a given scale or questionnaire. As mentioned above, the statement quantifies the number of items within a given questionnaire section that assess a common underlying construct. A higher value of Cronbach's alpha is indicative of increased reliability.

The "Demographic data" section comprises eight items and yielded a Cronbach's alpha coefficient of 0.82. As mentioned above, the observation implies a notable degree of internal coherence within the items in this section, thereby indicating their capacity to gauge a comparable construct or dimension consistently and dependably.

The section denoted as "Teacher Development" consists of 12 items and has yielded a Cronbach's alpha coefficient of 0.76. Despite a slight decrease compared to the preceding segment, the current section exhibits commendable internal coherence across its constituent elements.

The section titled "Number of hours spent on each activity" comprises six items, and Cronbach's alpha coefficient for this section is 0.70. Although the level of internal consistency is deemed acceptable, it is marginally lower than that of the preceding sections.

Finally, the "Total" row denotes the aggregated metrics for all survey segments. The questionnaire comprises 26 items and exhibits a Cronbach's alpha coefficient of 0.85, which suggests a significant degree of internal consistency.

The reliability statistics presented offer valuable insights into the internal consistency and reliability of the survey items in each section. Elevated Cronbach's alpha coefficients typically indicate enhanced internal consistency and dependability of the measuring instrument.

4.4.1.1 Reliability Statistics

Table 4.2 Cronbach's alpha coefficient 1

Items	**Number of Items**	**Cronbach's Alpha (PL1)**	**Number of Items**	**Cronbach's Alpha (SMT)**
B6a-h: Teacher development activities	8	0.877	8	0.686
B7, B11, B12, B14: Relevance and impact	4	0.635	4	0.781
B9, B10: Resources to support school-based teacher development	2	0.589	2	0.216
B8, B13: Teacher roles and responsibilities	2	0.539	2	-
B15-B18: Benefits of participation in CPD	4	0.562	-	-
B20, B26, B27, B28: Impact of participation in CPD	-	-	4	0.435
B19, B21, B23, B24: Development and support by departmental head	-	-	4	0.583

Table 4.2 above is the cross-tabulation of Cronbach's alpha coefficient between the different question points in the questionnaire and the different people groups, namely PL1 and SMT. As mentioned, Cronbach's alpha coefficient seeks to measure how many items in each

questionnaire section measure the same underlying construct, where a greater coefficient indicates greater reliability.

The Cronbach's alpha coefficient of 0.877 for the PL1 teacher development activities items (B6a-h) suggest high internal consistency. The Cronbach's alpha value of 0.635 obtained for the relevance and impact section (B7, B11, B12, B14) suggests a moderate level of internal consistency. The Cronbach's alpha coefficient for the resources facilitating teacher development within schools (B9, B10) was 0.589, suggesting moderate internal consistency. The constructs about the duties and obligations of educators (B8, B13) exhibited a Cronbach's alpha value of 0.539, signifying a moderate level of internal consistency. The segment about the advantages of continuing professional development (B15-B18) demonstrated a Cronbach's alpha value of 0.562, suggesting a moderate internal consistency level.

The Cronbach's alpha value of 0.686 for the teacher development activities items (B6a-h) in the context of SMT suggests a moderate internal consistency. The Cronbach's alpha value of 0.781 for the relevance and impact section (B7, B11, B12, B14) suggests a favourable level of internal consistency. The Cronbach's alpha for the resources allocated for school-based teacher development (B9, B10) was 0.216, indicating a lower level of internal consistency. The teacher roles and responsibilities items (B8, B13) were deemed inapplicable for the SMT, resulting in the absence of a calculated Cronbach's alpha. The Cronbach's alpha of 0.435 obtained for the section about the influence of engagement in continuing professional development (B20, B26, B27, B28) suggests a relatively lower level of internal consistency. The section about the advancement and assistance of educators (B19, B21, B23, B24) under the purview of the departmental head attained a Cronbach's alpha value of 0.583, signifying a moderate level of internal consistency.

4.4.2 Factor Analysis

Factor analysis explored the underlying factors and structure of the Likert scale items related to teacher development. The analysis aimed to identify the relationships between the variables and determine if they can be grouped into meaningful factors. The factor analysis was performed using IBM SPSS Statistics software.

4.4.2.1 Sampling Adequacy

First, the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were examined to determine if the data were suitable for factor analysis. The KMO

measure assesses the proportion of variance that underlying factors may cause. A value close to 1.0 indicates that factor analysis is appropriate. Bartlett's test of sphericity tests the hypothesis that the correlation matrix is an identity matrix, indicating that the variables are unrelated.

The KMO values for the factors ranged from 0.653 to 0.788, indicating that the data is suitable for factor analysis. Additionally, the significance values for Bartlett's test of sphericity were less than 0.05 for all factors, indicating that the correlation matrix is not an identity matrix and the variables are interrelated.

4.4.2.2 Factor Extraction

The factors were extracted by Principal Component Analysis (PCA) with Varimax rotation. This rotation method maximises the variance of each factor and simplifies the interpretation of the factor structure. The number of factors to be extracted was determined based on the eigenvalues greater than 1 criterion.

Table 4.3 Rotation Component Matrix

Factor	**Items**
Teacher development activities (PL1)	B6a, B6b, B6c, B6d, B6e, B6f, B6g, B6h
Relevance and impact (PL1)	B7, B11, B12, B14
Resources to support school-based teacher development	B9, B10
Teacher roles and responsibilities (PL1)	B8, B13
Benefits of participation in continuing professional development (PL1)	B15, B16, B17, B18
Impact of Participation in continuing professional development (PL1)	B20, B26, B27, B28
Development and support of teachers by the departmental head (PL1)	B19, B21, B23, B24

Motivation for participation in continuing professional development (SMT)	-
Time spent on teacher development activities (SMT)	-
Development and support of teachers by the departmental head (SMT)	-

Table 4.3 portrays a Rotation Component Matrix and offers a glimpse into factors and items related to teacher development and continuing professional development. Here is an interpretation of the information presented in Table 4.3:

1. Teacher development activities (PL1): This factor includes various items (B6a, B6b, B6c, B6d, B6e, B6f, B6g, B6h) that represent specific teacher development activities. These activities likely pertain to professional growth opportunities provided to teachers within the educational setting.
2. Relevance and impact (PL1): This factor comprises items (B7, B11, B12, B14) assessing teacher development activities' perceived relevance and impact. It suggests examining how these activities are viewed regarding their importance and influence on teaching practice.
3. Resources to support school-based teacher development: This factor focuses on items (B9, B10) that represent the resources available to support teacher development within the school. It may involve materials, tools, or initiatives to enhance teachers' professional growth.
4. Teacher roles and responsibilities (PL1): This factor explores the roles and responsibilities of teachers and includes items (B8, B13) that potentially highlight specific aspects of their professional duties within the context of teacher development.
5. Benefits of participation in continuing professional development (PL1): This factor encompasses items (B15, B16, B17, B18) that capture the perceived benefits of participating in continuing professional development activities. It aims to understand the advantages teachers perceive from engaging in ongoing professional growth opportunities.

6. Impact of Participation in continuing professional development (PL1): This factor investigates the impact of participating in continuing professional development. It includes items (B20, B26, B27, B28) that likely evaluate the effects of such development activities on teachers' instructional practices and, potentially, student outcomes.

7. Development and support of teachers by the departmental head (PL1): This factor focuses on the development and support provided to teachers by the departmental head. It includes items (B19, B21, B23, B24) that shed light on the actions and initiatives undertaken by departmental heads to facilitate teacher growth.

4.4.3 KMO and Bartlett's Test

Table 4.4 Barlett's test

		PL1				SMT			
		Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	Bartlett's Test of Sphericity			Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	Bartlett's Test of Sphericity		
			Approx. Chi-Square	df	Sig.		Approx. Chi-Square	df	Sig.
B6a-h	Teacher development activities	0.788	149.601	28	0.000	0.568	97.876	28	0.000
B7 B11 B12 B14 B9 B10 B8 B13	Relevance and impact Resources to support school-based teacher development Teacher Roles and Responsibilities	0.674	67.018	28	0.000	0.551	93.665	28	0.000

B15-B18	Motivation for participation in continuing professional development	0.653	16.865	6	0.010				
B20 B26 B27 B28	Time spent on TD activities					0.554	15.366	6	0.018
B19 B21 B23 B24	Development and support of teachers by the departmental head					0.666	19.460	6	0.003

Table 4.4 Barlett's test presents the results of statistical tests assessing the adequacy of sampling and the sphericity of correlations for different factors and groups. The analysis provides insights into the relationship among the variables within each factor. For the PL1 factor (Teacher development activities), the Kaiser-Meyer-Olkin Measure of Sampling Adequacy indicates a relatively good level of sampling adequacy, with a value of 0.788. Bartlett's Test of Sphericity reveals a significant chi-square value of 149.601 ($df = 28$, $p < 0.001$), suggesting the presence of intercorrelations among the items.

Similarly, for the SMT factor (School Management Teams), the Kaiser-Meyer-Olkin Measure of Sampling Adequacy is 0.568, indicating a relatively lower sampling adequacy level than the PL1 factor. Bartlett's Test of Sphericity indicates a significant chi-square value of 97.876 ($df = 28$, $p < 0.001$), suggesting intercorrelations among the items within this factor.

4.4.4 Rotated Component Matrix

Table 4.5 Rotation Component Matrix on teacher development activities

		PL1		SMT		
		Component		Component		
		1	2	1	2	3
B6a	Subject meetings	0.218	0.827	0.575	0.563	-0.123
B6b	Team Planning	0.451	0.659	0.582	0.512	-0.182
B6c	Workshop on content	0.152	0.893	0.897	0.081	0.196
B6d	Lesson observation	0.820	0.261	0.875	-0.132	0.074
B6e	One-on-one feedback	0.877	0.116	0.100	0.721	0.325
B6f	Team Marking	0.534	0.590	0.428	0.097	0.851
B6g	Mentoring	0.617	0.368	-0.121	0.829	-0.110
B6h	Professional learning community	0.663	0.259	-0.153	-0.053	0.907

Table 4.5 presents the Rotation Component Matrix for teacher development activities, categorised under the factors of PL1 and SMT. The table displays the loadings of each component for the different items within the matrix. Here is an interpretation of the provided data:

For the PL1 factor (Teacher development activities):

Component 1: The items B6a (Subject meetings), B6b (Team Planning), B6c (Workshop on content), and B6f (Team Marking) have relatively high loadings (0.218, 0.451, 0.152, and 0.534, respectively) on Component 1, indicating a strong association with this component.

Component 2: The items B6d (Lesson observation), B6e (One-on-one feedback), B6g (Mentoring), and B6h (Professional learning community) exhibit higher loadings (0.827, 0.893, 0.368, and 0.259, respectively) on Component 2, suggesting a strong relationship with this component.

For the SMT factor (School Management Teams):

Component 1: The items B6a (Subject meetings), B6b (Team Planning), B6c (Workshop on content), and B6h (Professional learning community) demonstrate loadings (0.575, 0.582, 0.897, and -0.153, respectively) on Component 1, indicating their association with this component.

Component 2: The items B6d (Lesson observation), B6e (One-on-one feedback), and B6g (Mentoring) display loadings (0.563, 0.721, and 0.829, respectively) on Component 2, suggesting a relationship with this component.

Component 3: Item B6f (Team Marking) shows a relatively high loading (0.851) on Component 3, indicating a connection with this component.

The loadings in the Rotation Component Matrix represent the degree of association between each item and the respective component. Higher loadings indicate the item's stronger relationship or influence on that particular component. Interpreting these loadings can provide insights into teacher development activities' underlying factors or dimensions within the PL1 and SMT categories.

4.4.5 PL1: B15-B18: Motivation for participation in school-based teacher development

Table 4.6 Motivation for Participation in school-based development

	Component
	1
"I use the strategies and techniques learned to improve my classroom practice."	0.768
"My participation in professional teacher development has had a positive impact on the improvement of my student's academic performance."	0.793
"The main reason I participate in professional teacher development is to improve my qualification to qualify for the promotion and other incentives."	0.688
"I regard myself as a lifelong learner, and I must always be abreast of new developments in my profession to remain relevant."	0.364

The motivation for participation in school-based teacher development was assessed using a single component extracted through Principal Component Analysis. The component, referred to as Component 1 (positioned under PL1), represents the underlying factor influencing motivation for participation.

The factor loadings provide insight into the magnitude and orientation of the association between each element and the motivation construct. The variable "utilisation of strategies and techniques acquired for classroom improvement" exhibits a substantial loading of 0.768, indicating that individuals who expressed a greater propensity to implement the learned strategies and techniques in their instructional settings were more incentivized to engage in professional development opportunities for teachers.

Likewise, the statement "The positive impact of my involvement in professional teacher development on my students' academic performance" exhibited a substantial loading of 0.793. The aforementioned indicates that individuals who perceived a favourable influence on their pupils' academic achievements due to their involvement in professional development were more inclined to participate in such endeavours.

The item "My primary motivation for engaging in professional teacher development is to enhance my qualifications and become eligible for career advancement and other incentives" demonstrated a loading score of 0.688. As mentioned earlier, the observation suggests that individuals who viewed career progression and rewards as the principal impetus for engaging in professional development evinced a moderate level of motivation.

Conversely, the statement "I consider myself to be a perpetual learner, and I must stay up-to-date with the latest advancements in my field to maintain my relevance" exhibited a diminished loading of 0.364. The findings indicate that individuals who placed a high value on ongoing education and remained current in their field exhibited comparatively lower motivation levels than the remaining factors.

Utilising the Principal Component Analysis methodology facilitated the identification of a solitary component that represents the underlying motivation for engaging in teacher development programmes based within the school setting. The factor loadings of the items yielded valuable insights into the distinct motivational factors that impact the participation of teachers in professional development endeavours. As mentioned earlier, the discoveries aid in comprehending the determinants that stimulate educators' incentive to engage in such endeavours. This comprehension can subsequently guide the development and execution of proficient career advancement schemes that cater to the requirements and ambitions of teachers.

4.4.6 SMT: Motivation for participation in continuing professional development

Table 4.7 Motivation for Participation in professional development

	Component	
	1	2
"I make efforts to continuously up-skill myself in subject knowledge to be an effective resource person to my department."	-0.132	0.887
"I use the strategies and techniques I have learned to improve my classroom practice."	0.756	0.299
"My participation in professional teacher development has had a positive impact on the improvement of my student's academic performance."	0.505	0.675
"The main reason I participate in professional teacher development is to improve my qualification to qualify for the promotion and other incentives."	0.833	-0.221

Table 4.7 displays the rotation component matrix resulting from a factor analysis of teachers' perceptions of professional development. The analysis employed Principal Component Analysis with Varimax rotation and Kaiser Normalisation. Table 4.7 showcases the loadings of each statement on two components, namely Component 1 and Component 2. In Component 1, "I use the strategies and techniques I have learned to improve my classroom practice" demonstrates a strong positive association with the loading of 0.756. This indicates that teachers who actively apply the acquired strategies and techniques are strongly inclined to improve their classroom practices. Additionally, the statement "My participation in professional teacher development has had a positive impact on the improvement of my student's academic performance" also exhibits a positive loading of 0.505, suggesting that teachers perceive a connection between their professional development participation and enhanced academic outcomes.

Component 2, however, reflects a different aspect of teachers' perceptions. The statement "I make efforts to continuously up-skill myself in subject knowledge to be an effective resource person to my department" exhibits a notable positive loading of 0.887, highlighting the

significance teachers place on continuous up-skilling and becoming a valuable resource within their department. Conversely, "The main reason I participate in professional teacher development is to improve my qualification to qualify for the promotion and other incentives" shows a loading of -0.221, indicating a comparatively weaker association with Component 2.

Overall, the factor analysis results shed light on teachers' diverse perspectives regarding professional development. Component 1 emphasises using acquired knowledge and its impact on classroom practice and student performance. In contrast, Component 2 highlights teachers' motivations to enhance their subject knowledge and professional growth. These insights can contribute to a better understanding of teachers' perceptions and inform the development of targeted and effective professional development programs.

4.4.7 SMT: Development and support of teachers by the departmental head

Table 4.8 Development and Support of Teachers

	Component
	1
"I report school-initiated teacher development programs (type 2) for my department to SACE."	0.261
"I hold periodic one-on-one review sessions to monitor and support teachers in my department."	0.718
"I encourage teamwork through team planning and Team marking."	0.845
"Lesson study is one of the strategies I use to develop teachers in my department."	0.840

In Table 4.8, the focus is on the development and support of teachers, with Component 1 representing the key factors identified through the analysis. Each statement in Table 4.8 represents a specific aspect of development and support.

The statement "I report school-initiated teacher development programs (type 2) for my department to SACE" has a loading of 0.261. This suggests that teachers are involved in reporting school-initiated development programs to the South African Council for Educators (SACE).

"I hold periodic one-on-one review sessions to monitor and support teachers in my department" demonstrates a stronger association with the loading 0.718. This indicates that periodic one-on-one review sessions are employed as a means of monitoring and providing support to teachers within the department.

"I encourage teamwork through team planning and marking" shows a higher loading of 0.845. This suggests that promoting teamwork through activities such as team planning and marking is important for teachers' development and support.

Lastly, "lesson study is one of the strategies I use to develop teachers in my department" exhibits a substantial loading of 0.840. This indicates that lesson study, a collaborative professional development approach, is recognised and utilised as a strategy to enhance the development of teachers within the department.

The findings from this table provide insights into the specific actions and approaches employed to support and develop teachers. It underscores the significance of activities such as one-on-one review sessions, teamwork, and lesson study in fostering professional growth and improvement among teachers in the educational setting.

4.5 Demographic Data

This section summarises the demographic characteristics of the respondents.

4.5.1 Composition by position

Figure 4.1 below indicates the composition of the sample by type of school.

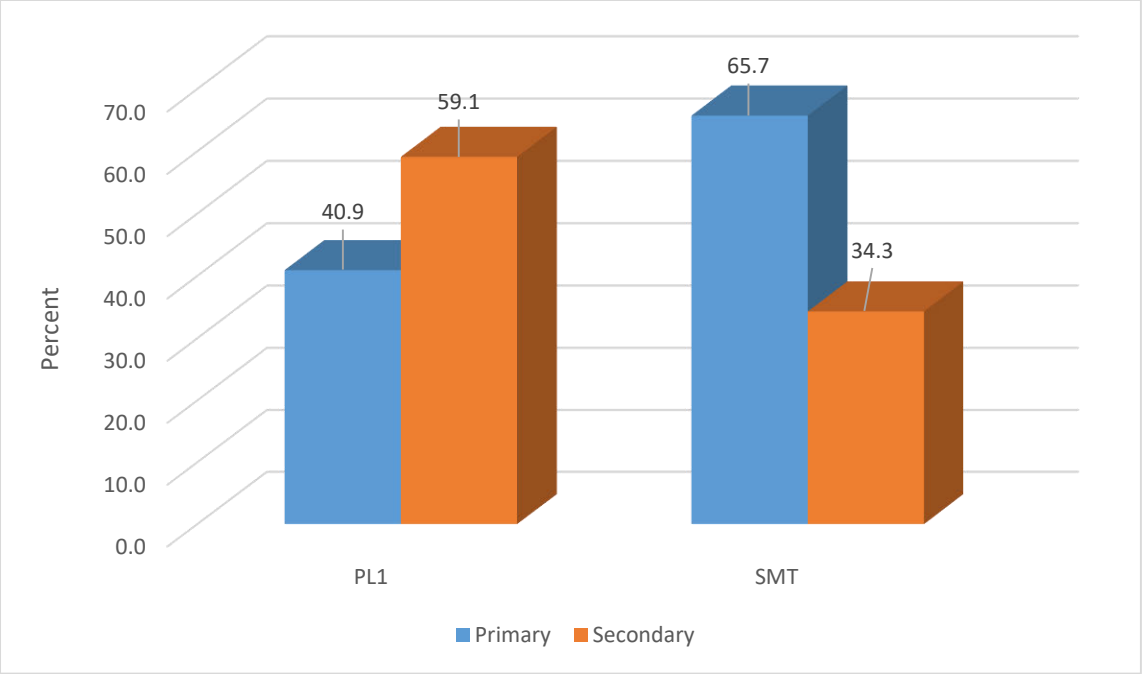

Figure 4.1 Type of school for the participants

There is a significant difference in the sample composition by position (p = 0.041). Notably, there are more SMT respondents from primary schools, with 65.7% of SMT respondents coming from primary schools. On the other hand, more PL1 respondents from high schools contributed 59.1% of respondents.

Within primary schools, there is no significant difference in the composition between PL1 and SMT (p = 0.434); within secondary schools, the composition difference is significant (p = 0.023). The significant difference between the SMTs and PL1 in secondary schools is that secondary schools, by design, have more streams in the curriculum, even though the phases are lesser than in primary schools. Therefore, the broad curriculum means more teachers than in a primary school. Furthermore, departmental heads lead departments with combined subject streams, e.g., a department of science has mathematics, physical science, life sciences, agricultural science, and technology led by one departmental head. Therefore, one departmental head can be responsible for more than five teachers. This explains why there are more PL1 respondents than SMTs in secondary schools compared to primary schools.

4.5.2 Gender

Figure 4.2 below indicates the gender composition of the sample.

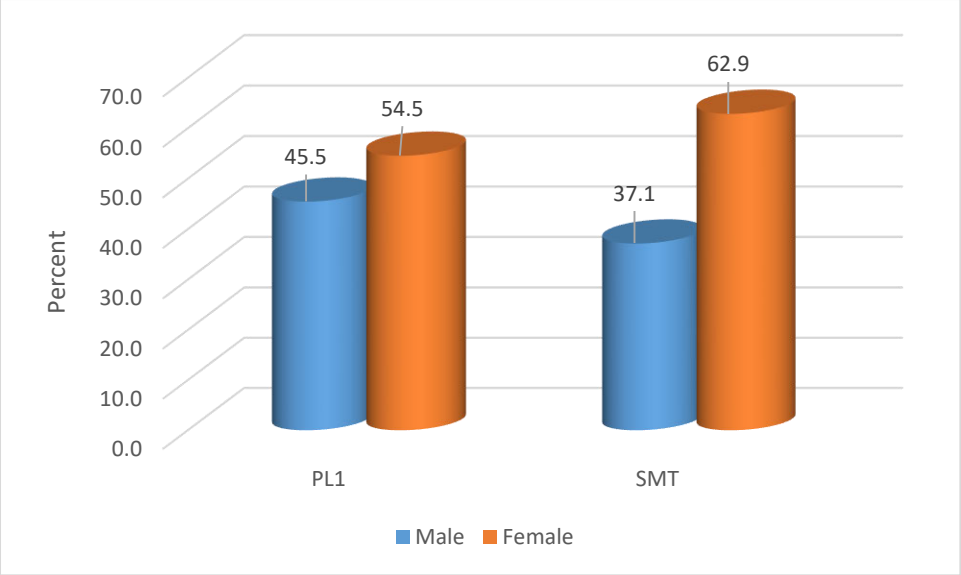

Figure 4.2 Gender Composition

There is no significant difference between position and gender (p = 0.498). That is, there are similar numbers of males between PL1 and SMT. Similarly, there are a similar number of females between PL1 and SMT.

PL1 has similar numbers of males and females (p = 0.536).

Within SMT, the difference observed is also insignificant (p = 0.128)

, and the departmental policy on gender equity influences this. Recruitment considers the balancing of the genders, and this policy is mandatory.

4.5.3 Experience in position

Figure 4.3 below indicates the relationship between the “Number of years in your position” and “Position."

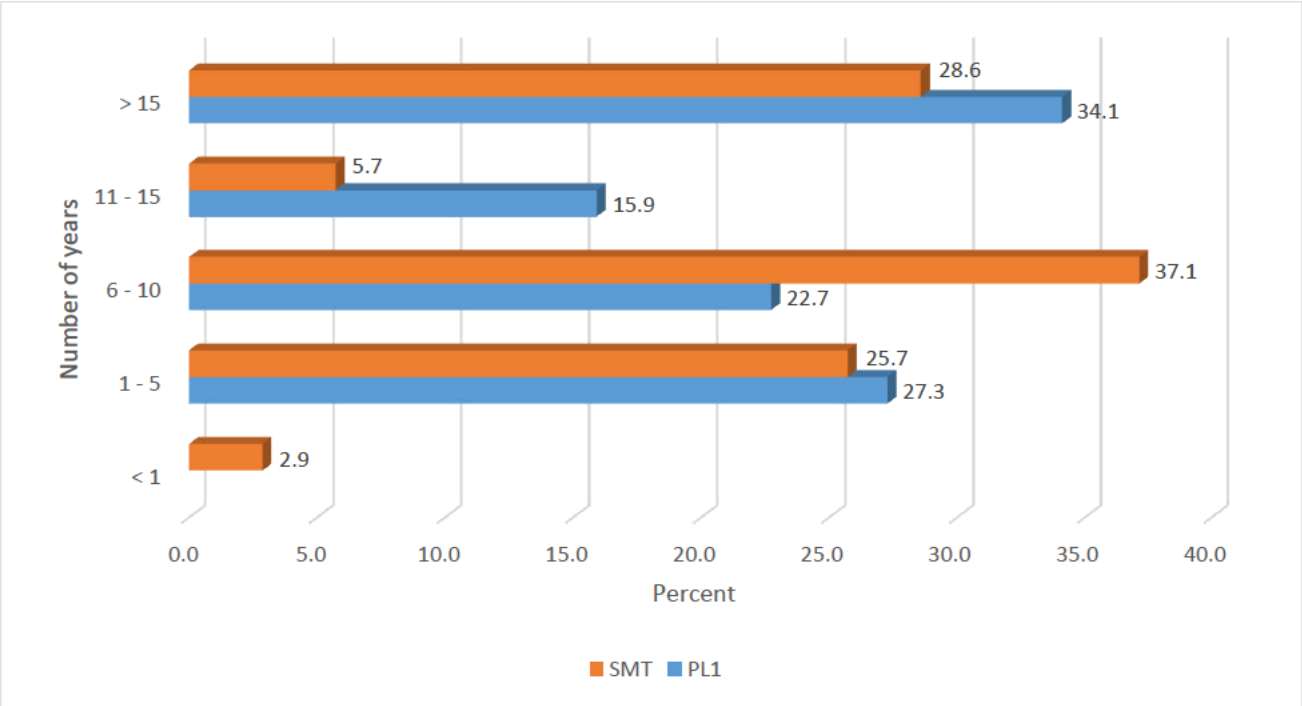

Figure 4.3 Demographic data of the participants

The data depicted in Figure 4.3 indicates that a majority of PL1 participants (34.1%) possess more than 15 years of experience, whereas the majority of SMT (37.1%) have an experience range of 6 to 10 years. More than 50% of the participants possess a professional experience of six or more years. This indicates that the sample comprises individuals with significant expertise in their respective positions. All PL1 respondents possess a minimum of one year of experience, whereas 2.9% of SMTs have less than one year of experience.

The statistical analysis indicates no statistically significant variation in the patterns by position for "the number of years" ($p = 0.317$). It can be observed that there exists a comparable quantity of PL1 and SMT within every yearly classification.

The statistical analysis of PL1 data reveals a notable disparity in the number of participants with over five years of experience ($p = 0.005$).

A statistically significant correlation between the variables is suggested by the similar trend observed in the SMT component ($p = 0.003$). As mentioned earlier, the statement implies a persistent fundamental element that impacts the factors associated with managing educational institutions.

Furthermore, it is noteworthy that the considerable proportion of participants possessing over five years of professional experience can be ascribed to the department's capacity to assimilate

a specific number of fresh recruits and disengage a certain number of personnel due to voluntary departures and retirement on an annual basis. The abovementioned pattern implies that the department employs a systematic methodology for overseeing its workforce, guaranteeing equilibrium between newly hired and seasoned personnel.

The department's diverse experience levels are attributed to a consistent influx of new entrants and opportunities for staff turnover resulting from resignations and retirements. The presence of diversity within a school community can offer a multitude of perspectives and areas of expertise, thereby enhancing the overall efficacy of school management practices.

The study acknowledges the department's proficiency in effectively managing the workforce. It also recognises the potential influence of experience levels on school management and emphasises the significance of incorporating this factor in the analysis and interpretation of the findings. The contextualization of findings and insights into the dynamics of school management can be facilitated by comprehending the distribution of experience within the department.

4.6 Data Analysis

Analysing respondents' scoring patterns per variable per section provides valuable insights into their perceptions and attitudes. This section utilizes summarised percentages to present the results for each section's variables. Furthermore, the analysis delves into the importance of the statements to gain a deeper understanding of the findings.

For each section, the summarised percentages reveal the distribution of responses across different variables. These percentages provide a concise overview of the participants' collective opinions on each variable within the section. By presenting the results in this manner, it becomes easier to identify any dominant trends or patterns that emerge from the data.

To enhance the analysis, the importance of the statements is also considered. This assessment allows for a more nuanced interpretation of the results by determining which statements hold more weight or significance in shaping the respondents' perceptions. By prioritizing the importance of statements, it becomes possible to identify key areas of concern or potential strengths within the research topic.

Overall, this approach of presenting summarised percentages and analysing the importance of statements allows for a comprehensive examination of the respondents' scoring patterns. It enables researchers and stakeholders to gain insights into the prevailing attitudes and perceptions within the surveyed population. These findings can inform decision-making, policy development, and future research endeavours related to the topic.

4.6.1 Teacher-based development activities

This section deals with the different school-based teacher development activities teachers engage in. These activities are: subject meetings, team planning, workshops on content, lesson observation, one-on-one feedback, team marking, mentoring and a Professional learning community. Respondents are expected to choose between strongly disagree or disagree if the activity is not conducted, neither agree nor disagree if unsure, and agree and strongly agree if the activity is conducted effectively.

These are observed patterns separately within each of the PL1 and SMT cohorts:

All statements show (significantly) higher levels of agreement. In comparison, other levels of agreement are lower (but still greater than levels of disagreement), except for B6f (Team Marking) for SMT, which shows no significant difference in the level of scoring within SMT ($p = 0.086$). However, when compared to PL1, there are very significant disparities.

Analysing the scoring patterns for each activity provides valuable insights into the perceptions and practices related to school-based development.

Subject meetings: Both PL1 and SMT cohorts largely agree that subject meetings are conducted in their schools. Most respondents agree or strongly agree with this activity, indicating its regular implementation. The low percentage of disagreement suggests that subject meetings are well-established and widely accepted. Team planning: There is a notable difference in the scores between PL1 and SMT cohorts. Among PL1 respondents, a significant majority agree and strongly agree with team planning, indicating that it is perceived as a regular and valuable activity. However, among SMT respondents, a considerable proportion neither agree nor disagree, suggesting a lack of confidence or conscious initiation and encouragement of teamwork within departments. The low percentage of strong agreement indicates that the effectiveness and impact of team planning are not widely recognised.

Workshop on content: Both cohorts agree that content workshops are conducted in their schools. However, there is a difference in the agreement distribution and strong agreement scores between PL1 and SMT. PL1 respondents show higher levels of strong agreement, indicating a stronger belief in the effectiveness and impact of these workshops. On the other hand, SMT respondents demonstrate lower levels of strong agreement, suggesting a more sceptical perception of the workshops' effectiveness.

Lesson observation: Both cohorts generally agree that classroom observation occurs in their schools. However, there is a difference in the agreement distribution and strong agreement scores between PL1 and SMT. PL1 respondents show more balanced scores between agreement and strong agreement, indicating a relatively firmer belief in the effectiveness and impact of lesson observation. In contrast, SMT respondents have a higher percentage of agreement but a lower percentage of strong agreement, suggesting a lower confidence level in the activity's effectiveness.

One-on-one feedback: There is a notable difference in the scores between PL1 and SMT cohorts. PL1 respondents overwhelmingly agree and strongly agree with receiving one-on-one feedback, indicating a positive perception of this practice. However, among SMT respondents, a significant proportion neither agree nor disagree, suggesting a level of uncertainty or lack of consistent implementation. The low percentage of strong agreement indicates a lower perception of the effectiveness and impact of one-on-one feedback among SMT.

Team marking: Both cohorts demonstrate uncertainty and disagreement regarding team marking. A significant percentage of respondents neither agree nor disagree; for SMT, there is substantial disagreement with the activity. This suggests that team marking is not consistently implemented or valued among the respondents, particularly among SMT. The lack of agreement and disagreement implies a need for further exploration of the factors influencing the practice of team marking.

Mentoring: Both PL1 and SMT cohorts generally agree on the presence of mentoring in their schools. The scores indicate that mentoring is a relatively well-established practice, although there is a higher percentage of agreement than strong agreement. This suggests that while mentoring is implemented, its effectiveness and impact may vary among the respondents.

Professional Learning Community (PLC): There is a significant disparity between PL1 and SMT scores for PLC. PL1 respondents demonstrate higher levels of agreement, indicating a positive perception and participation in PLC. However, among SMT respondents, there is a

higher percentage of uncertainty, or neither agree nor disagree responses, suggesting unfamiliarity or lack of active involvement in PLC. The significant difference in scores highlights the need for further investigation into the effectiveness and impact of PLC in schools.

The chi-square tests revealed significant differences in the scoring patterns for some statements. The four statements with significant differences include Team Planning, One-on-one feedback, Team marking, and Participation in PLC. These findings suggest variations in perceptions and practices related to these activities between the PL1 and SMT cohorts. Further examination and analysis of these differences could provide insights into the factors influencing the implementation and effectiveness of these activities within the school context.

Overall, analysing the scoring patterns provides valuable information on the perceptions and practices of school-based development activities. These findings can be linked to your dissertation by highlighting the similarities and differences in the scoring patterns, identifying areas of potential improvement or further investigation, and discussing the implications for enhancing teacher professional development and school improvement strategies.

For subject meetings, both the PL1 and SMT cohorts agree that these meetings are conducted. Most respondents agree, with 50% agreeing and a significant proportion strongly agreeing at an average of 36%. The percentage of respondents who disagree is minimal and insignificant compared to the majority who agree.

Regarding lesson observation, both cohorts also generally agree that lesson observation occurs. However, there is a difference in the level of agreement between the cohorts. For PL1, 48.8% agree, and 34.9% strongly agree, while for SMT, 67% agree and 17% strongly agree. Although there is a difference in the distribution of scores between the cohorts, there are no significant disagreements regarding the occurrence of lesson observation.

Regarding the workshop on content, both cohorts agree that they organise and attend such workshops at school. However, there is a difference in the agreement distribution and strong agreement between PL1 and SMT. For PL1, 38.1% agree, 52.4% strongly agree, 53.1% agree, and 25% strongly agree with SMT. Despite this difference, there are no significant disagreements regarding conducting workshops on content.

Lastly, in the case of mentoring, both cohorts agree that they engage in mentoring activities, and there are no significant differences between the scores. The trend observed in both cohorts

is that more respondents agree, with 61.4% of PL1 and 55.9% of SMT agreeing. The proportion of respondents strongly agreeing is lower in both cohorts.

These findings provide insights into the agreement levels and patterns of agreement between the PL1 and SMT cohorts regarding various activities in the school setting. The absence of significant differences suggests a consensus among the respondents in both cohorts regarding the occurrence of these activities.

Table 4.9 Summary of Patterns on teacher-based development activities

		Position																					
		PL1											SMT										
		Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit	Chi-Square Test of
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
Subject meetings	B6a	0	0.0%	1	2.3%	4	9.1%	22	50.0%	17	38.6%	< 0.001	0	0.0%	0	0.0%	5	14.7%	17	50.0%	12	35.3%	0.041	0.891
Team Planning	B6b	0	0.0%	3	6.8%	4	9.1%	18	40.9%	19	43.2%	< 0.001	0	0.0%	0	0.0%	8	24.2%	20	60.6%	5	15.2%	0.003	0.007

Workshop on content	B6c	0	0.0%	1	2.4%	3	7.1%	16	38.1%	22	52.4%	<0.001	0	0.0%	2	6.3%	5	15.6%	17	53.1%	8	25.0%	0.001	0.081
Lesson observation	B6d	0	0.0%	1	2.3%	6	14.0%	21	48.8%	15	34.9%	<0.001	0	0.0%	2	5.9%	3	8.8%	23	67.6%	6	17.6%	<0.001	0.233
One-on-one feedback	B6e	0	0.0%	3	6.8%	3	6.8%	18	40.9%	20	45.5%	<0.001	1	2.9%	1	2.9%	10	29.4%	18	52.9%	4	11.8%	<0.001	0.001
Team Marking	B6f	2	4.7%	2	4.7%	10	23.3%	18	41.9%	11	25.6%	<0.001	7	20.6%	6	17.6%	10	29.4%	10	29.4%	1	2.9%	0.089	0.005
Mentoring	B6g	1	2.3%	0	0.0%	1	2.3%	27	61.4%	15	34.1%	<0.001	1	2.9%	1	2.9%	5	14.7%	19	55.9%	8	23.5%	<0.001	0.146

Professional learning community	B6h	0	0.0%	2	4.7%	6	14.0%	27	62.8%	8	18.6%	<0.001	4	12.5%	5	15.6%	8	25.0%	15	46.9%	0	0.0%	0.026	0.002

Table 4.9 presents teachers' (PL1) and school management teams (SMT) perceptions of various teacher development activities. The table includes each response category's counts, row percentages, and chi-square values.

The following codes represent the teacher development activities:

- Subject meetings (B6a)
- Team Planning (B6b)
- Workshop on content (B6c)
- Lesson observation (B6d)
- One-on-one feedback (B6e)
- Team Marking (B6f)
- Mentoring (B6g)
- Professional learning community (B6h)

Table 4.9 provides respondents' counts and row percentages for each activity in each response category: Strongly Disagree, Disagree, Neither Agree nor Disagree, Agree, and Strongly Agree. The chi-square goodness of fit p-values indicates the statistical significance of the distribution of responses across the categories.

Additionally, table 4.9 presents the chi-square test of independence p-value, which assesses the independence between teachers' perceptions and school management teams on teacher development activities.

The findings in Table 4.9 provide insights into teachers' and school management teams' perceptions and agreement levels regarding different teacher development activities. The chi-square values and p-values help assess the significance of the differences in perceptions between the two groups.

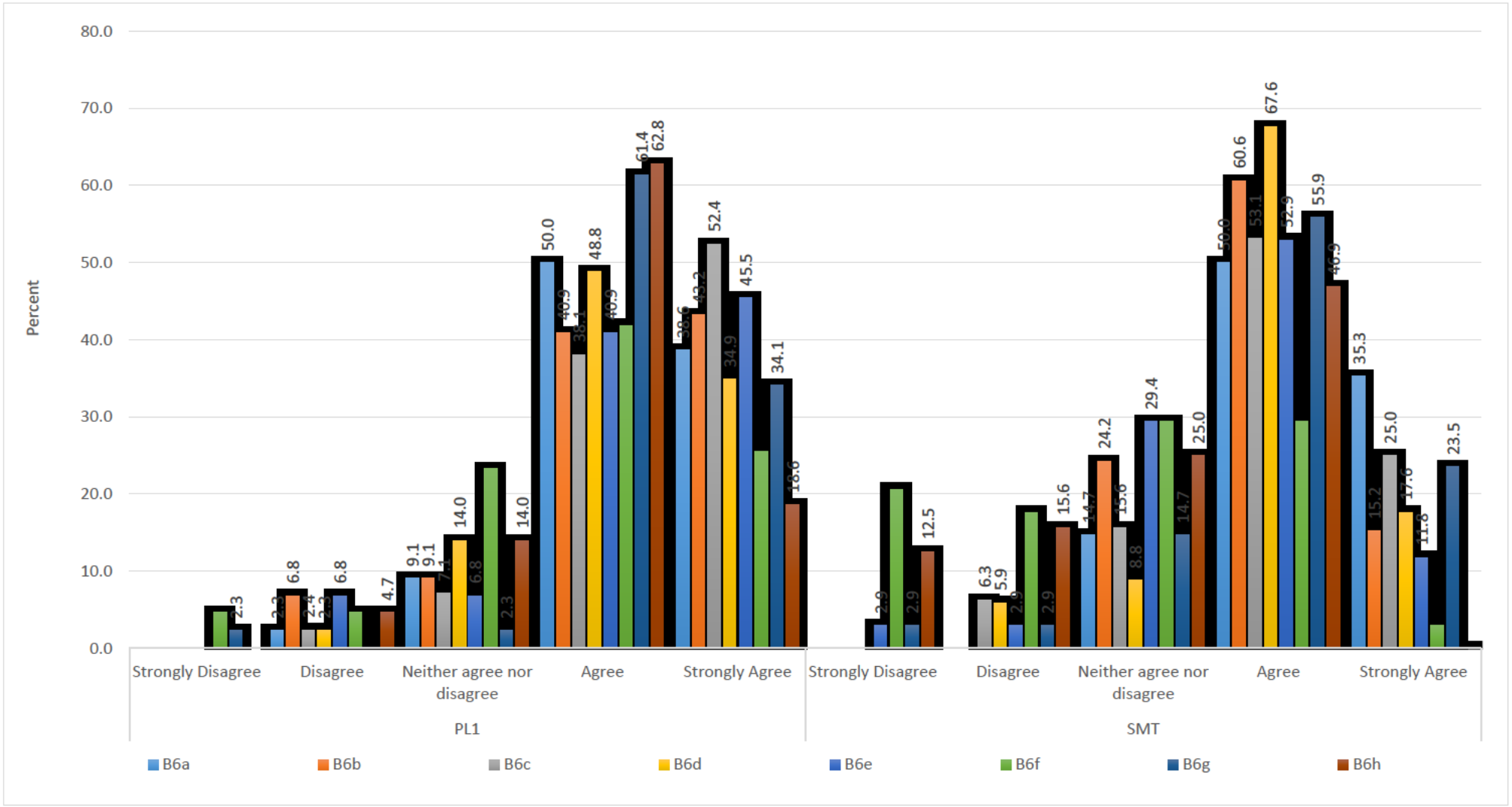

Figure 4.4 The chi-square values and p-values

4.7 Relevance and Impact

This section evaluates the relevance of school-based teacher development programs and their impact on teaching and learning. The analysis explores how teachers rate the relevance of these programs and their perceived impact on classroom instruction and learner performance.

Teachers agree that school-based development programs are relevant and can positively impact classroom instruction and learner performance. Most respondents agreed, while the count of those who disagreed is insignificant and does not hold much weight in influencing the decision.

However, there is a noticeable disparity between the PL1 and SMT cohorts concerning extended time and convenience (question B14). The SMT cohort has a combined response of strongly disagree and disagree, accounting for 24.1% of the scores, while 30.3% neither agree nor disagree. In contrast, the PL1 cohort scored much higher, with 70% indicating agreement.

This score difference suggests that the cohorts interpreted the question regarding extended time and convenience differently. It also highlights a lack of uniformity in how SMTs allocate time for these activities. In some schools, there may be conscious planning and management of time, while in others, there appears to be a lack of planning and management.

These findings shed light on the perceived relevance of school-based teacher development programs and their impact on teaching and learning. While teachers generally agree on their relevance and impact, the difference in scores regarding extended time and convenience emphasises the need for further investigation and potential improvements in allocating and managing time for these activities, particularly among SMTs.

Table 4.10 below summarises the scoring patterns.

Table 4.10 Scoring Patterns on Relevance and Impact

		Position																					
		PL1										SMT											
		Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value	Chi-Square Test of
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
Continued Professional teacher development is vital for our school, and there is evidence that learner performance is improved.	B7	0	0.0%	0	0.0%	6	13.6%	26	59.1%	12	27.3%	0.001	0	0.0%	3	9.1%	4	12.1%	24	72.7%	2	6.1%	^0.001	0.144

"I understand the importance of continuing professional development and participating willingly."	B11	1	2.4%	0	0.0%	3	7.1%	24	57.1%	14	33.3%	≤0.001	0	0.0%	1	3.0%	1	3.0%	18	54.5%	13	39.4%	≤0.001	0.684
Teacher development activities at school are relevant, and they address the identified needs	B12	0	0.0%	1	2.4%	6	14.3%	25	59.5%	10	23.8%	≤0.001	0	0.0%	2	6.5%	2	6.5%	18	58.1%	9	29.0%	≤0.001	0.678
"The extended time and the convenience of interacting with colleagues on content delivery strategies and techniques at the school level have improved my teaching skill."	B14	0	0.0%	0	0.0%	4	9.1%	31	70.5%	9	20.5%	≤0.001	2	6.1%	6	18.2%	10	30.3%	12	36.4%	3	9.1%	0.022	0.000

4.8 Resources to support school-based teacher development

Resources refer to financial, human, and time that support teacher development.

This section is about the allocated resources to support school-based teacher development. It seeks to determine whether the school management plans for financial resources and allocates time for teacher development within the school budget and timetable to benefit from the development programs.

There is a general agreement in scores between PL1 and SMT. However, a significant percentage of SMTs (25%) neither agree nor disagree on the time allocated to teacher development, while on budget allocation, there is no significant difference for both cohorts. The statement on time allocation did not compare to the hours spent on each program (section c). The uncertainty by SMTs on this question reveals that there is no uniform standard for schools which regulates schools to dedicate time for teacher development within the school. It becomes the creativity and competence of school leadership to plan and implement as suggested by the literature on "schools that work." The inability to allocate resources, plan and implement the development programs adversely affects learner performance when teachers have inadequate development and support.

Table 4.11 Summary of scoring patterns on resources to support school-based teacher development

		Position																					
		PL1										SMT											
		Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value	Chi-Square Test of
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
Time is allocated to departments within the school for teacher development	B9	1	2.4%	1	2.4%	3	7.3%	25	61.0%	11	26.8%	<0.001	0	0.0%	1	3.1%	8	25.0%	19	59.4%	4	12.5%	<0.001	0.370

There is an allocated budget for teacher development which focuses on providing teacher development opportunities like sending teachers to workshops and seminars and buying resources that are needed to support curriculum delivery	B10	0	0.00%	3	7.1%	5	11.9%	18	42.9%	16	38.1%	0.001	4	12.1%	2	6.1%	4	12.1%	14	42.4%	9	27.3%	0.006	0.208

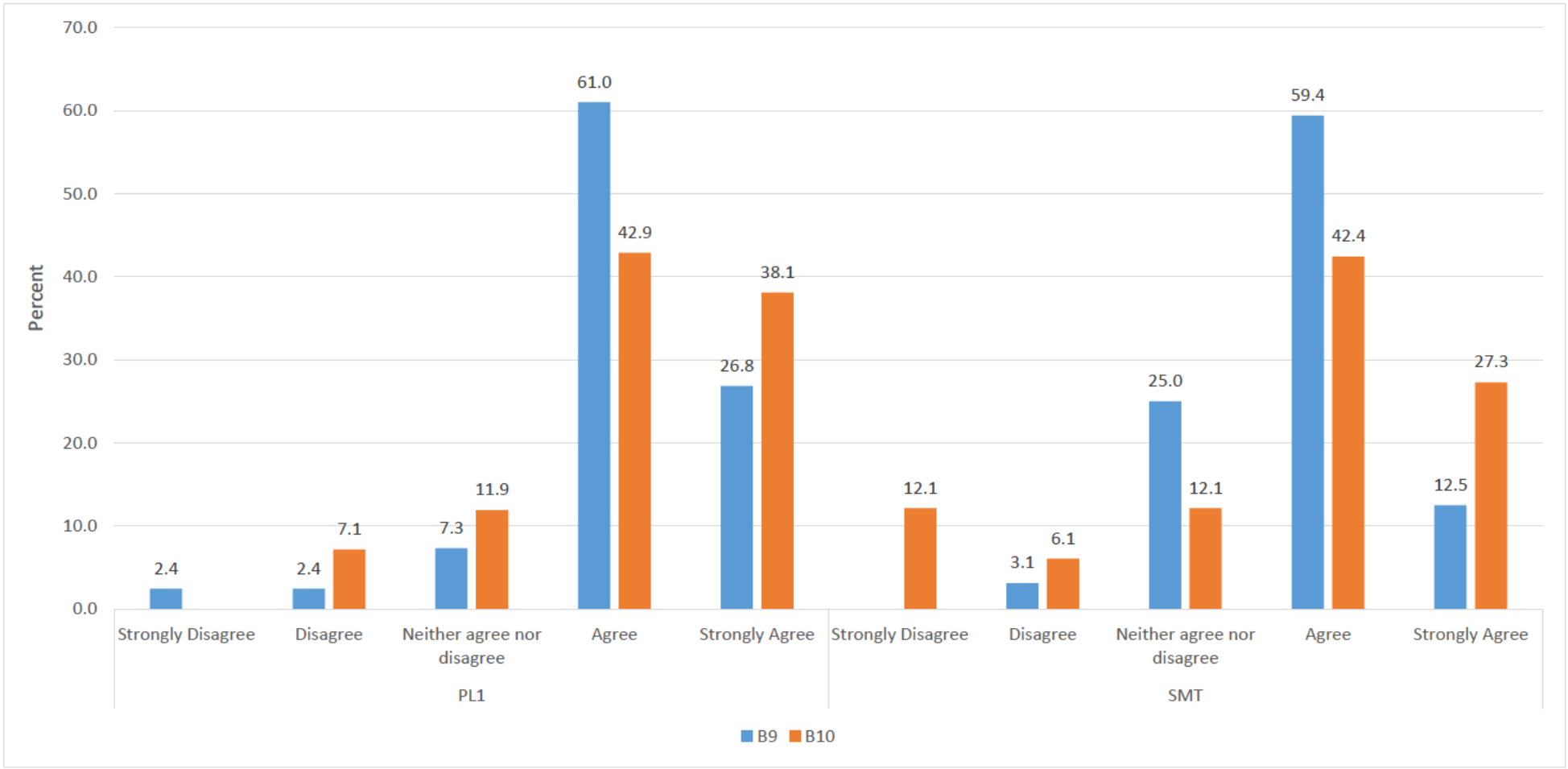

Figure 4.5 Resources to Support School-based teacher development

4.9 Teacher Roles and Responsibilities

This section emphasises teachers' active engagement in the development process, highlighting their pivotal roles rather than being passive recipients. Educators must adopt a proactive stance by participating in self-evaluation and introspection exercises, which can provide valuable insights for enhancing their subject-enhancement strategies.

The PL1 and SMT groups concur that the Individual Quality Management System (IQMS) allows them to recognise their developmental requirements. This system enables educators to engage in reflective practice and design professional development initiatives based on their observations and insights.

However, there is a notable contrast in responses between the PL1 and SMT cohorts regarding reporting self-initiated Type 1 activity to the South African Council for Educators (SACE). Type 1 activities refer to activities teachers initiate for their professional development. Among the SMT cohort, only 37.5% agreed that they reported these self-initiated activities to SACE, while 40.6% neither agreed nor disagreed. In contrast, among the PL1 cohort, 57.1% agreed, and 11.9% strongly agreed that they reported these activities to SACE.

One possible explanation for this difference is the technological proficiency of teachers. The biographical data indicates that teachers with less than ten years of teaching experience often possess information technology (IT) skills. This makes it easier for them to report their self-initiated activities to SACE online using smartphones and other electronic devices. In contrast, teachers with more than ten years of experience may have varying levels of comfort or familiarity with technology, which could contribute to the lower reporting rates among the SMT cohort.

It is important to note that reporting self-initiated activities to SACE is an individual responsibility. The contrasting responses indicate that there may be a need for additional support or awareness campaigns to ensure that all teachers, regardless of their experience level, understand the importance of reporting their self-initiated professional development activities to the relevant authorities.

This section highlights the importance of teachers actively participating in their development through self-assessment, reflection, and identifying their development needs. It also points out the discrepancy in reporting self-initiated activities to SACE between the PL1 and SMT cohorts, which may be influenced by technological proficiency and varying levels of experience among teachers.

Table 4.12 below summarises the scoring patterns.

Table 4.12 Teacher Roles and Responsibilities

		Position																					
		PL1											SMT										
		Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value	Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value	Chi-Square Test of Independence P-
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %		
"I am allowed to identify my development needs through IQMS and learner performance results analysis, and these needs are considered when developing the school improvement plan."	B8	0	0.0%	1	2.3%	4	9.3%	27	62.8%	11	25.6%	< 0.001	0	0.0%	1	3.1%	2	6.3%	18	56.3%	11	34.4%	< 0.001	0.886

"I regularly report my self-initiated (type 1) development activities to SACE."	B13	1	2.4%	4	9.5%	8	19.0%	24	57.1%	5	11.9%	<0.001	5	15.6%	2	6.3%	13	40.6%	12	37.5%	0	0.0%	0.013	0.038

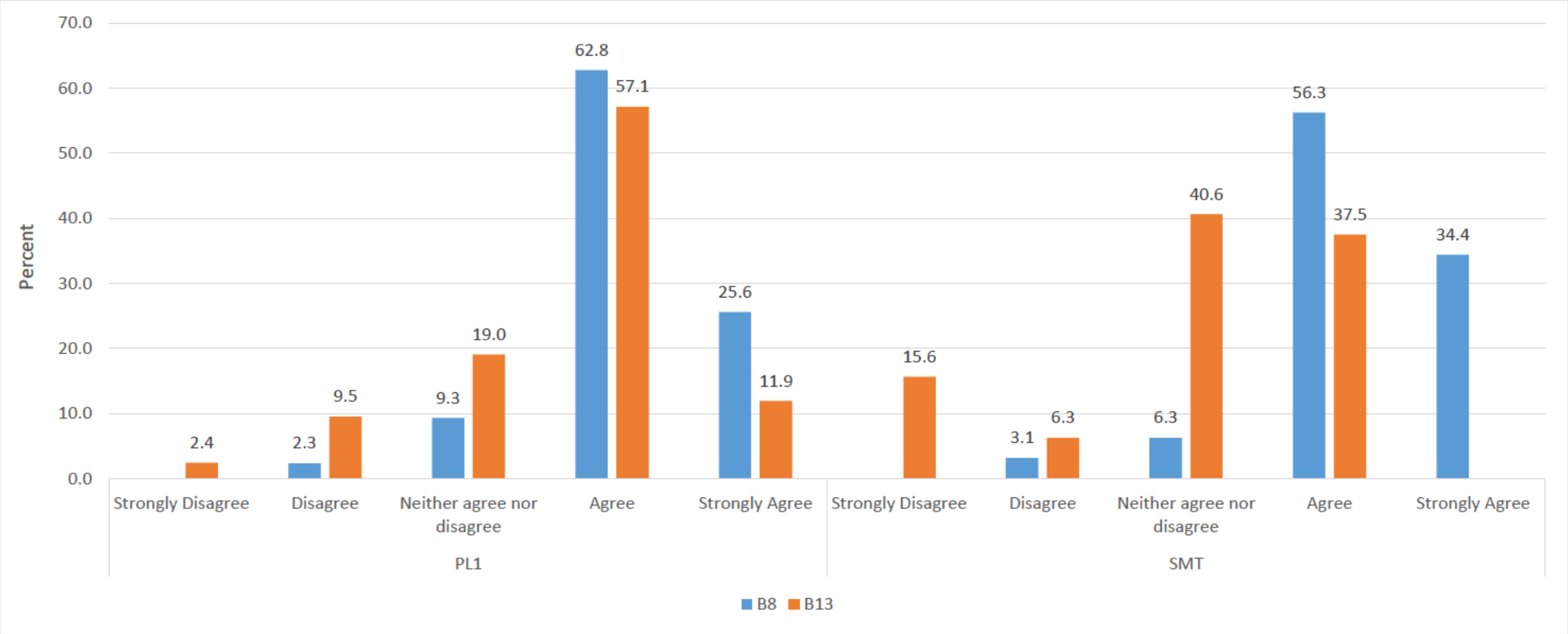

Figure 4.6 Teacher's Roles and Responsibility

4.10 Teacher Motivation for Development

This section deals with PL1 teachers' motivation for the development and establishes whether they benefit from participating. The scoring pattern was similar in all the questions, with minimal and insignificant differences. Teachers agreed (62,8%) and strongly agreed (32.6%) with the fact that their participation in Teacher Development at school has made a positive impact on their teaching as they used the strategies and techniques (agreed 61,4% and strongly agreed 36.4) to improve their teaching. They also scored high on the question that they participate in development to get a promotion (agree 48.8% and strongly agree 32.6%) and are lifelong learners (agree 44.2% and strongly agree 55.8%) who must be abreast of developments. A few neither agree nor disagree (16.3%) with developing promotional posts. This question has no significant differences, and the results remain as they are.

Table 4.13 below summarises the scoring patterns.

Table 4.13 Scoring Patterns on the Motivation of Teachers for Development

		Position										
		PL1										
		Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
"I use the strategies and techniques I have learned to improve my classroom practice."	B15	0	0.0%	0	0.0%	1	2.3%	27	61.4%	16	36.4%	< 0.001
"My participation in professional teacher development has had a positive impact on the improvement of my student's academic performance."	B16	0	0.0%	0	0.0%	2	4.7%	27	62.8%	14	32.6%	< 0.001

"The main reason I participate in professional teacher development is to improve my qualification to qualify for the promotion and other incentives."	B17	0	0.0%	1	2.3%	7	16.3%	21	48.8%	14	32.6%	< 0.001
"I regard myself as a lifelong learner, and I must always be abreast of new developments in my profession to remain relevant."	B18	0	0.0%	0	0.0%	0	0.0%	19	44.2%	24	55.8%	< 0.001

Table 4.13 presents teachers' (PL1) perceptions regarding professional teacher development. Most teachers strongly agree or agree with the statements about their engagement in professional development and its impact on their classroom practice and students' academic performance.

Specifically, for the statement, "I use the strategies and techniques I have learned to improve my classroom practice" (B15), a significant proportion of teachers agree or strongly agree, indicating their active utilisation of learned strategies and techniques to enhance their teaching approaches.

Similarly, most teachers agree or strongly agree with the statement, "My participation in professional teacher development has had a positive impact on the improvement of my student's academic performance" (B16), emphasising the perceived positive influence of professional development on students' learning outcomes.

Regarding the motivation for participating in professional development, the statement "The main reason I participate in professional teacher development is to improve my qualification to qualify for the promotion and other incentives" (B17) received mixed responses. While a significant proportion of teachers agree or strongly agree, indicating a career advancement-oriented perspective, some respondents disagree or strongly disagree, possibly prioritising other aspects of professional growth.

Lastly, the statement "I regard myself as a lifelong learner, and I must always be abreast of new developments in my profession to remain relevant" (B18) received high agreement from teachers, with the majority expressing a commitment to continuous learning and staying updated in their field.

The chi-square goodness of fit test p-values suggests that the observed response distribution significantly deviates from the expected distribution, indicating that teachers' perceptions of professional teacher development vary significantly across the statements.

Overall, the table reflects the importance placed by teachers on professional development and its positive impact on their teaching practice and students' academic performance. It also highlights the diverse motivations and the strong belief in lifelong learning among teachers, emphasising the need for ongoing support and opportunities for professional growth in the education system.

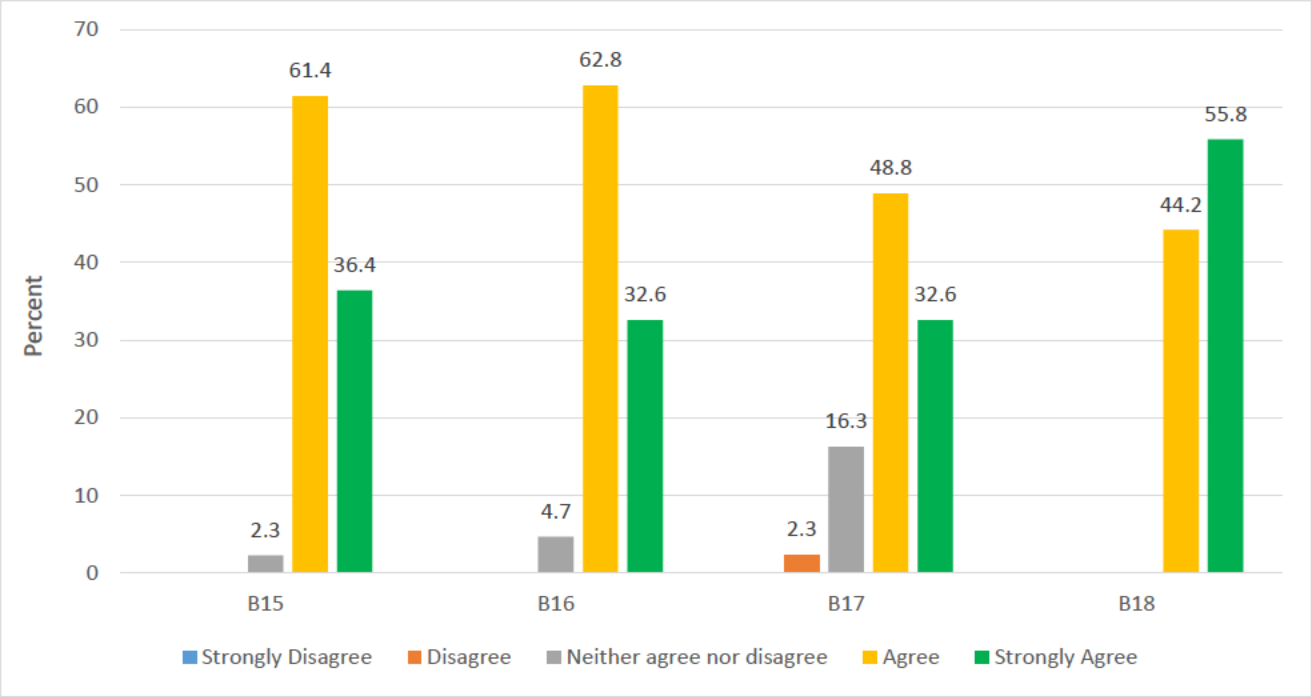

Figure 4.7 teacher motivation for the Development

4.11 Motivation for Participation in continuing professional development

This section is centred on Subject Matter Experts' (SMTs) motivations to engage in development initiatives to enhance their respective departments and personal growth.

The data reveals that a significant proportion of SMTs exhibit agreement, with 55.9% indicating agreement and 29.4% indicating strong agreement. The findings indicate a consistent trend in utilising acquired strategies and methodologies (69.7% agree and 21.2% strongly agree) to enhance pedagogical approaches, resulting in favourable outcomes regarding students' academic achievements (72.7% agree and 15.2% strongly agree). Nonetheless, a noteworthy distinction exists in the reactions towards the notion that SMTs engage in professional development activities to enhance their qualifications for career advancement, with 26.5% neither agreeing nor disagreeing and 47.1% expressing agreement. While most individuals hold an affirmative stance, there is a real presence of uncertainty among some. It is posited that SMT may prefer utilising the term "uncertain" due to a potential disagreement with the statement. This is based on the premise

that it would be implausible for SMT to lack knowledge regarding the rationale for development, particularly in light of the availability of various options.

Table 4.14 below summarises the scoring patterns.

Table 4.14 Scoring Patterns on the Motivation of Teachers

		Position										
		SMT										
		Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
"I make efforts to continuously up-skill myself in subject knowledge to be an effective resource person to my department."	B20	1	2.9%	0	0.0%	4	11.8 %	19	55.9 %	10	29.4 %	< 0.001
"I use the strategies and techniques I have learned to improve my classroom practice.:	B26	0	0.0%	0	0.0%	3	9.1%	23	69.7 %	7	21.2 %	< 0.001
"My participation in professional teacher development has had a positive	B27	0	0.0%	0	0.0%	4	12.1 %	24	72.7 %	5	15.2 %	< 0.001

impact on the improvement of my student's academic performance."												
"The main reason I participate in professional teacher development is to improve my qualification to qualify for the promotion and other incentives."	B28	1	2.9%	4	11.8 %	9	26.5 %	16	47.1 %	4	11.8 %	< 0.001

Table 4.14 presents the perceptions of subject management team (SMT) members regarding professional teacher development.

In general, the SMT members show a positive attitude towards professional development and its impact on their role as effective resource persons and improving students' academic performance.

For the statement, "I make efforts to continuously up-skill myself in subject knowledge to be an effective resource person to my department" (B20), a significant proportion of SMT members agree or strongly agree. This indicates their commitment to ongoing learning and enhancing their subject expertise to support their department better.

Similarly, most SMT members agree or strongly agree with the statement, "I use the strategies and techniques I have learned to improve my classroom practice" (B26). This reflects their active implementation of learned strategies and techniques to enhance their teaching practices.

Regarding the impact of professional teacher development on students' academic performance, the statement "My participation in professional teacher development has had a positive impact on the improvement of my student's academic performance" (B27) received high agreement. This suggests that SMT members perceive professional development as beneficial for their growth and their student's academic success.

When considering the motivations for participating in professional development, the statement "The main reason I participate in professional teacher development is to improve my qualification to qualify for the promotion and other incentives" (B28) received mixed responses. While a significant proportion of SMT members agree or strongly agree, indicating a career advancement-oriented perspective, some respondents disagree or strongly disagree, possibly valuing other aspects of professional growth beyond incentives.

The chi-square goodness of fit test p-values indicates a significant deviation between the observed response distribution and the expected distribution, suggesting notable variation in the perceptions of SMT members regarding professional teacher development.

Table 4.14 highlights the importance of SMT members continuously upskilling themselves and utilising learned strategies to improve their practice and support their department. It also indicates a strong belief in the positive impact of professional development on students' academic performance. However, there are varying motivations for participating in professional development, reflecting the diverse perspectives and priorities within the SMT members.

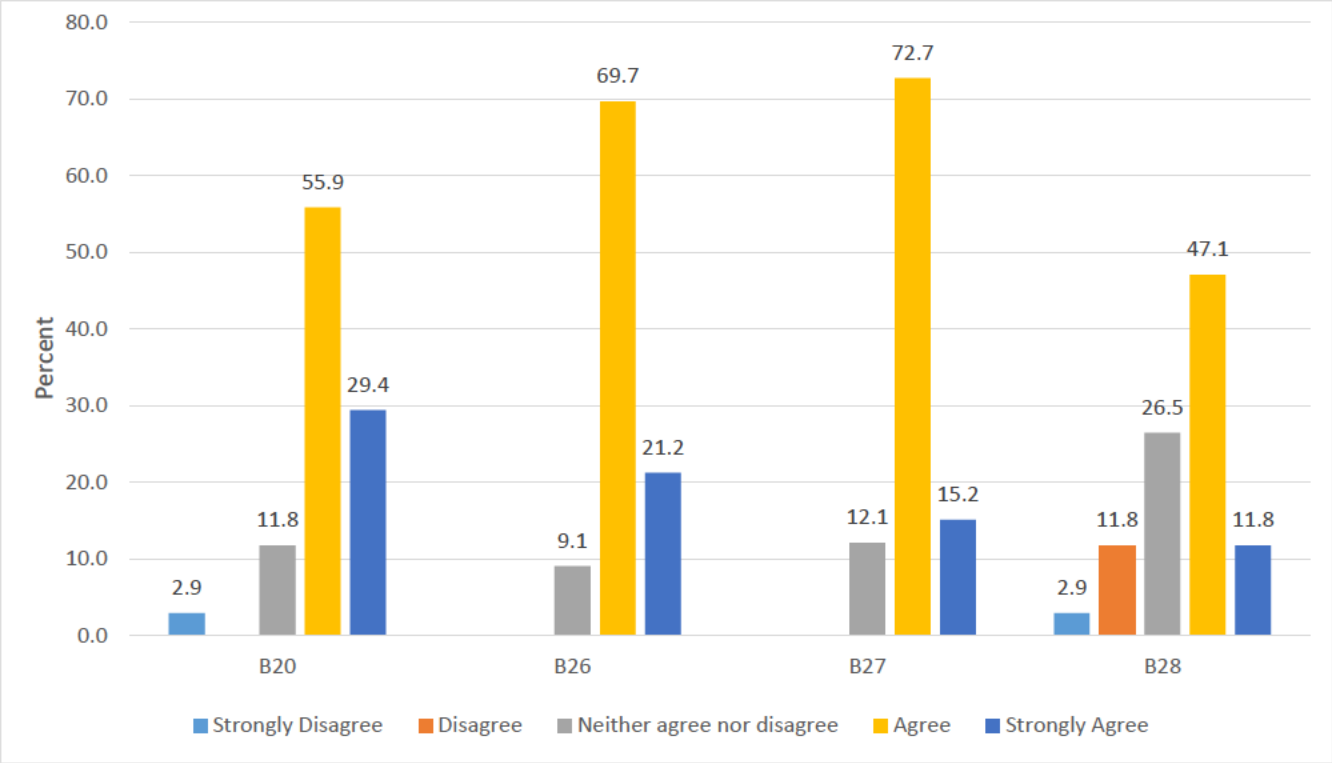

Figure 4.8 Motivation for Participation in continuous training

4.12 Development and support of teachers by the departmental head

This section deals with the roles of SMTs in supporting educators by developing them. Support for educators is a critical role that builds confidence in educators. This section seeks to determine how SMTs support their teachers, what activities they engage in, and to what extent of effectiveness and impact these activities are conducted.

SMTs agreed on three items B19 (reporting type 2 activities, 53% and strongly agree, 12,5%). Responses in B21 (holding periodic one-on-one feedback sessions, agree 57% and strongly agree 24.2%) and B23 (I encourage teamwork through team planning and Team marking, agree 42.4% and strongly agree 33.3%). However, it is notable that many respondents neither agree nor disagree with the statement (B19 -18.8%, and B23-24.2%) of the same items, respectively. In B24, 31.3% of respondents neither agree nor disagree, while 56.3% agree and only 9.4% strongly agree with using lesson study to develop teachers.

There is, however, a significant contrast between B19 and B13 in the previous question. In B13, SMTs responded that they neither agreed nor disagreed (40,6%) with reporting their development to SACE. In B19, their response is favourable to the fact that they report teacher development activities on behalf of teachers in their departments. It raises the question of how SMTs can report for their teachers but not report for themselves. The inconsistency is noticeable and is not giving a true reflection.

Table 4.15 below summarises the scoring patterns.

Table 4.15 Scoring Patterns on Development and Support of Teachers

		Position										
		SMT										
		Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value
		Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
"I report school-initiated teacher development programs (type 2) for my department to SACE."	B19	1	3.1%	3	9.4%	6	18.8%	18	56.3%	4	12.5%	< 0.001
"I hold periodic one-on-one review sessions to monitor and support teachers in my department."	B21	1	3.0%	1	3.0%	4	12.1%	19	57.6%	8	24.2%	< 0.001
"I encourage teamwork through team planning and Team marking	B23."	0	0.0%	0	0.0%	8	24.2%	14	42.4%	11	33.3%	< 0.001
"Lesson study is one of the strategies I use to develop teachers in my department."	B24	0	0.0%	1	3.1%	10	31.3%	18	56.3%	3	9.4%	< 0.001

Table 4.15 presents the perceptions of subject management team (SMT) members regarding specific aspects of their role in teacher development and support.

Table 4.15 shows that SMT members promote teacher development and support teachers in their departments.

For the statement, "I report school-initiated teacher development programs (type 2) for my department to SACE" (B19), a significant majority of SMT members agree or strongly agree. This indicates their active involvement in reporting and ensuring compliance with teacher development programs initiated by the school, as required by SACE (South African Council for Educators).

Regarding the statement, "I hold periodic one-on-one review sessions to monitor and support teachers in my department" (B21), a significant proportion of SMT members agree or strongly agree. This suggests their commitment to regularly engaging in one-on-one sessions with teachers to monitor their progress and provide support.

The statement "I encourage teamwork through team planning and Team marking" (B23) received high agreement from SMT members. This indicates their belief in the value of teamwork and collaborative practices such as team planning and team marking, which promote a collaborative and supportive environment within their department.

Regarding lesson study as a strategy to develop teachers, the statement "Lesson study is one of the strategies I use to develop teachers in my department" (B24) received a high level of agreement from SMT members. This suggests their recognition of lesson study as an effective approach for professional development and improving teaching practices within their department.

The chi-square goodness of fit test p-values indicates a significant deviation between the observed response distribution and the expected distribution, suggesting notable variation in the perceptions of SMT members regarding their role in teacher development and support.

Overall, the table highlights the proactive engagement of SMT members in reporting teacher development programs, conducting one-on-one review sessions, fostering teamwork, and utilising strategies such as lesson study for teacher development within their department. Their positive perceptions reflect their commitment to supporting teachers' growth and professional development under their supervision.

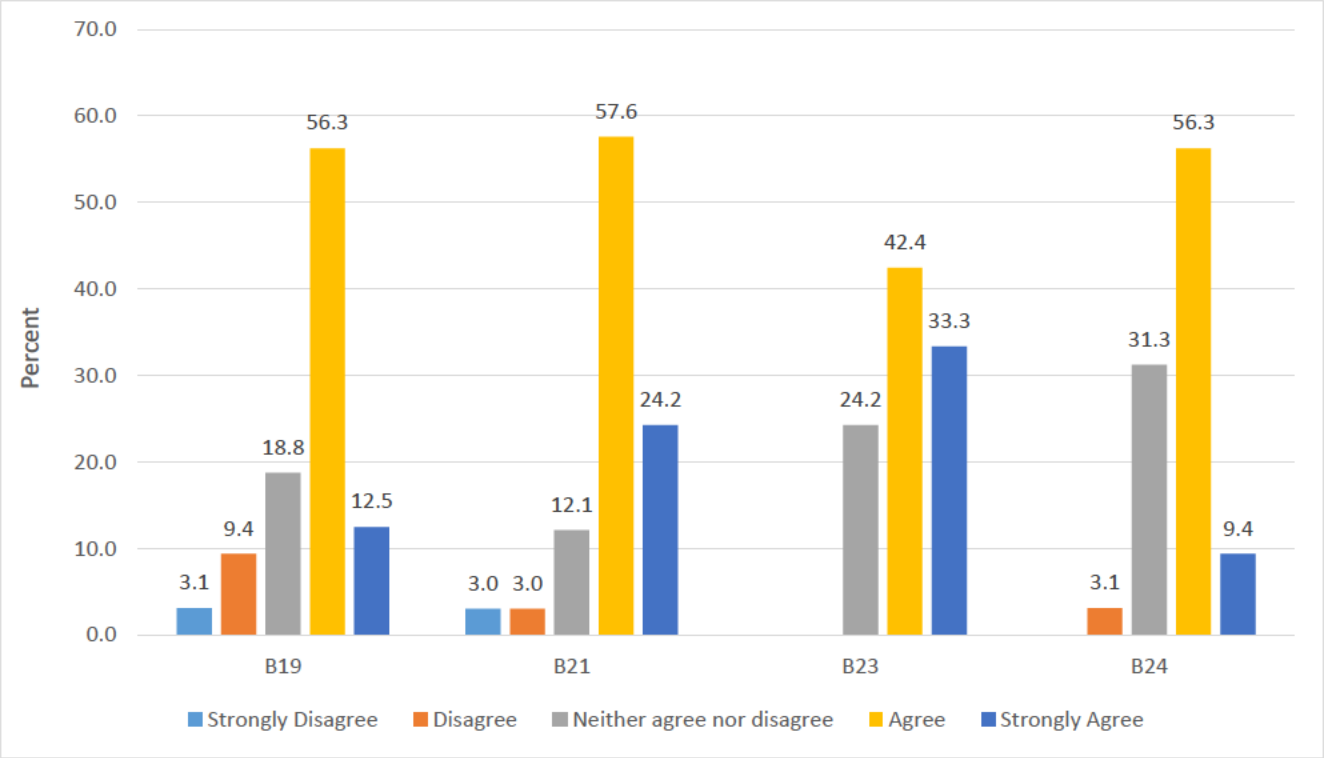

Figure 4.9 T-test on the development and support of teachers

4.13 Delegation and Motivation

This section deals with SMT delegation of duties and teachers' motivation under their leadership. The section seeks to test how school leaders can empower their subordinates by delegating leadership responsibilities and allowing teachers to be creative and innovative in their growth.

There is a significantly high level of agreement in this statement, 70.6% agreed, and 23,5% strongly agreed. This high agreement level may imply that SMTs use a delegation strategy because some teachers are subject specialists. At the same time, the departmental head may not necessarily be a specialist in all the clusters of subjects under their supervision. There are no significant disagreements that can influence an argument.

Table 4.16 below summarises the scoring patterns for B22: “I use the expertise of teachers in my department, and I encourage creativity and innovation."

Table 4.16 Scoring patterns on the level of expertise

Position										
SMT										
Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value
Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
0	0.0%	1	2.9%	1	2.9%	24	70.6%	8	23.5%	< 0.001

Table 4.16 shows the responses of Subject Management Team (SMT) members regarding their agreement or disagreement with a statement. Specifically, this table pertains to the distribution of responses for the given statement among SMT members.

For the statement in question, it appears that most SMT members (70.6%) agree or strongly agree with the statement. A smaller percentage of SMT members (23.5%) fall into the "Agree" category. A few SMT members neither agree nor disagree (2.9%) or disagree (2.9%) with the statement. No SMT members strongly disagree with the statement, as indicated by the count of 0 and the corresponding percentage of 0.0%.

The chi-square goodness of fit test p-value, indicated as "< 0.001", suggests a significant deviation between the observed response distribution and the expected distribution. This indicates notable variation in the perceptions and attitudes of SMT members regarding the statement in question.

Overall, the majority of SMT members agree with the statement, indicating a positive inclination towards the content of the statement.

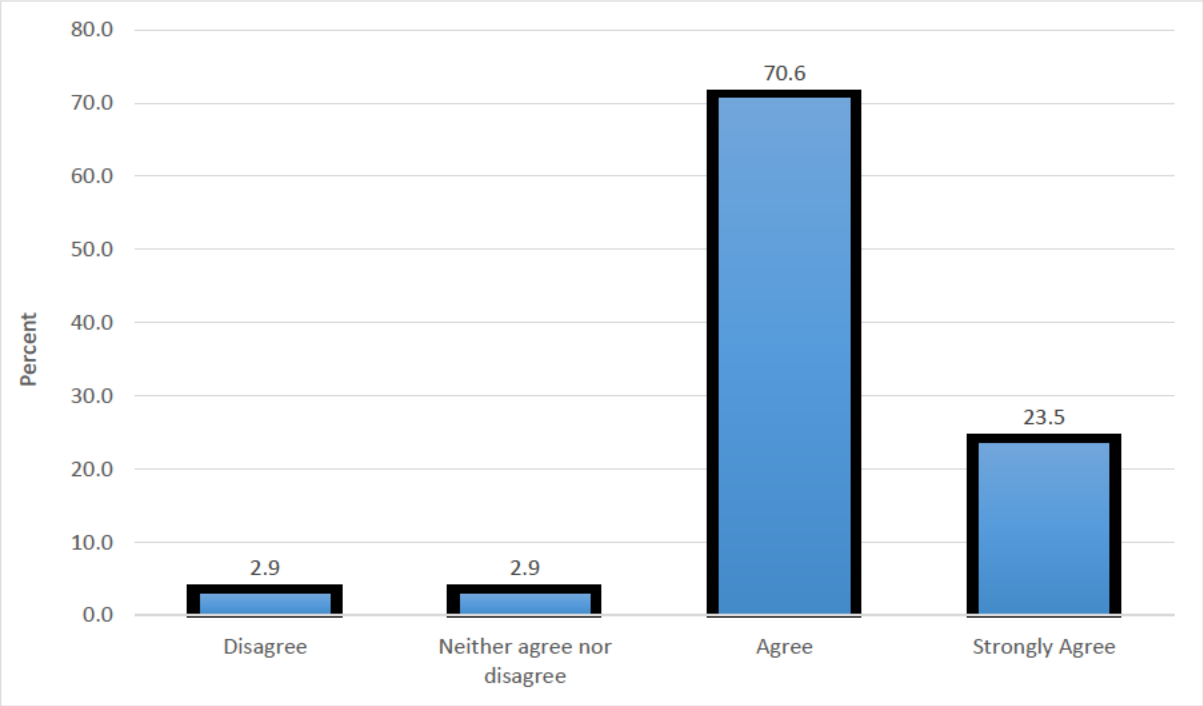

Figure 4.10 T.test results on delegation and motivation of teachers

There is a significantly higher level of agreement (94.1%) ($p < 0.001$).

4.14 Extended time for development and collaboration

This section seeks to discover how extended development time with colleagues in a school setting helps teachers improve teaching. The traditional way of teacher development is that teachers are taken out of the school for two to three hours afternoon to be trained on content once a quarter. The level of agreement among respondents is significantly high (agreed 70.4% and strongly agreed 23.5%). There are no significant differences in the scores for this statement. This statement agrees with the literature that supports school-based teacher development. According to literature, more time engaging in teacher development within the school context affords educators more time to adapt and correct their approaches because they can meet at any given time, even during breaks, to discuss and assist one another in addressing the needs within the school's context which makes it easy for teachers to address their issues.

Table 4.17 below summarises the scoring patterns for B21: “The extended time and the convenience of interacting with colleagues on content delivery strategies and techniques at the school level have improved my teaching."

Table 4.17 Level of agreement or disagreement on subject management

Position										
SMT										
Strongly Disagree		Disagree		Neither agree nor disagree		Agree		Strongly Agree		Chi-Square Goodness of Fit p-value
Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	Count	Row N %	
0	0.0%	0	0.0%	4	11.8%	26	76.5%	4	11.8%	< 0.001

Table 4.17 represents the responses of Subject Management Team (SMT) members regarding their agreement or disagreement with a statement. Specifically, this table displays the distribution of responses among SMT members for the given statement.

For the statement in question, it is evident that most SMT members (76.5%) agree or strongly agree with it. A smaller percentage of SMT members (11.8%) neither agree nor disagree with the statement. Additionally, no SMT members strongly disagree or disagree with the statement, as indicated by the count of 0 and the corresponding percentage of 0.0%.

The chi-square goodness of fit test p-value, represented as "< 0.001", indicates a significant deviation between the observed and expected response distribution. This implies a notable variation in the perceptions and attitudes of SMT members regarding the statement. Overall, the majority of SMT members agree with the statement, suggesting a positive inclination towards the content of the statement.

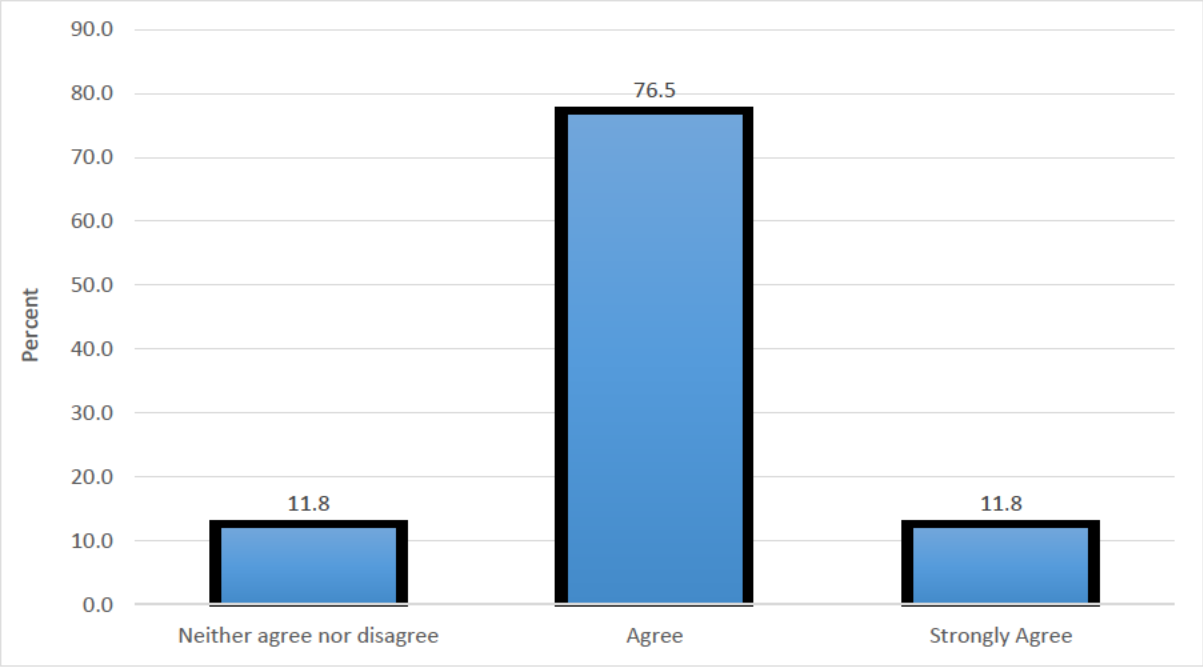

Figure 4.11 T-test results on development and collaboration

There is a significantly higher level of agreement (88.3%) ($p < 0.001$).

4.15 Number of hours teachers spend on professional development.

This section deals with how many hours teachers spend on professional development for each activity. Statements B9 and B14 discuss the allocation of time and the benefit of extended time spent on teacher development. Against the above two statements, this question seeks to determine whether the SMT allocates a substantial amount of time to teacher development in the school. This statement also seeks to determine whether the schools have management plans for developing teachers within the annual management plan. The results are significantly different between respondents within and between cohorts, which indicates that the education department does not monitor the policy implementation of developmental hours for the planning and implementation of school-based development programs.

Table 4.18 Descriptive Statistics on Subject Meetings and team planning

	PL1							SMT								
	Count	Mean	Standard Deviation	Median	1st Quartile	3rd Quartile	Binomial Test p-value	Count	Mean	Standard Deviation	Median	1st Quartile	3rd Quartile	Binomial Test p-value		Kruskal Wallis
Subject meetings	44	1.50	0.57	1.25	1.00	2.00	< 0.001	35	2.76	4.28	1.00	1.00	2.00	< 0.001		0.933
Team Planning	44	1.50	0.80	1.00	1.00	2.00	< 0.001	35	1.55	1.17	1.00	1.00	2.00	< 0.001		0.716
Workshop on content	44	1.75	0.82	2.00	1.00	2.00	< 0.001	35	1.69	1.25	2.00	1.00	2.00	< 0.001		0.522

Lesson observation	44	1.06	0.27	1.00	1.00	1.00	< 0.001	35	1.35	1.01	1.00	1.00	1.00	< 0.001		0.555
One-on-one feedback	44	0.91	0.46	1.00	0.50	1.00	< 0.001	35	0.91	0.82	1.00	0.50	1.00	< 0.001		0.330
Mentoring	44							35	1.41	0.93	1.00	1.00	2.00	< 0.001		
Professional Learning Community	44							35	0.97	0.92	1.00	0.00	1.50	< 0.001		
Research on Subject	44	1.95	1.06	2.00	1.00	3.00	< 0.001	35								

Table 4.18 presents data related to the PL1 (Professional Learning 1) and SMT (Subject Management Team) positions. The data includes counts, means, standard deviations, medians, first quartiles, third quartiles, binomial test p-values, and Kruskal-Wallis test p-values for various categories of activities.

For the PL1 position:

- Subject meetings: Among 44 respondents, the mean score is 1.50, with a standard deviation of 0.57. The median is 1.25, the first quartile is 1.00, and the third quartile is 2.00. The binomial test p-value is < 0.001.

- Team Planning: Among 44 respondents, the mean score is 1.50, with a standard deviation of 0.80. The median is 1.00, the first is 1.00, and the third is 2.00. The binomial test p-value is < 0.001.

- Workshop on content: Among 44 respondents, the mean score is 1.75, with a standard deviation of 0.82. The median is 2.00, the first is 1.00, and the third is 2.00. The binomial test p-value is < 0.001.

- Lesson observation: Among 44 respondents, the mean score is 1.06, with a standard deviation of 0.27. The median is 1.00, and the first and third quartiles are 1.00. The binomial test p-value is < 0.001.

- One-on-one feedback: Among 44 respondents, the mean score is 0.91, with a standard deviation of 0.46. The median is 1.00, the first quartile is 0.50, and the third quartile is 1.00. The binomial test p-value is < 0.001.

For the SMT position:

- The same categories of activities are presented for the SMT position, with counts and scores provided for each category. The binomial test p-values are < 0.001 for all categories.

- The Kruskal-Wallis test p-values indicate the significance of differences in scores among the various activities for the SMT position. The p-values are all greater than 0.05, suggesting no significant difference in scores among the activities.

Overall, the data suggest that different activities have varying levels of engagement and effectiveness among PL1 and SMT positions. The activities with higher mean scores indicate greater agreement or positive perceptions among the respondents. The binomial test p-values suggest that the observed scores significantly deviate from random chance.

Table 4.19 Descriptive Statistics on teacher development activities

	Position							
	PL1				SMT			
	Count	Mean	Maximum	Minimum	Count	Mean	Maximum	Minimum
Subject meetings	44	1.50	3.00	1.00	35	2.76	16.00	.00

Team Planning	44	1.50	3.00	.00	35	1.55	4.00	.00
Workshop on content	44	1.75	4.00	.00	35	1.69	4.00	.00
Lesson observation	44	1.06	2.00	.50	35	1.35	4.00	.00
One-on-one feedback	44	.91	2.00	.00	35	.91	4.00	.00
Mentoring	44	.	.	.	35	1.41	4.00	.00
Professional Learning Community	44	.	.	.	35	.97	4.00	.00
Research on Subject	44	1.95	5.00	.00	35	.	.	.

Table 4.19 presents data on the counts, means, maximum, and minimum values for different activities for the PL1 (Professional Learning 1) and SMT (Subject Management Team) positions. Here is a breakdown of the information:

For the PL1 position:

- Subject meetings: Among 44 respondents, the mean score is 1.50, with a maximum score of 3.00 and a minimum score of 1.00.

- Team Planning: Among 44 respondents, the mean score is 1.50, with a maximum score of 3.00 and a minimum score of 0.00.

- Workshop on content: Among 44 respondents, the mean score is 1.75, with a maximum score of 4.00 and a minimum score of 0.00.

- Lesson observation: Among 44 respondents, the mean score is 1.06, with a maximum score of 2.00 and a minimum of 0.50.

- One-on-one feedback: Among 44 respondents, the mean score is 0.91, with a maximum score of 2.00 and a minimum score of 0.00.

- Mentoring and Professional Learning Community: The data is missing for these categories.

For the SMT position:

- The same categories of activities are presented for the SMT position, with counts and scores provided for each category.

- The mean scores for the SMT position are higher than the PL1 position in all categories except for the "Lesson observation" and "One-on-one feedback" categories.

- The maximum and minimum values indicate the range of scores for each activity.

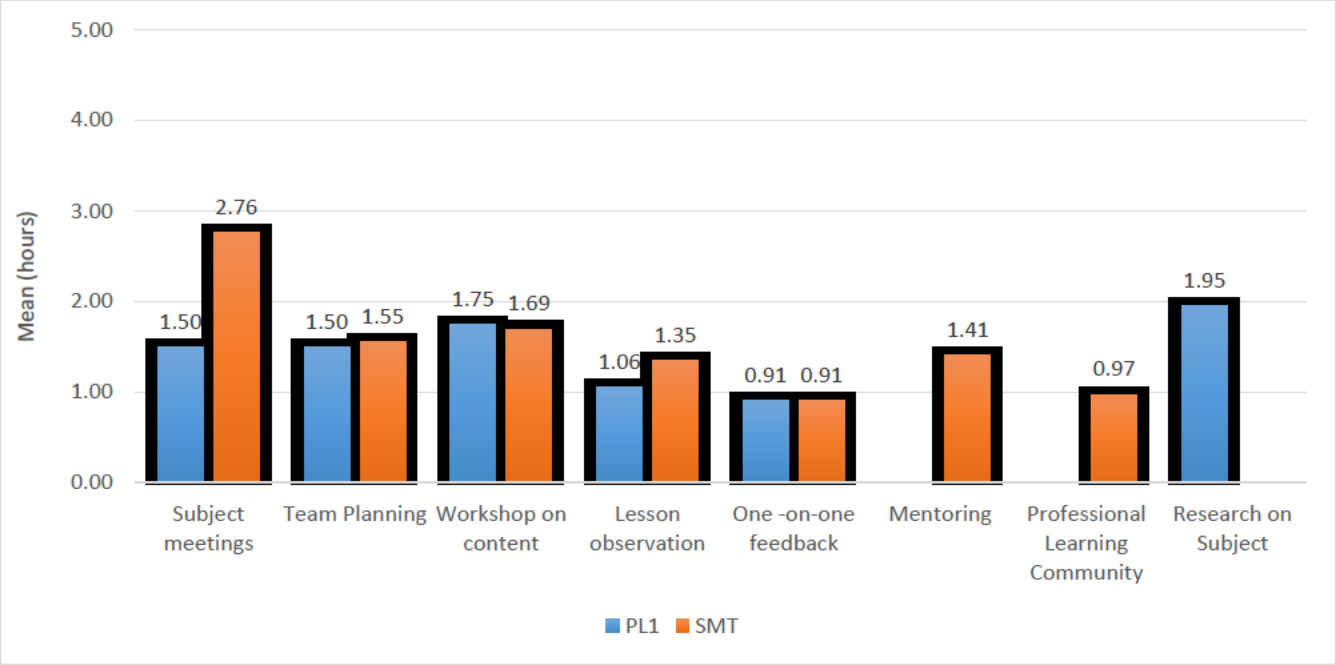

Figure 4.12 Graphical presentation of the mean values.

Using a Binomial test, the mean hours for each PL1 and SMT were compared to a cut-off value of 3.0 hours. The results indicate a significant difference from the time of 3 hours. As per the tables and figures, the mean number of hours for both PL1 and SMT is significantly less than 3 hours.

A Kruskal Wallis test compares the means between PL1 and SMT. Notably, there was no significant difference in the mean values (all $p > 0.05$) for the first five activities.

The last three do not have p-values to compare, as they were done by only one of the cohorts.

4.15.1 Cross tabulations

A Chi-square test of independence determines whether there was a statistically significant relationship between the variables (rows vs columns).

The null hypothesis states that there is no association between the two. The alternate hypothesis indicates that there is an association.

Table 4.20 summarises the chi-square tests result. Below is a presentation of the data.

Table 4.20 shows the results of the chi-square tests.

			Position		Total
			PL1	SMT	
Team Planning	Disagree	Count	3	0	3
		% within Position	6.8%	0.0%	3.9%
	Neither agree nor disagree.	Count	4	8	12
		% within Position	9.1%	24.2%	15.6%
	Agree	Count	18	20	38
		% within Position	40.9%	60.6%	49.4%
	Strongly Agree	Count	19	5	24
		% within Position	43.2%	15.2%	31.2%
Total		Count	44	33	77
		% within Position	100.0%	100.0%	100.0%

It is evident that significantly more SMTs (24.2%) neither agreed nor disagreed compared to PL1 (9.1%). In addition, more PL1 strongly agreed (43.2%) compared to SMTs (15.2%). However, more SMTs (60.6%) agreed with Team planning compared to PL1(40.9%). The scoring pattern where more respondents agree and a few strongly disagree and strongly agree is observed throughout the questionnaire.

All p-values more than 0.05 do not have a significant relationship.

Both cohorts (PL1 and SMT) agree that they have subject meetings. Noticeably, more scores are at 50% on agree, and an average of 36% on strongly agree. Few respondents in both cohorts strongly agree with the statement, while the majority agree. There is no significant difference between the scores.

4.15.2 Team planning

There is a significant difference in scores between the SMT and teacher cohorts. For SMT, 24% neither agree nor disagree on the item of team planning, while 60% agree. Although a large majority of those agree, it is notable that 24% are not sure, and only 15% strongly agree with this activity. On the other hand, the PL1 score on agree and strongly agree is 84.1%. This pattern of scoring suggests that: among PL1 scores, teachers hold informal discussions among themselves on a particular topic on an ad hoc basis. For SMT, the 24% that are uncertain do not consciously initiate and encourage teamwork in their departments, while only a small number of about 15% who strongly agree make good use of this activity to build effective teams that can work together to make a meaningful impact in teaching as well as the whole school improvement.

On reporting development activities to SACE, both cohorts agreed that they can identify their development needs through IQMS, reflect on their practice and chart their development program. However, there is a sharp contrast in responses between PL1 and SMT on B13 (Reporting of self-initiated type1 activities to SACE). Only 37.5% of SMTs agreed, while 40.6% neither agreed nor disagreed that they reported to SACE, and for PL1, 57.1% agreed, while 11,9% strongly agreed.

4.15.3 Correlations

The ordinal data underwent bivariate correlation analysis; the outcomes are in the appendix. Please refer to the Excel sheet named "Correlations." The Table's size necessitates its inclusion in the appendix for reference purposes.

The analysis of correlation has unveiled intriguing patterns among the variables. Correlation coefficients with positive values signify a direct proportionality between the variables, whereas negative coefficients indicate an inverse relationship. Asterisks (* or **) are used to indicate statistically significant relationships.

Concerning PL1, there is a positive correlation of 0.419 between the statement "The continued professional teacher development is vital for our school, and there is evidence that learner performance is improved" and "The extended time and the convenience of interacting with

colleagues on content delivery strategies and techniques at the school level has improved my teaching skill." This indicates that as teaching skills improve, there is a corresponding improvement in learner performance and vice versa.

Several statements show positive correlations, supporting one another. These include "I make efforts to continuously up-skill myself in subject knowledge," "I use the strategies and techniques that I have learned to improve my classroom practice," and "My participation in professional teacher development has had a positive impact on the improvement of my student's academic performance."

Negative correlation values suggest an inverse relationship, where the variables have opposing effects on each other. For instance, in response to B13, some SMTs neither agreed nor disagreed (40.6%) with reporting their development to SACE. Similarly, in B24, where respondents were asked about using lesson studies to develop teachers in their department, 31.3% neither agreed nor disagreed, while 56.3% agreed. These findings indicate significant uncertainty and reluctance among some SMTs regarding important aspects of teacher development, such as implementing lesson study and reporting development activities to SACE.

Overall, the correlation analysis provides valuable insights into the relationships between various variables and sheds light on the perceptions and practices related to professional teacher development.

4.16 Conclusions

Based on the tables and analyses conducted in this chapter, we can draw several conclusions that link to the study questions and objectives.

Firstly, the findings indicate a strong positive association between professional teacher development and improving classroom practice and student academic performance. This supports the study's objective of examining the impact of professional teacher development on educational outcomes. Respondents who reported using strategies and techniques learned from professional development activities demonstrated higher agreement with statements about improved classroom practice and student performance. This suggests that the strategies and techniques acquired through professional development are effectively applied in the classroom, resulting in positive outcomes.

Furthermore, the study revealed that teachers who view themselves as lifelong learners and prioritise staying up-to-date with new developments in their profession are more likely to actively engage in professional teacher development. This aligns intending to explore teachers' attitudes towards continuous learning and professional growth. Respondents who agreed with statements emphasising the importance of ongoing professional development showed higher levels of participation and engagement in various development activities.

However, the study also uncovered some inconsistences in agreement to certain aspects of professional teacher development. For example, there were mixed responses among school management team (SMT) members regarding reporting development programs and using lesson study as a teacher development strategy. Some SMT members expressed uncertainty or disagreed with these practices. This finding calls for further exploration to determine the material conditions that may be responsible for this activity.

In conclusion, the study provides evidence of the positive impact of professional teacher development on classroom practice and student academic performance. It highlights the significance of lifelong learning and staying updated with current practices in the teaching profession. However, there are areas of concern regarding adopting certain teacher development practices, particularly in reporting and implementing strategies like lesson study. These findings emphasise the importance of fostering a supportive and conducive environment for professional teacher development and addressing any barriers or reservations that may hinder its effectiveness.

CHAPTER 5: DISCUSSION OF FINDINGS

5.1 Introduction

This chapter discuss the findings of the study based on the data analyzed in the previous chapter. The study focused on the perceptions of teachers and school management teams regarding school-based teacher development and its impact on teaching practice. The research objectives were to determine the extent of teacher participation in development activities, assess teachers' understanding of the process, explore the role of school management teams in planning and supporting development, and analyse perspectives on professional teacher development.

5.2 The Extent of Teachers' Participation

The findings related to the extent of teachers' participation in school-based teacher development activities reveal a high level of agreement among the respondents regarding the prevalence of certain activities. Subject meetings, team planning, content workshops, lesson observation, and one-on-one feedback sessions were reported to be common practices.

The agreement regarding subject meetings suggests that these gatherings are a regular part of teachers' professional development activities. Subject meetings provide a platform for teachers to collaborate, share ideas, and discuss instructional strategies specific to their subject areas. This finding aligns with previous research highlighting the benefits of subject meetings in promoting collaboration and improving teaching practices (Kong et al., 2020).

Similarly, the agreement regarding team planning activities indicates that collaborative planning is valued in the schools examined. Team planning allows teachers to develop lesson plans, align curriculum objectives, and share resources. This collaborative approach fosters a sense of collective responsibility and encourages teachers to learn from one another's expertise. The findings are consistent with research emphasizing the importance of collaborative planning in improving instructional practices (Bergmark, 2023).

The high agreement regarding attendance at content workshops outside the school suggests that teachers actively seek opportunities to enhance their subject-specific and pedagogical content knowledge. Content workshops deepen teachers' understanding of the curriculum and learn new instructional strategies specific to their subject areas. This finding aligns with the literature

highlighting the importance of subject-specific professional development in improving teaching effectiveness (Randi & Zeichner, 2004).

The agreement regarding lesson observation activities indicates that teachers are observed in their classrooms as part of their professional development. Classroom observation provides teachers valuable feedback on their teaching practices and offers opportunities for self-reflection and improvement. This finding aligns with research emphasizing the significance of classroom observation in supporting teacher growth and enhancing instructional practices (Li et al., 2022).

The agreement regarding one-on-one feedback sessions suggests that teachers receive personalized feedback and guidance on their professional growth. One-on-one feedback sessions allow for targeted discussions and support tailored to individual teachers' needs. This finding aligns with the literature on the importance of feedback and coaching in improving teaching practices (Connolly et al., 2019).

While the findings indicate agreement on most activities, there were some areas of uncertainty and disagreement, particularly regarding team marking activities. The disparities in responses may reflect variations in the implementation or understanding of team marking practices among the respondents. Further research is needed to explore the reasons behind these discrepancies and identify potential challenges or areas for improvement in implementing team marking activities.

5.3 Role of School Management Teams

The findings related to the role of school management teams in planning and monitoring teacher development shed light on their involvement in supporting and facilitating professional growth.

The acknowledgement of reporting activities indicates that school management teams recognize the importance of documenting and reporting teacher development activities. This finding aligns with previous research emphasizing the need to monitor and evaluate professional development efforts' impact (Birmingham & McCord, 2023). However, the uncertainties observed suggest that there may be a need for further clarification and guidance on effective reporting processes. Clear guidelines and support systems can ensure consistent and accurate reporting of development activities, enabling school management teams to monitor and evaluate the outcomes of professional development initiatives effectively.

The findings also indicate that school management teams play a supportive role in facilitating one-on-one feedback sessions. This aligns with the literature on the importance of personalized feedback and guidance in supporting teachers' professional growth (Osman & Warner, 2020). The involvement of school management teams in supporting these sessions demonstrates their commitment to providing individualized support to teachers and promoting a culture of continuous improvement.

Encouraging teamwork aligns with research highlighting the benefits of collaborative learning and shared expertise (Numonjonov, 2020). The findings suggest that school management teams foster a collaborative environment by promoting team planning and marking activities. These collaborative practices enable teachers to share ideas, resources, and best practices, enhancing teaching effectiveness.

School management teams' utilization of lesson studies reflects their commitment to incorporating research-based practices into teacher development efforts. Lesson studies involve collaborative planning, observation, and reflection on lessons to improve teaching practices. The findings suggest that school management teams recognize the benefits of lesson studies in enhancing teacher effectiveness (Pharis et al., 2019).

5.4 Impact of Professional Teacher Development on Teaching Practice

The findings related to the impact of professional teacher development on teaching practice provide insights into how participating in such activities influences various aspects of teachers' instructional methods, pedagogical approaches, and overall teaching practice.

The positive impact of professional development on teachers' pedagogical knowledge and skills aligns with the literature highlighting the importance of ongoing learning opportunities in improving instructional practices (Osman & Warner, 2020). The findings suggest that professional development activities, such as workshops, seminars, and collaborative learning opportunities, contribute to teachers acquiring new insights and strategies for effective instruction. As a result, teachers reported improvements in areas such as lesson planning, classroom management, assessment practices, and differentiation of instruction. This indicates that professional

development equips teachers with the necessary knowledge and skills to implement innovative teaching methods and utilize technology effectively in the classroom.

The findings also highlight the promotion of reflective practice through professional development. Engaging in reflective exercises, peer discussions, and feedback sessions enables teachers to become more aware of their teaching strengths and areas for improvement. This aligns with research emphasizing the importance of reflection in teacher learning and growth (Tambak et al., 2021). The findings suggest that professional development activities provide teachers with dedicated time and space for self-reflection, leading to more intentional and purposeful decision-making in their instructional practice.

Moreover, professional development activities positively influence teachers' content knowledge. Subject-specific training and workshops provide opportunities for teachers to deepen their understanding of the curriculum content. As a result, teachers demonstrated improved mastery of the subject matter, leading to more accurate and comprehensive explanations, increased confidence in addressing students' questions, and the ability to make connections across different topics within their subject area. This finding aligns with research highlighting the significance of subject-specific professional development in enhancing content expertise (Sancar et al., 2021).

The findings also indicate that professional development increases student engagement and motivation. Teachers reported creating more interactive and engaging learning environments by implementing new instructional strategies learned during professional development. This aligns with research emphasizing the importance of student-centred approaches and active learning strategies in promoting student engagement (Svendsen, 2020). The findings suggest that when teachers utilize student-centred approaches and incorporate hands-on activities, students become active participants in the learning process, displaying increased interest, motivation, and a sense of ownership in their learning.

Lastly, the positive impact of professional development on the classroom climate is highlighted in the findings. Teachers reported improved relationships with their students, including increased empathy, better communication, and a stronger sense of community. The findings suggest that professional development activities provide teachers with strategies for creating a positive and inclusive classroom environment. As a result, disciplinary issues are reduced, and classroom management becomes more effective. This aligns with research emphasizing the importance of a

positive classroom climate in promoting student achievement and positive social interactions (Borko et al., 2010)

5.5 Perspectives on Professional Teacher Development

The findings related to the perspectives of teachers and school management teams on professional teacher development shed light on their beliefs, experiences, and opinions regarding various aspects of professional development.

Both cohorts, teachers and school management teams, acknowledged the benefits of professional teacher development. They recognized that participating in professional development activities improves teaching practice, increases subject knowledge, and enhances student learning outcomes. This aligns with research emphasizing the positive impact of professional development on teachers and students (Zhang et al., 2020). The shared recognition of these benefits highlights the value of ongoing learning and growth in the professional community.

The emphasis on collaborative learning opportunities reflects the perceived value of working together and learning from colleagues. Both teachers and school management teams agreed that subject meetings, team planning, and mentoring played a significant role in their professional growth. These collaborative activities provide a supportive and enriching environment for teachers to share ideas, best practices, and resources (Eroglu & Özbek, 2023). The findings suggest that collaboration is an effective professional development and knowledge-sharing strategy.

Teacher autonomy emerged as an important aspect of professional development. Teachers expressed the importance of having autonomy in their professional development journey, including the opportunity to select development activities aligned with their needs and interests. This autonomy was seen as empowering and motivating, allowing teachers to take ownership of their growth and tailor their learning experiences. This finding aligns with research emphasizing the significance of teacher agency in professional development (Hauge, 2019). It underscores the importance of providing teachers the flexibility and choice to engage in development activities that align with their goals and interests.

Identifying challenges and barriers reflects the realities of implementing professional development initiatives. Both cohorts highlighted common challenges such as time constraints, heavy workloads, limited financial resources, and limited opportunities for sustained and in-depth

development. These challenges align with previous research on the barriers to effective professional development (Eroglu & Özbek, 2023). The findings underscore the need for adequate support from school management teams in addressing these challenges and creating a conducive environment for ongoing development.

The emphasis on differentiation and customization reflects an understanding of the diverse needs of teachers. Both cohorts recognized that teachers have unique strengths, areas for growth, and diverse learning styles. They advocated for personalized development plans that cater to individual needs and allow for targeted growth in specific areas. This aligns with research highlighting the importance of differentiated professional development experiences (Bergmark, 2023). The findings suggest that a one-size-fits-all approach may not be as effective as tailoring professional development to meet the individual needs of teachers.

Acknowledging the importance of evaluation and feedback reflects the belief in the value of ongoing assessment and reflection in professional development. Both cohorts recognized the significance of regular feedback sessions and constructive observations in supporting their growth and providing opportunities for reflection and improvement. They emphasized the importance of creating a culture of trust and openness where feedback is welcomed and valued. This aligns with research emphasizing the importance of feedback in improving teaching practice (Hauge, 2019). The findings highlight the need for feedback mechanisms and support systems to be in place to facilitate continuous improvement.

Lastly, recognising leadership support highlights school leaders' crucial role in fostering a culture of professional development. Both cohorts emphasized the need for proactive and visionary leaders who prioritize teacher growth, provide necessary resources, and create a supportive environment that encourages continuous learning and innovation. This aligns with research on the impact of leadership in promoting effective professional development (Shalem & De Clercq, 2019). The findings underscore the importance of strong leadership in creating the conditions necessary for successful professional development initiatives.

5.6 Conclusion

In conclusion, the findings presented in Chapter 5 provide valuable insights into various aspects of professional teacher development. The research highlights the extent of teachers' participation in development activities, the role of school management teams in planning and monitoring teacher

development, the impact of professional development on teaching practice, and the perspectives of teachers and school management teams on professional development.

The findings indicate that teachers actively engage in various development activities, including subject meetings, team planning, content workshops, and mentoring. These activities provide teacher collaboration, knowledge sharing, and reflective practice opportunities. The involvement of school management teams in reporting activities, supporting feedback sessions, encouraging teamwork, and utilizing lesson studies underscores their commitment to creating a supportive environment for teacher growth.

Professional development positively impacts teaching practice by enhancing pedagogical knowledge and skills, promoting reflective practice, improving content knowledge, increasing student engagement and motivation, and creating a positive classroom climate. Teachers reported improvements in areas such as lesson planning, classroom management, assessment practices, and differentiation of instruction, demonstrating the effectiveness of professional development in enhancing instructional practices and ultimately benefiting student learning outcomes.

The perspectives of teachers and school management teams emphasize the value of professional development and its benefits, such as improved teaching practice, increased subject knowledge, and enhanced student learning outcomes. Collaborative learning opportunities, teacher autonomy, differentiation, evaluation and feedback, and leadership support are important factors in effective professional development.

These findings have important implications for designing and implementing professional development programs. It is crucial to provide diverse and targeted development opportunities, establish clear reporting processes, promote reflective practice, offer subject-specific training, encourage collaboration, respect teacher autonomy, address challenges and barriers, prioritize evaluation and feedback, and provide strong leadership support.

By incorporating these recommendations, educational policymakers, school leaders, and professional development providers can create an environment fostering continuous growth, collaboration, and teacher improvement. This, in turn, can lead to enhanced teaching practices, improved student learning outcomes, and a positive school climate.

Overall, the findings contribute to the understanding of professional teacher development and provide insights that can inform decision-making and practice in the field of education. They highlight the importance of ongoing professional development and its potential to impact teachers, students, and schools positively.

CHAPTER 6: SUMMARY, CONCLUSIONS, RECOMMENDATIONS AND AREAS OF FURTHER RESEARCH

6.1 Introduction

This chapter presents recommendations based on the findings of the study. The recommendations aim to improve the effectiveness and impact of school-based teacher development programs, enhance collaboration between teachers and school management teams (SMTs), and promote continuous professional growth in teaching. The recommendations are intended for educators, school administrators, policymakers, and other stakeholders involved in teacher development initiatives.

6.2 Summary of the study

The study established teachers' views and attitudes towards school-based teacher development and whether it impacts their teaching practice. To arrive at a conclusive statement, the researcher has developed the following objectives:

- To establish the extent to which teachers participate in the existing school-based teacher development activities.
- To determine whether teachers understand the process of school-based teacher development
- To determine the role of the school management team in the planning, support and monitoring of teacher development
- Analyse teachers' and School Management Teams' (SMTs) perspectives on school-based professional teacher development activities.

The researcher used a 1-5 scale to probe teachers' perceptions and the extent to which a particular activity is planned and implemented in the school to improve classroom practice. The lowest score of 1-2 strongly disagrees, while three neither agree nor disagree (a level of uncertainty or neutrality inclined more towards disagreeing than agreeing). The last two scores, 4-5, agree (mean that the school conducts the activity) and strongly agree, which is the highest level score, which means that the school conducts the activity to the extent of effectiveness and impact.

6.3 Conclusions

Objective 1: Extent of Teachers' Participation

The study revealed that teachers actively participate in various school-based teacher development activities. These include subject meetings, team planning, workshops, lesson observation, one-on-one feedback sessions, mentoring, and professional learning communities. Overall, teachers demonstrated high agreement and engagement in these activities.

Objective 2: Role of School Management Teams

The research findings underscore the crucial role of school management teams in planning, supporting, and monitoring teacher development. School management teams actively engage in reporting activities, facilitate one-on-one feedback sessions, encourage teamwork, and utilise strategies such as lesson studies. Their involvement and support contribute significantly to the effectiveness and success of teacher development initiatives.

Objective 3: Impact of Professional Teacher Development on Teaching Practice

The study highlighted the positive impact of professional teacher development on teaching practice. Teachers reported improvements in pedagogical knowledge and skills, reflective practice, content knowledge, student engagement and motivation, and classroom climate. The findings suggest that ongoing professional development positively influences teachers' instructional methods, enhances their effectiveness, and contributes to a conducive learning environment.

Objective 4: Perspectives on Professional Teacher Development

Both teachers and school management teams recognised the benefits of professional teacher development. They valued collaborative learning opportunities, advocated for teacher autonomy in their professional growth, identified challenges and barriers to effective development, and emphasized the importance of differentiation, evaluation, feedback, and leadership support. The perspectives shared by teachers and school management teams highlight the significance of creating a supportive and empowering environment for professional development.

In summary, the research findings indicate that teachers actively participate in various school-based teacher development activities, with strong support and involvement from school management teams. Professional teacher development positively impacts teaching practice by

enhancing knowledge, skills, and classroom dynamics. The study's conclusions emphasise the importance of continued support, collaboration, and tailored approaches to promote effective professional development and ultimately enhance teaching and learning outcomes.

6.4 Implications and recommendations

6.4.1 Recommendations

6.4.1.1 Recommendations for policy makers

Develop personalised professional development plans: Schools should consider offering differentiated and customised professional development experiences that cater to individual teachers' needs, interests, and areas for growth. This personalised approach will maximise the impact of development activities and provide teachers with targeted support.

Strengthen evaluation and feedback mechanisms: Regular evaluation and feedback are crucial for professional growth. Schools should establish structured feedback mechanisms, including observation and constructive feedback sessions, to provide teachers with actionable insights and opportunities for reflection and improvement. This feedback should be provided in a supportive and constructive manner to foster a culture of continuous learning and growth.

Foster teacher autonomy in professional development: Encouraging teacher autonomy empowers educators to take ownership of their professional growth. Schools should provide teachers with opportunities to select development activities aligned with their interests and needs, allowing them to personalise their learning experiences. Providing autonomy also fosters a sense of ownership and commitment to professional development goals.

Address challenges and barriers: Schools need to recognise and address the challenges and barriers that hinder effective teacher development. This includes providing support to overcome time constraints, offering financial resources for professional learning opportunities, and addressing workload issues to create a conducive environment for ongoing development. Schools should also consider providing flexibility in scheduling and access to professional development opportunities to accommodate the diverse needs of teachers.

6.4.1.2 Recommendations for school management

a) School leaders and administrators should recognise the significance of school-based teacher development and allocate resources accordingly. This includes dedicating time, providing funding, and creating a supportive infrastructure to facilitate effective development activities.

b) Teachers should be encouraged to participate in development opportunities and engage in collaborative learning actively. Schools can promote a culture of collaboration by organising subject meetings, team planning sessions, and mentoring programmes.

c) School management teams play a vital role in supporting teacher development. They should ensure clear and effective reporting processes, provide guidance and support for one-on-one feedback sessions, and foster a collaborative and empowering environment for teachers to thrive.

d) Professional development activities should be designed to address teachers' specific needs and goals, considering their subject areas, experience levels, and professional interests.

e) Schools should establish mechanisms to evaluate the effectiveness of teacher development initiatives and make data-informed decisions to improve and refine their programmes continuously.

6.4.1.3 Recommendations on professional development

a) Long-term impact of professional development: Future research should focus on examining the long-term effects of professional teacher development on teaching practice and student outcomes. This will provide deeper insights into the sustained impact of development activities over time and inform the design of long-term professional development plans.

b) Exploration of technology-enhanced professional development: Investigating technology integration in professional development programmes can enhance accessibility, promote collaboration, and expand teacher learning opportunities. This includes exploring online platforms, virtual communities, and digital resources that can support teachers' professional growth.

c) Inclusive professional development: Further research should explore the experiences and perspectives of teachers from diverse backgrounds, including those in rural areas, under-resourced schools, or special education settings. This will help ensure that professional development

programmes are inclusive and address the unique needs of all teachers. It is essential to consider factors such as cultural diversity, language barriers, and resource access when designing and implementing inclusive professional development initiatives.

d) Collaboration and knowledge sharing: Encouraging collaboration and knowledge sharing among teachers is crucial for professional development. Schools should facilitate opportunities for teachers to collaborate within and across subject areas, providing platforms for sharing best practices, exchanging ideas, and engaging in peer support and feedback.

6.5 Limitations of the study

While the research study provides valuable insights into school-based teacher development, it is important to acknowledge its limitations. These limitations include:

a) Contextual Specificity: The study was conducted within a specific context, which may limit the generalizability of the findings to other educational settings. Factors such as school culture, resource availability, and policy frameworks could vary across different contexts, potentially influencing the implementation and effectiveness of teacher development programs.

b) Reliance on Self-reported Data: The data collected for the study relied on self-reported perceptions and attitudes of teachers and school management teams. This introduces the possibility of response biases, such as social desirability bias or inaccuracies in recalling information. Future research could consider incorporating additional data collection methods, such as classroom observations or interviews, to provide a more comprehensive understanding of teacher development practices.

c) Long-term Impact: The study examined the immediate impact of professional teacher development on teaching practice. However, the long-term effects of these development activities on student learning outcomes or sustained changes in instructional practices were not explored. Future research should consider longitudinal studies to investigate teacher development initiatives' durability and long-term impact.

d) External Factors: The study did not extensively consider external factors influencing teacher development, such as community support, parental involvement, or policy frameworks. These factors can significantly impact the effectiveness and sustainability of teacher development programs. Future research could delve deeper into the influence of external factors on the implementation and outcomes of professional development initiatives.

e) Sample Size and Diversity: The study's sample size and diversity may affect the representativeness of the findings. Larger and more diverse samples, encompassing teachers from various backgrounds, grade levels, and subject areas, would provide a more comprehensive understanding of teacher development experiences and perspectives.

f) Researcher Bias: As with any research study, there is a potential for researcher bias to influence data collection, analysis, and interpretation. Steps were taken to minimize bias, such as employing rigorous research methodologies and ensuring data triangulation, but it is important to acknowledge its potential impact.

g) Despite these limitations, the research study contributes valuable insights and recommendations for school-based teacher development. Recognizing and addressing these limitations can help guide future research and strengthen the design and implementation of effective teacher development programs.

6.6 Areas for Further Studies

Based on the limitations and gaps identified in the study, several areas for further research can contribute to the field of school-based teacher development. These areas include:

1. Long-Term Impact: Future research should focus on examining the long-term effects of professional teacher development on teaching practice, student outcomes, and overall school improvement. Longitudinal studies can provide insights into the sustainability of changes in instructional practices and the impact on student learning over an extended period.

2. External Factors: Investigate the influence of external factors, such as school policies, resource allocation, and community involvement, on the effectiveness of teacher development programs. Understanding how these external factors interact with and support teacher development initiatives can help inform policy recommendations and enhance the implementation of effective programs.

3. Technology-Enhanced Development: Explore the integration of technology in enhancing professional teacher development and its impact on teaching practice. Research can investigate the use of online platforms, virtual communities, digital resources, and blended learning approaches to support and enhance teacher development opportunities.

4. Models and Approaches: Assess the effectiveness of different models and approaches to professional development, such as job-embedded coaching, online learning communities, or micro-credentials. Comparative studies can shed light on the strengths and limitations of different models and help identify the most effective approaches for supporting teachers' professional growth.

5. Inclusive Development Practices: Examine the experiences and perspectives of teachers from diverse backgrounds, including those in rural areas, under-resourced schools, or special education settings, regarding professional development opportunities. This research can address teachers' specific needs and challenges in different contexts, ensuring that professional development initiatives are inclusive and equitable.

6. Sustainability and Scalability: Investigate the sustainability and scalability of professional development initiatives, considering factors such as cost-effectiveness, long-term support, and alignment with school goals and priorities. Research can explore strategies for overcoming barriers and challenges in sustaining effective teacher development programs and scaling them up to reach a larger number of teachers.

7. Impact of Leadership Support: Examine the role of leadership support in fostering a culture of professional development. Research can investigate the impact of proactive and visionary leadership in providing necessary resources, creating a supportive environment, and encouraging continuous learning and innovation among teachers.

By addressing these areas for further research, the field of school-based teacher development can gain a deeper understanding of effective strategies, overcome challenges, and continually improve the design and implementation of professional development programs to support teachers' professional growth and enhance student learning outcomes.

6.7 Chapter Summary

Chapter 6 provided a comprehensive summary of the research study on school-based teacher development and its impact on teaching practice. The chapter began with an overview of the research objectives, which aimed to determine the extent of teacher participation, explore the role of school management teams, assess teachers' understanding and satisfaction, and analyze perspectives on professional development.

The study findings were then presented, addressing each objective in turn. The extent of teachers' participation in development activities was examined, revealing their active engagement in subject meetings, team planning, workshops, mentoring, and more. The role of school management teams in planning, supporting, and monitoring teacher development was explored, highlighting their involvement in reporting, facilitating feedback sessions, and promoting collaboration. The impact of professional teacher development on teaching practice was discussed, showing positive effects on pedagogical knowledge, reflective practice, content expertise, student engagement, and classroom climate. The perspectives of teachers and school management teams on professional development activities were also analyzed, revealing their recognition of the benefits, the importance of collaborative learning, and the need for differentiation and evaluation.

The chapter concluded with a discussion of the implications and recommendations derived from the research findings. These included practical implications for school leaders and administrators, recommendations for personalized professional development plans, strengthening evaluation and feedback mechanisms, fostering teacher autonomy, addressing challenges, and considerations for future research.

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ANNEXURES

Annexure A: Research Instrument

QUESTIONNAIRE FOR PERSPECTIVES ON SCHOOL-BASED TEACHER DEVELOPMENT ACTIVITIES
POST LEVEL 1

Please circle your response from the statements below.
1=strongly disagree, 2= disagree, 3= neither agree/nor disagree, 4= agree, 5= strongly agree.

6. **The following teacher development activities are effectively planned and implemented to improve classroom teaching and general school improvement.**

   (a) Subject meetings 1 2 3 4 5

   (b) Team planning 1 2 3 4 5

   (c) Workshop on content 1 2 3 4 5

   (d) Lesson observation 1 2 3 4 5

   (e) One-on-one feedback 1 2 3 4 5

   (f) Team marking 1 2 3 4 5

   (g) Mentoring 1 2 3 4 5

   (h) Professional learning community 1 2 3 4 5

7. **Continued Professional teacher development is vital for our school, and there is evidence that learner performance is improved.** 1 2 3 4 5
8. **I am allowed to identify my development needs through IQMS, and these needs are considered when developing the school improvement plan.** 1 2 3 4 5
9. **Time is allocated to departments within the school for teacher development; reports and minutes of the proceedings are available** 1 2 3 4 5
10. **There is an allocated budget for teacher development which focuses on providing teacher development opportunities like sending teachers to workshops and seminars and buying resources that are needed to support curriculum delivery** 1 2 3 4 5
11. **I understand the importance of continuing professional development, and I participate willingly.** 1 2 3 4 5
12. **Teacher development activities at school are relevant, and they address the identified needs.** 1 2 3 4 5
13. **I report my self-initiated (type 1) development activities to SACE regularly** 1 2 3 4 5
14. **The extended period and the convenience of interacting with colleagues on content delivery strategies and techniques at the school level has improved my teaching skill** 1 2 3 4 5
15. **I use the strategies and techniques that I have learnt to improve my classroom practice** 1 2 3 4 5
16. **My participation in professional teacher development has had a positive impact on the improvement of my student's academic performance.** 1 2 3 4 5
17. **The main reason I participate in professional teacher development is to improve my qualification so that I can qualify for promotion and other incentives** 1 2 3 4 5

18. I regard myself as a lifelong learner, and I always need to be abreast of new developments in my profession in order for me to remain relevant	**5**

SECTION C

Please indicate the hours you spent in each of the following activities.

Annexure B: Informed Consent

UNIVERSITY OF KWAZULU-NATAL
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP

Dear Respondent,

MCLS Research Project
Researcher: Nosipho Malope (0[redacted]
Supervisor: Dr Christopher Chikandiwa (Office Telephone number)
Research Office: Ms P Ximba 031-2603587

I am Nosipho Malope, an MCLS student at the Graduate School of Business and Leadership of the University of KwaZulu Natal.

You are invited to participate in a research project entitled: To investigate the perceptions of teachers and school management teams on the impact of school-based teacher development activities in schools in the White Hazy 1 circuit.

This study aims to understand better how teachers in the White Hazy I circuit feel about their development at the school level and to establish whether they see the impact of their participation in school-based teacher development on improved learner performance.

Through your participation, I hope to understand the processes undertaken to identify teachers and school management development needs and how these are addressed. I hope to understand the effectiveness of these development programmes and establish whether there is adequate capacity to support and guide teachers to a level where there is an evident improvement in teaching and learner performance.

The focus group results will guide Teacher Development and Governance Directorate to strengthen the capacity of school management teams and allocate adequate resources to support school-based teacher development and support.

Your participation in this project is voluntary. You may refuse to participate or withdraw from the project at any time with no negative consequence. Participating in this survey/focus group will not gain monetary gain. Confidentiality and anonymity of records identifying you as a participant will be maintained by the Graduate School of Business and Leadership, UKZN.

If you have any questions or concerns about completing the questionnaire or participating in this study, please contact me or my supervisor at the above numbers.

The survey/interview should take you about thirty minutes to complete. I hope you will take the time to complete this survey.

Sincerely

Investigator's signature [redacted] Date 2020/10/01

This page is to be retained by the participant

UNIVERSITY OF KWAZULU-NATAL
GRADUATE SCHOOL OF BUSINESS AND LEADERSHIP

MCLS Research Project
Researcher: Nosipho Malope (013 766 0993/0[redacted])
Supervisor: Dr Christopher Chikandiwa (Office Telephone number)
Research Office: Ms P Ximba 031-2603587

CONSENTI..... .(full names of

participant) at this moment, confirm that I understand the contents of this document and the nature of the research project, and I consent to participate in the research project.

I understand that I can withdraw from the project at any time should I desire.

SIGNATURE OF PARTICIPANT

DATE

This page is to be retained by the researcher.

Annexure C: Letter of Approval

education
MPUMALANGA PROVINCE
REPUBLIC OF SOUTH AFRICA

Building No. 5 Government Boulevard Riverside Park Mpumalanga Province
Private Bag X11341, Mbombela, 1200
Tel: 013 766 5552/5115 Toll Free Line: 0800 203 116

Litiko le Temfundvo Umnyango we Fundo Departement van Onderwys Ndzawulo ya Dyondzo

Ms Nosipho Malope
P[redacted]
V[redacted]
1[redacted]
Email: n.malope@mpuedu.gov.za

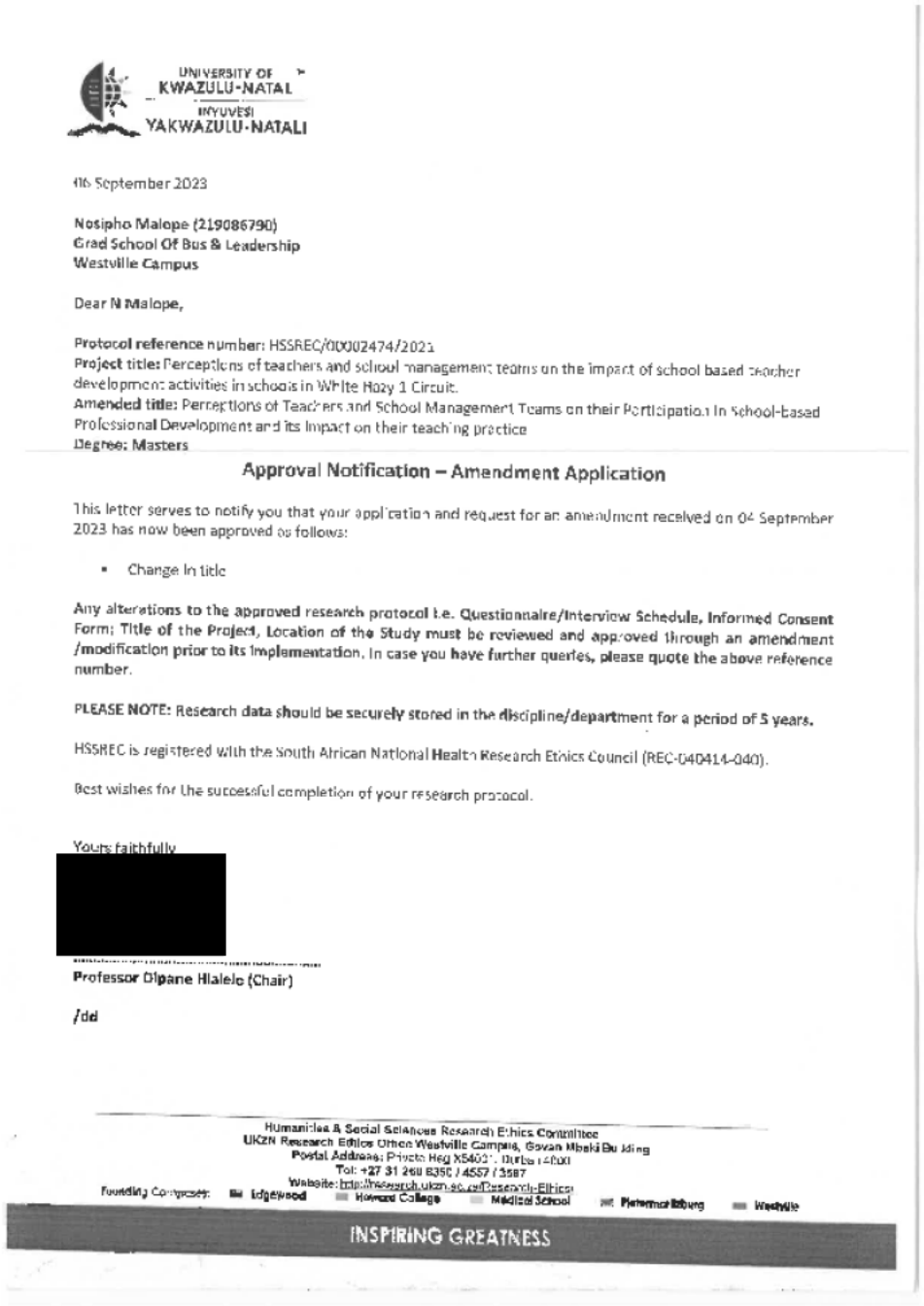
RE: The perceptions of teachers and school management teams on the impact of school based teacher development activities in schools in White Hazy 1 Circuit

Your application to conduct research study was received and is therefore acknowledged. The tittle of your research project reads: **"The perceptions of teachers and school management teams on the impact of school based teacher development activities in schools in White Hazy 1 Circuit ".**

I trust that the aims and the objectives of the study will benefit the whole department especially the beneficiaries. Your request is approved subject to you observing the provisions of the departmental research policy which is available in the department website. You are requested to adhere to your university's research ethics as spelt out in your research ethics.

In terms of the research policy, data or any research activity can be conducted after school hours as per appointment with affected participants. You are also requested to share your findings with the relevant sections of the department so that we may consider implementing your findings if that will be in the best interest of the department. To this effect, your final approved research

Annexure D: Approval notification



UNIVERSITY OF KWAZULU-NATAL
INYUVESI YAKWAZULU-NATALI

06 September 2023

Nosipho Malope (219086790)
Grad School Of Bus & Leadership
Westville Campus

Dear N Malope,

Protocol reference number: HSSREC/00002474/2021
Project title: Perceptions of teachers and school management teams on the impact of school based teacher development activities in schools in White Hazy 1 Circuit.
Amended title: Perceptions of Teachers and School Management Teams on their Participation in School-based Professional Development and its Impact on their teaching practice
Degree: Masters

Approval Notification – Amendment Application

This letter serves to notify you that your application and request for an amendment received on 04 September 2023 has now been approved as follows:

- Change in title

Any alterations to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form; Title of the Project, Location of the Study must be reviewed and approved through an 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.

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

Best wishes for the successful completion of your research protocol.

Yours faithfully

[redacted]

Professor Dipane Hlalele (Chair)

/dd

Humanities & Social Sciences Research Ethics Committee
UKZN Research Ethics Office Westville Campus, Govan Mbeki Building
Postal Address: Private Bag X54001, Durban 4000
Tel: +27 31 260 8350 / 4557 / 3587
Website: http://research.ukzn.ac.za/Research-Ethics

Founding Campuses: Edgewood | Howard College | Medical School | Pietermaritzburg | Westville

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