Perception of Teacher Effectiveness and its Role in Optimising Students' Learning in Five Primary Schools in Lagos State

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Abstract

This study examines the perception of teacher effectiveness and its role in optimising students' learning in five private primary schools in Lagos State. It aims to understand the lived experiences and dispositions of teachers who have been defined as effective in the context of their schools and the wider Nigerian context and what they articulate are the factors that promote their effectiveness. Two research questions were addressed. First, how do effective teachers in private primary schools in Lagos State understand and describe their effective teaching and learning practices? Secondly, what are the personal qualities these effective teachers possess?

A theoretical framework derived from a synthesis of three existing theories was employed. They are the Dynamic Model of Educational Effectiveness (DMEE), Constructivism, and the Virtue Ethics Theory (VET). DMEE and constructivism were used as a framework in answering the first research question. They were supplemented with VET in order to gain insight into the dispositions behind teacher effectiveness, which answers the second research question.

This study was conducted as a multiple case study of five primary schools with five teachers selected from each school. Data were collected through interviews and unstructured observation and were then thematically analysed.

The findings from this study revealed teachers' practices and personal qualities that are integral for effective teaching and students' learning optimisation. They include: a. Professional Knowledge b. Instructional Planning c. Differentiated Instruction d. Formative Assessment e. Care and f. Practical Wisdom. The study recommends that Pedagogical Content Knowledge should be encouraged in teachers' practice. Furthermore, professional development in the use of success criteria and Formative Assessment should be given more attention, as this is key to teacher effectiveness. Finally, Teacher Autonomy is essential for the development of Practical wisdom (Phronesis).

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Table of Contents

List of Tables

List of Figures

Appendices

List of Abbreviations

AfL - Assessment for Learning

BERA - British Educational Research Association

CMEE- Comprehensive Model of Educational Effectiveness

DEEPEN - Developing Effective Private Education Nigeria

DfES - Department of Education and Skills

DMEE- Dynamic Model of Educational Effectiveness

EER- Educational Effectiveness Research

FGN - Federal Government of Nigeria

FME - Federal Ministry of Education

GDP - Gross Domestic Product

LCP – Learner-Centred Pedagogy

MPCK - Mathematical Pedagogical Content Knowledge

NET- Normative Ethics Theory

NPE - National Policy on Education

NALABE - National Assessment on Learning Achievement in Nigeria

OECD - The Organisation for Economic Co-operation and Development

OFSTED - The Office for Standards in Education

PCK - Pedagogical Content Knowledge

PSNT- Professional Standards for Nigerian Teachers

SABER - Systems Approach for Better Education Result

SER- School Effectiveness Research

TCP – Teacher-Centred Pedagogy

TPCK - Technological Pedagogical Content Knowledge

TRCN - Teacher Registration Council of Nigeria

UPE - Universal Primary Education

UBE - Universal Basic Education

UBEC - Universal Basic Education Commission

UNESCO - United Nations Educational, Scientific and Cultural Organization

USAID - United States Agency for International Development

VET - Virtue Ethics Theory

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

According to literature, diverse factors have the potential to affect students' performance and achievements. These factors include the education system and education policy (Hong, 2015), school factors (Maxwell et al. 2017) and teacher factors (Bartilol and Ng'eno, 2016). Among all these, the teacher is "the most impactful school-based factor" (Hanover Research, 2019 p.2). Over the past decade, research has confirmed that teachers have a substantial impact on their students' academic and lifelong success (Rivkin et al. 2005; Raj et al. 2014) and are seen as central figure confronting poor schooling outcomes (Skourdoumbis, 2014). However, while the last decades have empirically corroborated the central role that teachers play in students' learning (Hayes et al. 2006; Hattie, 2009; 2012), according to Buhl-Wiggers et al. (2018, p. 6), limited evidence exists on how teacher quality affects students' learning in Africa, even though "it is known to be critical for students' education and life prospects in the developed countries".

In Nigeria (a West African country), teacher quality remains a critical concern among education reformers, parents, scholars, and researchers (Bello, 2010; Duze, 2011). For example, a study in Kwara State, Nigeria, which tested all primary school teachers in the state for subject knowledge in Mathematics and English, showed that teachers lacked the required skills necessary for effective teaching. Only 7 out of over 19,000 teachers, which represents 0.03% of the teachers, met the minimum threshold of 80% and above in all the tests, while 20% had scores that were between 60% and 69%. 29% of the teachers failed, scoring below 40% (Johnson, 2008; Adefeso-Olateju, 2012). The test involved the teachers marking and correcting English and Mathematics scripts based on the primary six curriculum.

This low teacher quality is believed to have affected how students perform in their exams (Akinsolu, 2010). The 2017 National Assessment of Learning Achievement in Basic Education (NALABE) Report regarding primary six pupils' performance in certain subjects such as English and Maths suggest that the challenge persists (UBEC, 2017). In English, for instance, the pupils were given multiple-choice and essay tests. In the multiple-choice tests, 26.5% failed, scoring between 0-39. 22.4% had fair, scoring between 40-49. 33% had good, scoring between 50-59, 18.1% had very good (60-69) while 0% had excellent (70-100) (UBEC, 2017). This issue of poor quality poses a great challenge because according to Etor et al. (2013), primary education is considered as the "foundation for qualitative higher education" (p. 155). In every country in the world (including Nigeria), education plays a critical role. It remains the major instrument for effective national development, which makes the low standard in the educational system of concern. According to Uria and Wosu (2012), education is what enables an individual to be able to take care of themselves, their families and contribute to national development. Education is also necessary for moral training and development of values (Orji and Job, 2013). Thus, poor teacher capacity and attendant low quality of education could impact both the individual and the nation negatively.

Be that as it may, research points to factors that may have an impact on teacher performance and capacity (Ball, 2003; Jones, 2015). For example, Ball (2003) refers to the impact of performativity on the practices of teachers which is reflected by the formidable pressure from government, policy-makers and school leaders on teachers 'to teach to the test' so as to produce impressive results. According to Jones (2015), some government initiatives demonstrate society's view that "teachers need to be managed, watched over, held accountable and pressured to perform" (p. 40). He also argues that standardised test scores and other quantifiable measures are woefully inaccurate reflections of students' learning and teacher effectiveness and most importantly work against true learning taking place. Jones (2015) further maintains that the notion that students' lack of ability

is immediately traced to the doorstep of teachers and their ineffectiveness signifies the depth to which neoliberalism has infiltrated education.

Against this background, further review of the literature for this study (see Chapter 2) observes that limited evidence exists on what effective teachers actually do in the classroom in line with the Professional Standards, which stipulate the knowledge, skills and values a professional teacher in Nigeria should possess. Also, theoretical discussions on what actually constitutes teacher effectiveness and how teachers contribute and impact students' performance in Nigeria are scarce; rather, what an initial review of literature in relation to public and private school teachers in the country reveals is more of attempts to chronicle the problems and gaps facing Nigerian schools or recommendations of models which are more applicable to teachers in the public secondary schools in the nation (Onyekuru and Ibegbunam, 2013; Okereke and Ukekwe, 2014).

This study, therefore, seeks to contribute to the closing of these gaps by exploring how teachers who are described as 'effective' by their private primary schools in Lagos State understand and construct effective teaching and learning processes in the classroom, as well as the personal qualities these teachers possess.

1.2 Motivation and Rationale

The initial motivation to engage in this study stems from my professional experience. I have been a school leader for over fifteen years. During these years, I observed that while some teachers in the school I lead were able to contribute to students' learning and achievement through the implementation of the school's curriculum, which is aligned with the Nigerian Professional Teacher Standards, others seemed to find it difficult to do the same, resulting in inconsistency of practice across the school. This birthed in me a question, well-articulated by Blazar (2015), on why some teachers are effective and what can be done to help others improve. Research actually revealed that this is a global

problem (Flores and Derrington, 2018). Also, literature shows that large differences in teacher effectiveness and variations within schools appear to be even much larger than variations between schools (Hanushek, 2016). This revelation sparked my interest and inspired me to undertake extensive literature review, seeking to understand underpinning reasons and attendant implications of this issue for both theory and professional practices.

I sought to examine teacher effectiveness from the perspective of 'effective' teachers and its role in optimising students' learning. Literature revealed that significant attention has been given to understanding factors that affect students' outcomes in public and low-cost schools in resource-constrained environments (see Tooley et al. 2005; Adefeso-Olateju, 2012; Fehıntola, 2015). However, literature search yielded no known study on large, private, government-approved and long-standing educational institutions, especially those that have existed for over fifteen years and are seen by various stakeholders as large, private schools in Nigeria. This, in my opinion could be because such large schools are perceived as successful to a great extent and well established. Also, gaining access into these schools to conduct research could be a challenge, making it less attractive to researchers. These reasons might have pushed them to concentrate on the public and low-cost private schools, which are believed to require improvement and where access would be less stressful.

The decision to conduct my research in the private sector, apart from my experience in the private education sector, also stems from the understanding that they are the majority of the two types of schools (public and private) in Nigeria. As summarised in Table 1.1, available reports show that there are 18,000 private primary schools in Lagos State alone (Education International Research, 2018), which as of 2014 catered to the educational needs of 1,314,623 primary school children (SABER Country Report, 2014). (Data for the number of pupils in these schools as at 2018 were not available). This is compared to 1,094 public primary schools in the state (UBEC, 2018) which catered to 482,485 primary school

pupils (Lagos Economic Advisory Committee (EAC) Sub Committee on Education, 2018).

Table. 1.1: School Type and Students' Enrolment

	Public Primary	Private Primary
Total No. of Schools	1,094	18,000
Total No. of Students Catered for	482,485	1,314,623

It is pertinent to note that private schools are of two types: registered and government approved (Abdul-Hamid, et al. 2015), which represent 29% (5,220) of the total number of private schools in the state and cater to the needs of citizens in the mid to high income bracket. Then there are the unregistered and unapproved schools which represent 71% (12,780), but which also contribute their quota to the educational development of the state by providing affordable access to education for primary school-aged children, thus reducing the number of out-of-school children in the state drastically to as low as 4.3% (Lagos Economic Advisory Committee (EAC) Sub Committee on Education, 2018). The existence of this type of school, albeit unregistered, has contributed in no small measure to the expansion of educational access in the state, giving opportunities to some of the poorest households to gain access to education (Ehigiamusoe, 2012). It is also noteworthy that many of the low-cost schools are primary schools and they remain unregistered because of the steep registration requirements and attendant high costs of obtaining government approval (Härmä and Adefisayo, 2013; Ashley et al. 2014; Abdul-Hamid et al. 2015). However, overall, the contribution of private schools makes them worthy of study, considering that

these schools and their teachers have the future of the majority of the pupils in the state in their hands (Tooley et al. 2005).

It has also been observed that an increase in private schools in the country is not unrelated to the perspective of most parents that the public education system in Nigeria is failing, as it is reported to be marred with poor funding, poor accountability and poor management (Adebayo, 2009; Adefeso-Olateju, 2012). Privately owned schools seem to have gained a lot of traction and acceptance as an alternative, leading to the noticeable growth in the subsector (Gershberg et al. 2016; Ezegwu and Ansadulla, 2018).

My literature review suggests a need to highlight particular contributions of private schools in Nigeria. Evidence on the quality and effectiveness of private school teachers is mixed. While studies on teachers based on school types indicate that private school teachers are more effective, public school teachers are believed to often possess the required educational qualifications as stipulated by the state (Bassey et al. 2011; Adefeso-Olateju, 2012; Ehigiamusoe, 2012). Hence, there is a need for a focused study on factors that contribute to making private school teachers appear more effective despite their perceived limited qualifications.

In a cross-country study (e.g. in Ethiopia, Ghana, India, Kenya, Kyrgyzstan, Liberia, Malawi, Occupied Palestinian Territories, Pakistan, Rwanda, Sierra Leone, Somalia, South Africa, Sudan, South Sudan, etc.) on the role and impact of private schools in developing countries, strong evidence found that “teaching is better in private schools than in government schools, in terms of higher levels of teacher presence and teaching activity as well as teaching approaches that are more likely to lead to improved learning outcomes” (Ashley et al. 2014, p.1). Furthermore, it was observed that private school teachers achieve better learning outcomes in comparison to teachers in public schools. It is believed that the successes of private schools might be due to their management structure as well as the

seriousness with which their teachers approach their profession (Adebayo, 2009; Adefeso-Olateju, 2012). A study in Cross River State of Nigeria with 720 (440 public and 280 private) secondary school teachers indicated that private school teachers that participated in the study were superior to their counterparts in public schools in teaching, as well as formative and summative evaluation. Teachers in the two types of schools were, however, rated about the same in "classroom management, student discipline and supervision of co-curricular activities" (Bassey et al. 2011, p.9). Adefeso-Olateju (2012), also notes that the fact that private school teachers take part in the marking of external school examination scripts could be a contributing factor, as they appear to utilise this opportunity to learn from the marking exercise and transfer such knowledge into curricular gains for their pupils. These findings suggest a need to further investigate private school teachers' approach to the construction of effective teaching and learning processes and their personal qualities, beyond academic qualifications that impact their effectiveness. Also, their management, teacher professional development and how their teachers are able to enhance students' achievement are all aspects worthy of investigating.

Finally, I believe key lessons can be derived from the above category of schools, being large, private, government approved and long-standing educational institutions in Nigeria (some having been in existence for over 60 years). This research, therefore, provides school leaders and administrators relevant evidence for their work, especially as the shift towards a 21st-century knowledge economy persists and it is becoming more apparent that schools with the best teachers and leaders will be the ones to be reckoned with as time goes on (Stronge, 2018). It will also enhance the work of policy-makers as they gain a better understanding of the role of schools as an equaliser and that investing in improving the teaching force (irrespective of the type of school) will undoubtedly improve students' performance and achievement. I will be contributing to knowledge in this regard as well as closing the gap in this area.

The following subsection explains the study's research objectives and questions.

1.3 Research Objectives and Research Questions

1.3.1 Research Objectives

The central objective of this study is to understand the lived experiences and dispositions of teachers who have been defined as effective in the context of their schools and the wider Nigerian context and what they articulate as factors that have promoted their effectiveness.

Specific objectives include:

1. to understand how effective teachers in private primary schools in Lagos State understand and describe their effective teaching and learning practices;
2. to understand the personal qualities these effective teachers possess.

1.3.2. Research Questions

This study is underpinned by two major research questions:

1. How do effective teachers in private primary schools in Lagos State understand and describe their effective teaching and learning practices?
2. What personal qualities do these effective teachers possess?

In the following subsection, I summarise various contributions to theory, knowledge, and practices that I have made through this work.

1. 4 Significance of the Study

The study seeks to contribute to closing the observed gaps in the teacher practice and effectiveness literature. As explained in the motivation section above, literature search and review (Adu et al. 2015; Ige, 2017) indicate an extant gap in the body of literature on qualitative research with regards to the lived experiences of effective teachers in the classroom and factors that contribute to shaping their classroom behaviours in large, private, government approved and long-standing educational institutions in Nigeria. It also contributes to the addressing of the

observed deficiency in the existing knowledge on personal attributes of effective teachers. Furthermore, it contributes to understanding the discrepancies in teacher practices and outcomes within schools where teachers with similar qualifications plan together, use the same curriculum, standards and guidelines in large, private, government approved and long-standing educational institutions in Nigeria.

In relation to practice, the study contributes to providing evidence to policy-makers and education managers on teacher attributes, behaviours and practices that contribute to influencing the overall school effectiveness, quality of teaching and learning as well as students' outcomes. For school leaders and managers like me, the study provides bespoke evidence on underlying factors behind successes in delivering learning improvement programmes and interventions that are aimed at improving students' experiences.

In the following subsection, the setting where the study has been conducted to generate these useful conditions is briefly described.

1.5 The Research Context – Private Primary Education in Nigeria

Nigeria is a former British Protectorate in West Africa that got her independence in 1960. The country is currently divided into thirty-six states and a Federal Capital Territory (FCT) located in Abuja. These states are further grouped into six geopolitical zones: north central, north east, north west, south east, south south, and south west. Lagos State, where primary data for this study were collected is located in the south-western part of Nigeria. It was formerly the administrative capital of the country from the time of independence from Britain in 1960 until 12 December 1991 when the country's capital was moved to Abuja.

Officially, Lagos became a state on 27 May 1967. It is the 5th largest economy in Africa (Lagos Economic Advisory Committee (EAC) Sub Committee on Education, 2018) and is regarded as the financial centre of Nigeria. Lagos is the smallest state

by land mass but conversely the state with the highest population density and highest urban population. It has a total population of 24.8 million (ibid) and currently has twenty local government areas (Lagos State Government, 2015; BudgIT, 2018).

The history of education in Nigeria can be traced to the efforts of church missionaries who introduced a Western education system in Nigeria in 1843 (Fafunwa, 1974; 1981). According to Fafunwa (1981, p.52), the missions undertook "the business of education not because it regarded education as good in itself, but because it needed education to do its proper work in spreading the gospel". Thus, the history of formal Western education in Nigeria is rooted in the pioneering work of private (church missions) providers of education, which also served as a springboard for the emergence of government schools across Nigeria (Fafunwa, 1974). Hence, it could be argued that the two prevailing types of formal schools (public and private) in Nigeria developed from the cradle of private efforts.

The primary education level is the key to the success or failure of the whole educational edifice because the rest of the educational system is built upon it. Indeed, the National Policy on Education (FGN, 2004) in Nigeria likens primary education to the key which opens to success or failure of the whole educational system. Akande (2010) reiterates Njoku (2000), emphasising that primary education is very vital and fundamental to all types of education any person can receive in life. Fafunwa (1974) further alluding to the importance of primary education states that 70% of education budget should be allocated to this level of education. According to him, a system that neglects primary education will not have good secondary or university education and neither its economy nor its people will progress. As a result, poverty, ignorance and disease will envelop the people.

Other researchers added that the quality of education and of teachers at that level is key as effective teachers are required to deliver the basic literacy and numeracy skills in the early grades (Adedeji and Olaniyan, 2011; Newman, 2017).

Prior to independence, the Western Region (where Lagos State is located) gave priority to education, making it free and declaring a Universal Primary Education (UPE) for the whole region in 1955 (Fafunwa, 1974; Ajayi, 2006). By 1960, up to 90% of the children of school age in the Western Region were enrolled in school (Oyedeji, 2016). This marked the beginning of educational evolution, not only in the West, but in Nigeria as a whole. To meet up with the demands of the UPE, teachers were trained in large numbers and there were additional teacher training facilities built to accommodate this. The Federal Government took over the responsibility of funding education in the 1970s but failed to fully bear the responsibility through the National Primary Education Board (Olaniyan and Obadara, 2008). The resulting failure of the Primary Education Board at federal, state and local government areas necessitated the establishment of the Universal Basic Education (UBE) in 1999 (Obanya and Binns, 2009). The UBE policy provides that all children between 5 and 15 years should access free, compulsory and uninterrupted nine years of education (six years of primary and three years of junior primary education). However, the policy continues to encounter some of the same problems the UPE experienced, including inadequate supply of qualified teachers. According to Alderman et al. (2001), Lagos State offers a great case study and insight into the role of private provision of education which could be relevant to other States in Nigeria. In the following section, I briefly describe the conceptual framework for the study.

1.6 The Conceptual Framework

In this subsection, I attempt a summary of key issues that are observed in the literature (see chapter 2) that underpin the effective teaching and learning practices as a point of departure for my investigation of qualities and personal attributes of effective teachers. Figure 1.1 diagrammatically summarises these

elements. According to Grant and Osanloo (2014), the conceptual framework describes the relationship between the main concepts of a study. It is arranged in a logical structure and presented as a diagram or in narrative form, showing the key variables or constructs to be studied and the presumed relationship between them (Miles and Huberman, 1994).

Fig. 1.1: Conceptual Framework of Possible Determinants of Teacher Effectiveness

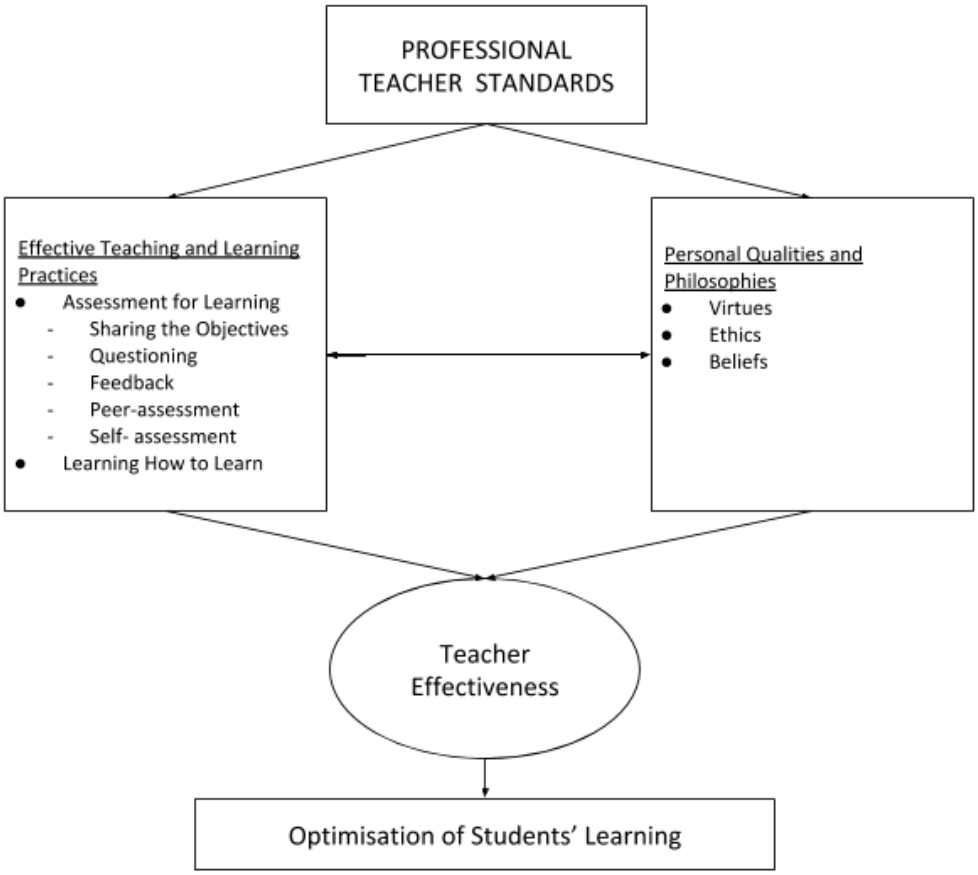


Figure 1.1 above summarises the possible determinants of teacher effectiveness and the relationships between certain constructs identified as important to teacher effectiveness. The classroom teacher is a central figure in students' achievement, and they are believed to be the most important school-related factor in improving students' achievement (Stronge, 2007; 2018), hence, the necessity to look into their effectiveness. For this same reason, most countries

have come up with professional standards to improve teaching practices which are believed to ensure better outcomes for learners (Ceulemans et al. 2012; Adoniou and Gallagher, 2016). The standards spell out minimum sets of knowledge, skills and values a professional teacher should possess. These knowledge and skills form the curriculum content and include effective teaching and learning practices such as Assessment for Learning (AfL) found in the box on the left. AfL is described as the process of seeking and interpreting evidence for use by learners and their teachers in order to decide where the learners are in their learning, where they need to get to and the best way to get there. AfL (as can be seen in the box on the left) has several components which include questioning, use of feedback, as well as peer and self-assessment.

The box on the right, on the other hand, represents values, ethics and attitude which are deemed to be important to the practice of a professional teacher. Indeed, a teacher's values, ethics and beliefs are instrumental to their effective practices (Campbell, 2004) and they drive their goals and right behaviour, which have very important influences on students' learning outcomes and achievements. Some of the values identified in literature that professional teachers possess are moral and intellectual virtues. Moral virtue is described as a disposition to behave in the right way at the right time, while intellectual virtues sharpen people's reasoning, especially with regard to decision making, which teachers engage in all the time. Virtues do not only underpin the moral practice of the teacher and the facilitation of high-quality learning, but they also add value to their students and contribute to their learning (Kinsella and Pitman, 2012).

Therefore, based on literature (e.g. Black and Wiliam, 2013; Kinsella and Pitman, 2012; Arthur et al. 2017; Stronge, 2018) and experience, I believe that the factors enumerated in the two boxes on the left and right jointly lead to teacher effectiveness, which is believed to have a profound impact on the optimisation of students' learning. Thus, these two constructs have been discussed and analysed and run through to the conclusion of the study.

1.7 Thesis Outline

Chapter one lays the foundation for the thesis and presents the background to the study, the motivation and rationale, as well as the research objectives and research questions. The chapter also discusses the significance of the study, the research setting and the conceptual framework.

Chapter two focuses on important arguments and discoveries based on the review of literature in line with the broader themes that relate to my research objectives and questions.

Chapter three focuses on the study's theoretical framework, which is a synthesis of the Dynamic Model of Educational Effectiveness, Constructivism and Virtue Ethics Theory. A justification for this amalgamation is provided.

Chapter four focuses on the research methodology including discussions of the researcher's worldview, research paradigms drawing on the Interpretivism/Constructivism paradigm, research methods with a focus on the qualitative method, research strategies with a focus on the case study strategy, and methods of data collection and analysis. Furthermore, trustworthiness of the study, ethical issues and limitations to the study were discussed in this chapter.

Chapter five is devoted to the presentation and analysis of data on teacher professional knowledge. Three domains of teacher professional knowledge (pedagogical knowledge, content knowledge and pedagogical content knowledge) were identified and discussed.

In chapter six, I focused on data presentation and analysis for instructional planning. I presented two of the basic components pivotal to effective instructional planning: learning objectives and the assessment methods (success criteria) used to check pupils' understanding of the learning objective.

Chapter seven focuses on the presentation and analysis of data for differentiated instruction.

Chapter eight focuses on data presentation and analysis for Assessment for Learning (AfL). In addition, I discussed the four strategies used in practising AfL—Feedback, Questioning, Peer-assessment, and Self-assessment.

Chapter nine focuses on data presentation and discussion on the personal qualities of effective teachers. The two personal qualities identified and discussed in this chapter are Care and Practical Wisdom (phronesis).

Chapter ten (the final chapter) provides a discussion of the summary of key findings that emerged from this study which are relevant to the research questions as well as the contribution to knowledge. The chapter also provides a model of key determinants of teacher effectiveness, conclusion of the study, recommendations for policy and practice, recommendations for further research and implication for theory.

Having presented the key background rationale, research questions and the outline of the thesis, in the following chapter, I summarised key issues and observations from my literature review, which highlights the trends in the literature that this study contributes to enrich and I also contribute to the closing of observed gaps.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The previous chapter has highlighted key rationales and motivations for the study. This chapter summarises my literature review on these issues as well as broader themes that relate to my research objectives and questions. These include literature on the development of educational effectiveness research, the professional standards, effective teaching and learning practices and personal qualities of effective teachers.

In the following section, I will discuss the Development of Educational Effectiveness Research.

2.2 The Development of Educational Effectiveness Research (EER)

EER can be described as a combination of research in several areas such as teacher behaviour, curriculum, school organisation and educational policy (Creemers et al. 2010), therefore in literature, reference to it is made in different ways such as 'school effectiveness', 'teacher effectiveness' and 'educational effectiveness' interchangeably (Creemers et al. 2008; 2010). The main research question underpinning EER is the identification and investigation of different factors that can directly or indirectly explain variations in the outcome of learners (ibid). EER was first undertaken by certain researchers (Reynolds et al. 1994; Scheerens and Boskar, 1997) in reaction to the seminal studies of Coleman et al. (1966) and Jencks et al. (1972) which concluded that although schools were not unimportant, the influence of school on students' outcome was minimal compared to the student's own ability and social background (Reynolds et al. 2014a). EER was thus an attempt to establish and test theories that showed that schools were indeed relevant to students' achievement. Studies on EER received a lot of attention and were very well received because they proved that schools and education were

indeed important and could have an impact on students' outcome (Creemers, 2006). EER has since shown rapid growth as the foundational questions it seeks to answer remain relevant: a) What makes some schools and teachers more effective than others and how does this lead to improved students' learning outcomes? (Creemers et al. 2010) and b) How can more schools become 'good' schools? (Reynolds et al. 2014a, p. 197). Finding answers and explanations to these questions lie at the heart of EER (Creemers et al. 2010), as the research seeks to explain why certain characteristics and factors are related to students' achievement (Reynolds et al. 2014a). Indeed, a distinct feature of EER is that it has no desire to reinvent the wheel but rather concentrates on understanding lessons to be drawn from existing practices (Creemers et al. 2006) from these excellent schools and teachers. This focus of EER is key to answering my research questions and makes it relevant to my study.

EER has gone through several phases within which period three different perspectives and theoretical models were developed (see Kyriakides, 2018). They are the economic perspective, which revealed the relationship between schooling input and educational outcomes, the psychological perspective which investigated the learning processes that take place in the classroom and the sociological perspective which considered the organisational aspect of effectiveness (ibid).

During another phase, EER moved from considering effectiveness through a single approach (as shown above) to an integrated, multilevel structure. The Comprehensive Model of Educational Effectiveness (CMEE) (Creemers, 1994) is an example of such a model and was considered as one of the most influential integrated models developed in the 1990s (Teddlie and Reynolds, 2000; Kyriakides, 2005). CMEE explained how the new multilevel focus of EER influenced student outcomes and the factors associated with these outcomes.

However, research that examined the validity of CMEE revealed that the relationship between factors at different levels were indeed more convoluted

than assumed in such integrated models. This interaction and interrelationship among the factors are believed to be important to investigating differential effectiveness (Kyriakides, 2018). It was on this basis that more recent models of educational effectiveness, which incorporate school and classroom factors as well as the overall educational system and reflect the dynamic relationship between the factors, have sprung up (see Scheerens, 2013). A widely accepted model that reflects this is the Dynamic Model of Educational Effectiveness (DMEE) (Creemers and Kyriakides, 2008; 2013). It is discussed further under Theoretical Framework in Chapter 3.

EER has been criticised for several reasons, not least the inability of its effectiveness characteristics to explain the variance in students' outcomes satisfactorily and consistently (Reynolds et al. 2012), which is one of its main goals.

2.3 Professional Standards for Nigerian Teachers (PSNT)

There is a rise in concern and research on teacher quality and the roles and identities of teachers as the frontline workers in the education sector (Cochran-Smith, 2003; Kosnik and Beck, 2014; Murray et al. 2016), even though there is a lot to be understood about how they are perceived and the defining roles that make them professionals. This debate of the 'professionalism' in the teaching profession is not unique to any geographical location as it cuts across different divides, anywhere you have a teacher in a classroom (BERA-RSA, 2014; Sachs, 2016). Timperley et al. (2007) assert that teachers' professionalism is a universal problem; no country has yet totally emancipated its teachers as professionals in the ideal form, as the fundamental problems which confront teachers are similar the world over. Indeed, some researchers refuse to accept that teachers are professionals but rather insist that they are semi-professionals (Day, 2011; Ingersoll and Collins, 2018).

The perception about teachers in Nigeria is not any different, and those who find themselves in the profession also face the challenge of professionalism complex as they are rarely regarded as professionals. Unlike other professions, almost anyone can become a teacher in Nigeria (Kola and Gbenga, 2015; Onaopemipo, 2019). As Oluremi (2015) notes, teaching in Nigeria is subscribed to by people who could not succeed in their chosen vocations and people who take up the vocation as a part-time job. Iroegbu and Ogbodo (2019, p. 40) refer to it as an 'all-comers affair' since anyone who has a certificate and is literate can become a teacher in Nigeria. With a high unemployment index across the continent, those who can find a place in a classroom greatly cherish the opportunity rather than an endless wait for a white-collar job (Kola, 2016). Mogboh (2017) adds that teaching has been seen as a mere activity, occupation and vocation for the academic losers. These observations about teachers and the teaching profession are not unfounded when one considers some of the underlying issues. First, unlike other professional bodies like Law, Medicine, Engineering and others that efficiently regulate entry into their profession, the door seems wide open in the teaching profession (Kola, 2016). It was based on this poor perception, according to the Teachers Registration Council in Nigeria (TRCN) (2010), that the Professional Standards in Nigeria were established, first to clarify and enforce the minimum standards and qualifications needed to become a teacher and also to act as a regulatory framework for professional teachers. The standards spell out the minimum set of knowledge and skills a professional teacher should have as well as core values, attitude and conduct they should exhibit (Arikawei and Benwari, 2015).

While Nigeria and many other countries have found it important to establish Teacher Standards in a bid to produce quality teachers (Santoro et al. 2012), an action which has met with approval in some quarters and declared to be key in improving teacher quality (Forde et al. 2016), it is still not universally accepted. Critics claim that, rather than improve teachers' practice, Teacher Standards are

too prescriptive and give little room for flexibility. It has also been criticised for reducing teacher autonomy (e.g. Connell, 2009; Bourke et al. 2013) as teachers are not able to apply professional judgment to numerous problems and dilemmas that are unanticipated and which they have to deal with frequently (Sachs, 2003). This suggests that Teacher Standards are seen as a tool which promotes performativity and used more for regulation of teachers and the profession, rather than as a sincere tool meant to develop the practice of teachers. It is believed among critics to be the reason behind high teacher attrition (Torres, 2012; Ryan and Bourke, 2013). Some have also called standards ineffective and support this claim with the fact that there is insufficient evidence of any direct link between Teacher Standards and improved students' outcome (Adoniou and Gallagher, 2016). This argument is valid, as evidence shows that though most teachers have the standards to guide their practice, yet not all teachers are effective (ibid). This shows that the use of standards alone might not be the basis for effectiveness.

It is, however, interesting that the Professional Standards for Nigerian Teachers refer to 'minimum standards' (TRCN, 2010, p.4). By referring to the codes of practice in the document as minimum standards, it shows that the standards do not restrict Nigerian teachers from making wise professional judgments when necessary, which refutes the argument that standards are inflexible.

Standards are important as they more or less sum up teaching. It is a document that brings all the important elements of teaching together, expectations of teachers which are not part of the school curriculum, but which are important to the teachers' practice (Adoniou and Gallager, 2016). Standards are also used to standardise practice; this is essential for a beginning teacher especially, while also protecting the learner from incompetent teachers. That said, it is important that standards do not restrict the practice of more experienced teachers who should not be bound by the 'minimum standards', or teachers (no matter their experience) who are faced with contextual situations but which are not specifically

covered by the standards or the school's curriculum. Teachers should be given the autonomy to make decisions in the best interest of their students (Sachs, 2003; Worth and Van de Brande, 2020).

It is however worthy of mention that my extensive search for discussion and criticism of the Professional Standards for the Nigerian Teacher produced nothing and further discussion with the Registrar/Chief Executive Officer of The Teachers' Registration Council (TRCN), (the body that generated the standards), confirmed that there is a dearth of scholarly debates on the Nigerian Teacher Standards.

2.4 Effective Teaching and Learning Practices

Today's classroom is more dynamic and complex than ever before (Dube, 2015). The expectations are different, the requirements are broad, and the stakeholders are more (Baltodano, 2012). According to Stronge (2018), the shift to a knowledge economy has put more demands on the education sector and in particular, teachers and the quality of their teaching. Researchers postulate that there are differences in how much students learn with different class teachers, and this difference, which is quite significant, depends on their quality (Fitchett and Heafner, 2018). Hayes et al. (2006) state that teacher quality, above all else, has a considerable influence on the outcomes of students compared to any other variable. They proffer that focusing on the school as a whole might be less effective than focusing on classroom learning level which they believe has the potential of better influencing students' learning. Further, Hattie (2009) opines that the impact of the classroom environment on pupils' attainment and learning must be taken more seriously.

Thus, the following subsections seek to highlight some of the distinct practices and features of effective teachers, including core areas that determine their effectiveness - professional knowledge, instructional planning, differentiation and formative assessment.

2.4.1 Professional Knowledge

The 21st century classroom places a demand on teachers to possess substantial professional knowledge, so they can adequately respond to the needs of the students within their educational context (Stronge, 2018). Such knowledge is increasingly seen as important in the information economy of today and is deemed relevant to the core professional practice of teachers. Teacher knowledge is believed to be the nucleus of effective teaching and therefore becomes important in a study like mine that seeks to understand how teacher effectiveness optimises student learning. Shulman (1986; 1987) proposes that teacher professional knowledge, which has to do with the content of teachers' knowledge base, should comprise general pedagogical knowledge, content/subject matter knowledge, pedagogical content knowledge, knowledge of learners and their characteristics, knowledge of educational contexts and knowledge of educational ends, purposes and values. Shulman's (1986) categorisation has been largely adopted as a comprehensive grouping of the sources of teacher knowledge, though some other researchers have identified additional sources of professional knowledge while criticising Shulman's categorisation as being too limited in scope (Worden, 2015). This is because they mainly look at the cognitive characteristics of knowledge, rather than also incorporating procedural knowledge (Konig et al. 2020). The limitation may also be attributed to global changes which Shulman's categorisation do not cover. For example, ICT and other new educational technologies and methodologies that have emerged over the years. Besides, the metacognition of one's teaching practice has been identified as a very important aspect of teacher knowledge (Hacker et al. 2009; Hartman, 2013). Having metacognitive skills show a teacher as being a reflective practitioner, which is considered valuable in effective teaching (Railan et al. 2017). Therefore, the professional knowledge as proposed by Shulman, is not seen as comprehensive and even though still relevant according to Konig et al. (2020), it needs to incorporate situation-specific skills in order to predict instructional practice.

Stronge (2018) however, supports Shulman's categorisation, highlighting three types of professional knowledge teachers must master: Content Knowledge, Pedagogical Knowledge, and Pedagogical Content Knowledge. These three types of professional knowledge are discussed in the next two subsections.

2.4.1.1 Content Knowledge and Pedagogical Content Knowledge (PCK)

Teacher knowledge is a body of professional knowledge that encompasses different knowledge areas a teacher should possess including the knowledge of the subject matter to be taught (Worden, 2015). Content knowledge (also referred to in this study as subject knowledge or subject matter knowledge) has generally been identified as a strong factor in the practice of effective teachers (ibid). Indeed, literature is consistent about the relevance of the teacher's knowledge of content to students' learning (e.g Stronge, 2010) and establishes that there is a positive association between the teacher's content knowledge and student outcome across grade levels (Agathangelou et al. 2016; Harris and Sass, 2009). Some researchers, however, argue that the association between teacher content knowledge and student achievement is not direct (Sadler et al. 2013; Baumert and Kunter, 2013) therefore, does not have much impact on student achievement. Be that as it may, effective teachers are believed to make use of their subject knowledge to bring about understanding to their students (Hattie, 2011) and extend their learning (Rice and Kitchel, 2016). In line with this, Shulman (1986) insists that the person who presumes to teach subject matter to children must demonstrate knowledge of that subject before proceeding to teach.

Content knowledge is all about having mastery of the subject matter one teaches and possessing more accurate knowledge of the facts, concepts, theories and principles related to the subject, thereby enabling the teacher think more critically (Knight, 2017). It is also important and necessary for "understanding the organising principles and structures, and the rules for establishing what is legitimate to do and say" in a classroom (Ball et al. 2008, p. 391).

Further, Guerriero (2017) notes that at some point there was a shift from teacher's knowledge of content to the teacher's capacity to teach. The question is where did the subject matter go and what happened to content? This concern has always existed especially with the influx of all and sundry into the teaching profession (Arikawei and Benwari, 2015) hence, there is a need for further investigation in order to understand it. According to literature (Ball et al. 2008), it would seem that some teachers depend on the procedural model of teaching to cover up their lack of deep understanding of their subject as they make good use of generic pedagogical skills. But good pedagogical skills alone would not suffice as subject knowledge is also believed to be very important in promoting the teachers' understanding of the structure and sequencing of concepts (Stronge, 2018) and helps teachers make links as they understand how different branches within a subject connect (Roche, 2018). This situation where teachers show shallow content knowledge was found mostly amongst primary school teachers, who unlike their counterparts in secondary school, teach several subjects without specialising in any (McKeon 2004; Heywood 2005; Catling and Morley, 2013).

That said, some other researchers argue that what is important is not just for teachers to have good content knowledge but rather pedagogical content knowledge (PCK), which is the knowledge needed to make subject matter accessible to the learner (Shulman, 1986; Ball et al. 2008; Hume et al. 2019). According to Ball et al. (2008), PCK covers two key areas: knowledge of students' subject-specific conceptions and misconceptions, as well as knowledge of subject-specific teaching strategies and representations (Ball et al. 2008; Park and Oliver, 2008; Reeves and Robinson, 2016). PCK is a 'special knowledge' teachers have that dictates how they teach particular content (Loughran et al. 2012). Jones and Morland (2015) believe that PCK is well utilised by primary school teachers.

PCK is content-specific, meaning that novice teachers may struggle with it and even experienced teachers who have not engaged with a particular content

previously may require support (Jones and Morland, 2015). A big question for researchers has been to uncover the possibilities of transfer of knowledge in the area of PCK such that teachers who have not engaged in a particular content area can benefit directly from the knowledge and experience of teachers who have. This is why Mulhall et al. (2003) advocate for an approach that helps to "present teacher knowledge in a format which may be reusable by other teachers" (p.1). Though it may not be easily transferable as it is not the same for all teachers even within the same subject area.

However, PCK seems to be an area that is not often discussed even amongst teachers, as more attention is given to pedagogical knowledge (Auerbech, 2019). It is, in fact, sometimes described as a complex construct with most of the research on it speaking more to researchers and academics than classroom teachers (Loughran et al. 2012). More research is still required on providing concrete examples of how teachers can facilitate particular subject areas in a way that promotes understanding. As Shulman (1987) suggests, PCK is an important component of teacher professional learning which should be given more attention and value in the education space. With this, I will introduce discussions on another type of Professional Knowledge called Pedagogical Knowledge.

2.4.1.2 Pedagogical Knowledge

Pedagogical Knowledge is the knowledge of how to teach and share information with learners in a way they would clearly understand (Gess-Newsome and Lederman, 2006). Loughran et al. (2012) opine that what we teach (the subject content) is as important as how we teach (pedagogy). In other words, it is not sufficient to have deep subject knowledge, rather, the ability to translate such knowledge into student learning in the classroom is essential (Hill et al. 2005). Pedagogical knowledge presents a case for why teaching should not be regarded as a semi-profession, as while a lot of people may have knowledge of what

teachers teach, often, it is professional teachers who know how to teach it (Guerriero, 2014).

Teacher knowledge is not static as it keeps evolving, requiring more flexibility and adaptability to different contexts and challenges. For example, given the impact of Covid-19 pandemic on the education sector, which forced schools to close for a few months, what kind of pedagogical knowledge would have prepared teachers for the inherent challenges with an extensive use of virtual learning to deliver lessons? Whilst most of their previous training and knowledge would be relevant, it would still require some sort of adaptation and new learning. Thus, Mclnerney (2002) posits that knowledge is ever changing in nature and is continually modified through experience and learning. Some critics, however, argue that teachers' pedagogical knowledge is often outdated and not based on recent research evidence (Dumont et al. 2010). It is believed that teachers do not keep tabs on the evolving trends and changes, and how it affects their pedagogy and that they are stuck with prior knowledge of teaching and learning. For instance, Guerriero (2017) argues that some of the recent research indicates how the human brain works and how the learner's brain can be affected by social interactions between parents, peers and teachers. This he believes, should in turn inform the teacher's pedagogical practice and guide them in adapting their lessons appropriately. Some critics opine that the teaching profession has not kept pace with the recent pedagogical and learning research (Dumont et al. 2010), as the works of Piaget (1936) and Vygotsky (1978) are still largely referenced by teachers today. For example, Siemens (2004; 2017) challenges the works of Piaget and Vygotsky, citing new advancements in research on how students learn, especially in a technological age. However, one cannot completely discard the traditional theories of pedagogy being adopted by teachers as research shows that they have a positive impact on students' learning outcomes (Loyens and Gijbels, 2008). Guerriero (2017) noted that "in a comparative analysis of teaching practices between 2001 and 2011, teachers across all grades and subjects report that they

ask students to relate what they learned to their daily lives, to explain and elaborate their answers, interpret data and text, and to observe and describe natural phenomena to a greater extent in 2011 than in 2001" (p.43), suggesting more active learning is taking place, as opposed to passive learning. Presumably, these changes in practice would not be possible without a corresponding change in teachers' knowledge. The debate on whether teachers' knowledge is changing or not remains unresolved and more research remains to be done in this area (see Nuthall, 2004; Salter and Kothari, 2016; Loughran, 2019). I will discuss two types of pedagogical approaches to teaching and learning next.

2.4.1.3 The Teacher-Centred and Learner-Centred Pedagogy

The traditional approach to teaching is the teacher-centred approach, where the teacher is the arbiter of knowledge and the learners are in the classroom to listen and glean from the teachers' knowledge (Wright, 2011). Abdi (2014) suggests that students welcome the information provided by their teachers without giving a second thought to it. Thus, the learner is mostly passive and dependent on the teacher to guide and lead their learning. The teacher-centred approach assumes that all the students have sufficient background knowledge and can learn at the same pace (Elen et al. 2007; Wendorf, 2018). However, research shows that this is not the case (Dunne and Gazeley, 2007; Sritha, 2015), and indeed there are several reports which state that teacher-centred classes may be less productive and in some instances inhibit the students' learning process (e.g. Schwerdt and Wupperman, 2009; Duckworth, 2009).

The learner-centred approach on the other hand, is considered to be a more effective approach to teaching (Moate and Cox, 2015). The learner plays an active role in the learner-centred classroom. The role of the teacher is more of a facilitator of learning, helping to guide the learners and helping them in discovering, developing new knowledge while connecting them with previous knowledge (Goodyear and Dudley, 2015). It is clear that some teachers may not

appreciate this approach as it may require them to do less, while the students are actively involved in discussions and group work (Keila, 2018). Arseven, et al. (2016), however, offered a different view noting that teachers actually need to do more in adopting the learner-centred approach as more planning and preparation is required to make it work. The learner-centred approach is built on the idea of Constructivism largely influenced by Jean Piaget (1936, cited in Schunk, 2012), though Piaget's submissions have both been widely used and criticised at the same time. One of the criticisms has to do with the word 'constructivism' (p.486). According to Sjøberg (2010) "some call constructivism a new orthodoxy, a fad and a fashion, a movement, or even a religion with different sects" (p. 486), but rather, Staffe and Gale (2012) define constructivism as an important learning theory based on the idea that learners build on their existing knowledge in order to acquire new information. Elliot (2000) further observes that it involves "people actively constructing their own knowledge and that reality is determined by the experiences of the learner" (p. 256).

The learner-centred pedagogy advocates for the learner to be the focus of learning, allowing them to construct their own knowledge and understanding rather than rote mastery of course content (Baeten et al. 2013). Stronge (2018), opines that teachers who run student-centred classrooms, using methods such as asking higher-order questions, involving students in more inquiry based learning and allowing more student directed activities are able to help students understand the very process of learning thereby promoting independence and improvement of their learning outcomes.

Constructivist learning requires the active participation of the learner in the learning process. The teacher's primary task here is to create a conducive environment for the learners to express themselves and take charge of their learning (Sjøberg, 2010). Brown (2003) opines that the focus on the process of learning and the context in which learning occurs is considered to be as integral as, or more integral than, the specific content knowledge presented to students.

According to Guthrie (2002), in constructivist classrooms, “curriculum is generally a process of digging deeper and deeper into big ideas, rather than presenting a breadth of coverage” (p. 1465). There is also emphasis on prior knowledge of the learner, as new knowledge should be built on previous knowledge. However, the learner-centred approach will still require some form of content knowledge as teachers are still required to be activators of learning (Hattie, 2009). In this role as activator, teacher action involves reciprocal teaching, feedback, teaching mastery learning and students’ meta-cognition strategies, among other things (Hattie, 2009). Moate and Cox (2015) also note that “course content is used as a starting point for stimulating intellectual exploration in students” (p.383).

Meanwhile, the role of the teacher in a learner-centred pedagogical approach has been criticised for not being structured and well defined. Goodyear and Dudley (2015) refer to it as being ‘narrow’. Also, Kincheloe and Horn (2007) assert that students constructing their own learning as highlighted by Piaget (1936, cited in Schunk, 2012) does not invalidate instruction as an integral part of their cognitive development. Hanushek (2012) is also of the view that increase in learning disabilities can be traced to ‘teaching disability’, highlighting the continued use of the learner-centred approach as the challenge, as teachers attempt to stimulate natural learning of secondary cognitive abilities. These criticisms also align with some of the earlier gaps found in Piaget’s work, though as Blake and Pope (2008) observe, Piaget was not interested in education neither were his writings for classroom instruction or teaching effectiveness. Also, considering that most teachers were trained to be the expert in the classroom and are used to dishing out knowledge to the students, becoming a constructivist teacher may require a difficult transformation.

Studies show that this is still a common practice amongst teachers in Nigeria, who struggle with handing over the reins to their students and “placing them at the wheel of classroom instruction” (Onwe and Uwaleke, 2018, p. 6). Indeed, the Nigerian teachers could have found support in the National Curriculum, as

according to Idogbo (2016) the Nigerian education system promotes teachers being in charge, as they do most of the talking, while students listen. Onojerena and Eromosele (2018), emphasise that teachers in Nigerian schools are yet to fully embrace a student-centred approach to teaching and they are still more inclined towards the teacher-centred approach. According to Connell et al. (2017), teachers find this transition from teacher to learner centredness difficult, partly because standing in front of the class talking, presents less challenges than when creating an environment where students take centre stage. Lasry et al. (2014) reason that most teachers still struggle with what they feel is the loss of control of their classroom and authority and that a lot of teachers are temperamentally orientated towards controlling or leading the students in their class. Halpern et al. (2020) however note that a paradigm shift is needed, including the willingness to move from accustomed views and practices to the adoption of new ones.

A variant to Piaget's (1936) constructivist theory is Vygotsky's (1978) social constructivism. Vygotsky, a contemporary of Piaget was more interested in understanding the social and cultural conditions for human learning (Blake and Pope, 2008). He emphasised the collaborative nature of learning, which he believes precedes development, unlike Piaget's stance that the learner's development must precede their learning. A major inference from the approach of Vygotsky on learning and teacher pedagogy is that he emphasises that learning happens not by independent exploration but by interaction with others within a socio-cultural environment such as a classroom.

However, Chew and Cerbin (2017) note that sometimes teachers may have to try different ways to get students to learn, especially as there is no sufficient theory of learning that encapsulates the complexity of interaction that occurs between the teachers and their pupils. Also, in practice it appears there is rarely a dichotomy between the two approaches but rather a continuum which allows for a blend of teacher and learner-centred practices. In the next section, I shall be presenting my findings on instructional planning.

2.4.2 Instructional Planning

Instructional Planning is the bedrock of effective teaching and the logical first step that a teacher requires in the teaching process (Stronge and Xu, 2006). It must be well directed by good professional knowledge (Auerbach and Andrews, 2018) such as pedagogical and pedagogical content knowledge. It is seen as integral to all teaching and learning processes that take place before, during and after instruction (Auerbach and Andrews, 2018). Therefore, it can be assumed that without careful planning all the other aspects of the teaching process will fall apart and that it is of utmost importance in achieving success both in teaching and learning (Chen and McCray, 2014). Instructional planning is necessary in meeting the needs of all students and key to the practice of differentiation (Stronge and Xu, 2016). Key components of teacher's instructional planning involve setting out learning objectives and success criteria for the learners (Haynes, 2010; Stronge, 2018). As Ko and Reed (2012) note, effective teachers excel in stating clearly the intended outcomes of each lesson.

2.4.2.1 Learning Objectives and Success Criteria

Clear learning objectives help teachers in preparing adequately for the task of teaching and in developing purposeful, engaging and effective lessons. Reed (2012) describes learning objectives as "a clear road map to achieve an end" (p.16). Learning objectives specify what the teacher is trying to attain in a lesson. It not only helps the teacher to make clear what to be achieved in class, but also assists the teacher communicate rightly to the pupils in terms of what they are to learn (Haynes, 2010). Planning for instruction begins with the learning objectives as it helps the teacher to concentrate on what is essential for learning (Haynes, 2010). While Goslin and Moon (2001, p.5) emphasise that "there is no absolutely correct way of writing learning objectives", Dymoke and Harrison (2008) suggest that teachers should always remember as they write these objectives that they are developing learning objectives and not teaching objectives. Similarly, Crichton and McDaid (2016) observe that some teachers use learning objectives to convey

what the lesson is about rather than what the students will learn, hence their learning objective becomes teacher-centred rather than learner-centred. In other words, learning objectives should be written with the learners in mind; geared towards meeting their individual needs, rather than the teacher's needs. In a small scale exploratory study of two schools in the West of Scotland focusing on teachers' views on the use of learning objectives, Crichton and McDaid (2016) note that the teachers had not received any formal training on writing out learning objectives even though it was a practice the school expected them to keep. This highlights some of the confusion teachers have with the writing and use of learning objectives as they are not clear on what is expected and thus are unable to properly communicate the same to the learners (DfES, 2007; Ofsted, 2008; Absolum 2010). Ceranic (2009) notes that novice teachers may struggle with the correct use of learning objectives as their major objective in planning may be one of controlling bad behavior. Indeed, according to Haynes (2007) "planning is one of the most important steps on the road to becoming a fully developed teacher" (p.3). The literature on lesson objectives shows that what teachers often struggle with is not the knowledge or awareness of the importance of having lesson objectives, but rather how to implement it.

What is obvious from the literature is that teachers need clear guidance for the use of learning objectives for it to be used as an effective AfL tool (see James and Pedder, 2006; Boyles and Charles, 2010). As James and Pedder (2006) note teachers may employ it in a superficial manner if they are not clear on what to do. Also, as seen in the study by Boyles and Charles (2010) when teachers are not clear on a practice the strategies they adopt may even inhibit learning.

A common approach adopted by teachers is to state the objectives of the lesson at the start of the class. Some critics argue though that explicitly stating the objectives at the start of a lesson with accompanying instructions could make students passive and lead to superficial learning (Blair et al. 2007). They suggest that a better approach is for the objectives to be negotiated throughout the lesson

to give learners the opportunity to guide and direct their own learning and discovery. This is in line with the learner-centred pedagogical approach. The teacher in this case is facilitating learning rather than using a direct approach. Some teachers get students to write down the learning objectives which Crichton and McDaid (2016) note as a practice that has a 'settling effect' on the students and provides some support in classroom management particularly where the learners are young. Even though some other researchers advocate the use of the learning objectives as an opportunity to involve learners in their own learning by discussing it rather than just something that is copied off the board (Black et al. 2003; Black and Wiliam 2013). Writing learning objectives should not be a regular routine task teachers undertake without any real meaning or impact (Ceranic 2009).

Success criteria are associated with learning objectives (Stronge, 2018). They are developed by the teacher to describe what success looks like and help them to make judgments about the quality of student learning (Wiliam, 2013). According to Hall and Burke (2004) success criteria help both teachers and students to make the right judgment regarding the quality of their learning. Hall and Burke (2004) are of the view that success criteria help to push "pupils towards higher standards, involving pupils in dialogue about their own work in relation to success criteria, builds ownership of the assessment process and offers pupils more control over their learning" (p. 55). In other words, linking the success criteria to learning objectives lets the pupils become aware of their success (Hall and Burke, 2004). They are measures used to determine how well learners have met the learning objectives (Wiliam and Leahy, 2015). The success criteria must be properly communicated to the learner. Not making it known 'keeps the judgment subjective' (Hall and Burke 2004, p.54). As Hall and Burke (2004) note, the success criteria must not remain in the teacher's head. Students need to know what is expected and what success will look like before attempting a task. Traditionally, teachers are used to being the final arbiter and judge in the classroom, waiting to

pass judgment on the outcome of the learners' work at the end of the class. However, Black and Wiliam (2009) opine that learners are more effective and committed when they have a sense of how their work will be judged. Some researchers also suggest involving the learners in the process of setting success criteria, rather than just passing it on to them, noting that involving learners in the process gives them a sense of ownership and control over their own learning (Shepard, 2000; Crichton and McDaid, 2016).

It can also be used during peer and self-assessment which promotes a high degree of student independence in their learning (Crichton and McDaid, 2016).

A gap in the literature on the use of success criteria though, is that it fails to highlight the appropriate age to start using this approach. For example, is it more effective with older students in upper primary or secondary classes or can it be used by all learners in the primary school and beyond?

2.4.3 Differentiated Instruction in the Classroom

The classroom today, more than ever, is made up of varied learners from diverse backgrounds, interests, skills, colour and aptitude (Pozas and Schneider, 2019; Karatza, 2019; Pozas et al. 2020). Being a teacher, therefore, is not as straightforward as it used to be as teachers find that the differences which they have always known exist (Tomlinson, 2017) in children can no longer be ignored. Being an effective teacher, thus requires the use of teaching strategies that are innovative and creative which can meet individual student needs. Teachers in a differentiated classroom have to take into consideration the varying learning abilities of their student, while striving to give each learner access to the curriculum in the way that best fits their readiness, prior knowledge, interests and learning profile (Robinson et al. 2014). Differentiation is defined as "processes by which differences between learners are accommodated so that all pupils in a group have the best possible chance of learning" (Bartlett, 2015, p. 5). The classroom in the 21st century is very dynamic and there are increasing differences

in students who are of similar ages grouped together in a class. The fact is though they are similar in age in the same class, but their needs are in variance to each other (Tomlinson, 2017).

As Tomlinson (2014) notes, a teacher's question remains much the same as it was 100 years ago: "How do I divide time, resources, and myself so that I am an effective catalyst for maximising talent in all my students?" (p. 2). This is indeed a global challenge for teachers and something even teachers within the context of this study have to grapple with, for example, in the aspect of time. There are extraneous factors that may have an impact on the time available to teachers in Nigeria to plan and prepare effectively for their lessons, not least the sheer population of Lagos State which makes commuting to and from school tedious and time consuming. Indeed more studies are needed on the indirect impact of socio-economic factors on teacher effectiveness.

Given the above, the reason for differentiation is not a flippant one but a necessity for teachers today. Even before the name differentiation was coined (Tomlinson, 2014) teachers have adopted different approaches in their quest to reach all learners in the classroom (ibid).

Teachers must avoid a one-size-fits-all approach (Brighton et al. 2005; Hertberg-Davis, 2009; Wu 2013; Westwood, 2013) but creatively find ways to cater to the individual needs of the learners, knowing that as Gregory and Chapman (2007) assert, "students do not all learn the same thing in the same way on the same day" (p. 4). This requires a lot of practice, training and experience (Taylor, 2017). Terwel (2005) opines that novice teachers may struggle with differentiating effectively without leaving some learners out. Differentiation allows the teacher to work sometimes with the whole class, small groups and individual learners (Tomlinson, 2017). In differentiated classrooms, teachers are aware that learners are different and thus adopt varied learning and instructional approaches in meeting the individual needs of learners in the classroom. Whilst the teachers are experts in

the content, they keep learning the best approach to engage the learners. Rather than the content, the learner is the teacher's first priority in a differentiated classroom. This is supported by Gregory and Chapman (2007) who state that the teacher needs to know the learners and help ensure that the curriculum fits the learner, rather than the other way round. Differentiation is learner-centred with a constructivist underpinning as Tomlinson (2017) notes "differentiated classrooms operate on the premise that learning experiences are most effective when they are engaging, relevant, and interesting to students" (p.8). There is also a temptation to think that only certain learners require differentiated instruction. Educators use different labels in describing learners of different abilities – high-flyers, less-able, gifted-learners (Tomlinson, 2001; Lucas et al. 2013; Buttriss and Callander, 2014). The important thing is not the label but the provision made to adequately meet the needs of all the learners. Every student will benefit from the teacher's focus on their learning journey, spotting where they may need support or encouragement. The goal here is to get every learner to reach their potential as learning happens when learners are challenged. That said, Tomlinson (2017) posits "If the challenge is too great, and tasks are far beyond a student's current point of mastery, the outcome is frustration, not learning" (p.14). Conversely, Sousa and Tomlinson (2011) make a case for greater engagement for 'more able' students too, noting that they should not be overlooked.

Teachers deploy a variety of instructional strategies in a differentiated classroom including differentiation by content, process, product and by learning environment (ibid). Teachers also differentiate instructions based on the learners' learning style. However, Muijs and Reynolds (2018) insist that this form of differentiation is not validated by research, while Geake (2008) says that modifying a teaching approach to cater for differences in learning style, does not result in any improvement in learning outcomes.

2.4.4 Formative Assessment

Assessments are an integral part of effective teaching and a key component of learning. They are an important prerequisite to instructional planning and the ability to cater to the differences of students successfully (Gregory and Chapman, 2007). Assessments are used to systematically gather, analyse and use relevant student data to measure performance or progress and to guide instructional content and delivery methods (Stronge, 2018). Classroom assessment can be in three main ways - pre-assessment, formative and summative assessment (Black et al. 2003). These different types of assessment serve different purposes.

Pre-assessment (or diagnostic assessment) is used to discover prior knowledge as well as the students interests, beliefs, skills or attitudes which aid the teacher in planning teaching and learning that can promote the readiness of the student to learn new things, while formative assessment, also known as Assessment for learning (AfL), is an approach that helps students become more involved in the learning process and as a result able to gain confidence in their learning (Black et al. 2003). While formative assessment prioritises students' learning in its design and practice (McMillan, 2013), summative assessment focuses on the evaluation and judgment of how much a student has learnt. Formative assessment can thus be distinguished from summative assessment based on the fact that the purpose of the former is accountability, while the purpose of the latter is to gather evidence for the cause of adapting teaching to meet learners' needs (Wiliam, 2007) whilst promoting active, self-regulated learning in line with the constructivist theory.

Teachers in a classroom where AfL is practised, remain facilitators of learning who are in class to guide the children (ibid) and who remain learner focused using assessment to shape students' learning as they keep modifying their teaching to cater for their students as individuals. While summative assessments are also important and serve a specific purpose, they are not able to identify the problem

a learner encounters during learning that is causing confusion, nor do they offer strategies to help the student improvise. Such assessments are not followed up with useful advice and the learning function does not seem to be the focus (Black et al. 2003). Also, this type of assessment may be inadvertently promoting competition among learners due to grades being attached to such assessments, rather than personal improvement (ibid). However, these summative assessments can also be used formatively for learning (Brookhart, 2011). Even though there has been a lot of focus on summative assessments (Harlen, 2007), perhaps because of the grade culture in the education sector globally, formative assessment is also gradually gaining grounds as educators agree that while the final output is important, the learning journey also plays a significant role (Popham, 2008). This has encouraged a lot of research around the use of formative assessments in schools. The research around formative assessment has evolved over the years; even in Nigeria, where this research is conducted, there have been significant changes in the adoption of assessment techniques. The onset of formal education in Nigeria saw the adoption of summative assessment methods where learners were assessed through a single exam at the end of the school year. Results from such promotional exams determined students' placement either into the next class or for a final certification. These exams were the focus of learning and thus were the main yardstick in measuring student performance. Bassey and Idaka (2008) opine that the use of one final examination at the end of term to determine students' performance is unfair and cannot give a true representation of an individual student's ability. With the limitations of this approach, a new system of education (the 6-3-3-4) was introduced and with it came a new and formative way of assessing learning outcomes known as 'Continuous Assessment' (Nworgu, 2015). Black and Wiliam (1998, p. 7) have made important contributions to the research on formative assessment and define it as "including all activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify the teaching and learning activities in which they

are engaged". Formative assessment has been identified as an important driver in raising students' achievement (Bartlett, 2015) and also doubles the speed of learning (Wiliam, 2011). Researchers (e.g. Black et al. 2003; Black and Wiliam, 2013; Bartlett, 2015) have identified four key formative assessment strategies that teachers can adopt to improve their teaching and students' learning:

2.4.4.1 Questioning

For teachers to assess the learning of their pupils, they have to adopt questioning as a technique. According to Bartlett (2015), it is perhaps the most frequently used method in the classroom as teachers have also realised that it is integral to effective teaching as well as their practice (Black et al. 2003). However, though a common technique, it is often underutilised (Bartlett, 2015). Webb and Jones (2009) suggest that teachers assume they are already using it well, given that it is something they use regularly. In studies related to how teachers in Africa adopt questioning, Dibu-Ojerinde (2005) and Akom (2010) assert that informal assessment strategies are frequently utilised in African classrooms, with oral questioning being one of the most dominant methods. The aim of questioning is to challenge learning and to motivate pupils to actively engage with their minds, and also support them to make natural connections in their learning. While there are debates regarding the fact that pupils in classrooms where teachers do more of the talking outperform pupils whose teachers talk less (e.g Wiliam, 2011), others argue that the quality of the teacher input is the key determinant in pupils' achievement (e.g; Bartlet, 2015; Black and Wiliam 2013) this is because questioning has the potential to encourage richer discussion between the teacher and the pupils whereby a wealth of information from which to judge the current understanding of their students is evoked (Black et al. 2003). More significantly, it gives the teacher the opportunity to plan the next steps in instruction so that the "challenge and pace of lessons could be directed by formative assessment evidence rather than simply following some prescribed agenda" (Black et al. 2003, p. 88).

Research shows that teachers ask a vast number of questions daily in the classroom (Spendlove, 2011). What is not clear is if most of those questions are higher-order questions that will encourage the learners to develop higher-order thinking skills (Haynes, 2010). One of the earliest references to questioning is the Socrates' use of questioning in Plato's 'The Republic' (Tienken et al. 2009). The literature indicates that teacher education programmes provide little or no training on how teachers can actively develop the skill of questioning appropriately. For most teachers, it is not even regarded as an area of competence, but rather something they do naturally. However, Hill (2016) asserts that "questions do not always come easily to the mind, teachers must find them" (p.661).

The benefit of using questions to teach and clarify understanding has been recognised for centuries (Hill, 2016). Questioning, when used effectively, can actively engage students and encourage learning. Literature suggests that the use of appropriate questions has a positive impact on students' learning (Black et al. 2003; Bartlett, 2015). Questions encourage metacognition in learners as they become more aware of the learning process; correct responses reinforce their understanding while incorrect responses help them and the teachers identify areas they may require more clarity (James et al. 2007; Black and Wiliam, 2009). There is a need for students (and teachers too) to develop their higher-order thinking ability, especially in today's world. According to Doharty (2017, p.2), "questions that probe for deeper meaning foster critical thinking and higher-order capabilities such as problem-solving, and encourage the types of flexible learners and critical thinkers needed in the 21st century." The use of questioning has also been identified as an important factor in supporting students' cognitive engagement (Morge 2005; Chin 2006; Bartlett, 2015). Research suggests that questioning is one of the key AfL strategies which can be used to promote learning (Black et al. 2003; Jiang, 2014), and it also helps in driving creativity in learners, as it allows them to think deeply and share their ideas (Bartlett, 2015).

However, the benefits highlighted above can only be achieved if questioning is deployed correctly. Questions need to be appropriate and precise for teachers to gain a proper understanding of where the pupils are and for pupils to gain the correct knowledge and apply the correct thought processes when learning. For instance, Bartlett (2015) discourages the practice of asking questions randomly and allowing students to put up their hands should they want to respond, as it could give room for inactiveness of some students who do not put up their hands to respond as students have the option of choosing whether they want to be involved or not. Bartlett (2015) thus advocates for a 'hands down policy' and target questioning (p.113). The advantage of this approach is that it keeps learners on their toes as no one knows who the teacher could call.

Teachers must allow time for learners to think through their responses, as some students might know the answer but be too shy to indicate. This is often referred to as 'wait time' (Bartlett 2015, p.113). Wait time is needed to give learners the opportunity to properly think of their answers before responding and to avoid wrong assessment. Smith et al. (2003) suggest that the average time needed for an appropriate response is 7 seconds or less while other researchers posit that more time is required (Simonds and Cooper, 2014; Bartlett, 2015; Hill, 2016). Indeed, the research suggests a strong positive correlation between student outcomes and wait time. Others argue that response time is more important (Moore, 2009) and increasing it allows the teacher to assess the pupils and give them the opportunity to assess their peers (Bartlett, 2015). A blindspot for teachers is the failure to realise that a wrong answer as well has great benefits as it gives the teacher a chance to decipher what the students are thinking. Teachers must create a class atmosphere that gives learners the opportunity and confidence to share their thoughts, whether correct or wrong. As learning and assessment can take place even when learners give wrong answers, Bartlett (2015, p.114) notes that 'they allow us to highlight and unpick any misconceptions, encouraging pupils to think about the why and the why not'.

Smart and Marshall (2013) observe that teachers can facilitate higher cognitive levels in their students by the questions they ask in the classroom. The use of open-ended questions is more likely to encourage higher-order cognitive development rather than closed questions which mostly focus on knowledge or recall (Black et al. 2003; Black and Wiliam, 2013; Bartlett, 2015). According to Chin and Osborne (2008), using open-ended questions is consistent with knowledge construction, a concept supported by the constructivist theory. However, studies show that (e.g. Lefstein and Snell, 2011; Maftoon and Rezaie, 2013) a number of primary teachers use close-ended questions. Some teachers also adopt a combination of open and closed questions. As Bartlett (2015) notes, "they start by a lower-order question and then progress to open questions using the basketball technique" (p. 117). That said, a weakness identified with this approach is that the teacher may only pose close-ended questions at the students perceived to be of lower ability while using the open-ended questions for the other students.

Getting students to come up with their own questions is also crucial in gauging their understanding and being able to identify misconceptions. Chin and Osborne (2006) suggest that when students ask questions, they can articulate their current understanding of a topic while it also helps them in making connections with other ideas. Smart and Marshall (2012) suggest that if teachers are more aware of the impact of questioning on learning, they are likely to be more deliberate about it and include it in instructional planning.

2.4.4.2 Peer and Self-Assessment

Peer-assessment is an arrangement for learners to consider and specify the performance of other equal-status learners" (Topping, 2009, p. 20). It can also be regarded as assessment *as* learning and is a technique used for encouraging pupils to move their learning forward (Bartlett, 2015). According to Black et al. (2003), when students mark one another's work, their learning is enriched. Learning is promoted as they take the roles of teachers and assessors of their peers. This

provides them the opportunity to learn about themselves and become aware of their own learning. They begin to think about their own thoughts and recognise how to progress in their own learning and become independent learners (Bartlett, 2015). According to Topping (2009) the main aim of peer-assessment is feedback to learners which can have a positive impact on students' learning, especially when it is provided appropriately. Given that students take the role of teachers in the classroom, there is opportunity for quick and 'individualised' (p.22) feedback. In addition, while teacher feedback could 'sound authoritative' (p.22), peer feedback is richer and better communicated with language more easily understood between peers (Topping, 2009). Black et al. (2003) opine that peer-assessment provides the foundation on which skills for self-assessment are developed in the children which is another way to enhance pupils' self-regulation. Apart from improving students' cognitive gains, peer-assessment has been known to improve students' writing, cooperative learning and saving of teacher time (Topping, 2009; Black et al. 2003). On the flip side, Falchikov (2001) argues that it could require time before the teacher can smoothly operate peer-assessment as an effective formative assessment tool in the classroom. While an advantage of peer-assessment is its ability to motivate students to learn (Topping, 2009), on the other hand, Bartlett (2015) suggests that teachers should be careful when deploying peer-assessment as a formative assessment tool in the classroom. This is because some pupils may be "excessively or insufficiently challenged" (p. 150), and could discourage students from learning.

"Self-assessment is where pupils assess their own learning" (Bartlett, 2015, p. 151). it is considered as an important component of formative assessment owing to the fact that it entails students evaluating their own work instead of them depending on their teachers as the main person judging the 'quality' of their work (Andrade and Valtcheva, 2009). According to Andrade and Valtcheva (2009), "students reflect on and evaluate the quality of their work and their learning, judge the degree to which they reflect explicitly stated goals or criteria, identify

strengths and weaknesses in their work, and revise accordingly" (p.13). Once pupils are able to master the art of peer-assessment, they are able to easily transit to assessing their own work. They also begin to grow in confidence about how to identify areas of weakness in their work and how to improve it (Bartlett, 2015). All these, according to Langan et al. (2008) are necessary skills for lifelong learning. For self-assessment to thrive, teachers should assist students particularly those categorised as low achievers, to develop the needed skills to assess themselves, although the downside to this is that it might be time consuming (Black et al. 2003).

As noted by Wanner and Palmer (2018), students help one another through the process of peer and self-assessment. Research shows that peer and self-assessment have a positive impact on students' learning and in developing important learning skills (Thomas et al. 2011; Boud 2013; Falchikov 2013). In a study of seventh and eighth-grade students' writing, Andrade and Boulay (2003) reported a positive relationship between self-assessment and writing. In a similar study conducted by Ross et al. (2002), students who used self-assessment outperformed others in Mathematics. Black et al.'s (2003) study of formative assessment practices also show a strong relationship between formative assessment (including self-assessment) and achievement. Self-assessment gives learners the opportunity to self-regulate and manage their own learning (Zimmerman and Schunk, 2013; Siegemund, 2017), especially as research suggests that there is a positive connection between self-regulation and achievement (Zimmerman and Schunk, 2013). As Andrade and Valtcheva (2009) note, "students who set goals, make flexible plans to meet them, and monitor their progress tend to learn more and do better in school than students who do not" (p. 13). Zimmerman and Schunk (2013) add that when students engage in peer and self-assessment, it has a positive impact on self-regulation and achievement can increase. However, according to Andrade and Heritage (2017), students can only get the best of peer and self-assessment when they are clear and understand the

value in engaging in it. When teachers do not explicitly help them in understanding its purpose, it ends up as one of those routine tasks the teachers engage them in to keep the class interesting.

Another benefit of peer and self-assessment is that the students develop life skills such as self-evaluation and reflection, critical thinking, giving and taking of feedback whilst engaging in it (Topping, 2009; Spiller, 2012). These are important 21st-century skills needed in the workplace. Thus, there is increased advocacy for students to adopt these AfL approaches (Boud and Falchikov 2007; Nulty 2011).

Literature search indicates that an area that needs more research is how students can also develop capabilities in giving fair, constructive yet critical feedback as this could have a great impact on the effectiveness of peer and self-assessment. These skills are now required not just in the teacher but in students also (Andrade et al. 2008; Andrade and Valtcheva, 2009). As Cartney (2010) notes, there needs to be more help for students to develop evaluative and feedback skills as well as learn how to use the feedback they have received and have provided to other peers for their own learning and improvement of their work. The success of peer-assessment is dependent on the student's ability to give and receive feedback (Nicol, 2010; Boud and Molloy 2013; Moore and Teather, 2013;). The use of feedback is further discussed in the next section.

2.4.4.3 Feedback

Feedback enhances students' learning and the frequent use of constructive feedback during assessment has a positive effect on students' achievement (Harold, 2002). It is seen as the meeting point between assessment and learning and a way to shape and direct the next steps in students' learning (Spendlove, 2011). It is this attribute that makes this kind of feedback to be called formative feedback and is seen as the most effective kind of feedback. It probes and collects information from the learners as their level of understanding and progress is monitored (Hattie, 2003). According to Hattie (2009; 2011), not all feedback is

equally effective and for feedback to be effective, it should be constructive, specific, help students elaborate their thinking, provide cues and scaffolds to help them improve the quality of their work and achieve their learning goals.

Feedback is an important formative assessment tool that gives students a perspective of their learning progress and how they can improve (Hattie, 2009). According to Black et al. (2003), the use of feedback has been discovered to be of great benefit to learners, especially in helping to identify their strengths and weaknesses. Hattie (2009) identifies feedback as one of the most powerful influences on the learning process. This opinion is supported by literature that says that feedback and assessment are integral parts of teaching and learning (Cramp, 2011). This is in line with Bartlett (2015), who opines that feedback enhances students' learning and the frequent use of constructive feedback has a positive effect on student achievement. Nicol and Macfarlane-Dick (2008) also agree that good feedback is a great support system for students as it strengthens them and helps them get involved in their own learning.

The timing of feedback is also very important, and according to Stronge (2018), for it to enhance students' learning, it must be given promptly and in an ongoing manner, alongside teaching, while Van der Kleij et al. (2012) posit that effective feedback must be given in a timely fashion, midway or periodically during a lesson. Research shows that immediate feedback contributes to pupils' self-correcting. This argument is supported by Stronge (2018), who advises that the longer the delay in feedback, the less likely it would improve learning and that effective teachers often ensure that their feedback relates specifically to the criteria of the task.

A big debate in literature is on giving students feedback without grades (see Wiggins 1994; Spendlove, 2011; Kohn 2011). Studies indicate a negative relationship between the use of grades on students' achievement and motivation (e.g. Lipnevich and Smith, 2009; Chamberlain et al. 2018) as research shows that

giving students feedback without grades is of more value and teachers that have adopted this approach also attest to its usefulness and effectiveness (Volante and Beckett, 2011). The use of feedback without grades encourages both teachers and students to focus on the learning process rather than the final product, even though teachers sometimes struggle with finding creative ways to make their students appreciate and fully use the formative feedback. Black et al. (2003) opine that the use of feedback without grades actually allows parents to focus on the learning issues as well, rather than the grades. Further research shows that this kind of feedback enhances learning, whilst the use of scores or grades could have a negative effect (Black et al. 2004). Butler's (2011) study also shows that 'comments- only' feedback has a positive impact on students' learning, while the inclusion of grades can inhibit their performance. Also, the effort teachers put in scoring students' assignments may be misdirected as a score does not necessarily inform the student where improvement is required.

However, there is a competing tension between the quest for grades and the use of feedback-driven assessments (Brookhart, 2011; Gusky 2011; Burns and Purcell, 2019). Teachers report that part of this tension comes from parents who would rather see scores than understand the value in the use of a formative assessment approach (Harrris, 2015). Sometimes the students may also contribute to this tension as the use of grades motivates them (Volante and Beckett, 2011). Nevertheless, comments-only feedback is considered important in formative assessment especially comments that suggest next steps for the learners (Black and Wiliam, 2003).

Also, written feedback is considered to be more effective than verbal feedback. It is argued that the use of written feedback gives adequate time for the students to reflect on their own learning (Santos et al. 2003; Manchon, 2011). Muijs and Reynolds (2018) also assert that written feedback is better than simply giving grades. Yet, one disadvantage of written feedback is that teachers may be

misunderstood without the chance to clear any confusion immediately. This, however, is not a shortcoming associated with verbal feedback (Brookhart, 2017) because any confusion that arises during feedback can be easily resolved. Some researchers believe that students seem to respond more positively to verbal feedback (Merry and Osrmond, 2008; Van der Schaaf et al. 2011).

An aspect requiring more research is on the need for students to have the opportunity to give feedback to their teachers too. Ajjawi and Boud (2017) advocate for a dialogic approach that allows learners to "monitor, evaluate and regulate their learning" (p. 253) and that feedback should not be considered as unilateral communication between a teacher and student but as a 'dialogue' with the aim of improving the learning process. Feedback is reported to be most effective when treated this way (Carless et al. 2011; Price et al. 2011). As Higgins et al. (2002) put it, "students are not simply receptacles for transmitted information, but active…mediators of meaning" (p. 53). Boud and Molloy (2013) observe that the challenge with one-way feedback is that the learner is passive in the process. They describe it as the act of 'telling' where the learner is simply listening to the teacher, and there is no guarantee that the learner understands the feedback or can use it meaningfully. This is important as feedback is only effective when it is "meaningful, understood and correctly acted upon" (Orsmond et al. 2005, p. 369). Teachers are encouraged to take into consideration the dynamic nature of the communication process when giving feedback (Higgins et al. 2001). Therefore, it should not be mono-directional, but the direction should vary between teacher and learner, or learner to teacher or learner to another learner (Spendlove, 2011).

It is also believed that students value specific feedback and find it more useful than general feedback (Strijbos et al. 2010; Van der Kleij et al. 2012). Students find such feedback relatable and tend to embrace it rather than simply seeing it as a teacher's judgment on their work (Spiller, 2012). However, there is the risk of

students being overly dependent on teachers' feedback rather than taking responsibility for their own learning progress (Spendlove, 2011). Research shows that formal schooling may encourage students' dependence on authority figures at the expense of developing skills for emotional and intellectual independence (Harber, 2004). In the early stage of education, learners are mostly dependent on their teachers, but as Goldberg (2013) asserts, "learners should become more independent as they grow, as the teachers' role is to encourage and support students' ability to think for themselves" (p.168). This is especially important in a constructivist classroom where the focus is on building independent learners who are able to self-direct their learning (Mazenod et al. 2019).

Having reviewed the literature on effective teaching and learning practices, the next section discusses two personal qualities of effective teachers - care and practical wisdom.

2.5 Personal Qualities of Effective Teachers

2.5.1 Care

Teaching is often described as a caring profession (Nguyen, 2016). Students often describe their encounters and experiences with teachers who helped them achieve academic success not just by teaching, but also by their display of genuine concern for them and their learning progress (Lumpkin, 2007). While there are students with 'not so good memories', the impact good teachers have on their students cannot be overlooked (Gerhardt, 2004). The literature on ethics of care suggests the teaching profession has been labelled as a caring profession and as such, teachers are expected to be caring (Goldstein 2002; Hugman 2005; Held, 2006; Noddings, 2012). The 'care' label is not unique to the teaching profession as there are indeed a host of other professional endeavours that also require some degree of humanness and empathy. As some researchers in care ethics argue, care is a moral good that is required from everyone regardless of their professional line (e.g. Tronto 1993; Held 2006). However, it is difficult to overlook its importance in

the teaching profession, especially when one considers the leadership role teachers play in the classroom and the influence they can have on the learners who are minors and thus quite vulnerable. Indeed, there have been conflicting views on the link between the care ethics and the education profession as with other professions. What is indisputable is that teaching involves some form of caring as the main task of a teacher ab initio is to help the learner meet their educational learning needs (Noddings, 2012). As Nguyen (2016) notes, "caring-for practices are already embedded within the concept of teaching and we would want teachers to care for their students because we want effective teachers" (p.291). Caring for learners' needs is at the core of what teachers do; thus, it might be difficult to describe an effective teacher without some reference to their level of care (Nguyen, 2016). According to Lumpkin (2007), "teachers are effective when they deeply care about the learning of each student" (p.2). "Caring is the very bedrock of all successful education" (Noddings 1992, p. 27). Some researchers refer to teaching as an extension of motherhood where teachers assume the role of mothers by taking responsibility for their learners, anticipating their needs and caring for them (Kang et al. 2019). Clifford (2014) also agrees that teaching, to some extent, can be likened to mothering. Other writers refer to teachers as being 'in loco parentis'; acting in place of the parent, being responsible for their learners (Arthur et al. 2005). This kind of care is not done out of obligation but out of a sense of moral responsibility towards the students (Noddings, 2012), and it shows the teachers have an understanding of the Ethics of Care which is explained by Held (2006) as "when people are deeply affected by, and involved in, relations with other" (p. 46).

Care is discussed further under Theoretical Framework in Chapter 3.

2.5.2 Practical Wisdom

Teachers make a plethora of decisions on a daily basis in the classroom. They are indeed the moral compass of the class, the one all the students look to, to make decisions and hopefully the right ones. Even their pre-service training may not suffice in preparing them adequately for this complex task. While some of the decisions may be straightforward and already covered in school policies and guidelines, others require the teacher's discretion, experience and recall of relevant educational theories and best practices (Kinsella and Pitman, 2012).

Meanwhile, the teacher is expected to juxtapose all these in a few seconds and make a decision (Lunenberg and Korthagen, 2009). Indeed, teaching is complex and requires a lot of 'thoughtfulness' (Hansen, 2004; Dana and Yendol-Hoppey, 2014). A lot of research has been done on the kind of knowledge teachers unconsciously engage in while making context-specific decisions within the classroom (Kidder, 2012; Kinsella and Pitman, 2012). Teachers can be said to use practical wisdom (also known as phronesis) when they possess the capacity to make holistic decisions which are of high quality in specific situations during teaching (Lunenberg and Korthagen, 2009). Elliot (2012) adds that teachers often need to make quick decisions in different situations. Sometimes these decisions are made every two minutes, mostly unconsciously (Lunenburg and Korthagen, 2009), but practical wisdom helps teachers navigate the complexity of decision making (Winch et al. 2015). These decisions are central to the work of a teacher as teaching is no longer viewed just in terms of technical skills or 'competence' (Moore 2004), but as a profession that requires being flexible and making sensitive professional judgments (Kinsella, 2012; Sanger and Osguthorpe, 2011). Arthur et al. (2017) assert that teachers today do not just need subject competence, but it must be supplemented by practical wisdom.

Practical wisdom is a major component of the Aristotelian view of virtue ethics (Kristjansson, 2015). It is an intellectual virtue that is believed to be present in the process of deliberation, decision making and action (Bachmann et al. 2018).

Halverson (2004) further asserts that this kind of wisdom integrates knowledge, judgment, understanding and intuition to carry out a successful action. This is an active type of knowledge that is outside the scope of theoretical, abstract knowledge (ibid). It is of great relevance to the practice of teachers and their instructional decision-making process, both in the deliberate planning for teaching and the spontaneous decisions they often have to make during instruction. Eisner (2002), who refers to practical wisdom as 'practical reasoning', explains that it is used in addressing the "particularity and distinctiveness of situations so that one can move in a morally-framed direction" (p.381). Moving in 'a morally-framed direction' suggests that decisions made using practical wisdom are guided by the moral virtues and character of the individual. This emphasises the inextricable link of practical wisdom to the character of the person using it. Practical wisdom in teaching and learning is characterised by its virtuous actions and is dependent on the teacher being a moral agent (Lunenberg and Korthagen, 2009). Therefore, practical wisdom is not just what people do, but who they are. According to Spence (2007), the relationship between practical wisdom and moral virtue is cyclical in that one cannot be 'good' without practical wisdom. Yet one cannot use practical wisdom without having moral virtue.

Herein lies the difference between practical wisdom and some other approaches to contextual decision making. For instance, pedagogical intuition, an intuitive kind of knowledge, similar to practical wisdom, is directed towards particularities of situations. Though termed as intuition, in reality, it is developed through experience. According to Burke and Sadler-Smith (2006), it is "borne out of years of doing the same thing and the teacher develops an expertise that is entrenched in their practice" (p.172). Pedagogical intuition is often called upon by teachers when there is little time to reflect and in situations without precedents for action (Burke and Sadler-Smith, 2006). Likewise, decisional capital is used by teachers to make effective judgments in specific situations related to their work (Hargreaves and Fullan, 2013). Though decisional capital is something that evolves and also

accrues from experience, it can be developed deliberately by school leaders in their teachers through coaching and by promoting an environment that encourages reflection (Hargreaves and Fullan, 2013). While these three approaches are used to handle particular, rather than generic situations, and are all developed experientially, the fundamental difference between them lies in the fact that practical wisdom is inextricably linked to the virtuous character of the teacher, whose morally sound decisions stem therefrom (Arthur et al. 2017). Sellman (2009) argues that practical wisdom is a 'special virtue' because it cuts across both intellectual and moral-emotional domains. Sellman (2009) identifies practical wisdom as the virtue that enables a person "to know when to do the right thing, to the right person, at the right time and for the right reasons" (p.85). Thus, when a practically wise teacher is faced with complex or unfamiliar situations, rather than give formulaic responses that are ill-suited to tackle the problem, the teacher will exercise wise judgment based on a wise character. According to Spence (2007), practical wisdom is tied to the selfhood of a teacher, which is then revealed through their effective and observable practice. It is such character strength, for example, that underscores teachers' professional attributes such as care. Wilde (2012) opines that care requires practical wisdom to act appropriately.

Thus, this focus of practical wisdom is key to its uniqueness. Though it is believed to be enriched by intuition (Sipman et al. 2019), it differs from pedagogical intuition and decisional capital, which do not emphasise the character of the decision maker. While a teacher might make 'good' decisions using pedagogical intuition or decisional capital, the teacher that uses practical wisdom, according to Aristotle (2009), would be making 'right' decisions based on who they are. This distinction is important as it emphasises that character is important in teaching. I have decided to concentrate, therefore, on the interrelationship between effective teaching and learning practices and the personal qualities (virtues) that underpin such practices. This makes the other means of decision making irrelevant to my study and these are, therefore, not reflected in my conceptual framework.

That said, literature reveals that the more performative schools are getting, the less the opportunity there exists for teachers to use their experience and conscience, as wisdom is being replaced more and more with rules and regulations and going against such rules could spell some kinds of punishment (Ball, 2003; Schwartz and Sharpe, 2006; Baltodano, 2012; Ball, 2016). This poses a challenge to teacher autonomy and the flexibility required in making decisions. When teachers have to follow rigid lesson plans and curricular goals, they are denied the opportunity to be flexible, adapt, and tailor instruction in a way that suits individual learners. Also, the literature notes that the culture of performativity makes it difficult to cultivate practical wisdom (Ball, 2003).

Whilst a lot has been written about what makes teachers effective with much focus on their practices and methodologies adopted, more research needs to be done on practical wisdom as a core component of teacher effectiveness. Practical wisdom is discussed further under Theoretical Framework in Chapter 3.

2.6 Chapter Summary

In this chapter, I have presented major observations around the role of primary education in national development. Still, the review reveals a scarcity of literature on the contributions of different in-school stakeholders, particularly the contributions of effective teachers on Nigeria's development. For instance, educational policies are made without recourse to teachers who are the experts in teaching and learning and who have direct contact with the learners (Asaaju, 2011). While a study like this may not fully comprehend all such contributions, it opens a leeway for further research in this field, and also provides a point of departure for researchers who want to expand this kind of study to other locations in Nigeria. The chapter also summarises the development and emergence of educational effectiveness research as well as various elements of effective teachers (such as professional knowledge, content knowledge and instructional planning). Although educational effectiveness research has a long history, the

range of studies on effective teacher research in Nigeria remains narrow and still developing. This study contributes to expanding this field of research. In the next chapter, I present the theoretical frameworks I employed in this enquiry, their elements and how I hope to apply them in this research.

CHAPTER THREE

THEORETICAL FRAMEWORK

3.1 Introduction

A theoretical framework, as described by Ravitch and Carl (2016), assists researchers in situating and contextualising formal theories into their studies as a guide. This study employs a synthesis of three existing theories. They are the Dynamic Model of Educational Effectiveness (DMEE), Constructivism, and the Virtue Ethics Theory (VET). These theories are important to different aspects of my research and where one is deficient, the other is able to strengthen. In this chapter, I briefly describe them and how they influenced my research approach, discussion and data analysis, as well as how I used them to arrive at my key findings.

In the next subsection, I begin with the discussion of the Dynamic Model of Educational Effectiveness.

3.2 Dynamic Model of Educational Effectiveness (DMEE)

DMEE is considered as one of the better developed theoretical models under the Educational Effectiveness Research (EER) and it has made a bold move towards closing the gap between empiricism and theory (Merki et al. 2015) which was a problem with the majority of the models under EER (Reynolds et al. 2014). (Kindly refer to subsection 2.2 in EER). DMEE can be treated as a framework for developing an evidence-based approach especially given that a series of studies have provided support to its validity (Creemers and Kyriakides, 2010).

3.2.1 Characteristics of the Dynamic Model

The Dynamic Model which was developed by Creemers and Kyriakides (2008) has certain distinctive characteristics that make it suitable for a study like this. One of the important characteristics of DMEE is its multilevel nature and interrelations

between these levels and the factors (Creemers and Kyriakides, 2006) which are believed to influence effectiveness and have both direct and indirect effects on student learning. It is this interrelationship between the factors at different levels that show the complexity of effectiveness and improvement, something that is overlooked by other models under EER (ibid). This characteristic of the DMEE depicts the complex nature of effectiveness and the different considerations when contemplating the issue of effectiveness. This is of particular interest to me as it could be a pointer to differential effectiveness (Kyriakides and Tsangaridou, 2008) which goes to the root of my study (see Figure 3.1 below).

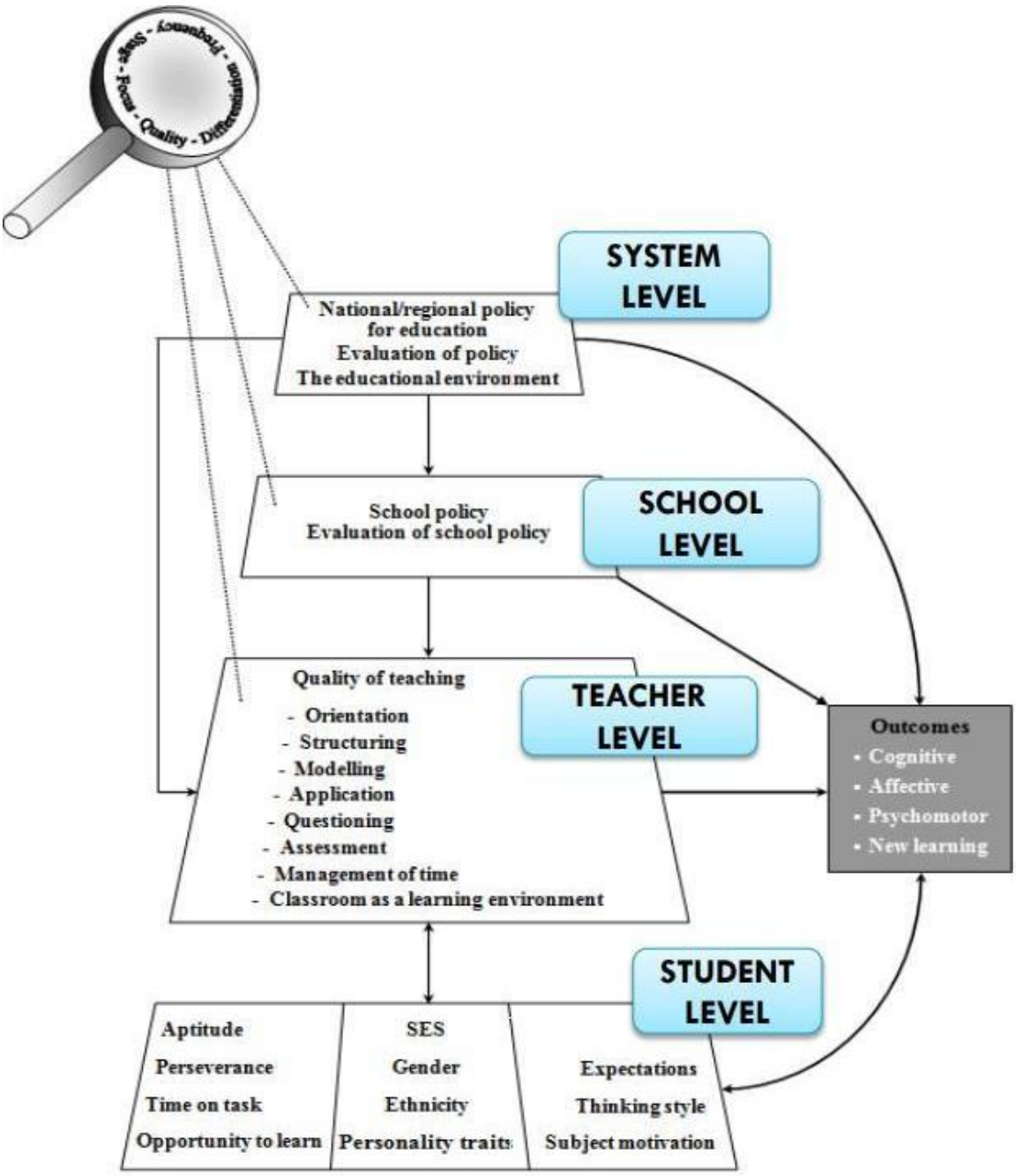


Figure 3.1: The Dynamic Model of Educational Effectiveness (Creemers and Kyriakides, 2008)

The multilevel structure of DMEE (in Fig 3.1) and its hierarchical nature are captured in my conceptual framework (in Chapter 1) which depicts the interdependence within the educational ecosystem. An example of a national

educational policy (system level) is the Professional Standards for Nigerian Teachers, which guides the knowledge, skills and attitude of teachers in Nigeria. These standards drive the content of the National Curriculum used in Nigerian schools, spelling out the effective teaching and learning practices the teachers should engage in, in order to enhance student learning outcomes. This is what Creemers and Kyriakides (2013) refer to as schools being nested in systems, classrooms/teachers being nested in schools and students being nested in classrooms/teachers. Therefore, DMEE's belief that the teacher factors are not separate entities but all interrelated and the direct and indirect effect of these levels on each other, remains relevant and is its uniqueness.

Also, while the teacher factors under DMEE concentrate on the instructional behaviour of teachers in the classroom and are associated with effective teaching and learning practices as reflected in the Teacher Standards and School's Curriculum (Creemers, 1994), these factors are not from one specific teaching approach, but rather cut across various approaches to teaching. It has been discovered that the teacher factors under DMEE move gradually from relatively simple, more traditional types of teacher behaviour such as questioning and structuring, to more advanced, modern types of behaviour, such as orientation and teacher modelling (Creemers and Kyriakides, 2013). These latter teacher behaviours are in line with theories of teaching associated with constructivism and the development of metacognitive skills in children, which are believed to be key to teacher effectiveness (ibid). Teachers who functioned at these higher levels were found to have better student outcomes (Kyriakides et al. 2009). So DMEE can be said to take into cognisance the newer goals of education and their implications for teaching and learning (Creemers and Kyriakides, 2013; Azevedo et al. 2016).

Another characteristic of DMEE is its belief that the relationship between effectiveness factors and achievement are not linear and are more curvilinear in

nature (Creemers and Kyriakides, 2008; Creemers and Kyriakides, 2013). Therefore, there are several things such as teacher content knowledge which though important, is seen by some researchers (e.g. Sadler et al. 2013; Baumert and Kunter, 2013) as not having much impact on student achievement. Creemers (2009) disagrees, declaring that content knowledge certainly has an impact on student learning outcomes, albeit an indirect one.

Lastly, DMEE is premised on the assumption that each of the effectiveness factors in relation to student, classroom, school and system can be defined and measured using five dimensions: frequency, focus, stage, quality and differentiation (Creemers and Kyriakides, 2008). FREQUENCY, which is a quantitative measure, is used to see how often the effective practice takes place. Meanwhile, the functioning of the factors can also be measured qualitatively by considering the FOCUS of the activities associated with the factor and by taking into account the STAGE at which the activities take place so as to note the direct or indirect impact on students' outcome. Then also, the QUALITY dimension which deals with the properties of the specific factor itself and the process of teaching, rather than with the effect of teaching in terms of student outcome, as well as DIFFERENTIATION which is used to understand the degree to which teachers tailor learning according to the needs of the learners. These measures of effectiveness are believed to further help in describing the functioning of each factor more clearly (Creemers and Kyriakides, 2010).

Therefore, though there are different effectiveness factors and groups of factors, each factor can be measured using similar dimensions, further consolidating the effectiveness of each factor as their performance can be measured (Creemers and Kyriakides, 2008). While this multidimensional aspect of DMEE shows the complexity of educational effectiveness, at the same time it provides opportunities to address effectiveness in a very flexible way.

Research has consistently shown not only that the classroom level can explain more the variance in pupils outcomes than school level, but also that a large proportion of this classroom variance can be explained by what teachers do in the classroom (Muijs and Reynold, 2011), so the classroom practice has become firmly integrated into the Education Effectiveness Theory (Creemers and Kyriakides, 2008) and effective teachers know how to organise and manage the classroom environment to maximise engagement rates (Creemers and Reezigt, 1996; Kyriakides, 2005). However, several problems still remain, not least the inability of effectiveness characteristics to explain the variance in students' outcomes satisfactorily and consistently (Creemers and Reezigt, 1999). Also, as Campbell et al. (2003) note, despite models such as DMEE, there still exists the issue of differential teacher effectiveness which hinders student outcomes. Some of these issues are further highlighted in the subsequent sections and constitute key reasons for the adoption of a synthesis approach.

3.2.2 Application of the Dynamic Model

I found relevant aspects of DMEE particularly applicable to my study because of its focus (more than the older models of EER) on teacher behaviour and actions through eight specific teacher factors (above mentioned) which are believed to promote student learning (Creemers and Kyriakides, 2008; Scheerens, 2014; 2015). This is in line with my study which seeks to understand what makes teachers effective and how to reduce differential effectiveness in schools so that the learning outcomes of students can be optimised. Therefore, DMEE was useful in exploring the concept of teacher effectiveness and the complexities of educational effectiveness knowledge which helped me in analysing my data. I particularly examined the teacher factors in relation to the promotion of effectiveness in teachers through the use of learner-centred pedagogy (LCP). For example, teachers planning their lessons and sharing learning objectives with their students is important under DMEE (referred to as Orientation) and it is also a pedagogical practice in line with LCP, whereby the teacher not only provides the

objectives of the lesson but challenges the students to engage with the objectives and to think critically about what is to be taught.

I also examined the multilevel links between schools, teachers and the educational system under which these schools operate. This theory was used to evaluate the situation of these schools in relation to their effectiveness.

I evaluated how DMEE promotes, through its teacher factors such as Application, Teacher Modelling and Assessment amongst others, metacognition and self-regulated learning in students which are some of the newer educational objectives and aims (Azevedo et al. 2016) and which it is believed, can lead to student achievement (Schofield, 2012). DMEE is premised on the assumption that each of its eight teacher factors that promote effectiveness can be defined and measured using 5 dimensions: frequency, focus, stage, quality and differentiation (Creemers and Kyriakides, 2008). I interrogated this further, especially the use of quality and differentiation as a measure of effectiveness. For instance, Differentiation is used under DMEE to promote effective and quality teaching by ensuring that activities are carried out in a differentiated manner in the classroom, to cater to the needs of all the students as individuals and grant them access to the learning objective.

While DMEE enumerates the effectiveness of teacher factors that enhance students' achievement, this list is not exhaustive. I have therefore chosen to support DMEE with the constructivist theory. Constructivism is a learning theory that explains knowledge construction in learners and how metacognition, a skill essential to the optimisation of their learning, is developed (Staffe and Gale, 2012). However, it is also regarded as a teaching theory which describes teacher practices that contribute to knowledge construction and the overall learning processes of students (Harkins, 2011). It is summarised in the following section.

3.3 Constructivism

As the constructivist theory has been discussed under teacher-centred and learner-centred pedagogy (kindly refer to subsection 2.4.1.3 in Chapter 2), I will hereby consider its characteristics which are relevant to my study and how I hope to apply the theory in my work.

3.3.1 Characteristics of Constructivism

Cognitive constructivism is seen as important and relevant in the classroom today based on the understanding that learners construct personal meaning through experience and such experience is built on prior knowledge (Bereiter, 2002). So, learners effectively build new knowledge upon the foundation of previous learning. This prior knowledge has the effect of influencing what new or modified knowledge that will take place in an individual as they form new learning experiences. In the 21st Century, several literatures support building new knowledge on previous knowledge (e.g. Campbell, 2008; Brent and Carrie 2017; Stronge, 2018) which makes Piaget's theory of Cognitive constructivism still relevant.

Another characteristic of constructivism is its focus on Piaget's (1936 in Schunk, 2012) stages of cognitive development which state that children experience sequences of development and that these different stages ultimately affect their thinking levels and ability to understand the world. As literature reveals, these stages of development, namely - sensorimotor, pre-occupational, concrete operational and formal operational period – are believed to be the foundation of teacher practices such as differentiated instruction, a concept whereby the teacher plans learning opportunities based on the different types of learners in the class, rather than a 'one size fits all' approach bearing in mind individual student's ability, interests and learning styles (Tomlinson, 2014). Piaget's (1936) cognitive constructivist theory can also be said to underpin modern classroom practices such as self-evaluation and self-assessment; practices that emphasise

students processing their own learning through reflection. Black and Wiliam (2009) emphasise that student self-evaluation is critical for lifelong learning; it increases self-motivation (McMillan, 2012) and it empowers students to take responsibility for their learning (Spiller, 2012) therefore, leading to students' achievement (Siegesmund, 2017). This also resonates with James et al. (2007) concept of 'learning how to learn' - a process of learning which enables the learner to know how best to go about learning including school subjects but also other valued forms of knowledge, skills, attitudes and capability. This theory is in consonance with the goal of Assessment for Learning (AfL) which is to involve pupils in their own learning to the extent that they can, 'self-monitor' and 'self-regulate' their learning as they understand the process for learning to be achieved (Nicol and Macfarlane-Dick, 2008, p.2). AfL has been observed to be an effective teacher practice in the classroom (Black et al. 2003; Bartlett, 2015).

On the other hand, Vygotsky's (1978 cited in McLeod, 2020) theory which posits that interaction within the classroom is key to learning, seems to support popular 21st Century classroom practices such as role-play, group and partner work, peer-teaching and learning and peer-assessment. Also, practices such as assessments and feedback are all emphasised in an interactive classroom and from literature, it is observed that these practices under the constructivist theory are in line with the concept of Teacher Effectiveness and how it can help optimise students' learning (Pritchard, 2013). AfL which is one of the constructs being considered in my research, reveals that all the practices mentioned above all play an important role in not only helping to optimise students' learning but also in making the children understand the process of learning (metacognition). This ultimately helps them become lifelong learners as the emphasis is placed on the learning cognition of the students rather than the teacher. The teachers are then seen as facilitators or coaches who assist students to construct their own conceptualisations and solutions to problems (Goodyear and Dudley, 2015). Though constructivism is criticised for the fact that it promotes a teaching style that provides minimally

guided instruction to the learners (Kirschner et al. 2006), it is currently believed in many schools to be the best method for teaching and learning (Powell and Kalina, 2009). It is indeed seen as the most important step in educational reform and as having a great effect in the classroom both cognitively and socially for students (Henson, 2015).

3.3.2 Application of Constructivism

The constructivist approach is interested in understanding how the practice of the teacher contributes to affecting knowledge construction and the overall learning processes. For example, it seeks to understand how teachers work to transform passive learners into active and participatory learners, who are actively involved in the creation of knowledge (see Pellat et al. 2010). I sought to understand how the teachers worked to trigger the curiosity of the learners, such as through questioning and invitation to self-assessment (Chin, 2008) while engaging the learners' problem-solving skills. I also explored how they promoted learners' construction and understanding of personal meaning through personal experience and practices that help them build on their prior knowledge (Bereiter, 2002). Thus, I was interested in identifying how the effective teachers recognised the learners' sequences of experience and development upon which they need to construct additional knowledge, deepen their thinking levels and ability to understand the world including self-assessment as a way of examining self-development and hence sustaining self-motivation (McMillan, 2012). Ultimately, using the approach, I explored how the teachers empowered the learners to take responsibility for their learning (Butler and Winne, 1999; James et al. 2007). The other element I sought to understand was how teachers were able to promote peer-assessment and the use of formative feedback. Although these are complex processes and may differ in different contexts, I was particularly interested to learn how assessments and feedback processes worked with effective teachers.

I have, however, supported DMEE and constructivism with virtue ethics theory as it fills up the gap left by the teaching theories which fail to consider what underpins teacher behaviour. Virtue ethics focuses on the affective domain.

3.4 Virtue Ethics Theory

The professional status of the teacher is no more reflected only through the knowledge and skills they possess, but now their values are perceived as equally important (Bullough, 2010). Teachers are seen as moral agents who have a moral responsibility for their pupils based on the relationship that exists between them, by which they can influence their pupils. Thus, the character and conduct of the teacher, as well as their actions and decisions become important (Arthur et al. 2017).

Their moral values are now considered just as important as their subject knowledge and teaching skills (Pring, 2001) and their expertise is determined by their ability to make complex, context-sensitive deliberations and professional judgment (Cooke and Carr, 2014). In making such judgments, ethical and moral dilemmas are bound to arise and decisions have to be taken, and so it is imperative that teachers are able to articulate a justifiable rationale which guides their decision of right and wrong.

The Normative Ethics Theory (NET) presents a good framework for teachers, as it is used primarily in making sound ethical decisions, thereby resolving dilemmas and used to figure out what actions are right or wrong to take in a situation (Athanassoulis, 2012). Normative ethics is defined as the study of ethical action (Rich, 2005), while Philippa (2009) explains it as a moral philosophy that investigates standards for right and wrong actions and that is used to examine one's character. Virtue ethics theory is an aspect of NET.

3.4.1 Characteristics of Virtue Ethics Theory

Virtue is defined as excellence of character (Hursthouse and Pettigrove, 2018). It is a disposition or trait that runs deep in a person (Hursthouse and Pettigrove, 2018). Aristotle (2009) distinguishes between two basic sets of virtues – intellectual and moral virtues. He calls intellectual virtues qualities of the mind acquired by teaching, experience and time. Examples of intellectual virtues include critical reasoning, curiosity and fair mindedness. Moral virtues, are however referred to by Aristotle as virtues of character which enable us to become good people, and in the field of education, good teachers (Aristotle, 2009). Examples of moral virtues include dispositions such as courage, temperance (self-control), honesty, justice, truthfulness and care. According to Aristotle, moral virtues are acquired by habit and by emulating moral exemplars (Papouli, 2018). Aristotle (2009) recognised that both virtues were necessary for human flourishing and he believed that having one and not the other would make one incapable of having true Virtue. Therefore, virtues are considered to be a "complex integration of cognitive and affective elements that are shaped by an individual's motivations" (Magundayao, 2013 p.109). This interplay between intellectual and moral virtue is very much applicable to the practice of teachers, who often find the two virtues practically inseparable when making judgments. Thus, being of virtuous character is an important characteristic and one of the most important elements of VET.

Another important characteristic of VET is practical wisdom, which is believed to be necessary in order to achieve Eudaimonia, apart from Virtues (Torrence, 2015). Without practical wisdom, according to Aristotle (2009), flourishing and wellbeing cannot be realised. Indeed, the ability to think rationally is necessary in making right decisions (Mastin, 2008). To Aristotle (2009), a life worth living is one in which one uses reason effectively and the ability to do the right thing in any given situation must entail the use of reason or phronesis (practical wisdom). Practical wisdom is considered a meta-virtue and is the ability to choose intelligently

between alternatives when two virtues collide (Schwartz and Sharpe, 2010). It is about knowing what to do when faced with ethically impossible situations and how to act for the right reasons (ibid).

Practical wisdom, which is different from theoretical, abstract wisdom (Schwartz and Sharpe, 2010), is very necessary and applicable to teachers who need to constantly make professional judgments concerning the children they teach or in complex situations such as deciding between following a school policy when it conflicts with the needs of a vulnerable child. Practical wisdom is also required in making a choice between two extreme dispositions, which Aristotle (2009) calls the golden mean. An example of the golden mean is knowing the middle point between cowardice and foolhardiness. It is context-specific and thereby useful for any morally complex situation. However, it is not applicable in all situations and therefore does not provide a universal rule, and it is not a one-size-fits all solution. The concept of the mean is important to teachers as it equips them to reflect critically about moral dilemmas facing them in their everyday practice as well as to help them achieve ethical balance both in their professional and personal lives (Noyd, 2005).

VET is not only about moral and intellectual virtues but also supports and encourages Civic Virtues and a sense of community, as it involves moral agents developing their personal qualities and character to promote both personal and social eudaimonia (Papouli, 2018). Virtue ethics appear to be in line with today's ways of developing effectiveness in professional practice as it focuses on the character of the individual which ultimately impacts on their professional life, benefiting others and ensuring integrity (Pellegrino 2007).

There are several strands of Virtue ethics, such as the Ethics of Care, developed mainly by feminist writers like Noddings (2012), conceptualised as when people are deeply affected by and involved, in relation to others. Proponents of Ethics of Care argued that ethics were being described in masculine terms such as justice

and autonomy without regard for the virtues exemplified more by women such as care, patience, nurture, self-sacrifice and so on. This virtue strand also emphasised virtues such as solidarity, community and relationships (Athanassoulis, 2012). According to Mor (2018), Ethics of Care as a version of virtue ethics should be the appropriate framework for developing teachers in teacher education programmes. Ethics of Care is believed to be motivated by natural care which is inspired more by love than duty (Noddings, 1984). This particular virtue ethics treats students as individuals and places a value on meeting their needs. It is particularly relevant to primary school teachers in a country like Nigeria, as very often, primary school teachers tend to be female (Federal Ministry of Education (FME), 2016). Care is an important virtue shown by teachers to their pupils especially during the formative years (Noddings, 2003), even though some researchers dispute that it is a virtue (Tronto, 1993).

Something the virtue ethics theories all have in common is their concern with the character or motives of the moral agent and their relationships with people (Banks and Gallagher, 2009; Oakley, 2013). This argument nullifies the criticism that virtue ethics is self-centred because of its focus on the well-being and flourishing of the moral agent. Other critics have alleged that there is no such thing as a theory of virtue because all the virtue ethics are distinct and different (Armstrong, 2007). However, in defence, Armstrong (2006), states that as the revival of virtue ethics just started quite recently, virtue ethics is a theory, albeit an immature and underdeveloped one.

3.4.2 Application of Virtue Ethics Theory

The important elements of virtue ethics theory that I have related to teacher effectiveness in my work are virtues (character), practical wisdom and care. I interrogated how virtues underpinned teachers' behaviour and classroom activities, including how they reflected in the way their expertise, knowledge and teaching skills were applied with empathy, passion and consideration of individual

student's capacities (see Pring, 2001), thereby optimising their learning and allowing them to flourish, which is deemed to be an educational aim (Kristjansson, 2017). I also evaluated what role virtues played while teachers used the learner-centred pedagogical approach during teaching and learning, thereby moving their students towards becoming independent, lifelong learners (Black et al. 2006).

VET has been largely applied in this work to explain and interrogate teachers' perception of their moral responsibility for their pupils and the kind of relationship they have with them, which can in turn influence pupils' behaviour, learning and overall development (see Arthur et al. 2017). Virtue perspective of the theory gave attention to excellence of character (Hursthouse and Pettigrove, 2018), hence, I wanted to see how they balanced various competing demands and pressures (including their needs, children's need, pressure from the school learning environment and other stakeholders) to provide an enabling environment for effective knowledge construction and learning. Since moral virtues are both 'taught' and 'caught', I also wanted to see if these teachers were conscious of the fact that their students possibly viewed them as role models worthy of emulation (Papauli, 2018) and if this thought meant anything to them. In this regard, I asked such questions about what motivated them and what they enjoyed about teaching which could reveal the inspiration behind all they did as teachers.

In relation to practical wisdom which relates to reason and the ability to do what is right in any given situation, the study gave attention to how teachers showed an understanding of what to do in different circumstances and what they considered ethically reasonable to do in different contexts and situations. I also interrogated their expertise in relation to their ability to make complex, context-sensitive deliberations and professional judgment in the face of pupils' complexities and unique characteristics, their personalities, individual capacities and choices (Cooke and Carr, 2014). Thus, how they navigated various ethical and moral dilemmas to arrive at reasonable judgments and ensure effective

knowledge construction were particularly given attention. In this regard, practical wisdom is closely related with the application of good professional judgments in the learning environment and how learners are taught irrespective of the complexity of the learning environment, extant policies and learners' behaviours. Attention was given to the understanding that the teachers exhibited during the interviews and from my unstructured observation activities.

Towards an Amalgamated Approach

The failure of DMEE and other educational effectiveness theories to examine the reasons behind teacher behaviour (Sammons, 2009) is a gap I hope to fill in my research by bringing in a Moral Ethics perspective to address issues around behavioural concerns. I believe the virtue ethics theory will help provide some answers to the reasons behind teacher behaviour providing the rationale for using the virtue ethics theory as a framework for my study while complementing it with DMEE.

Also, constructivism is criticised for promoting a teaching style that provides minimally guided instruction to the learners (Kirschner et al. 2006), though it is currently believed in many schools to be the best method for teaching and learning (Powell and Kalina, 2009). It is indeed seen as the most important step in educational reform and as having a great effect in the classroom both cognitively and socially for students (Henson, 2015). The virtue ethics provides a framework to focus on what drives the passion of teachers and what encourages teachers' involvement in their students' learning without dominating the learning processes. Such passion helps the teacher to lovingly guide and ensure a balance between the encouragement of both independent and social development and the teacher's guidance so that no side is neglected.

According to Cooke and Carr (2014), there has been in recent times a push to explore the place of virtues, practical wisdom and character in effective teaching. Teaching is no longer viewed just in terms of technical skills or 'competence'

(Moore, 2004), but by a more complex view of teaching as a reflective practice, that requires being flexible and making sensitive professional judgments (Kinsella and Pitman, 2012; Sanger and Osguthorpe, 2011). Before introducing my concept map, it is pertinent to note that character education is increasingly being talked about by politicians, employees, teachers, parents and young people across the world and as no other ethical theory takes into account a person's character quite as much as virtue ethics (Kristjansson, 2015), it becomes a very useful theory in educational effectiveness studies. Being that the issue of character is very key to the teaching profession, as education is seen as an intrinsically moral enterprise and teachers as role models and moral exemplars (Arthur et al. 2017), teachers are expected to show a high level of moral responsibility. Parents who entrust their children to their care for the purpose of education, also care about the character of those who teach their children (Harrison et al. 2016). Schools therefore can be considered sites of moral interaction and teachers, moral agents (Arthur et al. 2017), making the issue of character important. Therefore, gaining a better understanding of what role virtues and personal qualities play in the effective teaching and learning practices of teachers becomes key.

I have tried to connect some of these in my concept map below, which highlights the synthesis of these theories and their application in this work.

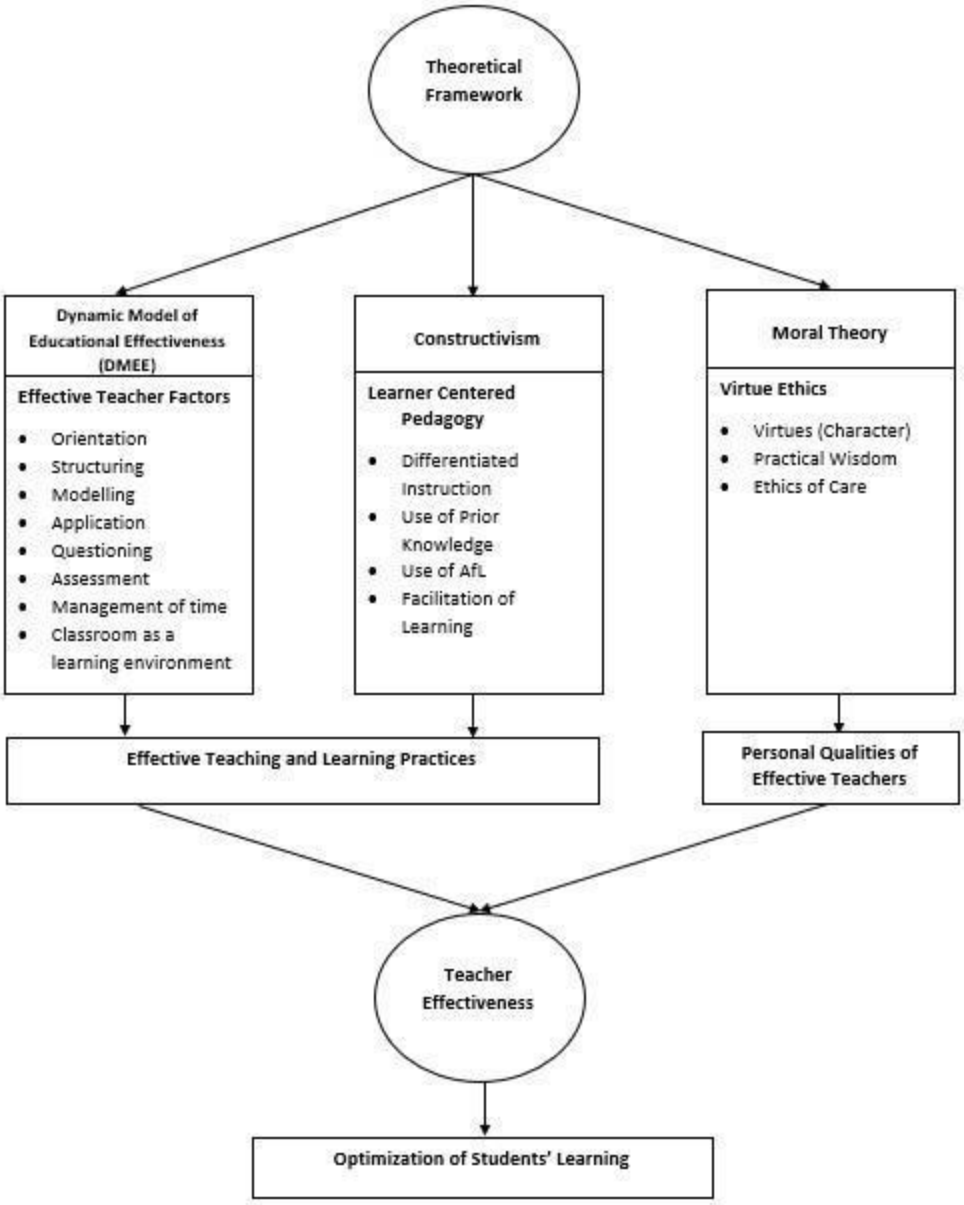
Fig. 3.2: Concept Map

I have constructed a Concept Map as a visual representation of the theories and key theoretical principles that guided my study while drawing links between these and connected concepts and assumptions that supported and guided my research plan.

Theories and Theorists:

- Dynamic Model of Educational Effectiveness (DMEE) - Creemers and Kyriakides (2008)

- Constructivist Theory – Jean Piaget (1936); Lev Vygotsky (1978)
- Moral Theory – Aristotle (2009)



Having summarised the underpinning theoretical framework for this research, in the following section, I present the research methodology and method, including sampling, ethical and quality issues.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 Introduction

This chapter presents an account of the entire process of the research design and methods adopted. It explains the study method and why the method was adopted, providing an account of the various steps taken in data collection and data analysis respectively. It also provides a brief account of the pilot study undertaken before embarking on this full-scale research. Finally, the trustworthiness of the research, issues of power as well as relevant ethical considerations are discussed. In the following section, I summarise the ontological and epistemological foundations of the study.

4.2 Ontological and Epistemological Foundations of the Study

It is important for researchers to clarify their view of the world as this assists in the understanding of the principles behind the research approach they choose to adopt (Grix, 2002). According to Denzin and Lincoln (1994), all research begins with ontology, which simply refers to the question of the nature of 'what is' (Gruber, 1992).

This study takes-off from the relativist ontological position which believes that realities are by their nature dependent on social factors, and are essentially constructed (Coghlan and Brydon-Miller, 2014). Coghlan and Brydon-Miller (2014) explain that relativist ontological position is largely adopted by constructivists because "elements like thoughts, emotions or social structures like family or social groups are assumed to be as real as the meanings we associate with them" (p.2). Hence, the aim of an inquiry such as this is to understand constructed realities and how they influence people's consciousness and practices (Coghlan and Brydon-Miller, 2014). This study seeks to understand the lived experiences of teachers, how they interpret their work and how these interpretations contribute to

influencing their effectiveness or ineffectiveness. Thus, it is epistemologically situated within the constructivists/interpretivists' paradigm. Interpretivists believe there is a need “to consider human beings’ subjective interpretations, their perceptions of the world (their life-worlds) as our starting point in understanding social phenomena” (Ernest, 1994, p. 25). Thus, the ontological positionality of interpretivists is centred on the multiplicity of people, interpretations and perspectives of social phenomena. As a school leader, I examined these multiplicities from an insider’s perspective in the participants’ (who are teachers) natural working environment. Mack (2010, p.8) explains that the main tenet of interpretivism is “that research can never be objectively observed from the outside, rather it must be observed from inside through the direct experience of the people’, and the ‘causal links that can be established in the study of natural science cannot be made in the world of the classroom where teachers and learners construct meaning”. My role as a researcher has been to “understand, explain, and demystify social reality through the eyes of different participants'' (Cohen et al. 2007, p. 19).

It is important to note that while ontology is concerned with the nature of reality, epistemology, according to Trochim (2006), relates to how we come to know about this reality. Bryman (2016) refers to it as the manner in which knowledge is acquired. Some epistemological questions are: ‘what constitutes reality?’ (Mathison, 2005), ‘how do we know that what we perceive is reality?’ (Pajares, 1992). These questions bring to the fore the thought that epistemological positions are merely claims or assertions regarding what we think exists (Grix, 2002), but also these questions are very important as a researcher’s epistemological stance goes a long way in influencing their research approach. The different epistemological positions gave rise to different research paradigms as further discussed below.

4.3 Research Paradigm

As noted above, the study is located within the constructivists/interpretivists' paradigm. A research paradigm in educational research is used to describe a researcher's worldview (Mackenzie and Knipe, 2006), which can also be referred to as their perspective, thinking, school of thought or a set of shared beliefs that informs their interpretation of research data (Kivunja and Kuyini, 2017). Guba and Lincoln (1994) define it as the "basic belief system or worldview that guides the investigation" (p. 105), while Lincoln et al. (2011) state that it is a way of thinking or view of the world that guides the research. Paradigms act as the conceptual lens through which the researcher examines the methodological approach to be used in order to determine the appropriate research methods that will be used and how data collected will be analysed. As paradigms are human constructions (Denzin and Lincoln, 1994), they are inconsistent and therefore incommensurable (Bryman, 2016). Based on their divergent assumption and methods, however, they are very useful in revealing the link between the reality to be studied (ontology), how it should be studied (epistemology) and how we attain knowledge from the study in a systematic way (methodology). There are several paradigms and beliefs that underpin research but the two dominating paradigms in modern educational research are (Krauss, 2005; Tuli, 2010): the Positivist Paradigm and the Interpretivist/Constructivist Paradigm. The positivist paradigm is based on a world view that is grounded in the scientific method of investigation and in the belief that such scientific method ought to be the basis for understanding human behaviour. It is seen under this paradigm as the only legitimate way of extending knowledge and gaining understanding (Kivunja and Kuyini, 2017). It is defined as an "epistemology which seeks to explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements" (Burrell and Morgan, 1979, p. 31). This paradigm is often adopted by researchers that seek to interpret realities in measurable and numerical terms (Fadhel, 2002) as well as based on the use of deductive logic,

formulation and testing of hypotheses and other scientific expressions to derive a conclusion. One of the main tenets of the positivists is that reality (ontology) is single and it is independent of the observer (Little, 1991). Positivists are committed to "value neutrality, statistical analysis, quantifiable elements and observable events to establish causal laws" (Seale, 2000, p.49). Meanwhile, the primary focus of the interpretivist paradigm is to understand the subjective world of human experiences (Guba and Lincoln, 1994), hence its focus on the interpretation of people's actions, views and interactions (Cohen and Manion, 1994). This approach relies on the views of reality as expressed by the participants with regard to the phenomenon, but the researcher is very careful to ensure that such views are not tainted with researchers' personal experiences and background (Creswell, 2013). The emphasis of this paradigm is on understanding the participant and their own interpretation of the world around them, hence, under the interpretivist paradigm, reality is believed to be socially constructed (Bogdan and Biklen, 1998). For this reason, this paradigm is also known as the constructivist paradigm; it believes that reality is made up of people's subjective experiences and that there is no particular route to knowledge (Willis, 1999), and since socially constructed realities are multiple, they must differ from person to person (Mertens, 2005) according to their interpretation and reasoning (Dilthey, 1991).

Since the aim of my study is to have an in-depth understanding and interpretation of my participants' lived experiences as effective teachers in their different school contexts and the wider context of the Nigerian society, I have decided to use the interpretivist paradigm as this paradigm provides the right frame I need to understand the phenomenon (Creswell, 2003). My aim is to gain an in-depth understanding through the subjective experiences of my participants as effective teachers (Ibid). This position is thus informed by my philosophical perspectives and epistemological beliefs.

4.4 Methodology

Methodology refers to the processes and techniques by which we acquire knowledge of things that we perceive (or know) exist (Cohen et al. 2013). It is the study of 'how we proceed' in our research (Hollis, 1994), using scientific inquiry (Fulford and Hodgson, 2016 p. 30). "How can the inquirer (would-be knower) go about finding out whatever he or she believes can be known?" (Guba and Lincoln, 2004 pg. 108). The interrelationship between one's ontology, epistemology and methodology cannot be denied. In line with this, one's methodology is largely dependent on one's ontology and epistemology, and according to Willig (2001), the epistemological roots of a methodology can be identified by the kind of knowledge the researcher seeks to produce by using a particular methodology which also invariably reveals the way the researcher views the world. Therefore, the methodology can simply be explained as the general research strategy that gives a scientific understanding of what methods are best applicable in conducting research on a particular phenomenon (Cohen et al. 2013).

This study made use of a descriptive design, employing qualitative methods. Research design refers to the entire plan of a study, which explains the type, method, and implementation strategy of the study in relation to its research questions (Vogt et al. 2012). According to Ragin (1994, p. 191), a research design is "a plan for collecting and analysing evidence that will make it possible for the investigator to answer whatever questions he or she has posed". In the literature, while scholars are in agreement about what research design is - an overall research strategy - they tend to differ in their categorisation of the designs. For example, in some literature, research designs are categorised in relation to typology and method, and such categorisations tend to include the following as research designs: action research design, observational design, cross-sectional design, exploratory design, case study design, historical design, philosophical design, causal design, cohort design, longitudinal design, and sequential design (see De Vaus, 2001; Brewer and Kuhn, 2010). Others tend to categorise them

based on intervention and this category of the literature largely lists three major designs - experimental, quasi-experimental and descriptive design (Dulock, 1993; Koh and Owen, 2000; Gall, 2007; Alasuutari et al. 2008; Nassaji, 2015). Yet in some literature, qualitative and quantitative methods are freely expressed as research designs (see Burkholder et al. 2019).

The qualitative design of the study means that the study seeks to understand effective teachers' attributes and patterns of activities from their perspective and making these visible through such techniques as "field notes, interviews, conversations, photographs, recordings, and memos to the self" (Denzin and Lincoln, 2005, p. 3). Though the researcher's worldview has the potential to influence their choice of method, the method ultimately selected for the research should rather be guided by the objectives of the study (Onwuegbuzie and Leech, 2005). Agee (2009) declares that a good research method is the one that is useful for what the researcher seeks to achieve and which is appropriate for eliciting the answers to the questions the researcher wants to be answered. There are two research methods: the quantitative and qualitative methods. While quantitative research is based on numerical data (Bryman, 2016), the qualitative research method aims to understand the social world subjectively, generating understanding according to the social and cultural contexts within which the individual functions (Sutton, 2015). Bryman (2016) observes that researchers who have an interpretivist worldview more often than not adopt the qualitative method in their research, working with qualitative data in order to make meaning of the world view of participants. Given this observation by Bryman, this study lends itself to the qualitative research methods since the aim is to understand the lived experiences of teachers who have been defined as effective. Pring (2000) argues that qualitative data are useful for understanding peoples' intentions and motives for actions since they provide rich insight into peoples' behaviour. Denscombe (2014) also argues that qualitative data provides opportunities for the researcher to detect patterns and themes that would help provide insight to the

problem under investigation. A case study strategy was adopted as it is considered an important strategy when trying to gain an in-depth understanding of research participants (Simon, 2009).

4.5 Case Study Strategy

A case study is defined as a systematic and in-depth investigation of a single person, group, event or community (Thomas, 2017) which is carried out "within the boundaries of its real-life context" (Yin, 2002, p. 23). The case study is a preferred strategy for researchers who want to cover contextual conditions relevant to the issue being researched (Yin, 2009). Stake (1995) opines that it is the study of the 'particularity' of single or multiple cases that occur over time through detailed in-depth data collection involving multiple sources of information (Creswell, 2013).

Scholars who use constructivist and interpretivist epistemology tend to use diverse kinds of methods including focused group discussion, visual ethnographic method, comparative analysis, cognitive mapping, content analysis, conversation analysis, interviews, observation (as a research participant and non-participant), case study, life history, narrative and theme identification (Crotty, 1998; Patel, 2015). Many of these methods are also used as a method within a broader method; for example, a case study makes use of interviews and observations. These methods are also particularly shared by diverse methodologies within these epistemological foundations such as grounded theory, ethnography, phenomenological research, heuristic research, action research, discourse analysis and feminist standpoint (Patel, 2015). It is noteworthy that this study employed a mix of these approaches: it collected data using in-depth interview and observation.

A case study was specifically chosen for this study because it provides opportunities for collecting lots of details that may be missed by other research approaches (Creswell, 2006). It particularly gives room for an in-depth investigation into the research problem in order to gain a deeper understanding

of the issue under investigation (Yin, 2017). One of the main criticisms is that the data collected cannot necessarily be generalised to the wider population. Although case study findings tend to have limited generalisation, it is however useful in providing an in-depth explanation of specific issues in relevant contexts (ibid).

Furthermore, I chose to use a case study to conduct my research because case studies are useful for expanding the understanding of a subject area and are often used to study people and programs, especially in education (Stake, 1995). This strategy provided me with a deep understanding (Denscombe, 2007) and a direct examination of characteristics of effective teachers from the perspective of teachers who are already deemed as effective in the context of their schools. Using this strategy, I was able to get a constructivist understanding of the case (Thompson, 2010), which maps back to my epistemological approach. A case study can be done by exploring a bounded system (a case) or multiple bounded systems (cases) (Creswell, 2006) in which the unit of analysis is explored through multiple cases. The study context is Lagos State, Nigeria. And the reason for choosing the state is because it has a robust market for private primary schools (Tooley and Yngstrom, 2013). As of 2018, the state had 18,000 private primary schools (Education International Research, 2018), which a 2014 report shows catered to 1,314,623 primary school pupils (SABER Country Report, 2014).

Additionally, I have adopted the case study strategy for this research since the main objective of this study is to identify how these effective private primary school teachers in Lagos state understand and construct effective teaching and learning in the classroom, as well as the personal qualities these teachers possess. Thus, the study aims to examine teacher effectiveness in Lagos state (real-life context) in a number of educational institutions (multiple bounded systems-multiple case studies) at a certain point in time (data collected within the period of one term, which is four months) (Bassey, 1999) and to represent them (teachers deemed to be effective) in their own terms (Yin, 2009).

I did a multiple case study as multiple cases allow for multiple perspectives, thereby enriching the research (Yin, 2003) as similarities and comparisons are drawn within and across the cases which is my intention. These multiple case studies are bounded by the characteristics of effective teachers, as defined earlier.

The cases are also bounded by their context as I studied these teachers (5 teachers each from 5 schools) within their physical (natural) settings. Context is key to case studies because of the uniqueness of each context and which Stake (1995) refers to as the particularity of each case. This went a long way in understanding the meanings constructed by the participants which are fundamental to my research questions being answered. Case study strategies are used to study 'how' and 'why' questions and bring deeper insight to the case being studied (Yin, 2009). Multiple case studies, however, have some disadvantages. Though robust and reliable, it is also laborious (Vickers, 1965 in Peter, 1998) and extremely time-consuming (Miles and Huberman, 1994). Also, it is not possible to generalise from the small sample size used in such studies (Gall et al. 1996). I have considered and acknowledged these disadvantages, however, I find them an acceptable 'trade-off' for the deep insights I obtained from participants which should help the reader connect with the narrative biographies I collected and my findings (Taysum and Gunter, 2008).

Another characteristic of case studies is that multiple sources of data collection such as interviews, observations and documents (Bassey, 1999; Creswell et al. 2007) can be used as it enriches the understanding of the case(s) and allows for comparison between cases and within cases (Simon, 2009). As explained later in this chapter, I adopted interview and observation methods.

4.5.1 Study Population and Sampling

A research population is considered as a large collection of individuals or objects that is the main focus of a scientific inquiry (Trochim, 2006). It is also a group of individuals who have common characteristics or interests (Emmel, 2013). Based on these definitions, the population for the study is teachers in private primary

schools in Lagos State. Details of the study site (Lagos state) have been presented in Chapter 1.

Sampling takes different approaches (Cochran, 2007); however, Denscombe (2014) posits that they can be classified under two types: probability and non-probability sampling. According to Denscombe (2014), probability sampling occurs when sampling from a population is chosen based on probability. On the other hand, non-probability sampling assumes the choice of the researcher is based on certain criteria that have been defined by the researcher (Denscombe, 2014). I adopted the non-probability sampling, using the purposive sampling technique (ibid) to select both the school and participants for my research. The purposive technique "operates on the principle that we can acquire the best information focusing on a relatively small number of instances deliberately selected on the basis of their known attributes" (Denscombe, 2010, p. 34). Since the main objective of my study is to gain understanding from teachers who are already defined as effective, purposive sampling is deemed suitable, especially as I am not seeking to get a representative sample of the entire population (Given, 2008).

Purposive sampling enabled me to focus specifically on participants with specific qualities of effectiveness who are very important to my research. Such individuals whose experiences and interpretations are critical to the research can be selected purposively (Denscombe, 2010).

There were two stages of selection in my research:

The first stage was to purposively select the schools for my research using a list of prerequisite criteria:

1. Long-standing educational institutions that have been in existence for 15 years and above (this helps to ensure that only schools that have withstood the test of time and have gained experiences in the operation of private schools and management of teachers were selected for this study).

2. Large schools with a population of 400 pupils and above- Considering that many private schools are unregistered and small, the decision to select only large private schools helps to ensure that they are popular in their locations and their definition of teacher effectiveness may be relatively far-reaching due to their population. In addition, the number of students in these long-standing established schools despite being relatively high fee-paying schools, suggests satisfaction by parents and perceived good quality.
3. Government-approved Private Schools - Without government approval, the status of any school might be questionable. Hence, selecting only government-approved schools helps to ensure that they are recognised and monitored by the Quality and Assurance Department of the Lagos State Ministry of Education, which somewhat contributes to ensure the quality of their education and teachers.
4. Membership of Associations and Accreditation Bodies- Only Schools that belong to the Association of International Private Schools in Nigeria, which represents a forum for knowledge sharing and collaboration have been selected for this study. This also speaks to the standards and quality of these schools.

While these schools had similarities in the above criteria, there were some subtle differences which existed amongst them. These differences are reflected in Table 4.1 below.

Table 4.1: School Characteristics

School	Years in existence	Curriculum	Head Teacher Nationality	School Ownership
School A	67	British Curriculum and International Primary Curriculum	British	Trust council
School B	18	Integration of British and Nigerian curriculums	Nigerian	Sole Proprietorship
School C	25	Integration of British and Nigerian curriculums	British	Sole Proprietorship
School D	65	Site-based curriculum (Blend of Nigerian and other major curriculums such as the International Primary Curriculum)	Nigerian	Trust council
School E	29	Integration of British and Nigerian curriculums	Nigerian	Sole Proprietorship

The second stage of my sampling was to purposively identify teachers that are considered as effective by their respective schools. I asked the schools to draw up

the list for me, among which the actual participants in the study have been selected in each school, using the following criteria (these were given as inclusion criteria to heads of each school to identify among their teachers those that meet them):

1. A track record of outstanding teaching evidenced by their ability to positively affect students' achievement.
2. Known to lead professional learning and using such learning to support the development of their professional learning community in order to improve teaching and learning, thereby contributing to the optimisation of students' learning in their area of responsibility.

Please see Appendix C for information about the participant teachers' characteristics from the 5 selected schools. Pseudonyms were given to the participating schools and individual teachers to ensure complete anonymity of participants.

4.6 Pilot study

As a pilot study is used to try out a proposed procedure, material and method in order to overcome related problems and to address them prior to the main study (Cohen et al. 2007), I considered it imperative to conduct one. Also, according to Hall and Hall (2008), it greatly adds to the credibility of the research.

In conducting my pilot, I ensured that I matched as much as possible, the pilot setting to schools that I would be using for my main study (ibid), therefore, my pilot was carried out in a large, private, government-approved and long-standing educational institution, which had been in existence for more than 15 years. I pre-examined my interview schedule with six teachers who I selected using the same selection criteria for my study, and this helped in no small measure in strengthening my interview protocol as well as identifying possible flaws within

the interview design, such as lack of clarity of questions which could make participants tired and switched off.

One major learning point for me was my lack of adequate use of probes to obtain more details about the effective practices of participants and their personal qualities. The learning behind this was that such opportunities lost can never be regained and so I was careful not to repeat the same mistake during my main study. The pilot study also gave me an opportunity to practice analysing data as I did a snapshot analysis of two of the teachers I interviewed. I analysed using the open coding system in the first instance, then axial coding in order to link sub-categories to the categories and finished off by doing a thematic analysis as I identified themes and related them to the research question. The themes derived during my pilot study include: Differentiation; Planning; Questioning; Understanding and Application; Critical Thinking and Formative Assessment. It is also worth mentioning that my pilot school thereafter was not part of the schools I used for my main study.

4.7 Data Collection

Soy (1997) explains that to generate a high level of detail in research, there should be an opportunity for the researcher to have a detailed understanding of the problem under investigation. To get this detailed understanding would require using different instruments (qualitative in the case of this study) such as one-on-one interviews important in gathering the kind of data one needs for the qualitative inquiry (Denscombe, 2014). Lapan et al. (2012) recommend that interviews and observations are excellent instruments for data collection when using a case study strategy. Denscombe (2014) further added that interviews are considered best when trying to understand the world view of people while observations are best when observing and recording behaviour. On this note, therefore, was my decision based on using both semi-structured interviews and unstructured observations as my data collection tools. Using these multiple sources of data collection helped in getting rich qualitative data, thereby achieving

a deeper understanding which is essential in case studies (Denscombe, 2014). Therefore, the use of semi-structured interviews to extract the views and experiences of effective teachers and unstructured observations which took place in their natural setting helped capture different dimensions, providing the opportunity for a robust and richer understanding (Bryman, 2016).

4.7.1 Semi-Structured Interviews

Semi-structured interviews are used in Qualitative research to gain an understanding of the reasons people act in certain ways (Blandford, 2013). They are particularly useful and better exploited when applied to the exploration of complex phenomena, rather than simple, straightforward issues (Denscombe, 2010). I collected data using a semi-structured interview guide that breaks down my key research questions into simpler questions (see Appendix A). Semi-structured interview guides are designed to include structured and unstructured questions, including standardised and open question types (Walliman, 2011). Semi-structured interviews require some questions to be predetermined. This is because it offers some level of standardisation and ensures that the interviews remain relevant to the research questions and the research aim, while others will evolve during the course of the interview. With a good interview guide, interviews are very helpful in collecting data that 'will provide information unavailable through observation' (Bogdan and Biklen, 1992, p. 64).

Further issues that require getting people's perceptions, experiences, opinions and feelings are best explored using semi-structured interviews (ibid). However, there are key aspects to be observed when conducting semi-structured interviews which include gaining the trust and confidence of the interviewees (Clough and Nutbrown, 2012). I tried to gain the trust and confidence of each participant by emphasising the issue of confidentiality and anonymity (which I further explained under the section on ethical considerations). I also highlighted our common ground (as educators) as suggested by Hurn and Tomalin (2013). I explained that they were the custodian and the experts in their lived experiences, which they had

acquired over the years and that it was this experience I required for my research. I also emphasised the importance of their contributions to the advancement of education in Nigeria. Doing and saying all these seemed to dispel their fears, helped me gain their confidence and trust, and motivated them. According to Silverman (2010), building this kind of relationship is key to the quality of data collected from the participants.

Also, to enhance the quality of data collected which is crucial to a case study (Creswell, 2006), the careful redirection of an interviewee who seems to be drifting away from the research questions is necessary. I made use of prompts to subtly guide the participants while using probes to give an opportunity for concrete examples of points made (Denzin and Lincoln, 1994) in line with constructs explored in my literature review. This went a long way in making the abstract concepts of effectiveness more practical which is the whole essence of a qualitative study (Carrington, 2008).

I interviewed each teacher once during the data collection process, using open-ended questions. These kinds of questions encouraged interviewees to open up and express themselves freely in an in-depth manner. I made use of similar questions with all participants which mapped back to the research questions I formed based on the literature review. The average interview time was 1 hour and 15 minutes. It is advised that interviews should not exceed 90 minutes to consider other commitments of participants (Jacob and Furgerson, 2012). The interviews were conducted in English and were audio-recorded using a digital audio recorder (which were later transcribed verbatim for data analysis) (Bell, 2005). 'Using audio recording offers a permanent record and one that is clear in terms of speech that occurs' (Denscombe, 2014, pg. 196). After transcribing, I sent it back to participants to check that it was a fair representation. This links to the issue of trustworthiness which would be discussed later on.

There are challenges when using interviews as a data collection instrument. According to Wragg (2002), some participants might feel pressured during the interview process. An example of this during my interview with some of the participants was the change in body language when I asked if they felt there was any barrier to their ability to make instructional decisions or professional judgments relating to their pupils' learning. The question seemed to make some of them feel uneasy, while others simply discussed freely or yet some others asked for reassurance of the confidential nature of the research, after which they talked about their frustrations. However, I took this opportunity to reiterate, at this point for each respondent, the confidentiality of the process. Pressure from Interviews may also make participants present a picture of the perfect teacher, dwelling only on their strengths while neglecting to talk about their weaknesses (Taylor and Bogdan, 1998). A researcher has to be aware of these so as not to be misguided which could affect the quality of the data (Simon, 2009).

4.7.2 Unstructured Observations

The other tool I used to collect data is unstructured observations, because they do not rely on what people say, but rather what they do, drawing direct evidence and witnessing events firsthand (Denscombe, 2010). When used with interviews, unstructured observations allow for comparison between participants' account and actual behaviour (Given, 2008), creating an incontestable description which helps deepen understanding (Stake, 1995). What makes this mode of data collection unique is the fact that it was done in the natural setting of the participants (Patton, 2002). As Kemp (2001) calls it, one sees 'their life in the raw' (p. 526) as it unfolds right before the observer. However, observation does not mean one can 'see' the thinking behind the actions, thereby the use of another method that seeks insight into their thoughts is necessary.

I observed these effective teachers (as defined by their schools) in their different natural settings as my study is a multiple case study. I had the opportunity of

seeing some of them within their professional learning communities, leading and learning together with colleagues (Denscombe, 2014), I observed their behaviour generally and also their interactions within their school environment. This was made possible as I was in each school for three days (which was about the amount of time that it took to interview five respondents in each school). This also availed me the opportunity to observe the school environment to see signs of some of the practices the teachers had described as part of the culture in their own specific context.

Data were recorded as field notes which I coded and analyzed. Unstructured observations are more frequently associated with the interpretivist/constructivist paradigm that emphasises the importance of context, see knowledge as being co-constructed by both participants and investigators, and assert that it is impossible to completely separate the observer from the 'observed' (Denscombe, 2014).

4.8 Data Analysis

My study aims to develop a model (Simon, 2009) of characteristics of effective teachers through the gathering of rich narratives of teachers who are already considered effective. Model development in qualitative research is a borrowed approach from the grounded theory developed by Glaser and Strauss (1967 cited in Saldaña, 2015), and 'is a widely used qualitative interpretivist framework in social science' (Denzin, 1994, pg. 504). Strauss and Corbin (1990) posit that to eventually build a model requires one to understand "participants' perspectives and interpretations, from how they construct their worlds" (in Simon 2009, pg. 124). In order to develop a model, there is a systematic approach that requires an inductive activity so that the research can reasonably derive the model from data (Strauss and Corbyn, 1990). This systematic approach is called Data analysis (Simon, 2009).

Data analysis is the process of searching out similarities, differences, categorising and identifying themes that give meaning to data collection and explain the

subject of study (Bell, 2005; Gray, 2009). The purpose of analysing something is to gain a better understanding of it by describing and explaining its consistent element, explaining how it works and interpreting what it means (Denscombe, 2014). There were certain steps I followed while analysing my data (Braun and Clarke, 2006; Lapan et al. 2012):

1. Familiarisation (Immersion): familiarisation is defined as a process whereby the researcher discusses and engages with the data in order to become familiar with them, to the extent that the researcher begins to develop an overview from the data (Braun and Clarke, 2013). The first step I took was to familiarise (immerse) myself with the data which involved me having to actively read and reread the data repeatedly - searching for meanings, patterns and so on. With this familiarisation process, I developed my ideas and identified possible patterns, which were instrumental in answering my research questions.
2. Coding: After this familiarisation process came the next step which was coding my data (Lapan et al. 2012). According to Charmaz (2012), coding is an analytical process used to identify concepts, similarities and conceptual recurrences in data. Through coding, I identified features of the data that appeared interesting to me while I also considered the most basic elements of the raw data or information that could be assessed in a meaningful way regarding the phenomenon I am studying (Boyatzis, 1998 cited in Braun and Clarke, 2006). I did my coding in two phases (Simon, 2009): Open and focused coding.
3. Open Coding: open coding is the process of fracturing the data to compare incident to incident and to look for similarities and differences in beginning patterns in the data (Charmaz, 2006). I utilised open coding whereby I began to apprehend the meaning of words, phrases or sentences used by the interviewees by tagging or labelling, in order to capture the essence or feature(s) of the data (Saldaña, 2015).

4. Focused coding: Focused Coding is the process of searching for the most frequent or significant Initial Codes to develop in the data corpus and it "requires decisions about which open codes make the most analytic sense" (Charmaz 2006, pp. 46, 57). I used focused coding to discover the most significant and frequent open codes (Lapan et al. 2012), and this helped me identify my main categories and subcategories. The main categories and subcategories that emerged from my data were used as the basis for axial coding.
5. Axial coding: Axial coding involves strategically reassembling data that were 'split' or "fractured" during the open coding process (Strauss and Corbin, 1998, p. 124), as a result, categories and subcategories grounded in participants' voices within data collected are revealed (Allen, 2017). In this stage, I took the categories I identified through open coding and then made connections between categories and sub-categories (Miles and Huberman, 1994), even as relationships between these categories began to develop (Strauss and Corbin, 1998). Given the large number of categories and the interconnectedness I identified in the data, some sub-categories appeared to be related to more than one category. This required a lot of thinking and reading and re-reading of the coded text and thinking about the relationships between the categories and sub-categories.
6. Theme derivation: theme derivation includes capturing the features of participants' accounts characterising particular perceptions and/or experiences that the researcher sees as relevant to the research questions (Saldaña, 2015). I derived my themes by bringing together the various components of ideas (Bryman, 2016). I arrived at these themes based on the relationships established between the categories generated (through axial coding) using thematic analysis.

7. Thematic analysis: Thematic analysis is defined as “a method for identifying, analyzing and reporting patterns within data” (Braun and Clarke, 2006, p.79). I used the thematic analysis which appeared to be the most commonly used method of analysis in qualitative research (Denscombe, 2014). With this method, I was able to search and detect a limited number of themes which can come from direct quotes or paraphrasing ideas from the data (Silverman, 2005). Furthermore, I refocused the analysis at the broader level of themes (rather than codes) which involved sorting the different codes into potential themes and collating all the relevant coded extracts within the identified themes. I also began to analyse these codes and considered how they may combine to form an overarching theme. For instance, all unit of data that refer to Pedagogical Knowledge and Content Knowledge were pulled together to be examined under the theme ‘Professional Knowledge’, while all the units of data that refer to Feedback, Questioning, Self-assessment and Peer-assessment, were pulled together to be examined under the theme ‘Formative Assessment’.
8. Reviewing my themes: after I had derived my themes, I thereafter enhanced them. There were two ways I enhanced my themes: a. reviewing and; b. refining (Braun and Clarke, 2006). By reviewing the themes, I read through the extract for each theme and observed whether there was a coherent pattern formed, while at the second level, I considered the credibility of the individual theme in relation to the data set (Braun and Clarke, 2006).
9. Defining and naming themes: at this point, I still went further to define and refine the themes that occurred during analysis. Through this, I identified the essence of what each theme was about, while I determined the aspect of data the theme captured.

10. Producing the report: having defined and refined the themes, I then decided to write up the report. In the write-up, I provided a "concise, coherent, logical, nonrepetitive, and interesting account of the story the data told – within and across themes" (Braun and Clarke, p. 23). I provided enough data extract to demonstrate the 'prevalence' of the themes I presented.

This systematic way helped to shed light on the problem that was studied (Simon, 2009) and in turn facilitated the development of a model.

I coded manually using Microsoft word to do my analysis because, in qualitative research where data is collected using words, every word by the participants should be treated as precious as they could be fundamental to answering my research questions, so I was very careful that important details were not missed out (Saldaña, 2015). This possibility exists when using computer-assisted data analysis software (ibid), as analysis using software is totally dependent on the manual programming of the researcher and very easily, important aspects of the data analysis could be missed (Dey, 1993). Therefore, I used Microsoft Word to manage the data, codes and themes in tables.

Creating themes and pattern-matching are very important aspects of data analysis as I sought to understand the similarities and differences between the different teachers who had been identified as effective, especially as my study seeks to understand their effective teaching and learning practices, their personal qualities as well as the factors that hinder their effectiveness.

The following themes and subthemes in Table 4.3 were developed from my data

Table 4.3: Themes and Subthemes

Themes	Subthemes
Professional Knowledge	- Pedagogical Knowledge - Content Knowledge
Instructional Planning	- Lesson Objectives - Success Criteria
Differentiated Instruction	-
Formative Assessment	- Feedback - Questioning - Peer-assessment - Self-assessment
Personal qualities of effective teachers	- Care - Practical Wisdom and Judgment

Before I conclude this section, it is particularly important to mention that information from my unstructured observation was used to explain various aspects of the data and enrich the discussion of the data. My field research notes which contained this are thus not presented as separate sections or themes in the data presentation and discussion chapter, instead, they contribute to enriching the discussion of the interview data which constitutes the major part of the data presented in the next four chapters. Denzin and Lincoln (2005, p. 3), explain that qualitative research data include 'field notes, interviews, conversations, photographs, recordings, and memos to the self'. The field notes have been used to understand and explain interview data (mainstreaming observations into the interview data discussion) because Bechhofer and Lindsay (2000) explain that research questions that address social interactions may need some elements of

field observation to fully understand and explain them. This is because features of social interactions may be quite slippery and observing them as they are "enacted and experienced in natural social contexts tends to suggest ideas for further study, in order to establish it as a phenomenon" (Vogt et al. 2012, p. 70).

4.9 Trustworthiness

Quality in all research is key, and even more so in qualitative research because of its subjectivity (Bassey, 1994), hence, establishing trustworthiness is imperative. Trustworthiness is promoted by ensuring understanding of the research, reflexivity of the researcher, addressing issues of power that may arise with participants' validation of the research and an audit trail (Bassey 1999; Silverman, 2005; Creswell, 2009). These according to Floden (2007) will help satisfy the demands of rigour in a qualitative study such as this.

4.9.1 Reflexivity and Issues of Power

In qualitative research, the researcher should be reflexive of their role in terms of subjectivity and positionality (Lapan et al. 2012). The researcher must be aware of the possibility of bias in the responses from participants because of their position and of bias from the researcher (Denscombe, 2014). These biases and the impact they could have in interpreting data need to be identified and acknowledged in the study (Given, 2008). Thus, according to Silverman (2005), researchers must think about how their values and background can affect their research while Creswell (2009) adds that the biases that have the potential to shape their interpretation of data should be identified and addressed. One way I addressed this was to keep a reflexive journal for the duration of the research. The reflexive journal was used during and not long after each interview. In the reflexive journal, I noted how each interview went, reflecting on my questioning techniques, especially my use of probes. I also examined my role as the researcher as well as how I got the participants to respond to my questions (Denscombe, 2014). I contemplated whether my values and beliefs as a school leader were interfering

in any way with the research (Guba and Lincoln, 2007). Most important were my reflections on the issue of power, being a school leader interviewing class teachers, both in the school I lead and other schools. As I noted in my journal, there usually was a change in the countenance of the teachers after I reassured them that they had something I did not have – their lived experience. I made them understand that their experience was uniquely theirs and that that experience was priceless to my research, and would certainly help in promoting the cause of education in Nigeria. This emphasis went a long way in further breaking the ice and made them more relaxed. Furthermore, I was conscious of any strong feelings I had for my research which I realised could have an impact on my research. This consciousness went a long way in countering my subjectivism.

During my data analysis stage, I also took some notes to help me reflect further on the coding process especially, how the process of enquiry was taking shape and the emergent patterns, categories and subcategories, themes and concepts in my data which can all possibly lead to theory generation (Saldaña, 2015).

The issue of being an insider-outsider researcher is also important in a qualitative study (Mercer, 2007) such as mine. As a school leader, I believe I am an insider. Even with the schools I do not relate with directly, I can be classified as an insider because I work in the same sector I am researching.

While some studies (e.g Asselin, 2003) see being an outsider as an advantage because it is believed that an outsider would be more objective and participants might feel freer to relate with them, others (e.g Dwyer and Buckle, 2009) feel insider research is more helpful as the researcher will have a better understanding of the context (Griffin, 1985). However, Mercer (2007) argues that this familiarity with participants and contexts has not been proven to lead to obtaining richer details than if the researcher were an outsider. Being an insider in these schools has its advantages and disadvantages (Silverman, 2005). An advantage was that I was able to fully involve myself with the participants, while on the flip side, some

of the participants knew me and there was a chance that they could have formed a preconception about me and my research (Hockey, 1993).

As a school leader, the issue of power caused by my position cannot be completely ruled out, therefore I deployed what I did during my master's programme which was to assure the participants that I was engaging in the research as part of my professional learning and for school improvement. The assurance that the research is all about improving practice in order to optimise the learning of students and the fact that they as teachers are contributing to the advancement of education in Nigeria, I believe helped. I also explained explicitly all the conditions that protect their rights as contained in the ethics section.

Additionally, I chose to do a multiple case study in order to reduce the potential bias associated with being an insider researcher, as a multiple case study allows for a wider exploration of research questions (Eisenhardt and Graebner, 2007), and improves a study's credibility.

4.9.2 Member Check

One of the strategies that is used to establish the credibility of qualitative research findings is called member check (Guba and Lincoln, 1989), where the researcher can go back to the participants and present the findings to them asking whether or not the findings make sense in their experience (Lapan et al. 2012), and whether they have alternative interpretations to the findings (Birt et al. 2016). Based on this, the findings from my analysed data were presented to the teachers in each school, and they confirmed that it represented their experiences as none of them had contrary views. I asked 4 senior teachers (who were not part of my sample population) to read through and give possible answers to my interview questions. This further confirmed that my interview questions would generate the intended outcome. Another form of member checking is returning interview transcripts to participants so that it can be used as a way of enabling participants to reconstruct their narrative through deleting extracts they feel no longer represent their

experience, or that they feel presents them in a negative way (Birt et al. 2016). The downside to this, according to Forbat and Henderson (2005), is that verbatim transcripts create an unusual situation where people see their spoken language in written form, while on the other hand, others welcomed the opportunity to see their experiences recorded (Birt et al. 2016). Despite the downside, participants were provided with their transcripts before going ahead with the data analysis as they were asked to review, confirm, or edit their transcripts. Most of the participants were fine and only a few returned with minor edits. At first, I was sceptical that participants might find member checking disconcerting as Birt et al. (2016) warn that "researchers should be careful when doing member check as it can either be distressing for the participants" (pg. 1806). However, Harper and Cole (2012) suggest that the process of seeing personal experiences validated and reflected in those of others can help participants to see they are not alone. Taking the transcript to the respective teachers was rather useful in confirming my data as being representative of the views of the respondents.

4.9.3 Audit Trail

Creating an audit trail refers to keeping careful documentation of all components of the study, should an external auditor be utilised (Denscombe, 2014). Keeping field observation notes, interview notes, journals, records, calendars, and various drafts of interpretation are all parts of creating audit trails (Carlson, 2010). Lincoln and Guba (1985, p. 319) add, "an inquiry audit cannot be conducted without a residue of records stemming from the inquiry, just as a fiscal audit cannot be conducted without a residue of records from the business transaction involved". This is a strategy devised by an individual with the aim to enhance the trustworthiness of qualitative research, more importantly, case studies (Yin, 2003). From the inception of this research, I have kept a journal, putting down my thoughts as well as the important decisions I made. For example, there were cases where participants raised the issues of anonymity and confidentiality which could affect the way they responded to the research questions. However, I also noted

how I dispelled their fears, telling them that only pseudonyms will be used instead of their names and the fact that only I will have access to the data. Keeping the audit trail (part of which are mentioned already above) will allow the readers of my research to trace the research step by step as I show the process of collecting my data, which eventually leads to the formation of my findings and recommendations.

4.10 Ethical Considerations

In any research study, ethical issues are very important especially when the research involves people. Avoiding the possibility of causing any harm due to the research, is very important and could happen if there is no strict compliance to research ethics (Bell, 2014). Denscombe (2014, p. 306) argues that "the importance attached to research ethics is evident in the fact that social researchers will normally need to get prior approval for their investigation from an ethics committee". Before the research can commence, it needs to be scrutinised by this committee. Following Denscombe's (2014) advice, I applied for ethical approval from the University of Leicester's research ethics committee. The research was approved after I uploaded the required documents.

The most important ethical issues that arose in this research are the issues of power, anonymity, confidentiality, informed consent and voluntary participation (Creswell, 2009; Bell, 2014). In complying with good ethical practice in my research, I applied to the University of Leicester Ethics Code of good research practice (2011). The code gave a detailed description of the standards for conducting research, particularly when using human subjects. I followed the ethical standards in the following ways:

4.10.1 Informed consent

Creswell (2006) and Bryman (2012) both agree that participants must provide full consent before research can be embarked upon. In addition, participants must also know that they have the power to withdraw from the research without giving

any reason whatsoever (Denscombe, 2014). First of all, I provided formal letters to the gatekeepers of the five schools selected for my research, requesting permission to conduct my research in their schools. A list of criteria was provided to help with the selection and further telling them of their expected role which is to provide me with a list of teachers that met the criteria. Also, the letter gave a summary of the study as well as what is expected of their teachers, provided they decide to have them participate in the research. I gave the assurance that information about their schools will be treated with the utmost confidentiality. Accompanied with the formal letter was a consent form. The gatekeepers signed the consent forms and therefore granted me access to their schools.

After I had been granted access by the gatekeepers of these schools, I wrote a formal letter of invitation to the teachers asking them to participate in the research. The letter contained an overview of the study and what is expected of the participants as well as how the anonymity of participants will be ensured. It was also stated that participating in the study was voluntary and that they could withdraw at any time and without any reason up until the point of publication (British Education Research Association (BERA), 2011). The teachers that eventually volunteered to participate were provided consent forms to sign before the commencement of the research (Denscombe, 2007; Creswell, 2009).

4.10.2 Confidentiality

Right before each interview commenced, I sought the permission of the participants to record the interview with a digital voice recorder (Denscombe, 2014). As soon as each interview ended, the recorded audio was cut and pasted onto my laptop which was encrypted and I only have access to (Denscombe, 2014) while notes containing data were stored in a secure location. This is in-line with the United Kingdom Data Protection Act (1998). I also ensured the privacy of the participants by ensuring that they cannot be recognised from their quotes or in the publication by any means.

4.10.3 Anonymity

Protecting the identity of the research participants should be of utmost importance to any researcher (Denscombe, 2007). Given the nature of my research, the research participants are not anonymous to me, therefore, I have decided to protect their identity throughout the duration of the research and also while reporting the findings. I used pseudonyms instead of their real names while the schools and their locations were anonymised. Participants were also assured that their words will not be taken out of context.

4.11 Limitations of the Study

While I made a significant effort to ensure that a high quality, robust and result-oriented research outcome was produced from this investigation, it is important to mention some challenges I encountered during the study and some particular limitations of the study. First, like many social issues and socially constructed concepts, it is quite tricky to define teacher effectiveness. Therefore, my conceptualisation of what teacher effectiveness is and its key determinants may not apply in every context. This is because my definition is based on my participants' subjective reality (their conceptualisation of teacher effectiveness). Furthermore, the selection of these 'effective teachers' (out of whom I got volunteers) was made by the individual school and was beyond my control, even though specific criteria were provided in advance to aid their selection. Therefore, I am not certain of the extent to which these schools went in ensuring that there was no bias in their selection of teachers. However, a way to reduce the effect of bias (if any) was to do a multiple case study that enabled comparative analysis both within and across schools, rather than a single case (Yin, 2017). That said, even though I used a multiple case study strategy for this reason and because of its advantage of exploring a research question in a much more detailed manner, one of its major flaws is that it does not provide the opportunity for the study's result to be generalisable to a wider context. Another similar limitation is the

purposive sampling that I adopted for this study (a non-probability sampling technique). It is well known that non-probability sampling techniques are susceptible to bias in selection, unlike probability sampling techniques which give participants an equal chance of being selected. Consequently, I have been very cautious about the definition and conclusions I have reached from this study with an awareness that these limitations could limit the transferability of the study findings, though it presents a point of departure for further investigation in the field of teacher effectiveness. In the literature, there are diverse issues relating to teacher effectiveness as well as a diversity of discussions on teachers' contributions to improved student learning outcomes, these might affect how readers receive information presented in this study, depending on the reader's perspective and theoretical orientation. However, I have emphasised that this study benefited from constructivist epistemology and theoretical framework which acknowledge that people in different environments and with differing perspectives may interpret similar situations differently and thus knowledge construction from their respective perspectives may differ.

It is noteworthy that my position as an insider and school leader may have affected my perspective and interpretation of data. To address this, I ensured that the study has been subjected to member check, deep-seated supervision (as an academically supervised work) and peer criticism in order to identify my own bias, possible parochial interpretation or narrow presentation of issues that may have deeper meanings. Member check, peer criticism and my use of reflexivity exposed some gaps which I addressed before the submission of this thesis.

Finally, during the data collection, my unstructured observation was limited by opportunities provided by various schools. For instance, situations like upcoming half term breaks or end of term examinations prevented me from having unfettered access to the school environment and my participant teacher's activities. Also for some schools, training sessions (which formed part of my unstructured observation) had been concluded for the term. Although I made

some efforts to explore various opportunities to gain additional understanding of school processes and practices, besides what the teachers told me, my success was limited and might have impacted the richness of my observations which are included in my analysis of data and discussion. I have also been very cautious in the presentation of some observations that are not very clear, though contained in my field notes.

4.12 Reflection on Doctoral Journey

I began the doctoral journey in September, 2015. I was largely interested in school leadership strategies, teacher effectiveness characteristics and private primary school pupils' learning optimisation in Lagos State. The main reason for this was to understand the role of leaders (like myself) in empowering teachers to improve students' educational outcomes. I was also interested in how education contributed to social transformation and how students could be prepared to contribute to societal development. Further discussion and reflection however with my supervisor at the time showed that the topic was too wide. So, it was suggested that I should narrow down the focus. During my reflections, I realised a specific professional challenge which was about differential effectiveness amongst teachers. I realised that this could cause variations in students' learning which ultimately would hinder the overall school effectiveness. This finally became the focus of my study.

I have found this study very interesting and engaging. The process of the study has also helped a great deal in refining my initial research focus. The research began with quite a broad topic and a long list of possible research questions, but by the time I started various research-related activities, such as literature review, interviews and analysis, the weakness of such a broad approach became obvious to me. Also, the pilot study I undertook went a long way in shaping my research journey, bringing a lot of clarity and understanding of the research processes that were erstwhile unfamiliar to me. All these led me to delineate my research scope,

thus becoming more focused. For example, my interview guide collected an extensive and wide range of data that cut across an extensive list of thematic areas, and I had to choose what was necessary for the context of this research and the most important themes that would help answer my research questions.

Due to the extensive reading and writing during my doctoral programme, I have been able to refine my thinking and writing skills. I have developed the ability to analyse and present data in a systematic manner which is a skill that would help me in becoming a better individual and educational leader.

4.13 Summary

I have provided a summary of an extensive approach, activities and rationales behind various choices I took in the process of this study as well as efforts made to protect the research subjects. In the next chapter, I begin the presentation and discussion of the interview data and my field observations. The presentation and discussion of the study data run through the next four chapters, beginning with issues around professional knowledge (pedagogical, content and pedagogical content knowledge) which are presented in the following chapter.

CHAPTER FIVE

PRESENTATION AND ANALYSIS OF FINDINGS FOR PROFESSIONAL KNOWLEDGE

5.1 Introduction

This chapter and the next four chapters present findings from the interview data analysis on the perception of teacher effectiveness and its role in optimising students' learning in five primary schools in Lagos State, Nigeria, with a particular focus on effective teaching and learning practices. In Chapter Nine, I focus on the personal attributes these teachers possess in line with my second research question. In relation to each of these chapters, I decided to report my findings on a case-by-case manner, according to each theme and subtheme that emerged from the study. I used appropriate quotes to illustrate my findings and then discussed them in line with literature and theories, rather than presenting the findings on their own and having a separate discussion chapter (Burnard, 2006). I used this method essentially to avoid unnecessary repetitions which might arise with separate chapters and cause my thesis to become unwieldy, especially as multiple case studies are already prone to such accusations (Stake, 1995).

For identical reasons where findings are the same within or across schools, I only discuss the findings at the very first instance it comes up within or across the schools. When the same findings appear subsequently, they are still illustrated with quotes and linked to literature and theory but without any further discussion. Again, this is to avoid repetitions.

However, where other dimensions or perspectives arise from similar findings, these are discussed further. In addition to presenting my data, I also analysed the same within each case using relevant literature and theories after which I proceeded to analyse and summarise my observations across the cases.

I used figures to diagrammatically represent and highlight major themes and subthemes across chapters five to nine and tables were used to reflect the number of participant views in respect to each subtheme.

The following subsection presents my findings on professional knowledge, which is broken into two subthemes - pedagogical knowledge and content knowledge.

5.2 Professional Knowledge

According to my findings in relation to my first research question which is about the effective teaching and learning practices of effective teachers, three professional knowledge domains namely: Content Knowledge, Pedagogical Knowledge and Pedagogical Content Knowledge were highlighted and discussed under two subthemes in this section, as graphically represented in Fig 5.1.

Fig. 5.1: Major subthemes on Professional Knowledge

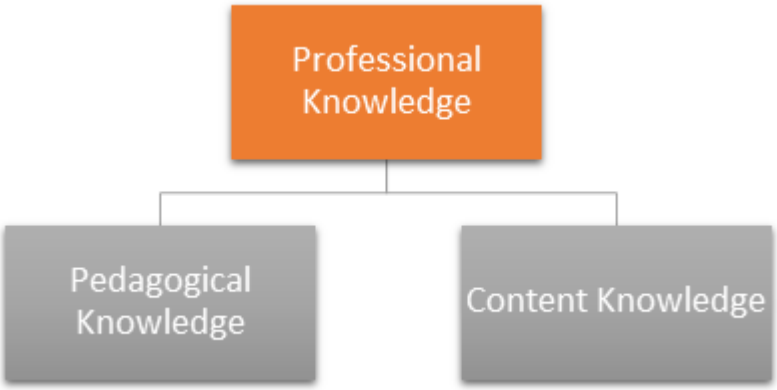


Table 5.1: Participants' views regarding their professional knowledge

	School A	**School B**	**School C**	**School D**	**School E**	**Total**
Subtheme: Pedagogical Knowledge						
More Learner-Centred Pedagogy	5	5	4	3	3	20
More Teacher-Centred Pedagogy	-	-	1	2	2	5
	School A	School B	School C	School D	School E	
Subtheme: Content Knowledge						
Good subject knowledge	4	5	4	4	3	20
Pedagogical Content Knowledge (PCK)	1	-	-	1	-	2

5.2.1 Pedagogical Knowledge

Interview data suggested that the teachers I interacted with across the five case study schools exhibited pedagogical knowledge. In response to my question on how they involve students in their own learning, which is a good pointer to the possession of pedagogical skills (Donaldson et al. 2012), they all seemed to have a good understanding.

5.2.1.1 School A

School A is a British School that caters for children from Reception to Year 6 and delivers the British National Curriculum as part of a thoroughly rounded education set in a Nigerian context. The school is a member of the Association of International School Educators of Nigeria (AISEN), The Council of British International Schools (COBIS) and the Independent Association of Preparatory

Schools (IAPS). At the time of collecting the data, the school had been in operation for 67 years.

Interview data suggest that all the teachers I interacted with in School A regularly use the Learner-Centred Pedagogy (LCP). Often associated with the constructivist theory, LCP is a more effective approach to teaching than its teacher-centred counterpart (Moate and Cox, 2015). It places the learner at the centre of learning with the teaching and learning process often shaped by the interests of the students. For example, T1 explained that she ensures her students are involved in their own learning by first understanding their prior knowledge. She said:

> *When we resumed, I tried to find out the previous knowledge…I help them to move from the known to the unknown...sometimes I do a knowledge harvest... so that I know what they know and what they don't know.*

Likewise, T3 mentioned that she starts her lessons also with a knowledge harvest. T1 and T3 both highlighted the need to recognise what the students currently believe, whether right or wrong, as an important aspect of learning as it is from this premise of previous knowledge that the teacher can correct misconceptions and then move on to the 'unknown'. Cognitive constructivism, a theory proposed by Jean Piaget (1936 cited in Schunk, 2012), is based on the belief that new knowledge should be built on the back of prior knowledge. Jean Piaget claims that students tend to integrate background knowledge with experiences and that they often build patterns as they make sense of their experiences (Alber, 2011). Prior knowledge therefore can be said to be the foundation on which T1 and T3 desire to build new knowledge on.

Another learner-centred pedagogical practice demonstrated by some of the teachers in School A was that of being a facilitator of learning. T1, T3 and T5 show their support for this principle. For example, T3 explained how she ensures that she is not necessarily the centre of attention in her classroom. She said: "So it's not just me standing in front of the class and teaching per se…". She works with

them as a co-constructor of knowledge, learning and discovering along with them. In the same vein, T5 shows a similar understanding as she uses negotiation as a way to involve her students, instead of seeing herself as the absolute authority in the classroom, thereby making the children more involved in their own learning. She said: "That's where negotiation comes in…ok, we can't have videos all through…so we negotiate it and then we start a bit of persuasion…".

The notion of being a facilitator of learning has become closely associated with the learner-centred approach (Le Ha, 2014). This practice acknowledges that learning cannot be done for the students; teachers should therefore play a less direct role in students' learning. This is in agreement with constructivism which encourages teachers to be student-centred, giving the children an opportunity to take charge of their own learning (Piaget, 1971 cited in Galindo, n.d) as the focus remains on them rather than the teachers. However, while teachers have been advised to become more of the guide on the side (Morrison, 2014), there is very little explanation given as to what being a guide or a facilitator of learning really means (Goodyear and Dudley, 2015). Bahr and Wibowo, (2012) and Metzler (2012) suggest it means the teacher offering advice and guidance only when students get stuck or need assistance. However, some researchers disagree, believing that a teacher should still be the primary agent of change in a student-centred environment (Dinham, 2013) and not just a side player. Hattie (2009) refers to such teachers as activators of learning as they utilise active and guided instructions. In this role as an activator, the teacher's action involves reciprocal teaching, feedback, teaching mastery learning and metacognition strategies among other things (Hattie, 2009). T5's example can be seen as activating learning more than facilitating it in line with Hattie (2009), as she seeks to negotiate with her students rather than leaving the entire choice of appropriate learning resources to them. T5 also talked of using 'persuasion'. This shows she understands her role as being key to her students' learning, therefore, while not acting as the all-knowing, neither does she stand as a mere onlooker, but rather

employs relevant tools such as negotiation and persuasion as and when necessary in order to ensure her students learn effectively.

That said, while all the other teachers in School A seemed to use pedagogical knowledge in line with specific learning theories such as constructivism, T2 adopted a different approach as her pedagogy was more driven by experience. She described how she simply made her students feel comfortable and secure while being very patient and accommodating. She said:

> *All fears removed, thrown out the window. You can tell me you don't understand for as many times as you wish. I'll keep trying. Once those two things are out of the window, you will see the children in their true form.*

Being in such an environment where a learner feels free to speak up about their confusion and misconceptions is a great atmosphere for learning and an effective teaching and learning method (Fraser, 2012). This is particularly important considering the age group she teaches (Year 2 pupils - 6-year-olds) and is in line with Chew and Cerbin's (2017) assertion that teachers should try different ways to get their students to learn.

5.2.1.2 School B

School B is a British School that caters for children from pre-school to Year 11 and delivers the British National Curriculum. However, this school integrates aspects of the Nigerian Curriculum into its system. The School is a member of the Association of International School Educators of Nigeria (AISEN), the Association of Private Educators in Nigeria (APEN), the Council of British International Schools (COBIS), and the Association of Christian Schools International (ACSI). At the time of collecting data, School B had been in operation for 18 years.

From the data collected, all the teachers in School B showed evidence of consistent use of learner-centred pedagogy. For example, T6 focused on using age-appropriate and familiar vocabulary in her teaching. She said: "I basically use

the language that they understand, and then using the vocabulary that they are familiar with".

Similarly, T10 found it important to break down what she was teaching to a level that deep understanding could be achieved. As language is the primary way teaching is done (Floris, 2013), teachers focusing on the language used in teaching, questioning, and even giving and responding to feedback is very important. When teachers simplify their language and break things down so pupils understand the objectives of the lesson, they are able to make meaning of the learning and construct their own knowledge. Learning by students can be constructed either individually or through interactions with peers; however, in both cases, language is required. This is in line with constructivism, which seeks to promote active learning in pupils (Branscombe et al. 2013). Indeed, if students cannot access the learning based on language that is unfamiliar or above their level, there is no way they can engage with the lesson (Floris, 2014).

Then, T7, T9 and T10 described how their pupils learn through group discussions and the use of talking partners. For example, T7 said: "So we have group work, we have partners, as in talking to your partner…", while T10 said: "I put them in groups and let them give each other feedback".

The practice of these teachers shows how cognition is being developed through the use of language within a collaborative group. Constructing understanding through interaction with others in a social environment, such as the classroom, aids knowledge application. Vygotsky (1978 as cited in McLeod, 2020) emphasised the role of language and culture in cognitive development. According to Lowenthal and Muth (2008), learning occurs through the construction of meaning in social interaction within cultures and through language. Language is very key to learning as this is how meaning can be constructed in a learner's mind, rather than when a teacher attempts to simply transfer knowledge through rote (Farrel and Jacob, 2010).

T6 also sees herself as a facilitator of learning. She said: “That way, they feel they are the ones…they own the lesson. You are just there to guide and to facilitate”.

She believes the way to get the children involved in their own learning is to guide rather than force-feed them. Her practice agrees with the constructivist theory as she seems more interested in getting her pupils to take ownership of their learning. However, leaving students more or less to lead themselves has been criticised by Hattie (2009) as explained earlier.

T6 and T7, also emphasised their use of structured planning in order for learning to take place and to ensure student engagement. T6 said: “By letting the children know the lesson objectives for the day, we call it WALT (what we are learning today) and the WILF (What I’m looking for)”, while T7 said: “So, in the process of planning, we have a starter. The starter is basically to get the children into learning…involving them”.

T7 starts her lesson with a starter activity so as to gain her students’ interest. She also ensures that each part of the lesson connects:

> *…get them into the mood. So once they get into that, then you will link it to the connect: that is going back to the previous lesson...we use the plenary to also consolidate whatever the children have learnt…*

T6 and T7 use these teacher input strategies in facilitating their lessons in an orderly manner, connecting the dots to create a more pleasant and systematic learning experience for their pupils. According to Guerriero (2017), planning, instruction, student engagement and active learning all constitute pedagogical knowledge as found in most teacher professional standards.

T8 further generates student engagement by helping them connect with a new topic before actually introducing it in class which she does by asking them to research the topic beforehand. This research approach adopted is one that could help the students develop into responsible and autonomous learners while

helping develop their reasoning abilities and putting them in charge of their own learning (Darling-Hammond and Baratz-Snowden, 2005). This coincides with the aim of constructivism, which seeks to promote active thinking and problem-solving skills in students (Gray, 1997).

In the case of T9 and T10, they take the children from the known to the unknown as they make connections between prior knowledge and the new information they are receiving. T9 said:

> *Taking them from the known to the unknown because I really wouldn't assume that they don't know anything at all... So they have some form of knowledge, so using all that, it usually helps…*

While T10 said: "I think most times, it depends on what they know, and going from what they know...because it is from that pedestal that you can build on…".

This practice helps children in constructing their own learning as new experiences are built on their prior knowledge; a concept that is in line with constructivism and supported by Alber (2011). T10 also involves her pupils by developing their critical reasoning and problem-solving skills as she promotes application of knowledge:

> *I think one way of knowing is being able to apply it. But there are some children that might not know how to apply it, they just know the rule in their heads. So for those ones, they still need more time to actually gain mastery...So I ask them to write me one paragraph describing the setting of their own version of the Cinderella story… they create their own in a Nigerian setting.*

Encouraging the students to create and apply knowledge are ways of helping them develop their reasoning abilities, which is necessary for becoming independent and lifelong learners (Black et al. 2007). This practice is also in line with the Dynamic Model of Educational Effectiveness (DMEE) which includes 'Application' as one of its teacher factors that promote effectiveness. According to Creemers

and Kyriakides (2010), application refers to opportunity students are given to practice new knowledge.

5.2.1.3 School C

School C is a Nigerian school that caters to children from Nursery to Year 6 and offers an integrated scheme made up of the British and the Nigerian curricula. The school is a member of the Association of International School Educators of Nigeria (AISEN), Association of Private Educators in Nigeria (APEN), and the Council of British International Schools (COBIS). At the time of collecting data, the school was 24 years old.

In School C, 4 out of the 5 teachers I interviewed showed that they use more of the learner-centred pedagogical approach. T11, T12, T14 and T15 seemed to understand LCP and used it to promote understanding of the learners in the learning process. For example, T11 said: "...their attention span is different; some cannot work at the same rate and do not have the same attitude to work…".

This example shows T11 recognises that the learners are individuals and not just a class of students (Tomlinson, 2014). Differentiating learning consists of the teacher responding to variances among the pupils in their classrooms, reaching out to individual students, and creating a learning experience for the child that helps them connect with the lesson. This practice of differentiation signifies a learner-centred approach and is in line with DMEE, which uses differentiation as one of the dimensions in measuring factors believed to promote effectiveness in teachers.

T12 and T14 described the importance of applying a more student-centred approach which places the student in charge of their learning while the teacher becomes more of a facilitator. T12 states that most times she allows her students "initiate their own learning". She also said:

I let them set the pace... It's important to respond to their own feedback because at times, even the kids themselves, of course, they are learners, I'm the teacher...that's not to say that I know everything, but I'm guiding them, I make them to be in charge of their own learning…

While T14 explains:

We can't use the traditional method where the teacher was all in all, so they must have the thesaurus, the dictionary. They must, you know, give them assignments, let them go out, you know, do research, give them time, then let them work in groups.

These two teachers seem to understand the position of the teacher being more of a facilitator of learning which is in line with constructivism and the thinking of Le Ha (2014).

Furthermore, T14 mentioned: "They have to collaborate, discuss among themselves, so that's how I do my lessons…". This shows that T14 helps her students construct knowledge based on interaction with their group. This is in line with Lowenthal and Muth (2008) and with Vygotsky's (1978 as cited in McLeod, 2020) social constructivist theory.

Also, T14 gauges her students' interest by observing their body language:

There is a lot to do with observation…you have to look. As you are talking to them you are watching them. Who is hiding and reading a book…maybe she's feeling like it's boring.

This is good practice and reveals a learner-centred environment where the teacher cares and understands the importance of carrying her pupils along.

5.2.1.4 School D

School D is a Nigerian Independent School that caters to children from pre-school to college. The School offers a site-based curriculum (a blend of Nigerian and other major curriculums such as the International Primary Curriculum). The school is a member of the Association of International School Educators of Nigeria (AISEN), the Association of International Schools in Africa (AISA), and The Council of British International Schools (COBIS). At the time of data collection, the school was 65 years old.

In School D, T16, T17 and T19 showed that they were more attuned with using the learner-centred pedagogy (LCP). For example, T19 and T17 in the same school focus on the learner. T19 said:

> *But I think for me what you are able to do with the knowledge says a little about how much you understand...When you do the science of learning, they'll tell you that children learn only when they think.*

While T17 said:

> *Okay, the first thing is to understand how the children learn. How do they learn? What do they enjoy doing? What kind of children are they? What kind of children are you teaching at that point?…So you need to understand how they learn.*

These two teachers indicate that knowing and understanding their learners is the lever on which an active learning student-centred classroom rests (Armbruster et al. 2009) and is important to students owning their learning. This is in line with the constructivist theory and DMEE.

In T16's case, he explained:

They are in school to learn. And because they are children, what they have learnt now, you may think it is there with them, in the next moment they may come up with the same question. That means that this is yet to stick, it is yet to stay. So, really you want to help them, it is not just for you to continue.

This statement seems to suggest that T16 sees himself beyond just a facilitator of learning as described by Hattie (2009) but rather as an activator of learning, one who understands how to have direct and indirect interactions with his students, what Hattie (2009) refers to as being the primary agent of change in the students' learning.

However, T18 in her case said, "I am a coordinator, so it is not the lecture way". She then said, "… like I said, I am the coordinator, I am telling the children what to do".

T18 seemed to be mixing up being a coordinator and being a facilitator, as she talks about "...telling the children what to do". Telling the children what to do is not what a facilitator does, rather a facilitator aids and assists students to learn for themselves (Goodyear and Dudley, 2015). She thereby contradicted herself and did not show a proper understanding of LCP, though there is the possibility of the wrong choice of words, nevertheless, she failed to convey a proper understanding of LCP. Neither did T15.

5.2.1.5 School E

School E is a Nigerian school that caters to children from reception to college and offers an integrated scheme made up of the British and Nigerian curricula. The school is a member of the Association of International School Educators of Nigeria (AISEN) and the Association of Private Educators in Nigeria (APEN). The school was 29 years old at the time of data collection.

Data from School E showed that 3 teachers were quite conversant with LCP. For instance, T24 said:

> *Gone are those days when you teach, just the teacher facing the board teaching. So, I find out that when you involve children more in their own learning, they learn more, you will be amazed at what they come out with.*

While T25 said:

> *Guiding them in the process of thinking helps them give out the answer in time...Because if you leave the child...eventually the child will tell me the right answer.*

These two teachers indicate that effective pedagogies focus on developing higher-order thinking in the pupils as they seek to guide the students, as facilitators and activators of learning, in understanding the learning process by helping them engage in deep thinking. The perception of the teachers also seemed to be that the centre of attention in a classroom is the learner. Their practice is in line with and agrees with Jean Piaget's constructivist theory (1936 as cited in Schunk, 2012) and with Goodyear and Dudley (2015).

T22 in her case seemed to understand the importance of uncovering misconceptions in students' learning before proceeding with the lesson. She described how she allows her pupils to discuss a topic while listening intently to ascertain the extent of their knowledge and any confusion that might exist in their understanding and then corrects them. This is in line with the use of prior knowledge as a foundation to build new knowledge upon as proposed by Piaget (1936 as cited in Schunk, 2012). The other 2 teachers interviewed in this School did not show a secure understanding of the LCP and seemed to use more of the teacher-centred approach. That said, according to Lasry et al. (2014), teacher-centred instructors are also effective, albeit in more conventional classrooms (not in student-centred learning-enabled environments), but greater learning occurs if teachers come to the realisation of the effectiveness of a student-centred learning process.

5.2.2. Summary of Interview Data and Field Note Observations on Pedagogical Knowledge across the Five Schools

In summary, though the practices of all the teachers I interviewed were pedagogically driven, the question of the kind of pedagogical approach being used comes to the fore. As the focus of my study is on how teacher effectiveness can optimise students' learning, it is important to look at the kind of pedagogy that promotes this, hence my focus on the learner-centred pedagogical approach. According to constructivism and DMEE, student achievement is promoted through the use of this type of pedagogical approach.

School A and School B seemed strong in their use of LCP which is in line with constructivism and aspects of the DMEE. All 5 teachers in both schools focused on the learners, ensuring that their pupils have a good understanding of concepts through constructing their own understanding, respecting the fact that their pupils are not 'tabula rasa'. This can be seen for example in what T9 said, "… don't assume that they do not know anything at all…they have a form of knowledge". They also acknowledge that the pupils should be given the tools to take ownership of their own learning.

Some of my observations in these two schools corroborate the interview data collected from the teachers. In School B, I saw teachers (including 1 of those I interviewed) with their pupils at different times. I sighted T10 with her pupils at their mini zoo having a class, which she later confirmed as a lesson on plants and animals. While I also saw another teacher with her pupils in a colourful treehouse having a lesson. There seemed to be a lot of outdoor learning taking place both for preschoolers and primary children. The use of outdoor lessons makes lessons more fun and practical for the students and is considered good pedagogical practice (Marchant et al. 2019). Also, the ambience of this school was very child-friendly with lots of colourful outdoor play equipment and a large expansive garden area where the zoo was situated. The students could be seen maximising the use of their environment. At the lobby of the school was a board with the

names of the members of the students' council. The school learning environment seemed child-centred.

Similarly in School A, though having been in existence on the same site for 67 years, it looked very well kept and had beautiful grounds with lots of play equipment. Students seemed happy and cheerful. All around the school were personal and school goals, mounted on the walls and around the playground. T1 explained to me that these signs were to serve as constant visual reminders for the students. These goals were displayed with pictures in a very attractive manner. T1 had, at some point during the interview, discussed how she includes personal goals as part of her objectives for each day. This practice is corroborated by Stronge (2018), who suggests teachers should monitor behaviour by having attitude objectives, as a bad attitude can hinder learning in class. Their child-friendly environment buttressed the teachers' claims to a learner-centred focus.

However, T2 who spoke very highly of her love for her pupils during her interview unwittingly showed impatience and frustration relating to a special needs child in her class which I jotted down. At the point when her teacher assistant came into the room where the interview was taking place to ask about work to be given to Child X, who, from their discussion, had some learning challenges, part of her response to her assistant showed her frustrations: "…I've got some extra worksheets, see if it works for you". She was asking the teacher to try and see if she could get across to the child as she had not had much success; however, her tone and body language gave her frustration away. This seemed to contradict her claims of being patient in dealing with students. She had said:

> *You need to know what makes them tick…I listen to what they've got to say, because you know while I might be saying you are wrong, you might actually be right from your own perspective.*

The patience she described above, with which she 'supposedly' deals with students, did not come across in the brief discussion with her assistant. Also, as a teacher with 10 years of experience (according to her), one could assume that she would know how to teach and get across to each type of learner in her class, thereby helping to move their learning forward. That said, there is also a possibility that the school had not given adequate training to her on teaching students with such challenges. This would confirm the multilevel structure proposed by DMEE, a theory that insists that there is an interrelationship between different educational levels, including the school and the classroom level and that school policies have an indirect impact on students' learning.

Schools C and D also had student-friendly environments and in School D there were labelled outdoor lesson areas. This shows the extent to which this school valued such modern pedagogical practices. Also, in School D during my first day, there was a school play going on and the students were very happy indeed. The whole atmosphere was full of excitement. Quite a number came into the library, (where the interview was going on) to rehearse but could not due to the interview. It was a very happy environment, an indicator of student-centredness. The same could be said for School C which also had very nice school grounds; however, all through the three days I was there, I only saw students playing at break time. At no time did I see teachers with students engaging in outdoor learning or the excitement of any outdoor student activity. Both Schools C and D also had a good number of teachers who had integrated LCP into their practice. In School C, four teachers seemed more conversant with the use of the learner-centred approach and in School D, three used more of LCP. Interestingly, the first day I got to School E, as I was walking into the reception area in the school, I noticed a teacher (whom I later discovered was one of my interviewees) outside with her pupils, having what looked like a math lesson throwing big dice and counting. I could tell the students were engaged and seemed to be enjoying the lesson. On interviewing

this particular teacher (T22), her understanding of learner-centredness was confirmed. For example, she said:

> *After building on what they discussed, correcting the misconception and everything, I say to them: tell me what you have learnt that is different from what you discussed earlier.*

This shows that this teacher understands how to get the students to engage in active learning and higher-order reasoning.

My observation of the learning environment of these schools and the data collected from the teachers during the interviews point towards a learner-centred focus in these schools. The consistency that could be seen in the school learning environment and the teachers' practice, affirms the link proposed by DMEE between the school level and classroom level. It is not just the multilevel structure within the educational system that DMEE believes is important, but also the dynamic interrelationship between the levels is seen as key to effectiveness. In these schools, there seemed to be a synergy between their school learning environment and the teachers' practice, thus upholding the reasoning behind DMEE.

5.3.1 Content Knowledge

The analysis of the interview data suggests that most of the teachers interviewed had strong subject knowledge.

5.3.1.1 School A

Data collected from School A suggests that 4 teachers out of the 5 I interviewed showed good subject knowledge. For instance, T4 explains about Mathematics:

> *It had to do with writing numbers in words and figures and then including place value. Math is you know, I like the subject very well…So writing*

numbers in words and figures and then place value –was a combined lesson…So they had to come up with their own six digit number…

T4's subject knowledge enables her in supporting her pupils to use and apply mathematical concepts. Her students were to create their own sums after learning to write numbers in words and figures. According to Rowland et al. (2009), one of the four domains of teacher knowledge is connection, and the ability to plan a sequence of activities, lessons or topics, moving from simple to complex ideas. T4 also encouraged knowledge application by asking them to "come up with their own 6 digit number…". Application of knowledge is important in extending students' learning and helps them think actively and deeply (Rice and Kitchel, 2016), but it requires good subject knowledge. T4's action is supported by Loughran et al. (2012), who argue that teachers need to do more than transmit their subject knowledge to learners which is a teacher-centred approach. This fear of teachers transferring knowledge in the conventional manner using only direct learning methods has caused Shulman's work to be criticised for promoting a "technical model of teaching and learning" (O'Brien and Brancaleone, 2011, p.15), and according to Poulson (2001), teaching is too complex and does not follow a linear model where knowledge is acquired, stored and transmitted to others. T4, therefore, went beyond simply conveying her knowledge by getting the students involved and applying knowledge. This is in line with constructivism, a theory that promotes student-centred learning and focuses on building higher-order thinking in the students. Also, according to DMEE, application of knowledge helps in developing metacognition in learners (Creemers and Kyriakides, 2013). Furthermore, T4's expression of love for the subject "...I like the subject very well…" could be a motivating factor which can promote the love of the students for the subject and create a positive impact on their learning (Blaylock et al. 2016). According to Blaylock et al. (2016), teachers who love their subjects are able to inspire their students and improve the quality of their teaching as well.

Similarly, T3 reflected having good content knowledge in her teaching of creative writing: “Have I used a topic or title that is bold and visible? Have I used illustrations? Have I used pictures in my work? Have I checked that I used technical vocabulary?”

T3’s content knowledge and understanding of the learning objective is important and helpful in being able to communicate and break down such content to her students (Diakidoy and Iordanou, 2003). The children were also asked to self-assess and reflect on their work, thereby encouraging deep learning and thorough understanding of the content while remaining involved and motivated, which is in line with the constructivist theory and DMEE. T3’s practice also supports the belief that having good content knowledge is not sufficient in itself and cannot exist in isolation, but rather is integral to teaching and assessment (Daw and Robinson, 2013) and should translate into students’ learning (Hill et al. 2005) which could be seen in their approach.

In the case of T2, she spoke about her expertise in her subjects and while she did not discuss the Maths content, the outcome of her flair for and expertise in the subject could be seen in the fact that according to her, the children that passed through her class often grew to love the subject. Teachers with good subject knowledge have certain skills, which aid students’ learning such as better explanations, better representations of concepts, they hear and understand their pupils’ responses and can better direct their learning. According to Hattie (2011), expert teachers make use of their subject knowledge effectively in a way that boosts the passion of their students for the subject. Rowland et al. (2009) argue that having a strong foundational knowledge shows deep subject knowledge. T2’s strong foundation in Mathematics most likely stemmed from the fact that she studied Mathematics in school.

Also, T1 (an ICT teacher) seemed to have a good understanding of organising and sequencing of her subject which helped her identify gaps in the pupils' learning of

tessellations. She said, “I then got to discover that most of them still struggled with aligning their shapes to form tessellations, they still leave gaps…”

She emphasised the need for the pupils to have a good grasp of the subject matter, connecting this to the natural progression of the curriculum in the next class up - Year 5. She expressed this:

> *Now, it’s going to be really difficult if I don’t give them a firm foundation on tessellations... by the time they get to year five and they do collage, they have to use some of the skills they have learnt in tessellations…*

She seems to have a good knowledge of her subject and understanding of the sequence of the concept which made the gap in the understanding of her pupils obvious to her. In her remarks, she mentioned that if her pupils failed to understand tessellations, they would struggle with an aspect of their learning in year five, for which tessellation was a foundation. Subject knowledge is believed to be very important in promoting the teachers’ understanding of the structure and sequencing of concepts (Stronge, 2018) and helps teachers make connections as they understand how different branches within a subject connect (Rowland et al. 2009). From my experience, this is true and is corroborated by my data. Similarly, T1’s response indicates her pedagogical knowledge. For example, she knew that she had to take them from the known to the unknown, she said, “I tried to find out the previous knowledge…”, but she then goes on to identify misconceptions:

> *I then got to discover that most of them still struggled with aligning their shapes to form tessellation...So I had to change what I wanted to teach and...when I was satisfied that they really understood tessellation, that's when I could move on to the next topic.*

T1, first of all by trying to understand the previous learning of her pupils was attempting to analyse how much they had progressed and is a sign of knowing her

content, however going further to identify preconceptions and misconceptions in her pupils reveal subject-specific pedagogical knowledge which is considered to be a specialised type of professional knowledge known as Pedagogical Content Knowledge (PCK). PCK is a second kind of content knowledge but it goes beyond the knowledge of content to include pedagogical knowledge and knowledge of students' misconceptions in a specific content area (Loughran et al. 2012). This kind of knowledge includes an understanding of what makes the learning of specific topics difficult including conceptions, preconceptions and misconceptions that diverse students might have and strategies that may be used to clear the misconceptions and aid pupils' comprehension. For instance, she said:

> *The first thing I did was demonstration. I used the demonstration skill whereby I am doing it, they are also replicating it on their own computer….so they were following me in the process.*

T1 was able to use her strong subject and pedagogical knowledge to address her students' misconceptions and thus move their learning forward. PCK is described as the integration or overlap of subject expertise and skilled teaching of a particular subject. According to Shulman (1986), this kind of 'technical' skill is necessary for effective teaching. He describes PCK as comprising useful forms of representation including powerful analogies, illustrations, examples, explanations and demonstrations, thereby presenting the subject in the most powerful way that makes the subject comprehensible to the students (Shulman, 1986; 1987). However, Shulman has been criticised for this description as being teacher-centred and implying that subject knowledge is passed on to learners through transmission (Poulson, 2001).

T5 said very little in relation to content knowledge though I do not want to make any conclusion based on her silence.

5.3.1.2 School B

My findings indicate that five teachers interviewed had a good understanding of their subjects. T10 and T6 showed their understanding through the breaking down of concepts and extending the learning of their pupils. T10 explained how she breaks down the content of a lesson to the level where she knows her pupils can understand and then she builds up from there. This shows her deep understanding of the organising principles and structure of the content she is teaching which gives her the ability to 'dismantle' the content and then build it back up step by step, thus ensuring that she caters to the learning needs of different learners in her class.

In T6's case, her content knowledge helped her in providing a higher level of challenge for the children she thought needed to be further challenged. She said, "...but as the lesson went on, I now discovered that some of the children, it was like an easy task for some of them to just identify. So, there and then I had to extend their learning".

According to Hattie (2011), expert teachers make use of their subject knowledge effectively in a way that brings understanding to their students while Rice and Kitchel (2016) posit that rich content knowledge is required for teachers to extend students' learning. T6's decision to extend her students' learning supports these authors' postulations and shows her good subject knowledge. This kind of instructional decision points to her understanding of the connections within the subject and sequence of the concepts, thus being able to move them from simple to more complex ideas.

According to Shalem (2014), teachers who make good professional judgments reveal strong pedagogical skills. T6's decision to extend the learning of the children who were overachieving could have been made using her understanding of learning theories and teaching processes. However, going by the virtue ethics theory (VET), one of the theories that support my research, effective teachers also could make decisions using a virtue called practical wisdom. Practical wisdom is

the ability to choose intelligently between alternatives (Cooke and Carr, 2014), however, according to Aristotle, it stems from a person's character. Practical wisdom is very important to the practice of teachers who constantly find themselves in situations where they need to make judgments concerning their pupils, especially pedagogical choices necessary in moving their pupils' learning forward.

On the third day of my interviews at School B, I observed a training session delivered by T6. T6, though a class teacher is also the deputy head of their junior section, and the training was on the use of data in decision making regarding students' progress, emphasising how 'soft and hard' data reveal the uniqueness and differences in the learners. She emphasised that teachers make decisions from day to day and minute by minute and that such decisions require a sound knowledge of the learners. This is corroborated by Shulman (1986; 1987) who proposes that knowledge of the learners is a key aspect of professional knowledge required of teachers. According to William (2008, p.65), "pedagogy must be learner-centred, in the sense that it is responsive to the needs of the particular children being taught".

Before the training started, prayers were said. I believe this was done because School B is a faith-based school. Several times during the presentation, T6 reiterated teachers being guided by Christian values, linking this to their duty towards the students. She enjoined them to go beyond the call of duty in helping their pupils. It was interesting how T6 linked making instructional decisions to the moral agency of the teachers. This is in line with Arthur et al. (2017) who declare that teachers are supposed to be morally sound. T6 simplified the topic on the use of data. The atmosphere was very collegial and relaxed and the teachers seemed to be having a lot of fun. Also, it was well organised. Present at the training were the SEN (Special Education Needs) teachers and the librarian. When I asked T6 the reason for having others apart from the class teachers, she explained that it was necessary to carry all staff that interface with the students along.

While I observed several other trainings in this school, this training session stood out for me because I was able to link T6's interview and this training session on making instructional decisions. This training also suggests that decision making in T6's case might be guided more by practical wisdom and character, rather than other means (Hargreaves and Fullan, 2013).

My findings also indicate that T8 and T9 have good subject knowledge and were able to promote knowledge application and higher-order thinking in their students. For instance, T8 in creative writing wanted to see "particular elements of figurative language" using AfL in the course of her teaching while T9 equally seemed to have a good understanding of Literacy. However, T7 went a step further as she focused on identifying and correcting the misconceptions of her pupils. This practice supports the belief that teaching and learning outcomes are enhanced when teachers have a clear understanding of students' thinking and are able to analyse students' errors as a form of AfL (Donaldson et al. 2012). This focus on the learner is in line with a student-centred classroom (Hill et al. 2018). T7's focus on identifying mis(conceptions) that may arise in the student's thinking is an important strategy, which can lead to improvement of students' learning and which also points to mastery of her content.

5.3.1.3 School C

Four teachers interviewed seem to have good subject knowledge. For instance, T11 said:

> *We may not be able to say the distance from here to the gate but by the time we use the ruler or the measurement they have in the class, ok say from here to the gate… Do you think we're going to use the same measurement to get to the gate?...they'll use the next one, which is the multiplier.*

This statement from T11 indicates that she is trying to help the students internalize and construct their own understanding by making the lesson practical. This is supported by Stronge (2018) who says that subject knowledge is not enough but must translate into students' learning and can be achieved by focusing on instructional strategies and pedagogy. This teacher is making her lesson practical and experiential in line with the constructivist approach to learning. Practical lessons show competence and subject knowledge and support the ideology that teachers who know more, do better (Poulson, 2001). Also, practical lessons support the view of Rowland et al. (2009).

T13 and T12 showed in-depth knowledge of their subject. An example of this can be one of T12's statements, who in her case, has a mastery of French which could also be seen through the desired learning outcome of her students being able to converse in French. She said: "We converse in French...my focus has been for them to be able to speak French".

There was evidence to support the strength of T12's content knowledge, as she was able to achieve her desired outcome of the students conversing in French with her. I observed this at the end of my interview with her. On the way out of the room where the interview was held, she insisted that the students we met on the way downstairs greeted her in French and she had short conversations with them. She also pointed out a French zone at the bottom of the staircase, where any student that stepped there had to converse in French. T12's character seemed friendly and accommodating as she related to the students around the school. This focus on conversing even more than writing could be seen as she went around the school, corroborating her comment during the interview: "…I want to get them to speak. You are writing but you are not speaking, nobody is going to ask you that do you write French, they will ask you do you speak French?" This is in line with Diakidoy and Iordanou (2003) as achieving her objective of students' speaking French, points to her secure knowledge of the language. It is also in line with the

constructivist views of applying knowledge, as well as DMEE where knowledge application is considered key to effective teaching (Creemers and Kyriakides, 2013). Tiratira (2012) opines that a student-centred classroom will only translate to an effective learning outcome for the pupils if the teacher possesses a good understanding of his subject. Thus, to enable effective learner-centredness, a teacher needs to have appropriate subject knowledge and to believe that this knowledge will benefit learners (Hattie, 2012).

I am unable to comment on T15's content knowledge as she was silent on this despite my use of prompts and probes.

5.3.1.4 School D

The data suggest that four teachers interviewed in School D have good subject knowledge.

T16 mentioned that he uses his subject knowledge to make lessons very practical and fun by engaging his pupils in interesting hands-on activities: "It is being assumed that mathematics is abstract...we must still make it practical; we must make it child-centred, such that it won't be 2 + 2. The 2 + 2 must be real in a way".

T16 seems to have good content knowledge and has an understanding of its pedagogical application. Teaching strategies and pedagogy are all interwoven with one's knowledge of the subject which is why Loughran et al. (2012) say that what we teach (the subject content) is as important as how we teach (pedagogy). However, it is believed that subject knowledge is often underestimated amongst primary school teachers who tend to have a whole lot of subjects to teach as class teachers (McKeon 2004; Heywood 2005; Catling and Morley, 2013). Nevertheless, T16 displayed the use of strong subject knowledge which he tried to communicate with his students through the use of instructional strategies. He also showed PCK as he identified where a certain pupil had misconceptions. He then proceeded to explain the way the child could have a better understanding of the topic.

We were doing fractions, we were applying BODMAS to fractions. So, I... wrote questions applying the same BODMAS, but this time around not to fractions but whole numbers. Two divided by five, times three, minus two, instead of maybe one and a half...So at the end of the day I noticed that okay, he understood the application of BODMAS…

T16 showed PCK by, not only identifying misconceptions and explaining to the children using appropriate pedagogical skills that could work at the level of the children to help them comprehend the concepts better, but he also used subject-specific pedagogy in meeting the need of the pupil (Loughran et al. 2012).

T19 equally shows the importance of having good subject knowledge by promoting critical thinking in his pupils through the use of discussions: "Based on what you know about how democracy was practiced in Athens; was Athens a truly democratic society...discuss".

T19 consciously tries to use his thorough knowledge of the subject to get the children thinking and discussing, a strategy that is useful for helping students to construct and own their learning and useful for building higher-order thinking skills, which are in line with Rowland et al. (2009) as well as constructivism and DMEE. T16 and T19 both tried to advance their students' learning in various ways using student-centred learning strategies while encouraging students to use their thought processes to construct knowledge as they gain an understanding of concepts and to problem solve.

Observation of a training delivered by T19, who is also the ICT coordinator, revealed some other aspects of his work that did not come up during his interview but which reflected more of his duties as the ICT coordinator. His style of training in many ways corroborated the teaching practices he had described during the interview which was very collaborative and practical. He also focused, just the way he said he did with the students, on developing their critical reasoning during this

in-service training. He posed several questions to the teachers and rather than supply the answers, got the teachers to discuss within their groups, thereby acting more as a facilitator of learning. He modelled some skills and got the teachers to apply them on their own. In many ways he was able to show himself to be more learner-centred than teacher-centred. He also appeared very supportive, knowledgeable and very good at explaining concepts he taught. While I observed some other training sessions in this school, this particular one stood out because I was able to use it to support T19's interview.

Finally, T18 and T20, who both teach Literacy, also appear to have a good knowledge of their subject.

5.3.1.5 School E

Three teachers interviewed in School E appeared to show good subject knowledge:

T22, T23 and T24 exhibited good knowledge of their subjects, which could be seen in the way they used appropriate resources to help their pupils grasp the content of their lesson. For example, T23 said:

> *In our Numeracy class…I told them what sorting means...bringing objects that are the same together. Maybe the same colour, the same animals, fruits and stuff...I gave them a bucket of Lego that they should group, they should sort it out.*

Similarly, T24 said:

> *Yesterday we did measurements. So, I have to bring in the scale for weighing your weight, the kitchen scale, the measuring cylinder for capacity, we did weight and capacity measuring, and then the kitchen scale, they weighed books.*

T24 and T25 both used a practical approach supported by Stronge (2018). These teachers used student-centred methods such as asking higher-order questions,

encouraging students to explore alternative explanations, involving students in more inquiry-based learning, allowing more student-directed activities and engaging students in the lessons. They were able to help students understand the very process of learning thereby promoting their independence in learning and improvement of their learning outcomes. This is in line with Diakidoy and Iordanou (2003).

T22 in her case showed her understanding of sequencing of Maths concepts for her class as she sought to move her pupils' learning from one level to the next. She said: "When we were learning the subtraction of numbers...some were counting strokes...my goal was to bring them to the level of mental learning".

A pointer to the mastery of T22's content knowledge is the understanding of the progression from counting strokes to counting mentally and also her desire to move the children's learning forward. This is supported by Rowland et al. (2009) and Stronge (2018).

5.3.2 Summary of Interview Data and Field Note Observations on Content Knowledge across the Five Schools

Ball and Bass (2000) suggest that having deep content knowledge is at the core of effective teaching and learning as students are able to achieve more, especially when the teaching is student-focused as reflected by my research participants. In my five case schools, the majority of their teachers had strong subject knowledge. According to Stronge (2018), one of the key signs and importance of having strong content knowledge is the understanding of the sequence of a subject in terms of what comes before and what comes after a particular concept which most of them showed.

However, some of the teachers I interviewed did not say much that reflected content knowledge. While this is not a clear indication of a lack of content knowledge, it was difficult to assess these teachers' knowledge as they were not forthcoming with details that could reveal this, in spite of the use of probes and

prompts on my part. Literature does suggest that some teachers cover up their lack of deep understanding of their subject by focusing on good generic pedagogical skills (Ball et al. 2008).

According to Hill et al. (2004), strong knowledge of subjects is important and more depth should be required of primary school teachers. It is noteworthy that School A and School D had one teacher each who exhibited a specialised type of professional knowledge referred to as Pedagogical Content Knowledge (PCK) (Shulman, 1986; 1987). PCK is a concept that promotes not only the teacher's knowledge of subject matter, but also subject-specific pedagogy. Indeed, it is rooted in the belief that teaching requires much more than the transmission of content to students and more than the students simply absorbing information to later regurgitate during summative assessments. Rather, PCK requires that a teacher must have a rich conceptual understanding of specific content and know the best way to deliver that particular content to the right set of learners and through expertise, develop and adapt the teaching procedures, strategies and approaches (Loughran et al. 2012). Therefore, while all the majority of my participants showed good content knowledge, only two of these teachers showed clear evidence of this specialised kind of teacher knowledge. It is also noteworthy that these two teachers are actually specialist teachers (also called subject teachers); one is a Maths teacher and the other an ICT teacher. The ICT teacher can be described as having Technological Pedagogical Content Knowledge (TPCK) (Koehlar and Mishra, 2009), while the Maths teacher showed his deep understanding of mathematical concepts to improve his students' understanding. This according to Donaldson et al. (2012) is referred to as Mathematical Pedagogical Content Knowledge (MPCK). This is in line with literature (e.g Koehlar and Mishra, 2009; Donaldson et al. 2012; Klieckmann et al. 2015) which have always linked PCK to specific subject areas such as Technology and Mathematics.

In Chapter six, I continue the presentation and discussion of key issues from study data in relation to the research questions and objectives, with a particular focus on instructional planning.

CHAPTER SIX

PRESENTATION AND ANALYSIS OF FINDINGS FOR INSTRUCTIONAL PLANNING

6.1 Introduction

In Chapter 5, I looked at Teacher Professional Knowledge, while in this chapter I will be looking at my findings on Instructional Planning as an effective teaching and learning practice. I intend to concentrate on two of the basic components of planning pivotal to effective teaching: learning objectives and success criteria.

Fig 6.1: Components of instructional planning

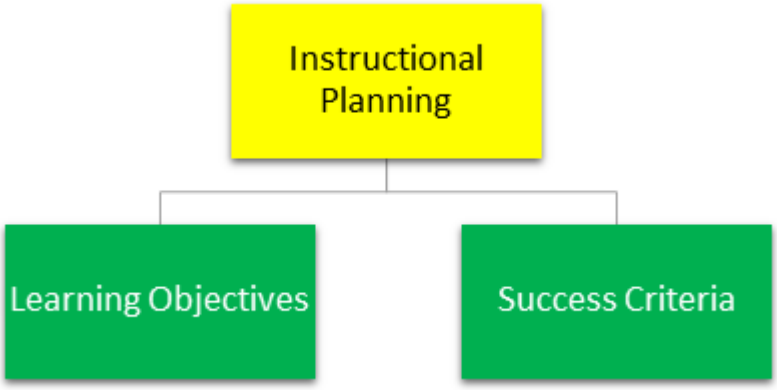


Table 6.1: Participants' views regarding their instructional planning

	School A	School B	School C	School D	School E	Total
Learning Objectives	5	4	2	1	2	14
Success Criteria	4	3	-	-	-	7

6.2 School A

6.2.1 Learning Objectives

All 5 teachers indicated that they had lesson plans which they shared with their students. By communicating learning objectives to their students before teaching and learning, T1 and T5 showed their preparedness. T1 said: "Sometimes I give them the topic before...next week, we are going to be learning this skill".

T5 goes even further, by getting her pupils involved and in an anticipatory mood as she gets them to carry out related actions before actually introducing the objective in class:

> *...if we are going to do conjunctions, I tell the children...when you guys are playing, we can start joining together. So, they are always aware of whatever they are going to do before we start the lesson...then when we start, we share the objectives.*

The excerpts above suggest that these teachers are deliberate in the way they introduce their learning intentions using the student-centred learning approach whereby students can actively engage in their own learning, promoting their critical thinking skills which are in line with constructivism. This kind of engagement even before the classroom teaching takes place is not only motivating for the learners (Pitler and Stone, 2012) but also brings clarity both to teacher and pupils as they specify what the actual lesson is to achieve. Hence, these teachers cannot be accused of using learning objectives in a 'ritualistic' manner as some teachers do (Swaffield 2009, p.4).

Similarly, T2, T3 and T4 indicate that they share and discuss the learning objectives with their pupils. By doing this, they make their pupils feel involved in their own learning, giving them a voice and an opportunity to express themselves, which is at the centre of a student-centred classroom.

6.2.2 Success Criteria

Four teachers used success criteria as part of their instructional planning. T1 and T3 highlighted that they involve their pupils in their own learning by encouraging them to come up with their own success criteria.

For example, T3 said: "We ask them to develop a self-assessment criteria sheet where they write what success looks like to them", while T1 said: "The learning outcome majorly doesn't have to come from me".

T1 and T3 understand the need to involve their learners in the learning process by negotiating and discussing with them. This indicates good pedagogical knowledge because it ensures clarity (Hattie, 2009). Success criteria work to clarify things both for the teacher and the learners. Before actual instruction, the teacher would have to decide a valid and reliable means by which data would be gathered about the student and how to judge the success of the instructional plan put together (Stronge and Xu, 2016) and for the learners, 'understanding the standard' of work expected of them is necessary, as it enables them to set goals for themselves thereby taking more ownership of their learning.

T1 by allowing her students to come up with their learning outcomes and T3 asking her pupils to develop a self-assessment criteria sheet, support the fact that success criteria can be determined by the teacher or can be co-constructed with the pupils (Freibrun, 2019). This is good pedagogical practice and in line with constructivism which emphasises students being encouraged to construct their own knowledge, in order to help them develop their reasoning. These teachers also show themselves off as facilitators of learning; so rather than spoon-feeding their students, they allow them to participate actively in their own learning. T1 and T3 try to develop the evaluative knowledge of their students as they want them to be able to self-assess at the end of the lesson, a good indication of their understanding of pedagogy. This also builds the ownership of the students in the assessment process thereby giving them more control of their learning (Shepard, 2000).

While opinions have been expressed that the use of success criteria by teachers may interfere with the creativity and exploratory approach of pupils (Kohn, n.d) and impact discussions and dialogue, thereby affecting the students ability to engage thoroughly with the curriculum (Hussey and Smith, 2003), the way T1 and T3 have involved their pupils refutes these opinions as ample opportunities are given to these students to express their own creative and critical thinking in coming up with their own success criteria.

T3, however, seems versatile in the fact that she varies her style, sometimes asking the pupils to come up with their own criteria and sometimes giving them a predetermined one. Similarly, T2 adopts this approach of giving predetermined criteria. These assessment techniques are all geared towards getting students actively involved in their learning thereby promoting greater learner autonomy (Crichton and McDaid, 2016). T2 also treats her students as individuals by encouraging them to speak up and ask for help when needed.

6.3 School B

Four teachers interviewed indicated that they plan learning objectives.

6.3.1 Learning Objectives

T7 and T9 showed that they share the objectives of their lesson with their students. T7 explains: "...It's not like when we were taught in the past. They need to know why they are learning this". T7 here makes a distinction between the conventional classroom where learning objectives are used mechanically (Swaffield, 2009) and a student-centred environment where learning intentions are negotiated and discussed with the learners, so that clarity of purpose can be guaranteed (UK Department for Education and Skills (UK-DfES) 2007; Education Scotland, 2010; Hattie, 2009; Stobart, 2008). T7's emphasis on teachers' informing students about the reason behind the learning objective is key and buttressed by Haynes (2010) who states that objectives should specify what the pupils should be able to do as a result of the learning. This belief is shared by T6 who states:

> *…the children must, first of all, know the focus of the lesson...they must understand the objectives of the lesson...if they do, they're better able to apply themselves to the learning...So when you tell them, ok, this is the aspect we are learning today...you are making them owners… making them responsible for their own learning.*

Similarly, T6 understands the relevance of not merely having learning objectives but discussing and negotiating these learning objectives with the students, which

she also relates to developing knowledge application as well as helping students take control of their own learning. This awareness is typical of a teacher that understands the student-centred approach to learning and is in line with constructivism and DMEE.

Furthermore, T6 understood the importance of clear, unambiguous objectives: "At the end of the lesson I want you to be able to identify what a noun is, you can pick out nouns from the sentence…".

T6 could be said to have given careful thought to setting her objectives which is very helpful for effective teaching in a number of ways, not least the clarification of what she wants to achieve. According to Haynes (2010) objectives should be S.M.A.R.T, an acronym for Specific, Measurable, Achievable, Relevant and Time-bound. T6's objective in this example satisfies this requirement. It also appears that while teachers are sometimes criticised for conveying what a lesson is about, which can be referred to as 'teaching objectives', T6 conveyed 'learning objectives' as what the pupils would be learning during the lesson was quite clear (Dymoke and Harrison 2008, p.115).

In T8's case, she gets her pupils to research and read up on the topic before it is introduced in class. This gets them actively involved in their own learning and can be a motivating factor for the students as the interest in the topic would have been ignited before the lesson. This student-centred practice is in line with constructivism and DMEE. DMEE has Structuring as one of its teacher factors. Structuring refers to finding ways to review the objectives of a lesson in a way that pupils can comprehend and make associations between the objective and other parts of the lesson (Creemers and Kyriakides, 2013).

6.3.2 Success Criteria

Three teachers explain their use of success criteria in measuring the understanding of their pupils.

T6, T7 and T9 explained the importance of having success criteria. According to T6, "...how can the children achieve excellent work if they do not know what is expected of them…", while T9 said: "they know at the end of the lesson what they are supposed to achieve…their set targets".

T9 and T6 understand the clarity that having success criteria brings as they have a benchmark to use in determining the quality of their work and to self-evaluate. T6's musings are supported by Fisher et al. (2018, p.20) who state that "success criteria let students in on the secret that has been too often kept from them - what the destination looks like". T6 and T9 seem to have the understanding that students need to be aware of the criteria with which their work will be measured and that without this benchmark, they cannot self-evaluate if they met their target or not. According to Black and Wiliam, (1998), when learners have this understanding, they become much more committed to their learning.

In T7's case, she seems to understand the alignment that must exist between the learning objectives and success criteria: "So after you've shared the learning objectives, you will now explain the success criteria…At the end of the lesson this is what I expect of you". This is in line with Crichton and McDaid (2016) who argue that success criteria are linked to learning objectives and they are useful in helping the learner recognise if they have been successful.

6.4 School C

Information from the data collected in School C suggests that the teachers showed understanding in some aspects of planning better than others.

6.4.1 Learning Objectives

Regarding learning objectives, T11 said: "Most times we write our objectives on the board, it means what you intend to achieve at the end of the lesson…we call it WALT".

Her explanation that she writes the objectives on the board without mentioning how the children get to interact with the objectives could imply a teacher-centred approach whereby learning objectives are used in a 'mechanistic' fashion; just another box of compliance being ticked (Didau, 2015). In contrast, however, T12 and T14 discuss the learning objective with their pupils in line with Crichton and McDaid (2016) who posit that learning intentions should focus on pupils' learning. T12 stated: "We go over it, we might spend 10, 15 minutes talking about the new thing we are doing…", while T14 said: "... when I am starting my lesson, we now discuss the objectives".

It is important that teachers are deliberate in purposely planning for learning to take place and the best way according to constructivist theory is by promoting greater learner autonomy which is achieved by sharing the learning objectives. The remaining teachers did not show any evidence of having learning objectives. It is not clear from the interview why they did not, which could be because they were either not disposed to discussing it or they lacked an understanding of its usefulness.

6.4.2 Success Criteria

Regarding the use of the success criteria, again the data suggest that the majority of the teachers interviewed showed only a sketchy understanding or at times a total lack of understanding of the use of success criteria in their planning. For example, T11 mentioned it briefly: "At the end of this lesson you should be able to use your punctuations right…since they are in Year 6 they are not restricted to one particular punctuation".

This seems like a head knowledge of success criteria, especially as she did not mention sharing this with her students at the onset of the lesson. Similarly, T12 said: "My focus has been for them to be able to converse in French". T12 seems to emphasise her 'focus' and not how she was able to communicate this 'focus' to her students and help them learn the objective. The relevance of success criteria

is communicating the learning objectives and how they will be measured to the children, this is what planning a good lesson should be about. There is no mention of this or how she as the teacher and the students would measure success in achieving the set goals.

T13 also showed her lack of understanding of this concept. She said: “It could be that at the end of the lesson that they would have learnt how to properly use dialogue…”. This shows a sense of probability and certainly no sign of planning in this regard. She also says nothing about how she as the teacher would measure students' understanding of the learning objective or how the students will ascertain their own understanding.

6.5 School D

6.5.1 Learning Objectives

Only one teacher interviewed indicated her use of learning objectives when planning. T18 said: “…after that, what do you think we are learning? And then they get to tell me different words…”. T18 focuses on getting the children to actively engage in and construct their own learning as they discuss the learning objectives which helps to build their thinking skills according to constructivism. T18 was the only teacher who discussed the use of learning objectives amongst the five participants in this school. That said, according to Stronge (2018,) expert teachers often have “a blueprint in their minds that has been formed and reformed over time” (p.55) and might rely far less on written lesson plans. While it is possible that these effective teachers do not rely as much on lesson plans anymore, lesson plans are still believed to be essential as they are not just a tool for the teacher but help communicate the plan to the pupils and other stakeholders as well.

My observations of T17 during a training session led by her, however, gave me a bit more insight about her and her practice. T17 taught her colleagues how to incorporate games into the teaching of core subjects such as Literacy, Maths and Social Studies. The training showed a lot of teamwork and T17 showed her

facilitation skills and content knowledge during the training, and though she did not mention the use of learning objectives directly, she seemed to have a good grasp of her subject.

6.5.2 Success Criteria

There was no evidence from data to suggest that the teachers in this school understood or used success criteria as a key component of instructional planning. All the teachers failed to describe their use of success criteria, which can be deemed as a weakness in their lesson planning as it leaves the children with no way to know what success looks like and without a means of assessing their own learning.

6.6 School E

6.6.1 Learning Objectives

Data collected from School E show that only two teachers understand the importance of sharing learning objectives with their learners. T21 gave an example of how she introduces her lessons to her pupils: “They do not know that it’s a lesson yet. So, when we are done with the drama, I ask- what do you think this drama is about?...then I’m like that’s what we are doing today”.

The use of drama is a practical way of introducing the learning objective that is in tune with constructivism as well as DMEE, which has factors such as Structuring and Orientation as necessary for teacher effectiveness. With this, T21 is able to get her children interested and ready to learn. Her action is also in line with Crichton and McDaid (2016) and shows she is not using learning objectives in a mechanical manner (Didau, 2015).

While in the case of T22, she informs her students of the learning objective in advance:

If I'm to teach something in week 3, I start on the second week Friday. I tell them what we are going to be doing next week. I give them the topic; I say go and research...I put them in suspense…

Just like T21, T22 involves the pupils in their learning and asking the learners to go and research in advance allows them to be actively engaged and also helps them develop higher-order reasoning. Her style just as with T21 is in line with the teacher factors in DMEE (Creemers and Kyriakides, 2013).

6.6.2 Success Criteria

None of the School E teachers mentioned their use of or the importance of success criteria.

6.7 Summary of Interview Data and Field Note Observations on Instructional Planning across the Five Schools

Instructional Planning is a deliberate process that results in teachers being well prepared before they get into the classroom (Graeff, 2010) and because successful teaching depends on careful planning and preparation, a focus on instructional planning is very important. An essential part of teaching is having a lesson plan which includes planning learning objectives, activities and assessments.

It is pertinent to note that whatever the teacher might have planned to deliver and however they might have planned to deliver lessons, the school environment can strengthen the outcome. Thus, whatever contribution the teacher factor might make to students' learning, school environments may contribute to enhance or reduce the impact. This is in line with the multilevel structure of DMEE that explains that classrooms are nested in schools (Creemers and Kyriakides, 2013). For example, in School D, T16 complained about the absence of synergy between the school and the classroom. He described the prescriptive nature of their school's policy, such as topics to be taught and the duration in which to teach the topics. He said "a topic is meant to be taught per week for everybody" which he described as a challenge for him in terms of planning for differentiated

instruction. He also bemoaned the fact that teachers were not able to go outside whatever the school says they should do and if one must, “you must be permitted”, he said. This reveals that no matter how good his intentions as the class teacher and his plans are, he is still handicapped, which made him declare that there was little teacher autonomy in his school. The practice in this school contradicts the DMEE which insists on a multilevel interrelationship within these levels and factors that are believed to bring about effectiveness and improvement of students’ learning outcome. Such limitations also relate to the challenge teachers face in making sound moral and ethical decisions for the promotion of effective teaching and learning. While the teachers consider their views to be morally and ethically relevant, yet school rules and policies seem to limit what they could do in the classrooms.

6.7.1 Learning Objectives

The data collected suggest that all the teachers in School A showed good understanding of how to use learning objectives to guide their planning and instruction. It also showed that they understood the importance of planning and sharing learning objectives and communicated the same to their pupils; however, T1 and T5 involved their students in a deeper manner by sharing the objectives before the day the teaching would take place. This gets the students involved and promotes curiosity and motivation, but above all is a clear indication of their planning and preparation. In School B, four teachers show evidence of planning their learning objectives. T6 alluded to setting S.M.A.R.T goals while planning her objectives and four of them explained clearly the importance of sharing learning objectives with their children. T8 in School B goes further to ask her pupils to research a topic beforehand, thus getting her students actively involved in their own learning and able to connect with the lesson in advance. This according to Wilson (2016) has the effect of developing metacognition in the students as they construct their own knowledge rather than passively waiting for their teacher to fill them up with knowledge. Only two teachers in School C showed an

understanding of learning objectives, while the other teachers showed either a head knowledge or an outright lack of understanding of planning using learning objectives. According to my data, in School D only one teacher planned her learning objectives, while in School E two teachers showed good understanding of the use and importance of learning objectives. T22 also encouraged her pupils to research topics beforehand, a good way of building metacognitive skills in students (Wilson, 2016). Overall, it would seem that teachers in School A and School B were more conversant with planning and sharing learning objectives than my other case schools. They also seemed to appreciate the importance of involving their pupils in understanding and connecting with these objectives. Schools C, D and E had some teachers who planned their learning objectives, while the majority did not.

6.7.2 Success Criteria

The data indicate that four teachers in School A showed consistency and effectiveness in their use of success criteria. Pupils were involved in their own learning by the teachers deliberately ensuring they were more student-centred, allowing the students to set their own criteria and encouraging them to use success criteria as a self-assessment tool. The teachers were able to explain the reason behind the use of success criteria and they continually used it as a reference point, while in School B, three teachers used success criteria appropriately. These teachers understood the importance and benefits of sharing the criteria with their students and they communicated their expectations clearly to their pupils. They expressed that the reason for sharing the success criteria specifically was to help the children own their learning. This is very important to students understanding the process of learning and developing metacognition. None of the teachers in School C showed evidence of having a secure understanding of the use or relevance of success criteria while in School D, no teacher spoke about having success criteria or using any other form of standard to help the students measure their own success. The same was the case in School

E, as again there was no mention of anything that related to success criteria. Overall, Schools A and B were the only two in my case study schools where typically teachers understood and used success criteria. They were also deliberate about using it to build independence in the children as they could self-assess using these criteria. Schools A and B were able to relate the importance of the success criteria to students' learning, while Schools C, D and E showed minimal understanding, if at all, of this concept.

Further issues around educational delivery planning, and particularly in relation to how differences among diverse categories of learners are accommodated are continued in the next chapter.

CHAPTER SEVEN

PRESENTATION AND ANALYSIS OF FINDINGS FOR DIFFERENTIATED INSTRUCTION

7.1 Introduction

In Chapter 6, I looked at Instructional Planning, while in this chapter I will consider my findings on Differentiated Instruction as an effective teaching strategy.

My findings reveal that the teachers differentiate using several strategies.

Fig. 7.1: Types of Differentiated Instruction used

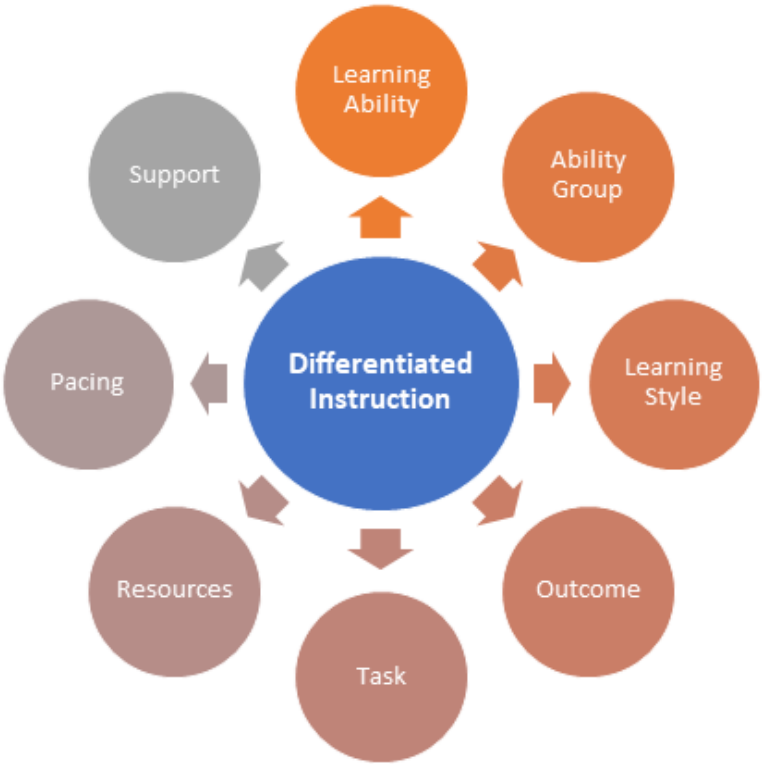


Table 7.1: Participants' views regarding how they differentiate instruction

	School A	School B	School C	School D	School E	Total
Differentiated Instruction	5	5	4	3	4	21

7.1.1 School A

Data show that the five teachers interviewed practiced differentiation in various ways. T1 explained how she supports her students' learning based on their ability. She said:

> *I know those that are independent learners, so they can work on their own. I know those that are middle ability that really don't need so much support, but still need support, so I attend to those ones.*

Knowledge of the learner is crucial when a teacher is differentiating instruction and it helps the teacher support the learners appropriately. T1 in her response seems to understand this as she adjusts the learning to the level of her learners, rather than expecting the learners to adjust to the learning. This is supported by Gregory and Chapman (2007) who state that the teacher needs to know the learners and help ensure that the curriculum fits the learner, rather than the other way round. When teachers differentiate in the classroom, they are trying to provide appropriate learning experiences for all their pupils while creating different avenues for them to acquire content, process and construct their own understanding so that each learner within the classroom can learn effectively, regardless of differences in ability (Tomlinson, 2014). However, from T1's response, she seems to be more focused on the middle ability group while expecting the more independent, able learners to work mainly unsupervised…"I know those who are independent learners, so they can work on their own…". This practice of some teachers planning lessons aimed at students in the 'middle' has

been criticised as still perpetuating the 'one size fits all' approach (Wu 2013; Westwood, 2013) as it will not cater to the varied needs of all the students in the classroom, some will be 'under-challenged', while others may be over stretched. T1's decision, in this case, seems questionable as according to literature and also from my experience as a school leader, gifted learners do tend to be overlooked. They are often expected to just get on with their work being unaided and with very little attention paid to their own advancement in learning or they are asked to tutor weaker students (Hertberg-Davis, 2009). While the more able students might be solidifying their own knowledge of concepts as they assist their peers, they also need to be adequately challenged, so they do not get bored and their learning may also progress. The decision by T1 may have been based on the best way she knew how to differentiate, that is focusing more on the pupils she considered vulnerable, but according to Terwel (2005), variations in experiences and understanding of the teacher might be responsible for such questionable judgment which might inadvertently create inequality in classrooms, the opposite of what these teachers want. Thereby Taylor (2017) declared that differentiated teaching requires practice and training by more experienced teachers.

T1, T2 and T4 explain how they divide their class into ability groups while differentiating. For example, T1 said:

> *I tell them, for the HAs [high achievers], I am expecting 5 pictures if it's five slides...the middle ability, I am expecting three, the lower ability, I am expecting two. If they can give me two, they have achieved. Yes, it's not until you give me 5.*

A realisation that students have different levels of readiness, interests and prior knowledge may warrant students being placed in ability groups by teachers in a differentiated classroom with the purpose of enhancing their learning. Grouping is often required to differentiate effectively as it allows students to be catered for according to their differences (Tomlinson, 2014). T1 noted that she is able to

manage her expectations of the students adequately by separating them into ability groups, however, she seems to show a low level of expectation for the children with lower ability, which Tomlinson (2017) condemns and refers to as micro-differentiation. Tomlinson (ibid) posits that some teachers micro-differentiate when they simply give less of the same work to students who are struggling. This slight modification is not enough to adequately cater to major learning issues and to overcome the discrepancy between the learner and the learning. Usually, such lessons might need to be totally recrafted in order to help these students. Also, the use of grouping to cater to the needs of pupils as used by T1, has been criticised (Perry, 2004) as differentiation is supposed to be about treating the learner as unique individuals (which is more difficult to achieve when they are in groups according to Terwel (2005)). That said, Tomlinson (2017) argues that differentiated instruction is not individualised instruction, but rather a blend of a whole class, group and individual instruction. The key thing is proactively catering to the unique needs of the students as individual learners during lessons. Similar observation was made in my conversation with T2 and T3 in their practice of differentiation.

Tomlinson (2014), argues that when pupils are grouped into their abilities for instruction, a signal is sometimes sent to the pupils that homogeneity matters above community, thus making their differences more glaring. Gregory and Chapman (2007) add that these differences, when obvious, could bring about students living daily with a fear of being ridiculed or bullied, which will affect their learning. According to Tomlinson, even the middle-achievers are not spared as they are declared '...just average' (Tomlinson, 2014, p.27). Conversely, one could also argue that differentiation brings equity into the classroom, as the less able pupils are equally provided for and everyone through this strategy has access to the curriculum, while the more able are not overlooked (Gregory and Chapman, 2007). Though the practice of differentiation by grouping is an effective strategy for differentiation, as confirmed in the literature (Tomlinson, 2001; Tomlinson

2014), none of these teachers showed how they have been able to mitigate its negative effect as regards the self-esteem of the learners.

T4 shows her use of differentiated instruction by catering specifically to the area of weakness of the children, while T5 pairs low and high ability students. T5 explains that the importance of pairing her pupils is so that the high ability children can help the lower ability children to learn better. This practice is acceptable in differentiation in line with Tomlinson (2017).

It is evident from the practice of these teachers that differentiation based on grouping is an important strategy that helps them ensure that learning takes place. As the teachers provide appropriately challenging instructional experience for all the pupils in their class, it helps the pupils take responsibility for their own learning. The teachers also promote active learning by grouping their children while encouraging them to share responsibility as they work together in these groups. This kind of pedagogical approach promotes students' achievement and is supported by social constructivism. It is also in line with Tomlinson (2014), who explains that when students are grouped according to their ability during instruction, it establishes a common understanding among the ability groups as they share discussions and review learning.

Also, T1, T2 and T3 stated how they were able to discover the strengths of their students through their learning style. Differentiation by learning style can be described as when a teacher varies their approach to lesson delivery to account for the various ways the students learn (Tomlinson, 2014).

T1, T2 and T3 accept and act on the premise that they have varying types of learners in their class and that there is no single approach they can use that will benefit all of them and meet their various needs. However, though these teachers make use of differentiation by learning style, this particular form of differentiation is not substantiated by research according to Muijs and Reynolds (2018) and

Geake (2008). Nonetheless, Tomlinson (2017) maintains it is a valid form of differentiation.

T1 also differentiates by product, which is in line with Fox and Hoffman (2011), who explain that differentiation by product is where all pupils in a group are involved in the same task and differentiation is then achieved in terms of the work they produce at their own level, which could result in varying outcomes even though the tasks are the same. However, though T1 mentioned that she differentiates this way she did not elaborate on it. While T3 who differentiates by task explained how she provides a variety of tasks that cover the main content area for the different ability groups in her class:

> *…We are going to have all the less able children in one group, two teachers will support them and then I will take the middle group and my colleague will take the higher ability group, so we differentiated them. And then, we used differentiated sheets for them. So, the higher ability group does a different mental math completely, some do the mainstream mental math and then the low ability children do a different mental math for their group.*

This practice by T3 is also in line with Fox and Hoffman (2011) who suggest that students are grouped accordingly to perform tasks based on their ability and interest. As evidenced from the teacher's practice, she prepared her children for the activity of the class with the aim of meeting their needs and ultimately meeting the learning objective set out for the pupils to achieve. Hanif (2017), however, suggests that teachers need to be careful when differentiating by task as it might lead to stigmatisation and also modifying tasks for different children can become time-consuming for the teacher.

Furthermore, data show that T3 differentiates the resources for her learners: "So, any particular topic has resources that the children can use, especially for the lower ability group…".

She carefully selects the resources to match her pupils' learning needs which according to Fox and Hoffman (2011), is a key feature of effective teaching. It is however imperative that T3 does not overlook the needs of the other ability groups in her class, as from experience and also from research, sometimes the desire to cater to the needs of the less able and average students in the classroom, may bring about neglect of the more able and gifted students (Taylor, 2017). Furthermore, as observed from literature (Fox and Hoffman, 2011), use of resources fall under two categories: student-centred approach where teachers use resources to encourage the diverse learners to problem solve and make discoveries; and the teacher-centred approach, where resources are used more for teaching purposes and making presentations in the classroom. It appears that the choice of the approach being employed by T3 and why, is not so obvious, even though she differentiated the resources for her learners.

7.1.2 School B

The data collected show that all five teachers in School B differentiate their instructions in diverse ways. T6 and T10 differentiated learning for their students by task. For example, T6 said:

> *...we did addition, two digits by two digits and when we started off because of the up and coming children, we limited theirs to two digits by one digit and then, we differentiate the tasks for the children.*

While T10 said: "...I can ask the same question to five different children, and just put it in different ways. The complexity of the question will differ".

T6 and T10 describe how they differentiate by task and how they tailor their teaching to match the level and understanding of their learners.

T8 and T10 also explain how they differentiated using resources to meet the needs of their pupils. For instance, T8 said:

So, what I have done for him is to use a word bank, which I do not use for the other children...it makes the whole thing a lot easier…seeing the words, makes it easier for him to remember quicker than not seeing those words at all.

T8 shows that she treats this pupil as an individual as she makes provision for him and carefully differentiates by choosing the right resources that she believes would help him learn. While T10 explains how she selects the right resources for the right child from a wide range of resources, in order to meet the needs of the diverse learners in her class. This is in line with Tomlinson (2017) who suggests that such practice is a key function of differentiation.

On the other hand, T7 and T9 note that they differentiate by learning style. This idea of differentiation by learning styles as mentioned by T7 and T9 is in line with Tomlinson (2014), however, it is refuted by researchers such as Geake (2008) and Muijs and Reynolds (2018).

In her case, T6 divides her class into ability groups which aided her in differentiating and addressing the distinct learning needs of her pupils. She states: "they have their names - the up and coming group, we call them the ruby. The emerald is the middle, and then the platinum is the high achiever".

T6 differentiates by task within the groups. She also remains flexible to the needs and progress of her pupils and she is guided by their understanding, rather than just moving on to the next topic as dictated by the curriculum or her plans, making her student-centred, rather than teacher-centred.

While doubts have been expressed about how well differentiation can cater to the varied needs of students whilst in groups (Taylor, 2017) according to Tomlinson (2017) differentiation can be done in several ways through individual instructions and in ability groups. T6's practice supports this as she differentiates by task, within their ability groups. T6 also showed consideration for her students' self-esteem by maintaining interesting names such as ruby for her less able group,

emerald and platinum are used in classifying the other groups. This way, the teacher tries to ensure that there is no (or minimal) stigmatisation based on the various ability groups. The practice of this teacher is in line with Tomlinson (2014) that teachers should create "classrooms that promise equity of access to excellence for the full range of young people…"(p. 35) and with Gregory and Chapman (2007) who ask that students should be taught to respect one another's emotions. Similarly, T9 explains the importance of considering the feelings and self-esteem of the learners in her class. She said: "First of all, I wouldn't want to put the child on the spot, you know, not to embarrass the child". T9 explains that this consideration for the different learners with varying abilities in her class is what drives her differentiation. She recognises the fact that a child's self-esteem could be fragile and she explains how she goes out of her way to differentiate with this in mind. Therefore, she chooses what questions to ask the high ability children and the students with lower ability. This thinking is appropriate as good self-esteem improves academic performance (Miller and Moran, 2012) and when work is given at the correct level, the child has a feeling of success. Also, Gregory and Chapman (2007) argue that students should not be challenged beyond their ability so as not to overstress them.

7.1.3 School C

The data collected from School C show that four teachers from this school differentiated their instruction in diverse ways.

T11 mentions that she differentiates by task, based on the ability of the learners in her class. She said: "...sometimes I give less difficult work so that he can finish on time. Oftentimes he gets everything and this encourages him". She also spoke of the class: "...we give fewer work that is less tasking to the low ability".

T11 seems to understand her students and their uniqueness. She differentiates by task, adjusting the element of challenge, which enables the child to feel successful and therefore encouraged. This according to Tomlinson (2014), is one of the

advantages of differentiation as teaching and learning is tailored to the ability of the pupils.

In T12's case it is not clear how deep her understanding of differentiation is as she failed to communicate it. While she had some understanding of the different interests of her learners, she gave very little explanations about how she differentiates their instruction.

Also, she stated that the process of differentiation is often figured out in her mind. This does not show that adequate planning has been made for differentiation according to a thorough understanding of her learners, but rather it's done informally and on the spot. Such practice is refuted by Tomlinson and Moon (2013) who believe that differentiation should be driven by data from assessment of the learner. Though differentiation can also be spontaneous (Taylor, 2017), that can only be classified as further differentiation which rides on the back of an initial data-driven form of differentiation. This initial differentiation is not explained. Then her statement: "I differentiate, I put them in their categories…", gives no description of what these categories are and the differentiation strategies she uses. Therefore, it would seem that T12 only had a shallow understanding of the concept and practice of differentiation. This could be because of the fact that she is a subject (French) teacher for a number of year groups and might not have a deep enough knowledge of all the students she teaches across the year groups.

The data also show that T13 and T14 differentiate the pace of learning for some of their students in a way that is commensurate with their abilities. For example, T14 said, "I know she's not given her best. So, in her own case, I try to allow some extra time". Using a flexible approach to time-based tasks is an acceptable form of differentiation (Scales et al. 2015). These teachers used pacing as a strategy to differentiate, thereby giving opportunities for their students' learning to be optimised based on their individual needs. This is in line with Scales et al. (2015) who say that differentiation by pacing "is where learners cover the same level but

take more or less time to achieve" (p. 187). Conklin and Sorrell (2007), also opine that this strategy helps pupils to learn to work independently. In addition, the practice of these teachers is in agreement with the cognitive constructivist theory as students are able to build their cognition and ultimately are able to regulate their learning (Dick et al. 2014), which according to Bautista (2015) is crucial to pursuing lifelong learning. T14's comment that she allowed her student extra time because she knew the student had "...not given her best…", shows her belief in using differentiation to bring out the pupil's potential (Munro, 2012).

While differentiation by pacing is student-centred and aids individual instruction, it is known to be time-consuming for the teacher, increasing their responsibility, at a time when so many other performative demands are being made of them (Taylor, 2017).

In T15's case, she describes how differentiation informs her about the resources to use to promote learning in her students:

> *Knowing the kind of child, knowing that every child is not the same. Or knowing that we have different ways we learn, knowing that we have different speeds at which we learn informs me on the kind of materials to bring in for the children to learn...helps me to bring in the right materials for the children to learn with.*

From the above, T15 shows that she is selective in the resources she uses to teach, being led by her understanding of each of the learners. She understood that the selection of the right resources for teaching is important to helping her students learn effectively and this is in line with Fox and Hoffman (2011).

7.1.4 School D

Three teachers in School D indicated that they differentiate instruction.

T16 and T17 state the importance of knowing their learners which they link to the knowledge of their pupils' learning style. For example, T17 said: "... so you need

to understand how they learn, and their style of learning...and that way you will be able to structure what suits them best".

T16 and T17 highlight the importance of knowing the varied needs of their learners and catering for their needs based on their preferred learning style. Differentiation by learning style is proposed by Tomlinson (2014) as a form of differentiation but refuted by Muijs and Reynolds (2018) and Geake (2008).

T16 also uses differentiated instruction by grouping his pupils based on their ability. He said:

> *At the end of the day in the same classroom, the group who are more able can do up to ten, those who are average can do up to five, the group that is challenged, can do one or three.*

Teachers who differentiate in a diverse classroom seek to provide appropriately challenging learning experiences for all their students, whilst being aware that a task that seems easy for a group of children might be incredibly difficult for another set. Therefore, T16 seems to be conscious of this as he differentiates instruction for the different kinds of learners he has in his class by placing them in groups. However, T16's practice of differentiating by adjusting the quantity of work, rather than the element of challenge has been criticised by Tomlinson (2017).

Nevertheless, T16 seems careful to treat his pupils as individuals. This can be seen as he shows mindfulness and sensitivity towards a particular child in his class. He said: "…he wasn't doing what the others were doing...I looked at him and I knew, definitely there must be a problem...so I noticed him...I observed him…".

T16 shows how he differentiates at an individual level, and also on a group level, which is in line with Tomlinson (2017).

Data also show that T16, T17 and T19 differentiate by task. For example, T17 stated that: "...the children do different things but on the same concept…". These

children are given a variety of tasks in an attempt to still cover the main learning objectives. This is in line with Tomlinson (2014) who explains that this is one way to differentiate by task. However, differentiation by task is not giving students the same level of work while only extending or reducing the length or quantity. An adjustment of the level of challenge upwards or downwards is important to this kind of differentiation. If it was the same thing without any adjustment to suit the different learning abilities, then according to Tomlinson (2014), this would not pass as differentiation by task, rather adjustment in the element of challenge is what makes this type of differentiation effective.

In the same vein, T19 who also differentiated by task explained how he differentiated for a pupil whom he knew very well having taught him in a prior year, and whom he was aware struggled with spelling. T19 gave him a different spelling set to go home with as homework and by that, the element of challenge has been adjusted, which is typical of differentiation by task.

Conversely, T18's idea of differentiation was not in line with her colleagues' or with literature in this area. She said:

> *Differentiation for me is giving the children the same work…The children know and they see and they hear...I don't like anything that has to do with a group. If it is possible after school, I know that you need help in handwriting…so when everybody is gone home, I'll just call your parents, please can I have like 20 minutes…And that for me is differentiation.*

Literature shows that this teacher does not have a good grasp of the concept of differentiation (Tomlinson, 2014) but seems to have an understanding of interventions by identifying such a child and following up on her parents to strengthen such a child in her areas of weaknesses. Differentiation goes beyond devising an informal strategy to help a child who needs extra help, but is rather a deliberate strategy which is planned for and used proactively and should offer work to children at different levels based on certain parameters such as their

ability or readiness. When work is given at the right level, the child has a feeling of success. T18 explained further that she did not engage the students in group work because she did not want the pupils stigmatised, but this goes against the concept of differentiation. According to Hannah (2013), while the social implication is real, more harm might be done by giving the same work to everyone at the same time which might create boredom in the more able students and frustration in the less able ones. In effect, T18 is not differentiating learning. Nevertheless, according to Gregory and Chapman (2007), differentiating by learning environment includes teaching emotional intelligence, as well as empathy to students which should go a long way in reducing the effect of stigmatisation, which is the fear of this teacher.

7.1.5 School E

Four teachers interviewed in School E mentioned that they adopt different approaches in differentiating their instruction.

T21 emphasises that her knowledge of the learners helps her differentiate:

> *I give a sentence, and I say, extend this sentence using any of the WH words and pay attention to the nouns. So, these pupils give me three, these pupils give me three, these pupils give me seven...I already know that this set of children will not be able to give me multiple sentences. So why don't I make them give me simple sentences?*

What T21 did is in line with the practice of differentiation by task, where the teacher prepares multiple tasks, which are used to teach the same learning objectives at differing levels of challenge. T21 also seems to understand the impact prior knowledge has on a student's learning. She said:

> *When I am giving the classwork on the board, then I know that oh since this person did this in the worksheet, then I should move his own classwork to*

what I am giving to the other pupils. That way, he doesn't do the same classwork as the others…

This knowledge of her children enables her plan in response to their varying interests, readiness, prior knowledge and learning needs. This teacher is using the student-centred approach which is in line with Jean Piaget's (1936 cited in Schunk, 2012) constructivist theory.

In the case of T23, data reveal that she differentiates by grouping considering their learning styles and abilities. By using instructional grouping strategies, T23 can encourage pupils of similar abilities to work together and collaborate as they team up according to their level. This teaching strategy also has the advantage of freeing the teacher to focus on the less able students. She alludes to this as she mentioned a group she had already created, needing support. T23 also emphasised the importance of planning proactively for differentiation: "I normally have my activities ready…because I already know my children…I already know their ability, what they can do". This is supported by Tomlinson (2017), who states that differentiation should be done proactively based on knowledge of the learners' readiness, interests and learning needs. Gregory and Chapman (2007), however, argue that while knowledge of the learner is crucial, teachers are also required to have a good knowledge of the standards as they are supposed to teach to the needs of their students and in line with the standards. Also, knowledge of both is what can help them in making effective instructional decisions concerning the learning of their students.

T23 and T25 also indicated that they differentiate by support. This support is given according to the needs of their pupils in groups. Placing these students in a separate group gives her the opportunity to work with them by giving further explanation and using targeted questioning. She also differentiates according to learning styles. She said: "... some of them can be auditory, some visual, and some kinaesthetic... so you try to use the three… some will participate more by watching

a video or another by rapping…". T23 does the same, being mindful of getting adequate resources which cater to the unique needs of her students. She said: "I bring in so many aids when I'm teaching…".

On the other hand, T24 emphasised that being a facilitator of learning helps her differentiate. T24 seeing herself as a facilitator of learning is in line with Le Ha (2014) who opines that differentiated instruction is based on the concept that the teacher is a facilitator, who encourages learners to take charge of their learning and thereby expand their knowledge. This is in line with the constructivist view that believes that learners create their own knowledge by themselves and not necessarily through their teacher.

7.2 Summary of Interview Data and Field Note Observations on Differentiated Instruction across the Five Schools

Most of the teachers in my study seemed to understand and use differentiation well as a teaching and learning strategy. Five teachers in School A, five in School B, four in School C, three in School D and four in School E used differentiation in various ways such as by content, by process, by product and by learning environment amongst others.

One thing common to all the teachers interviewed in these schools was their understanding of the importance of knowing the learners. Knowing of learners is key to differentiation as the whole essence of differentiation is catering to the needs of individual learners especially as there is such diversity amongst the students in today's classroom. However, while this is key the teachers are also required to have a good knowledge of the Teacher Standards, as they are supposed to cater to the educational needs of their students by all means but in line with the standards. Also, knowledge of both is what can help them in making effective instructional decisions concerning the learning of their students (Gregory and Chapman, 2007) but, notably, none of the schools referred to the Teacher Standards. However, it was clear that these teachers understood that while the

learners in their schools have a lot in common, they are different and unique, which make them individuals (ibid).

Participants in school B were the only school that described how they are able to differentiate with the consciousness of the learners' self-esteem. This is a very important factor in differentiating and is easily overlooked or avoided by some teachers, which was the case with T18 in School C, who decided not to use differentiation in order to avoid stigmatising her less able students. However, two teachers in School B seemed to understand the sensitivity of the issue but still managed to differentiate for students of varying abilities, including the less able ones.

School D seemed the weakest in this area, as only three teachers explained their use of differentiation and one out of these teachers (T18) did not show a good understanding of the concept. While in School C, one of their teachers (T12) showed a shallow knowledge of the concept of differentiation.

In the following section, I summarise key issues from the interview data and observations around formative assessment.

CHAPTER EIGHT

FORMATIVE ASSESSMENT

8.1 Introduction

An important prerequisite to Instructional Planning (discussed in Chapter 6) and Differentiation (discussed in Chapter 7) is the assessment of the knowledge and interests of the students (Gregory and Chapman, 2007) and I will discuss findings in relation to key AfL tools: feedback, questioning, peer and self-assessment in this chapter.

Fig. 8.1: Major subthemes on Formative Assessment

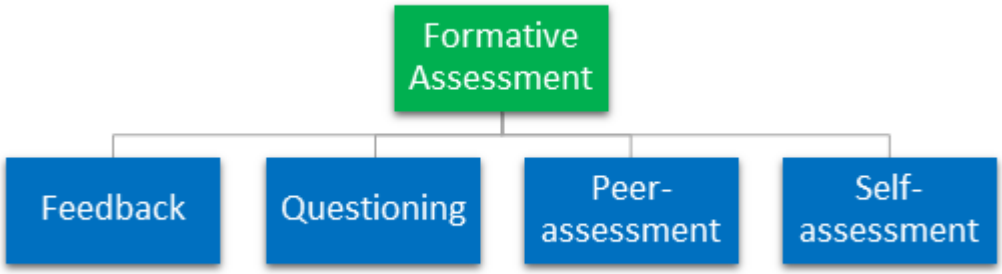


Table 8.1: Participants' views regarding formative assessment

	School A	School B	School C	School D	School E	Total
Subtheme: Feedback	5	5	4	4	1	19
Subtheme: Questioning	5	5	3	5	3	21
Subtheme: Peer-assessment	3	3	3	-	-	9
Self-assessment	3	1	1			5

8.2 Feedback

8.2.1 School A

All five teachers interviewed seemed to show an understanding of AfL and the importance of feedback to the process of AfL. All the teachers understood, not only giving but getting feedback from their students. For example, T1 said: "I get feedback from the children. They need to give me feedback so that we don't delve so much trashing what they know already".

While T3 stated: "What they had written at the beginning of the unit had given me some kind of information of what they know and what they will be able to do…so that informed my judgment".

Using feedback to understand the students' prior knowledge is important as according to Jean Piaget, new knowledge is built on previous knowledge and is key in promoting understanding and concretising knowledge (Zimmerman and Schunk, 2001). Feedback on what the students have learnt previously also directs the teacher's next move, helping her to decide what topics students do not have a secure knowledge of and the ones she does not need to waste time on. However, feedback is not used only for this purpose but rather as an ongoing process and

an integral part of the teaching. T1 and T4 use feedback to understand exactly where the students are in their learning and to direct them as to the next steps (Spendlove, 2011). For instance, T4 gives an example of her use of feedback stating that: “By their response in the classroom, you start to hear mistakes in the things that they tell you when they are giving their answers, you can then clear up their misconceptions”.

This response buttresses the importance of feedback as essential to the practice of AfL, which is about deciding where the learners are in their learning, identifying gaps that still exist in their knowledge with the aim of helping them achieve the clear goals set by the teacher. T1 and T4 both identify the misconceptions in their students’ learning and the importance of closing these gaps through feedback. The focus of these teachers on correcting common misconceptions in their students is crucial to student’s achievement and affirms the strong subject knowledge of these teachers. Studies (e.g Rich et al. 2017) have consistently shown that teachers sometimes neglect to clear students’ misconceptions during the learning process. If misconceptions are not cleared, they will remain and thus co-exist with correct knowledge. In case such coexistence occurs, it can hinder students from acquiring new knowledge (Kowalski and Taylor, 2017), and so this practice in regard to helping clear misconceptions, is seen as a good one.

Another way T1 gets feedback from her pupils is through non-verbal means of communication: She notes that: “when those children raise up their hands for support, my teaching assistant attends to them immediately”. This seems to suggest that there is a clear rule in that class that signifies that raising their hands is not just to answer questions, but is also acceptable as a sign that the learners need support. According to White and Gardner (2013), hand gestures and body language, including facial expressions are all ways teachers can get feedback from their students and so teachers need to be sensitive, not only to verbal feedback but such feedback as well. This point is supported by T3 who remarked that

studying her pupils' body language could reveal that "…some of them are getting bored", and then she immediately addresses the situation causing boredom. T4 in her case, insists that feedback from her students is a way to "get in their heads and minds" and that way she knows what they are thinking and is able to redirect, while T5 uses the outcome produced by the students after teaching to gather feedback.

All the above speak of the importance of teachers focusing on getting feedback from their students. According to Ajjawi and Boud (2017), it is a narrow view when feedback is considered to be something that is given only by a teacher to the students. Rather, feedback should be considered as part of a process in which students have an active role to play, hence they should give feedback to their teachers as well. That said, teachers also need to give feedback to their pupils in order to move their learning forward. T3 in giving feedback to her students believes that feedback is essential for both the teacher and the students. She said:

> *They need to know whether they've done well and what their next steps are for learning. So sometimes, when you've given them feedback, we say that these are your next steps, these are the places where you need to improve.*

The form in which feedback is given by the teacher is important. It can be written, with an emphasis on meaningful comments and not just writing grades (Muijs and Reynolds, 2018) or verbal, which according to Quinn (2019), is at least as effective as the written variety, if not better. T1, T2 and T3 use written comments. On the other hand, T5 stated her preference for verbal feedback: "I will just put 'see me' on one side there – verbal feedback. I love to do verbal feedback more than written". According to Brookhart (2017), these two types of feedback can be used by the teacher to provide accuracy in the feedback given to pupils. However, written feedback is believed by some researchers to be more effective than verbal feedback as they think "that it gives adequate time for the students and the opportunity to reflect on their own learning" (Rezazadeh et al. 2018, p. 14). This

is also in line with Muijs and Reynolds (2018), who believe that written feedback is better than simply giving grades. Nevertheless, teachers need to be wary of being misunderstood, which is an advantage that verbal feedback has as any misunderstanding can be cleared up during the feedback process (Brookhart, 2017). It is believed that students seem to respond more positively to verbal feedback (Merry and Orsmond, 2008; Van der Schaaf et al. 2011). This might be the case especially in a primary setting with young children, like the students in my case study schools.

According to Muijs and Reynolds (2018), where written feedback is given, it should suggest improvement but not the full solution, while also acting as a 'scaffold' that allows pupils to find the right solutions themselves. Written feedback should also help learners identify where they are in their learning, where they need to get to, and how they will get to the desired goal. Be that as it may, feedback as a dialogue is essential as it gives the opportunity for the learner to engage the teacher in discussion about the feedback (Nicol and Macfarlane-Dick, 2008). That said, a teacher who prefers written feedback (like T1) for the purpose of documentation and follow up, could insist on students replying to their written feedback so as to ensure understanding and to follow up. While T1 did not do this, T3 and T5, who also use this form of feedback, did. T3 told her pupils, "I want you to read my feedback, and I want you to respond to it. You can use just one sentence, it's fine", while T5 also did the same, asking her students to respond underneath her written comments.

While none of the three teachers explained exactly what their comments were, comments that do not suggest next steps for the learner are considered ineffective (Black et al. 2003). It is also suggested that comments only (without grades added) are better as feedback as it takes away the issue of competition among students, as each student's comment is customised to their own needs (Muijs and Reynolds, 2018).

Also, T2 and T3 explain that feedback helps their students meet learning objectives and achieve the success criteria. When students get feedback, it is a way to encourage them to critically examine their work against the learning outcome and success criteria as shared with the students by their teacher. Indeed, such success criteria can be negotiated through discussion and feedback, which gives the learners more sense of ownership (Spendlove 2011).

Timing of feedback is very important and according to Stronge (2018), it must be given in a timely manner which should be ongoing, that is, alongside teaching. In T2's case, she began her lesson by asking her pupils to go through their books and check for her comments, while T3 described how she had found out that immediate feedback is most effective, "for example, you are going round and you spot something wrong, you can correct it immediately". She continued, "feedback is more effective when you give it there and then". She gave an example of where immediate feedback contributed to pupils' self-correcting. Her argument is supported by Stronge (2018) who advise that the longer the delay in feedback, the less likely learning will be improved by it.

8.2.2 School B

The findings from School B show that all five teachers have an understanding of AfL and how feedback is a key component of AfL.

The data show that T6, T7 and T10 practice AfL and explain how they use feedback to recognise misconceptions and close the gaps in learning by redirecting their students. For example, T6 gives feedback to the students: "Your sentence is correct but you didn't start with a capital letter, you didn't end with a full stop…I'm giving instant feedback and I'm redirecting".

This kind of feedback is formative as it helps shape and direct the next thing to do that will lead the student towards the desired outcome (Spendlove, 2011).

T6, T8 and T9 explained how they are able to garner if their students understand their lesson, which they do by looking at their outcomes after a piece of work. For example, T9 said: “And from the outcome of their work…I can see that this child probably needs a bit more help…I can see it in their work. It was immediate feedback”.

T6 and T9 referred to giving immediate feedback. According to Stronge (2018), effective teachers provide feedback in a timely manner and ensure that it relates specifically to the criteria of the task. Indeed, studies reveal that the amount of time between the activity and the feedback has a crucial impact on student outcome (Van der Kleij et al. 2012). This is said to be so because it is believed that the more time between assessment and feedback, the less learning will be optimised (Stronge, 2018).

T10 indicated that she assesses learning as the class presentations go on. These presentations are done before the students write in their books and before marking and comment writing takes place. This opinion is supported by literature that says that feedback and assessment are integral parts of teaching and learning (Cramp, 2011). It is insinuated by this teacher that while redirecting as teaching was going on, the students would have more understanding and thereby make less mistakes by the time they are doing their independent work. This is in line with Harold (2002), who opines that feedback enhances students' learning and the frequent use of constructive feedback has a positive effect on students’ achievement. Her practice seems to agree with what formative feedback is, as she is ‘forming’ and ‘shaping’ their learning in an on-going manner.

Feedback is a strong AfL tool as it is used to help students move from where they are to where they should be in their learning goals. T6 said: “feedback is to help them to make progress in their learning”. This is in line with the concept of AfL (Black et al. 2007). In order to achieve this, T6 makes diagnostic comments which refer to the purpose and quality of feedback. According to Stronge (2018), not all

feedback is effective and for feedback to be effective it should lead to performance improvement. T6 explained that the diagnostic comments she makes are written comments that could move the students' learning forward. What she did not explain was if her comments only acted as a scaffold that helped students overcome difficulties while engaging in deep thinking or if she told them the correct answer. Her statement that, "so you write it there in their books" is not clear on this. Effective feedback avoids giving right or wrong answers, rather they give clear guidance of how students can fix the problem without giving the answer away (Chappuis and Stiggins, 2002; Gokce, 2014). This is the way to make the students more active and cognitively engaged in their learning, which ultimately promotes higher-order thinking, while making them feel valued and supported (Zhang and Zheng, 2018).

T7 and T8 are also conscious of this as they try not to give their students too much help. For example, T7 said: "I just told them, look at your book again, check it. Go over your 5 times table and correct that. So the child looked at it again…". She said: "I redirect misconceptions".

She tried in the cause of redirecting her pupils not to spoon-feed them. Effective feedback should help elaborate students' thinking while providing cues to help learners improve the quality of their work and achieve their learning goals (Black and Wiliam, 1998). This is what makes AfL a formative type of assessment. Using prompts and probes and not giving direct answers during feedback promotes self-regulated learning and helps students understand the process of learning while being corrective (Harks et al. 2014).

As for T9, she emphasised the importance of gaining her students' trust in order to help them feel comfortable opening up about their learning and giving feedback in a non-threatening setting: "And you know, because they were comfortable, they were able to let me know… I don't think I understand this, I think I need a bit more help, then I can help them from there".

T9 by ensuring that her pupils felt comfortable to give feedback, mentioned an important strategy in AfL, as children will open up and give feedback to the teachers about where they feel stuck in an atmosphere where they feel valued and supported. This is in line with the opinion of Zhang and Zheng (2018). According to Price et al. (2011) and Sadler (2010), feedback is complex and has many variables in relation to its form, timing and effectiveness, meanwhile it is such a key component in providing suggestions for improvement and is critical in closing the gap for students (Wiliam, 2011). Feedback should be non-judgmental and the teacher must listen not only to their verbal feedback but body language and facial expression, too. Taking all these into consideration will put the students at ease and they can give honest feedback about where they are stuck and are also able to receive feedback from their teacher. T6 in her case mentioned going close to a child to give feedback: "I could, you know, go close to the child and quickly explain the concept again". While she did not explain why she does this, it could be for several reasons all in consideration of the students either as a sign of care for the child's self-esteem or so she does not disrupt the other students. This shows her practice of AfL, as her class is learner-focused and caters for the needs of students first and foremost as individuals. This is in line with differentiation (Tomlinson, 2014) and according to Spendlove (2011), no one can practice AfL without using differentiation. Student-centred learning and differentiation are concepts supported by constructivism and DMEE.

8.2.3 School C

Data collected show that four teachers in this school recognise that feedback is a key component of AfL.

It can be assumed that indirect feedback that prompts students to reason is favoured in this school as the four teachers use this kind of feedback as part of their assessment process. T11, T12, T13 and T14 all gave this kind of feedback to their pupils. For instance, T11 said: "So it's a sort of feedback as well. If you prompt

them on why and what they need to achieve at the end of the lesson…", while T12 tells her students: "Just think… remember when we were doing this and we talked about letter D… immediately I can give the child a word and the child remembers three more words".

These teachers encourage their students to be active learners as they self-assess and adjust themselves, thereby enhancing their learning. The use of prompts and probes in giving feedback is good practice as it acts as a form of scaffolding of students' learning, allowing them to find the solution for themselves. This kind of feedback is believed to be effective as it moves students' learning from where they are, to where they are supposed to be. T13 attested to this by explaining that not all feedback is effective. She stated:

> *I could just say look at it very well... without feedback for me learning has not taken place. Without correction, there is no learning, no matter what you say. So, for me feedback should be very effective, it's one of the key things, yes. It is not just feedback, it has to be effective feedback because not all feedback is effective.*

The statements by T11, T12 and T13 seem to reveal effective feedback as they help their students to self-assess, evaluate and adapt their own actions, and control their learning. A large body of empirical evidence suggests that learners who self-assess as a result of the feedback given by the teachers are more effective, confident, resourceful, and persistent in learning, which then allows them to self-regulate as they learn (Pintrich, 1995; Schunk and Zimmerman, 1994; Winne et al. 1998; Zimmerman and Campillo, 2003). The idea of self-regulation is so that students will remain engaged in their tasks in the pursuit of long-term educational outcome. Spendlove (2011) posits that teachers should equip pupils with the tools to be able to reflect upon their own performance and capability and be able to decide upon the best line of action with their work but also subsequent life choices. While Hattie and Timperley (2007) opine that teachers must be

deliberate or intentional about their feedback in order to promote self-monitoring leading to self-regulation in their pupils.

In a similar manner, T14 said: “I can prompt or change something to steer them again in the right direction. I go again to another group. I can again prompt”; however, while these teachers prompt their pupils, they also ensure they guide and support the students' learning. T14 goes round the class supporting the learners, while T11 mentioned that she continues to attend to any child struggling with a concept, despite her prompts and T13 does the same.

It can thus be inferred that though these teachers encourage self-leading through deep thinking, and avoid indicating right or wrong answers to their students, they still support them with explanations of what they are doing or not doing correctly and how they can fix it (Chappus and Stiggins, 2002; Gokce, 2014). In addition, T11 and T13 highlighted the need to guide their children by reminding their pupils of the learning objective and success criteria for the lesson: For instance, T13 said: “And I need to guide you...you’ve written so well, it’s a very good story line, but if you do this A, B and C, you’ll be meeting targets...you will attain that 200 or 250 words that we are looking for”, while T11 said, “...if you prompt them to note what they need to achieve at the end of that lesson…”.

T11 and T13 show the importance of closing the knowledge gap of their pupils as they provide guidance, through feedback, in order to help their students meet the expected learning outcome. According to Wiliam (2011), teachers should clarify expectations for their students which will help them attain their learning goals. Based on this, students can know what success looks like and they can also appreciate that the feedback is intended to close the knowledge gap. T14 also shows that she provided feedback so that students can have a deeper understanding of why they are wrong which in turn enables any existing gap to be closed and their learning to be moved forward. She uses feedback to explain to her students why and how to do better in their learning: “...it’s important because

they need to know whether they are correct or not. And I also have to give evidence of why I think they are correct, or why I think they are wrong…".

T14 seems to understand the importance of being clear about what she is teaching and the learners being clear about what they are learning. This is in line with Brookhart (2017) who believes that good feedback gives students the information they need so they can understand where they are in their learning and what to do next - the 'cognitive factor' (p.2). As soon as they know what to do and why, most students develop a feeling that they have control over their own learning – 'the motivational factor' (Brookhart, 2017, p. 2).

In addition, T13 uses praise when giving feedback to her pupils: "I need them to know that whatever they do counts… I'm still going to praise you that this is what you've done right…". T13 uses praise to motivate her students and to build their confidence; however, she also uses it to redirect the pupils if she feels they are going off track. Praise is a useful tool for teachers to boost the self-esteem of the students and prevents feelings of being a failure which could cause a child to disengage from the lesson (Bartlett, 2015). However, while praise has its positive points, if not used properly, it can have the opposite effect. Therefore, according to Dweck (2007) for it to have the desired result of motivating the learner, the praise should be about the piece of work done rather than on the characteristics of the learner. Praise is considered less directly linked to the learning task and so offers little help to learning and might even undermine self-regulation of learning in students (Hattie and Timperley, 2007).

Furthermore, T13 believes in comment-only marking:

> *So if a child has done a story for me and good, I read the work and I see 9 over 10, it doesn't work for me. Because 9 over 10, what does it tell me? What does it tell the child? Nothing. So I don't do it...But if I read a child's work in creative writing and I go like, an awesome story line, you've organized your*

work in good paragraphs, there's good use of language and vocabulary, but next time please give more vivid description…

According to Muijs and Reynolds (2018), written comments are better than grades, especially comments that focus on precise ways pupils can improve their work and meet the required criteria. Comment-only feedback also has the advantage of preventing pupils from the distraction of comparing grades and focusing less on the information on how to improve. T13 by focusing on comments, rather than grades, is helping to link feedback to the learner's self-assessment and self-evaluation (Spendlove, 2011).

8.2.4 School D

The findings from School D show that four teachers use feedback as an important aspect of AfL, and it is used to help students' progress in their learning. T16 believes that feedback is very important in correcting misconceptions: "That is the only way you can correct the errors in them and misconceptions they may have. That is the only way".

T16 uses feedback to clear the misconceptions of his pupils. To him, it is the only way they can learn effectively as he is able to pick out misunderstandings and work through them with his pupils while supporting them to unpick their errors and ensure redirection. This reasoning is supported by Rich et al. (2017) who feel that it is important for teachers to guide and enable their students to gain new knowledge as all misconceptions are cleared and Bartlett (2015) who opines that such misconceptions should be correctly dealt with.

Further, feedback is said to be a part of mastery learning where students are provided the opportunity to practice what they have learned (Motamedi and Sumrall, 2000). This idea is in line with T17's thinking which suggests that feedback will help the learners achieve better results in their work: "the feedback is

important because it will help the child to know what to write in the final draft. And it will build the child's editing skill".

T17 also added that such feedback could be verbal or written, even though she preferred written to verbal. This is supported by Muijs and Reynolds (2018). T17 reinforced her own belief in written feedback. She stated that: "Now, especially in creative writing, when a child has written his or her thoughts, you want the child to go further or you want the child to take off some things, a written feedback is important".

T17's view further adds to the argument of the importance of written feedback as key to driving effective teaching and learning in the classroom. However, study shows that when the two approaches are combined, it leads to increased learning in pupils as the combination of the two can be used to satisfy different learners at the same time. Although T17 shows she uses the two, it appears from her response that she favours written feedback over verbal.

Furthermore, T17 was of the view that when giving feedback to students, timing is key. For her, the feedback should be immediate and not at the end of the lesson. The way she does it is by prompting and probing her students while the lesson goes on, which helps her students to think deeply as they gradually progress in their learning.

In line with Spendlove (2011), there is no wrong time to provide feedback to students during lessons. That said, there might be more effective times than others during teaching. The best time however, is not at the end of the lesson but during several stages of the lesson, which gives students the opportunity to adjust their work and improve. When teachers do this, they are providing formative guidance to their students (Wiliam and Leahy, 2015).

T19 emphasises the benefits of the feedback he receives from his pupils, which he explains is important for effective teaching. The feedback also informs his

judgment on the kind of approach he adopts to ensure effective learning. He stresses that feedback is the focal point of teaching and learning. He said:

> *Their feedback is crucial to you as a teacher for you to know whether you are moving too fast or too slow or whether you have to do something all over again and try a different approach. So, basically, the feedback is the major determinant in the class for you to know that OK we can proceed, oh we need to stop here, or we need to start all over again.*

T19 seems to understand the utmost importance of a teacher adapting learning according to the needs of the students. His statement that "feedback is the major determinant in the class", confirms literature that views feedback as 'the lifeblood of learning' (Rowntree, 1987, p.25). The teacher shows his full understanding that without feedback, there cannot be effective teaching and learning.

Furthermore, T20 in giving feedback to her students appears to make them feel at ease as she makes them comfortable with making mistakes, viewing mistakes as part of the learning process. She stated: "So, but I tell them, you can only be wrong once. Once you tell me the answer now, and you are wrong now, and I correct you, you can't get that particular concept wrong again…".

This signal is essential to feedback as students being the recipients of feedback must also be comfortable speaking up about areas of confusion they are experiencing. For T20, this is a way of encouraging her students to be receptive and motivated to learn. According to Nicol and Macfarlane-Dick (2008), when students are encouraged this way, they begin to reflect on their own learning as they think about what has worked and has not and can lead to self-regulation.

T20 also uses praise. She not only makes her class a safe place where pupils are not looked down on for making mistakes but she also actively encourages her pupils by rewarding them with stickers. Feedback thrives in an environment where the emotions of the students are considered important and the use of certain

language is encouraged over others and the teacher is sensitive to the needs of her pupils, actively looking for opportunities to praise (Spendlove, 2011). However, according to Ferguson (2013), the teacher must find a good balance, as too much praise is also considered detrimental to the learning of the students. According to Dweck (2007), praise should be about the student's work and not about the student in order for it to have gains on the learning of the child.

8.2.5 School E

Only one out of the five teachers I interviewed in this school described her use of feedback. T24 explained that for her, feedback goes on all through the lesson. She said: "Yes, as the learning is going on, I give them feedback". T24 also explained that feedback helps her to clear misconceptions while she teaches. She stated: "Yes, it's good so they know where they went wrong; where they would have improved more".

T24's view is in line with Stronge (2018) who opines that feedback is supposed to show the students where they are at and how to get to their desired goal. T24 however did not explain how much help the students get from her in understanding how to improve in their work. The feedback tool would help her learners better if she supports her pupils in identifying their mistakes, rather than telling them how to do it correctly. According to Boud and Molloy (2013) teachers are to be co-constructors rather than transmitters of knowledge. T24 further emphasised that she provides comment-only feedback to enhance her pupils understanding: "So, they read all the comments, I don't give grades at all…reach for your comments, so you know where you'll improve on next time".

T24's statement shows that she believes in comment-only feedback, and does not use grades at all based on the fact that the comments can actually contain explanations as to the next steps of learning, which cannot be achieved through grading. Furthermore, it is a formative assessment method that involves the teacher giving constructive feedback with the view to encouraging students to

promote their independent thinking and develop self-assessment skills (Wiliam, 2011). By telling the pupils to reach out for her comments so that they will know where to improve next time shows students being encouraged to self-assess their skills. Butler (1988) and Black and Wiliam (2009), suggest that students who receive comment-only feedback perform better than students who receive grade only feedback. Studies (e.g O'Mahoney and Heinz, 2016) suggest that comment-only feedback gives a more realistic view of the student's progress and how much work is needed for them to do.

8.2.6 Summary of Interview Data and Field Note Observations on the Use of Feedback across the Five Schools

My data show that four of my five case study schools seem to understand the importance of feedback to students' learning. Schools A, B, C and D seemed quite conversant with the use of AfL as an assessment tool and all the teachers in these four schools seemed to be using the tool appropriately. Only School E had just one teacher who seemed to understand and use AfL. Quite a number of the attributes of feedback were mentioned in all these schools, including the use of feedback to identify where the learners are in their learning in relation to the learning goals, and using feedback as a means to move them to where they should be in their learning. The use of feedback to clear misconceptions and close the gaps in learning was also mentioned by all the schools. They all seemed to understand that feedback can vary in direction and can be reciprocal. Giving feedback in a timely manner was also emphasised.

Two teachers in School B and all four in School C, emphasised a very key factor in giving effective feedback as they demanded greater student involvement by using a lot of prompts and probes, rather than supplying the correct answers to their pupils during feedback. While still supporting the students, they consistently encouraged them to think, while using scaffolds to help move the students' learning forward. This is important as it shows these teachers are allowing the

students to play a more active role in the feedback process (Boud and Molloy, 2013), and it is also a good way to develop higher-order thinking in students as they learn to take ownership of their learning. It is also a sign of a student-centred environment where the teachers are there to guide the students as facilitators of learning which is in line with the theory of constructivism.

Indeed, 'over supporting' students through feedback has been recognised as a pitfall because of the danger of over dependence of the learners on their teachers and even peers. Rather, students are supposed to develop the ability to self-assess and the practice of these teachers by using prompts and probes can help promote this (Spendlove, 2011). Given that all the teachers in School C, mentioned this practice, it would seem as though it is a systemic practice. This is in line with DMEE which proffers that effectiveness factors are multi-layered and should involve the school, teacher, pupil and the context (Creemers and Kyriakides, 2013).

Then T9 in School B mentioned a very crucial practice of putting her students at ease and making them comfortable. While literature talks about feedback not being judgmental (Brookhart, 2017), beyond this, teachers should actually make their students feel secure and comfortable enough in the class to feel confident to give feedback about where they are in their learning. In such an environment, the teacher is more likely to get good quality feedback from the students. T20 in School D as well, has established a classroom where making mistakes is not looked down on but rather the students are reassured to speak up when confused and understand that mistakes are simply part of the learning process. This is a practice in both schools that would promote high quality feedback.

8.3 Questioning

8.3.1 School A

The data collected show that five of the teachers in this school used questioning to enhance their students' learning. For instance, T1 begins her lesson by asking, "what did you find challenging in the last class?". Similarly, T3 asks her students:

"...sometimes on post-it notes, to write for example what do I know about the Vikings, what would you want to know".

These questions suggest that these teachers require their students to reflect on aspects of the previous lesson and indicate their interest in assessing their pupils' previous knowledge as questioning is used to gather feedback. This kind of reflective questioning encourages self-assessment which according to Spiller (2012) is needed for further learning to take place. Based on their response, the teachers can then focus and adapt their teaching accordingly. For both T1 and T3, they seem to understand the importance of building new knowledge on prior knowledge, which is in line with the constructivist theory (Gray, 1997) and is believed to be a practice that enhances the learning of students. According to Bartlett (2015), it is pertinent for teachers to know the learning gaps in their students' understanding and then go ahead to close these gaps before diving into the lesson of the day.

In addition, T1 emphasises that she uses both open and close-ended questions during her teaching. She said: "…I ask open-ended questions not just a closed one, yes or no". T1's view indicates that she does not only ask closed questions which can only generate limited responses but also uses open-ended questions which are more complicated and bring about deep thinking in the pupils. Her view is supported by Bartlett (2015) who states that closed questions typically require less application of students' thinking, while open-ended questions encourage the teacher to push students to think, which thus encourages higher-order cognitive development in their pupils. T2 also describes her use of open-ended questions thus: "...have you just picked it because you like it, have you just picked it because it's similar to what your friends got? Tell me why you've just picked it".

T2 encourages her pupils to develop their logical reasoning by being able to provide an explanation for their choices. In a similar manner, T4 explains that she

also asks open-ended questions during her teaching: “Why do you think we should do that?” While T5 asks: “Why do you feel it will be difficult?”

The views of T1, T2, and T5 show the importance of open-ended questions as pertinent to the development of thinking skills of their students while they encourage them to express and elaborate upon their thinking as they provide reasons. Though all of these teachers refer to using open-ended questions to move their pupils learning forward, T1 noted that she uses both types of questions, thereby indicating that she progresses from the lower-order questions to the higher-order questions. According to Bartlett (2015), this is good for all learners based on their levels of learning. While studies (Lefstein and Snell, 2011; Maftoon and Rezaie 2013) show that quite a number of primary teachers use closed questions, my findings in this study which focused on primary school teachers refute this, as majority of my research participants seem to make more use of open-ended questions. According to Erdogan and Campbell (2008), using open-ended questions is consistent with knowledge construction, a concept supported by the constructivist theory.

Also, my findings show that T1 uses questioning for ongoing assessment in her class. She said, “sometimes, I pause at the middle of the lesson and I ask questions, so that I will know that they are following me”. Furthermore, after she had taught, she then asks them questions so as to know whether effective learning has taken place: “Then when we are done before they go to their seats, any question?” T1 emphasised that this helps her to ensure that the students have understood the lesson. Research suggests that questioning is one of the key AfL strategies which can be used to promote learning (Black et al. 2003; Jiang, 2014). Teachers can use questioning as an opportunity to develop deeper thinking in the learners and it also serves the purpose of giving them significant insight into the depth of students' understanding. It enables the teacher to make appropriate instructional decisions including how to follow-up with meaningful interventions, which will

move learners towards their learning goals. A similar approach was also used by T2.

T1 also uses questioning in order to aid her pupils' application of knowledge: "When I was teaching, when I was demonstrating, I asked, how do you copy and paste?" The teacher observed that she models and she pauses to ask them how they can apply the concept she has taught. Application of knowledge is in line with Blooms' Taxonomy (Bloom and Krathwohl, 1956 cited in Bartlett, 2015) regarding the classification of questions based on their cognitive demand. The use of application involves the teachers assisting their pupils in executing, implementing and solving the question being posed to the students (Bartlett, 2015). It is also in line with the DMEE that classifies Application as one of the teacher factors that promote effectiveness in teaching.

Furthermore, T3 noted that she uses questioning to enable her pupils to be creative in their thinking. For instance, she states: "If the story was not completed...how do you think this story could have ended?". By asking her pupils this question she is getting them to think deeper and also inciting their curiosity. According to Bartlett (2015), questioning to drive creativity in pupils can be classified as higher-order reasoning which drives pupils to imagine and create.

T5 appeared to give her pupils time to think about the questions she asks: "Ok like I said in class, normally when we are asking questions... they don't put up their hands. So I have a timer, so I set it to one minute".

T5 also remarked on the use of wait time to maximise the impact of her questioning on her pupils' learning as well as their progress. In line with Bartlett (2015), when pupils are allowed wait time, it allows them to synthesise their responses thereby providing rich answers which will form their knowledge construction. Pupils need time to think about their response otherwise they might not provide constructive answers to the question being asked. It is recognised that

there is a significant impact that creating a wait time has on increasing learning, also the teacher will be able to get better participation among the students (Spendlove, 2011)

Finally, T4 describes her practice of encouraging students to create their own questions: “Create a question that somebody else can solve. That way they are reinforcing what they have learnt… basically they are trying to be the teacher at this point in time”.

Getting students to come up with their own questions is crucial in gauging their understanding and being able to identify misconceptions. Chin and Osborne (2006) suggest that when students ask questions, they can articulate their current understanding of a topic while it also helps them in making connections with other ideas. Besides, it helps them develop problem-solving and decision-making skills while also enhancing their creative and critical thinking abilities.

8.3.2 School B

The data suggest that all the teachers in School B use questioning as an AfL tool in several ways. For instance, T6 uses questioning to gather feedback and redirect her pupils: She said:

> *...who understands, who doesn’t understand...and then from their own output, from what they give you, you can tell those who are really following the lesson and then how to redirect.*

In line with Tay and Kee (2019), they suggest that questioning for feedback has the potential to enhance students' learning. Also, Bartlett (2015) maintains that “teachers should carefully consider how they can unpick errors and also consider how pupils can be part of the process, ensuring redirection is focused” (p. 116). The feedback that she gathers through questioning makes it possible for her to redirect her learners. This shows the effectiveness of questioning as a tool as she seeks a positive outcome for all her learners at the end of the lesson. Her view is

supported by T8 who expresses her fondness for questioning as a formative assessment tool. She said: “I like the questioning part of AfL you know. It immediately gives you a glaring view of where a child is in their learning”.

Similar practice can be observed in T9. T6, T8 and T9 show that they use questioning as a strategy to know if their students have gained the understanding required for effective learning. It also appears that the teachers were very intentional about checking for their pupils' understanding. Fisher and Frey (2010) support their views that “checking for understanding is foundational to guided instruction, as the students’ response provides the teacher with a decision-making point: do I need to further scaffold this learner's understanding?” (p. 14). Furthermore, Sullivan (2003) emphasises the importance of using questioning as a method of assessment for learning, stating that, “questioning is the key means by which teachers find out what pupils already know, identify gaps in knowledge and understanding and scaffold the development of their understanding to enable them to close the gap between what they currently know and the learning goals” (p. 2). This suggests that teachers can use questioning to gain instant responses from pupils to establish what they have understood.

T6 went further to explain that the questions she asks are based on the learning ability of her pupils: “And then questioning, when you ask them...must vary depending on the children’s level or learning ability”.

Also, T9 corroborates T6:

> *I usually would ask him questions he can answer in one sentence. So what do you think, why do you think this happened? I wouldn’t want him to give me lengthy answers, no. I would want him to give me, short ended answers.*

These teachers seem to recognise the importance of differentiating questions depending on the level of the student which is in line with Bartlett (2015), who said that teachers should ask questions based on the learning ability of their pupils

and also in line with Tomlinson (2014) regarding differentiated questioning, however, T9's reduced expectations for this less able child in her class could be inferred: "...I wouldn't want him to give me lengthy answers…". This teacher at the same time while asking open-ended questions expects "short-ended answers" thus not making the most of the benefits that open-ended questions have to offer in terms of building cognitive skills and challenging the thinking of all her students.

T7 remarks that she uses open-ended questions. She said: "you could ask why do you think that thing is this way or why do you think we should use this and not use that?"

This style of questioning, asking for divergent views, is useful for developing critical thinking in people (Curtis et al. 2005). Critical thinking is used to develop evaluative skills and the ability to critique in students. It requires problem-solving and creativity and in line with Bartlett (2015), teachers should push their pupils beyond what they are already used to, thus encouraging them to draw up their own ideas. When students are encouraged to come up with their own ideas, it shows a level of creativity, which is classified on the highest level of the Bloom's taxonomy (Bloom and Khartwohl, 1985 cited in Bartlett, 2015). Also, T7 described how she provides inferential questions, another form of open-ended question (Bartlett, 2015) to make her pupils think. Using inferential questions means that the pupils will have to read between the lines as they are encouraged by the teacher to use clues from what has been taught, together with their own experiences, to come up with a logical conclusion. It can be concluded that by providing inferential questions, T7 encourages her pupils to progress from one point of learning to another, which is also in line with Bartlett (2015).

T8 adopts a similar approach, however, T8 shows evidence of probing deeper to develop the thinking process of her pupils:

So, they would have started something, why are you saying this and by the time they say one or… do you want to go about it this other way? Or I just look at their work, why did you pick this particular answer?

T9 does the same, "ok so, what does the word simple mean? Ok so, simple sentence, can you give me an example of a simple sentence?" T8 and T9's statements conform with Doharty's (2017) view that "questions that probe for deeper meaning foster critical thinking and higher-order capabilities such as problem-solving, and encourage the types of flexible learners and critical thinkers needed in the 21st century" (p. 2).

Also, T8 noted that she uses her questioning to assess her students' previous knowledge. She said: "What do you know about push and pull for instance, under forces… and what do you want to learn about push and pull…?"

T8's view is in line with Bartlett, (2015).

Furthermore, T8 linked her questioning to her learning objective: "so for me, you research and then share what you know and then what do you want to know. Or what do you think we're looking at when I mention a particular topic". The teacher encourages her students to research their topic ahead of the class and then questions them thereby making room for better participation in the construction of the learning objective. Her practice is in line with Bartlett (2015).

T9 in her own case uses her questioning towards knowledge application: "So how well do you understand? Would you be able to write a newspaper report on your own?" While T10 adopts a similar method. Both T9 and T10 seem to pose questions to their pupils with the aim of helping them to apply knowledge and be creative in their thinking. When students are being creative, they have reached the highest peak of Bloom's taxonomy which according to Bartlett (2015), "is the highest level of cognition" (p. 118).

8.3.3 School C

The interview data show that three teachers in School C use questioning as an AfL strategy to optimise the learning of their students. For example, T11 uses open-ended questions, which enable the students to provide their own understanding of the concept being taught. She said, “do you think we’re going to use the same measurement to get to the gate?” This is similar to T14 and T15 who use the same style of questioning, enabling their pupils to provide unrestricted answers based on their understanding of the question. The practice of these teachers is in agreement with Bartlett (2015), regarding the use of open-ended questions to improve students' learning.

Also, T11 mentioned the use of questioning to help her student reflect on the lesson objectives: “And the child brings back the work and you say Tolu what have you achieved from what our objective tells you? Do you think you have achieved these objectives?”

Asking the student to self-assess if she got the objective of the day shows that she is developing evaluative skills in the pupil. This is in line with Andrade and Valtcheva (2009), who say when students self-evaluate, “they can identify their own skill gaps, where their knowledge is weak and see where to focus their attention in learning” (p. 103). Doing this can also lead the students to self-regulate their learning and become better learners. Furthermore, in encouraging pupils to make connections with the learning objective, pupils are able to engage in creative thinking (Bartlett, 2015).

In addition, T11 and T15 indicate that they ask their questions verbally. For instance, T15 states:

> *I will try to twist the questions, try to put another picture just to see if you really got the idea. It could be the same message … I try to twist the*

variables... Change it… if it was a boy this time, let's use a girl, just to see if you really understand the concept.

T15 elaborated on the concept of questioning and it shows how she encourages her pupils to think deeply. Their practice is also in line with Black and Wiliam, (2001) and Goodman and Berntson, (2000) who observed that verbal questioning has the potential to motivate students to pay attention and learn, develop students' thinking skills, stimulate students to inquire and investigate on their own, synthesise information and experiences, create a context for exploring ideas, and enhance students' cumulative knowledge base.

Finally, T14 and T15 use questioning in order to assess the understanding of their pupils. T14 said: "these are the things I will look out for and I am going to be asking them", while T15 said: "What did you get from today's lesson? Then I start bringing in some key questions that will help me know if they got it."

T14 noted that she has readily available questions that will be used to assess her students' understanding which is in line with Bartlett (2015) regarding questioning as a key strategy for knowing the extent of students' understanding, while T15 confirms Eble's (2008) view regarding questioning at the end of the class to know that the students have an understanding of what is being taught.

8.3.4 School D

The teachers in this school also provided evidence of the use of questioning to improve their students' learning. For example, T16 used questioning to aid his pupils in the application of knowledge:

How does a parallelogram look like?...Can you cut out a parallelogram yourself?...Have you been able to do that?...Those parallel sizes, is there any way you can identify them in the parallelogram you have cut out yourself?

T18 also stated how she encourages the students to get them to apply knowledge through questioning.

Their views are supported by Bartlett (2015), who commends pupils taking information they know and applying such information to different situations in order to solidify learning and is in line with DMEE.

Furthermore, my findings suggest that T17, T18, T19 and T20 also use questioning for various purposes. For example, T17 appears to use verbal questioning while also emphasising the use of open-ended questions, which allow her students to provide complex answers: “This answer you have given is partly right but could you twist it this other way? Could you think of something else to talk about? Or could we turn it to this angle?”

T17’s idea of using verbal questioning is in line with Bartlett (2015), but also asking her students to ‘twist’ the questions so they can look at things from different perspectives is a way of building their critical and logical thinking skills.

T18 in her case said she uses quizzes to help her pupils recall facts. This helps to ignite their interest. She said: “We also did quizzes. Then I asked the children, what do you think this topic is all about? What are the words you came by during the quizzes?”

Recall questions, which are closed questions, are often used to ignite students' interest and encourage participation and to recollect facts.

T19 said he uses questioning as a tool for deepening the reasoning ability of his pupils: “You know, when you ask some questions.... somebody gives you an answer, and you will now ask, what is the implication of that?”

From the statements of this teacher, it shows that he placed advanced cognitive demand on his pupils as he also encourages them to think beyond just the literal questions being asked. The teacher also shows that he is encouraging his pupils to

connect concepts. In line with Brookhart (2011), when teachers ask higher-order questions and give students opportunities to develop deep explanations, learning is enhanced.

8.3.5 School E

Three teachers in this school also provided evidence that they use questioning as an AfL strategy to move their students' learning forward.

For example, T21 encourages her pupils to ask questions and does not limit it to asking her pupils' questions. As T21 does this, it helps her pupils focus their learning effort and encourages them to express themselves. Asking questions is an important step for them to fill up the gaps in their knowledge thereby being able to understand whatever seems puzzling. In line with Chin and Osborne (2006), when students ask questions, they can articulate their current understanding of a topic, to make connections with other ideas, and also to become aware of what they do or do not know. This also helps them develop decision making and problem-solving skills. Additionally, it has the potential to facilitate productive thinking in students and enhance creativity and higher-order thinking.

In addition, T21 mentioned that she uses random questions to keep her class engaged. This suggests that T21 wants to ensure alertness and that learning is taking place with no one disengaged; however, this style must be applied with caution in order to ensure that no child is left behind. Therefore, it should be accompanied by another questioning technique that gives all the students an opportunity to show their understanding or lack of it.

Furthermore, T24 described her use of open-ended questions as being with a view to building thinking skills in the students. He said: "What do you think are the traditional means of communication and the modern means of communication?"

This use of open-ended question is in line with Bartlett (2015), while T25 uses questions to assess her pupils' understanding. She said: “Do you think this rule, or which rule do you think is guiding this part of speech?”. T25’s practice is supported by Bartlett (2015).

8.3.6 Summary of Interview Data and Field Note Observations on Questioning across the Five Schools

All my research participants seemed to recognise the importance of questioning to their effective practice and amongst the AfL strategies, it was the most popular tool used with their students. 21 out of the 25 teachers I interviewed used varied types of questioning techniques ranging from closed to open-ended questions. They all described the link of open-ended questions to higher-order reasoning which helps in the development of metacognition. This finding clearly contradicts the opinion of Lefstein and Snell (2011) and Maftoon and Rezaie (2013) who state that teachers in primary schools are prone to the use of closed-ended questions as opposed to open-ended questions, which implies an improper use of the AfL tool among primary school teachers. However, contrary to this, 21 out of the 25 primary school teachers I interviewed showed an effective use of questioning, using both closed and open-ended questioning in line with Bartlett (2015). They also used other questioning styles such as reflective, probing, random and inferential questions, thereby making higher levels of cognitive demand of their students.

T1 in School A, T9 and T10 in School B and, T16 and T18 in School D in particular used questioning to move their students’ learning from mere understanding to knowledge application. This is important as knowledge transfer is what allows a learner recognise how their knowledge can be relevant and applied to other situations outside the school setting. According to Barnett and Ceci (2002), this is the hallmark of true learning. It is important to move learning from the lowest level of comprehension to the higher levels of understanding such as application,

synthesis and creation. This can be achieved through Blooming Questions (Spendlove, 2011). Questioning and Application are also named as key effectiveness factors under the DMEE.

Furthermore, T4 in School A and T21 in School E are the only ones who ask students to come up with their own questions. This practice is believed to be a very good way of getting students to own their learning and become active participants in the classroom (Rothstein and Santana 2011). It also shows these teachers are facilitators of learning and are student-centred in line with the constructivist theory.

8.4 Peer-Assessment

8.4.1 School A

My findings indicate that T1, T3 and T4 use peer-assessment as a form of AfL. For example, T1 said: "Everybody, display your work, they go round the class, look at another child's work, what is it that you can see...that child has done that you forgot to do in yours?"
T4 also uses peer-assessment:

> *And then, the other person in trying to solve the sum or the question can evaluate the question…the style of questioning...They may ask, why don't you try this? Why don't you make this clearer?*

T1 is targeting both cognitive and metacognitive gains from this process. She encourages her students to learn from their peers while also self-assessing. This practice is in tune with what Bartlett (2015) refers to as 'assessment as learning' (p. 128) as she is able to show the link between learning and assessment. The practice of these teachers is in line with the description of peer-assessment by Topping (2009) who explains peer-assessment as "An arrangement for learners to

consider and specify the level, value or quality of a product or performance of other equal-status learners (peer)" (p. 20).

Peer-assessment activities can vary and can be used in different curriculum areas. It also promotes peer learning as students are able to help each other through a collaborative effort, as there is an interchange of their work (Spiller 2012). While peer-assessment can be summative whereby grades are awarded by peers, it can also be in the form of formative feedback. Formative feedback is considered more helpful to students as the focus is on helping each other identify their strengths and weaknesses (Topping 2009); however, Bartlett (2015) notes that it is possible to use both. In line with this, T3 shows the use of both in her classroom: "And they mark each other's work." In addition, she said, "and they give feedback, sometimes oral and sometimes the feedback is actually written."

It is not quite clear if T3, being a class teacher teaching several subjects, was referring to the use of grades as well as formative feedback being given by peers in different subjects, or if the grades and comments were being awarded in assessing the same piece of work. Literature, however, shows that the use of comment-only marking is more effective than grades only or grades and comments being used together (Spendlove, 2011). This is because students tend to get distracted by grades and seem more concerned with comparing. However, when comments are customised to meet the various targets of the students, there will be no basis for comparison and such feedback from their peers will be more effective. Furthermore, T3 explained that the students use both oral and written feedback while peer-assessing. Verbal feedback is believed to have more benefits due to the discussions between the pupils. Formative peer-assessment encourages collaborative learning as discussions take place, questions are asked, which exposes errors and misconceptions and such gaps can be addressed speedily.

T3 also explains that peer-assessment is more successful when the students are given a grading system because the students can carry out peer evaluations. However, while this grading system is used for summative assessment, she did not mention the very important aspect of having clear goals and criteria for the formative feedback her students engage in. Feedback on another's performance should be based on criteria of excellence which students should have been a part of determining (Falchikov, 2007). Also, students need training, guidance and structure in the use of such criteria for feedback and before giving feedback on the work of their classmates, they should be confident in the skills involved (Bartlett 2015). She did not show any evidence of this. That said, T3 explains that:

> *Sometimes if we have time, they actually get the other child to respond to that feedback... so they write their own comments and say okay this is what I will do about this piece of work next time or this is what needs to be improved.*

T3 giving the assessee the opportunity to respond to the feedback of the assessor is good practice as students commenting on the work of others has gains for both the assessee and the assessor. It develops the capacity of the assessor to make independent and intellectual choices (Spiller 2012) while the assessee is able to develop cognitive and metacognitive skills as he gains better understanding and is able to reflect. Responding to feedback is a good way to promote reflection in the assessee, while both the assessor and assessee are also developing the life skill of giving and taking constructive criticism (Topping and Ehly, 1998).

Finally, T3 said of peer-assessment: "It's kind of teamwork that really gets them involved and as they are doing that, they are also developing their social skills." Her thought is in line with Topping (2009). Giving and receiving feedback is an integral part of peer-assessment and students' learning as being able to justify and defend one's position and judgment are certainly useful and transferable skills.

8.4.2 School B

Three teachers in this School indicated that they use peer-assessment. T8 uses both formative and summative peer-assessment. For instance, she said:

> *then they exchanged with each other. They peer-assessed. They gave feedback. I think they list out... For example, in this area, I think he didn't put his by-line, he didn't put his price. So, they peer assess...*

She also said: "So, they do this work and they mark it". According to Spiller (2012), peer-assessment can be formative or summative (with a grade attached) and sometimes both can be allowed by a teacher, which is what T8 does. Bartlett (2015), however, warns that peer-assessment should be seen more than just a summative exercise, where pupils mark each other's work, which he called a 'ticking and crossing exercise' (p. 154). Rather it should involve people thinking, thereby helping them engage in the process of learning and becoming more autonomous. However, T8 also ensured certain kinds of work were peer-assessed formatively. This practice is in line with Topping (2009) who says that the overriding goal of peer-assessment is to provide feedback to learners, which can either be confirmatory, suggestive or corrective. T8's pupils gave corrective feedback and pointed out errors. This is believed to have positive effects on learning.

This kind of feedback also helps in the development of self-regulatory skills as existing knowledge is confirmed and new knowledge is added through identifying one's errors and the correction and application of such knowledge (Topping 2009). This opinion is in line with T8's explanation that: "They work in pairs, they compare notes, so did I get it right? If I didn't get it right, maybe my partner can help redirect me." The children asking for redirection from their peers show the link between peer-assessment and self-assessment. These two types of assessments are

believed to be closely linked, peer-assessment increases reflection which promotes self-assessment and greater metacognitive self-awareness.

T8 acts as a facilitator that guides the students. Seeing herself as a guide is in line with a student-centred classroom, where formative assessment thrives. It is also in line with Jean Piaget's constructivism as a teacher under this theory is seen as a facilitator (Goodyear and Dudley 2015) of learning, however, T8 still acts as the 'quality control' (Bartlett, 2015, p. 151) because after the pupils have peer-assessed, they give feedback to her. This is good practice, especially at the beginning of students engaging in peer-assessment (Barlett, 2015).

T10 in her case uses group presentation as an opportunity for peer-assessment. She said:

> *Another way is the group presentation… they discuss what they've learned and in that situation of discussing, there are some of them that are actually correcting misconceptions of some other ones.*

T10 allows her students to learn from one another, which is in line with Topping (2009). These peer groups are deemed to be as effective as any other participant configuration, as open discussions promote sharing ideas and it is a good complement to approaches such as cooperative learning. Group peer-assessment also builds social skills in the students.

Conversely, T7 who also used peer-assessment said: "Then the peer-assessment is where I had to call the child out and he just worked it out so the other children could see".

Though one could infer that the other students were assessing the work done by this child on the board, a very essential aspect of peer-assessment is encouraging feedback which was not mentioned as part of what happened in the scenario

given, therefore it falls short of effective peer-assessment according to Bartlett (2015). Also, there was no evidence that T6, T7 and T10 shared clear goals and criteria to guide their students in giving feedback or in grading, nor was there any mention of training of the students, to develop their skills in giving and receiving feedback.

8.4.3 School C

T11, T13 and T14 explained that they use peer-assessment. T14 said: "And then there is peer correction as well, so the child can show it to him...ah you forgot your letter, I can't see this…"

While T11 said:

> *They do assignments too that help them, they bring them to the class and they can discuss...they also come up with some other figures that you are not thinking about, their mates may ask, how did you come about this?*

Feedback given during peer-assessment can be corrective (Topping 2009), which seems to be the case in T14's class, and as it is with peer-assessment, rich discussions that cause the assessee to look inwards happen. Indeed, research shows that students react in a different way between feedback from peers and their teachers, finding it easier most times to understand feedback from their peers (Barlett, 2015), while in T11's case, her comment that "they also come up with some figures that you are not even thinking about…" attests to the fact that peer-assessment is a powerful and effective tool for students in improving their work. According to Cartney (2010); Cho and MacArthur (2010), there is a need to help students develop their evaluative and feedback skills as well as to teach them how to use feedback received and that they have provided to their peers for their own learning and improvement of their work.

However, while with T11 and T14, students are learning from each other and peer-assessment is believed to promote peer-learning (Spiller, 2012), there are several

key elements of peer-assessment that are missing which make their claim to peer-assessment questionable, the most important being a lack of clear criteria for the activities and structure. T11 and T14's actions are therefore, not in line with Topping (2009) who argues that these are absolutely necessary. So, while there is discussion and feedback, there was no evidence of any standard guiding their assessment of each other, therefore it can only be deemed as a weak form of peer-assessment.

In the same vein, T13 uses group assessment. She said:

> *And after that, the class will now have an assessment of what they've done- I think you did well, but I think that if you had done A, B and C, it could have been a better marketing strategy.*

Whole class involvement generates discussions, which could help in bringing clarification and reviews leading to enhanced learning. Such active involvement of the students through dialogue and discussions means more involvement of the students in the feedback process and less of the teacher being the sole transmitter of feedback (Nicol, 2010).

8.4.4 School D and E

Teachers in school D and E did not show evidence of using peer-assessment as an AfL tool.

8.4.5 Summary of Interview Data and Field Note Observations on Peer-Assessment across the Five Schools

Only three of my case study schools used the peer-assessment strategy to involve students in their own learning. One teacher each in these three schools said they used peer-assessment - T3 in school A, T8 in school B and T3 in school C seemed to have a good understanding of the concept, especially in terms of the structure needed for the students to assess their peers fairly and informatively (Wragg 2001).

That said, T3 in school A described how she often got her students to respond in writing to the written feedback given by the peers, indicating how they can improve on the piece of work next time. This is a practice that presents a clear link between peer-assessment and self-assessment and thereby links peer-assessment to the development of metacognition. This link of peer-assessment to metacognition had been described by literature as baseless (Black et al. 2002), my findings show that reflection on the part of the learner brought about by peer-assessment links peer-assessment to self-assessment and the development of metacognition. This practice of T3 is supported by Topping (2009) who argues that peer-assessment increases reflection which promotes self-assessment and greater metacognitive self-awareness.

8.5 Self-Assessment

It is pertinent to note that only schools A, B and C are discussed in this subsection because schools D and E do not have data on this. The two schools appeared not to be using self-assessment as an effective AfL strategy in their classrooms.

8.5.1 School A

T1, T2 and T3 describe their use of self-assessment amongst their students. T1 said: "We have five success criteria on the board, score yourselves. 5 over 5? Some children raised their hands. 4 over 5? Some children raised their hands".
She also hands pieces of paper to them and tells them "write the success criteria that have been achieved at the end of the class". While T3 said:

> *We put the success criteria down of the feature of what a non-chronological report should have, so the children get to tick against their work. Have I used a topic or title that is bold and visible? Have I used illustrations, have I used pictures in my work? Have I checked that I used technical vocabulary? Have I looked at this? So, that's another way of doing their own self-assessment but it is guided.*

Both T1 and T3 use the success criteria as a standard, which is in line with Spiller (2012) who believes that self-assessment should comprise two basic elements: making decisions in relation to the standard of performance which is predetermined and then making judgments about one's performance in relation to the standards. These teachers are using the success criteria as a foundation for self-assessment as they ask their students to self-assess thus, developing the ability of their students to reflect and make judgments. This is supported by Andrade and Du (2007, p. 160) who posit that:

> Self-assessment is a process of formative assessment during which students reflect on and evaluate the quality of their work and learning, judge the degree to which they reflect explicitly stated goals or criteria, identify strengths and weaknesses in their work and revise accordingly.

In the case of T3, the students are asking themselves some very key questions which would help concretise their learning. This is why Bartlett (2015) said that self-assessment and indeed other types of assessment are really 'assessment as learning'. (p.128).

In addition, T2 encourages her students to assess themselves at the end of the lesson after trying their best to: "... challenge" themselves "to do it…" after which she then asks them to grade themselves. By this, T2 is attempting to build a sense of independence and autonomy in them as they decide the level of challenge they can handle and then grade themselves. According to Spiller (2012), identifying your own progress in learning motivates further learning as well as encourages reflexivity which is what promotes independence and taking ownership of one's learning. T2's practice of involving the students in their own learning makes it formative, rather than summative as the pupils are involved in the process of learning, which helps develop metacognitive skills in students (Bartlett, 2015).

8.5.2 School B

In this school, only one teacher indicated her use of self-assessment. T9 said:

> *For self-assessment, for example, a child has been asked to maybe write a simple sentence, that is the objective – learning how to make simple sentences or compound sentences... What do you understand by simple sentences? Then they self-assessed.*

She also said: "and then make sure you check using the checklist...that's self-assessing". T9, links self-assessment to the learning outcome, which she prompts her pupils to first of all understand, before using the checklist. Here, she is encouraging focus on the learning process and then links it to the checklist given at the beginning of the lesson thereafter. T9 seems to understand the fact that self-assessment can only be possible with a keen understanding of the objective of the lesson. Then only can the success criteria make sense.

8.5.3 School C

Only one teacher in this school explained her use of self-assessment. T14 responded that: "So we have a checklist; each of them has a checklist to check whether… for example, you have your heading in your design…"

T14 using a checklist is in line with Wragg (2001) who opines that this is particularly helpful in assisting pupils look for important elements in their work.

8.5.4 Summary of Interview Data and Field Note Observations on Self-Assessment across the Five Schools

Researchers have found self-assessment to be a good and effective way to involve students in their own learning by also taking control of the assessment process. So, before the students are assessed, they have already assessed themselves. However, this process is not automatic and needs to be taught. The guidance and structure required in order for pupils to use this tool effectively was not

mentioned by any of my case study schools. However, three teachers in school A, one teacher in school B and one teacher in school C spoke about the provision of a measuring tool by which the students could successfully measure their performance. However, it was only T9 in School B, who emphasised that providing a rubric for success criteria, as well as giving a thorough understanding of the learning objectives are required for students to self-assess. This point is very key to the effectiveness of self-assessment.

The effective teachers I interviewed mostly showed a good understanding of effective teaching and learning practices. However, from my findings it seems that their effective practices are premised on and may be enhanced by certain personal qualities. These qualities are discussed in the following chapter.

CHAPTER NINE

PRESENTATION AND ANALYSIS OF FINDINGS FOR PERSONAL QUALITIES OF EFFECTIVE TEACHERS

9.1 Introduction

Further to the presentation and analysis of qualitative findings in line with the first research question on effective teaching and learning practices in chapters four – eight, in this chapter, I shall present the key findings in line with research question two, 'What are the personal qualities of effective teachers?' From the data, it was discovered that the teachers possess important personal qualities that are key to their effective practices and to the optimisation of students' learning. These qualities include: 1. Care and 2. Practical wisdom (see Figure 9.1). In addition, the data were presented to reflect the views of the participants (Table 9.1 summarises participants' views regarding their personal qualities).

Fig 9.1: Personal Qualities of Effective Teachers

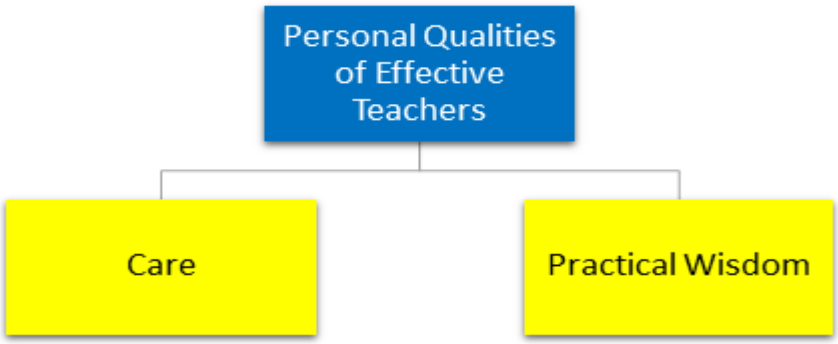


Table 9.1: Participants' Views Regarding Their Personal Qualities

	School A	School B	School C	School D	School E	Total
Subtheme: Care	3	5	3	4	1	16
Subtheme: Practical wisdom	5	5	5	5	3	23

9.2 Care

9.2.1 School A

Three teachers in School A described how they care for their pupils. For example, T1 explained how she encouraged a less able child in her class: "I don't make a child feel bad when he can't produce...I'm not going to say it loud so that it won't discourage him…"

T1 implies her concern for less able students in her class as she shows care and concern for this child whom she ensures does not get discouraged, even when she needs to correct or redirect. The behaviour of this teacher is in line with Noddings (1984) who argues that caring should be at the centre of education and the interaction between teachers and their students. Caring for someone is displayed when one has regard for the person being cared for and an inclination to meet their needs. The desire to meet her pupils' needs can be seen in T1's actions, which is in line with Nguyen (2016) who states that caring is important to good teaching and that a caring teacher recognises the needs of the students. When a relationship that is caring and trusting has been established, it is easier to get the students' cooperation in learning (Noddings, 2012). T1 was conscious of not bruising the self-esteem of this child. She explained how she corrects quietly and

also how the arrangement of her students supports her ability to correct privately. She said: “I will just whisper...and the way I arrange them…when I call some of them to me and I tell them come, don’t look back...don’t be discouraged…”. It has been argued that a good teacher-student relationship is key to learning and a basic component of that relationship is students’ perception that the teacher cares for and supports them (Muller, 2001; Noddings 1984; 1992). A child in such a learning environment feels secure as he perceives that the teacher cares and is concerned about his well-being and so feels encouraged (Mayseless, 2016). Care is linked with students' relationships with their teachers and their self-esteem (Lavy and Naama-Ghanayim 2020). That said, T1 in a bid to be caring seemed to have low expectations for this less able pupil: “So, I am not expecting too much from a child that can’t, because I know their ability, so that that child will not lose confidence”.

Contrary to this practice of T1, caring teachers should help their students achieve more by affirming their students’ efforts and talents, especially having built a relationship with them. While caring teachers establish clear and realistic expectations for their pupils, they should also expect quality in the performance of all their students and facilitate the process of this outcome (Lumpkin 2007). Also, when caring teachers show that they believe in their students’ abilities, they respond with greater effort (Lumpkin, 2007). This is supported by Noddings (1992) who says that caring teachers encourage students to do their best and exceed their abilities. These high expectations of caring teachers for their students require that the teachers have high interest in the learning and concern for the welfare of their students, which will, in turn, be reflected in the feeling of being ‘cared-for’ by their students.

T2 and T4 in the same vein showed care for their pupils. T2 said: “So, all they are looking for is someone to hold their hands and say we can do it together, right and we move through it together... Not leaving them”. My field observation however reveals a behaviour that contradicts statements such as she made above. For

example, in a situation where she was unable to get through to a child with special needs, she indifferently asked her assistant to try. She exhibited some degree of nonchalance or frustration towards the need of the special needs child, saying to her teaching assistant, "I've got some worksheets, see if it works for you". While caution is exercised in reaching any conclusion here, further studies may be needed to examine specific issues around how effective teachers (who may or may not have been trained on special needs education) work with children with special needs. In the case of T2, it may be a case of inadequate capacity or inability to care for a certain category of children.

In T4's case, she states:

> *...So that they know that you actually care...they know that you care about what they are saying and how they feel about their learning. Because a child that feels that a teacher actually cares will be more open to learning…*

T2 and T4 demonstrate their effectiveness as teachers as they make their pupils feel loved and also by finding the best means to ensure they learn (Lumpkin, 2007). T4 sought to make her pupils more receptive to learning, being mindful of their body language and feelings while T2 made efforts to decode how a particular student in her class likes to learn and then provided her with opportunities which would promote her learning, helping the student perceive learning as fun. This is typical of a caring teacher who continually refines his or her approaches in order to ensure the needs of every child are met (Lumpkin 2007). According to Noddings (2007; 2012), students need to be aware of their teacher's care and they must feel it, which was T4's desire that her students should feel her love for them.

T2 and T4 further spoke about the importance of listening to their pupils. T4 said: "so you actually know what is going on in their heads; in their minds. I think it's very important you know what they are thinking…". Listening to ideas of students and their feelings as they think aloud is advised by Noddings (2012), as it helps the

teacher understand where they are in their learning. Indeed, listening to the ideas of students is considered to be a very important pedagogical practice and it also characterises the teachers relations of care and trust with the students (ibid). Furthermore, T2 explained that the care and understanding she shows her pupils was also because, "I am a mother myself". T2 remained sensitive to how she handled issues in her class and even when she needed to involve the parents of her students concerning any misbehaviour in class, she was careful of the advice she gave the parents. According to her, this was done with care for her students because she also has her own biological children. Her thinking is supported by literature that declares teaching to be to some extent "an extension of mothering" (Griffin 1997, p.13), and shows that attributes that apply to being a good mother are similar to those proposed for good teachers (Bullough, 2008). This is believed to be especially prevalent in primary schools, where students are so young, a lot of the teachers are female (Osaat and Okenwa, 2018), and the use of the class teacher system whereby the teacher teaches most subjects, spending long hours with their pupils and building really close relationships with them (Acker, 1993). There is also the school of thought that sees teachers as being 'in loco parentis' acting in place of the parent and being responsible for them (Arthur et al. 2005).

T1 and T4 show that they not only care about their students but also care-for them as they go beyond recognizing that a need exists but they actually address those needs, for example, T4 recognising that for some of her students who did not understand what she was teaching, she would "have to now bring it down to their level. I have to consciously reduce the level of my teaching, not the expectation...so that those who don't understand, would understand it better and then we work our way back up". T4 explains that she does this "so that they know that you actually care about them…". T4 shows she cares about her students by recognising their needs which forms a part of caring (Nguyen, 2016); however, she also goes ahead to address those needs. This would have qualified as caring for her students, but the cycle is not shown to be complete as the students need to

respond to this care in one way or another before her action could be acceptable as caring for, argues Noddings (2012). According to Noddings (ibid), since care is relational, it cannot be one-sided. Therefore, there should be signs that the caring has been received by the one cared for. That said, the fact that T4 cares about her pupils shows in the way she invests in their learning, ensuring that they are and feel valued.

9.2.2 School B

All five teachers in school B describe how they care about their students. T6 explains how she treats her students as individuals and meets their learning needs:

> *There is a boy in my class...when you ask questions, his thinking is not that fast...when you ask him questions and he is not able to give the answer on the spot...he feels bad and then he withdraws from the lesson…*

She went further to explain how she caters to his needs as an individual. T6 also expressed her desire to give all her pupils a sense of belonging by always responding to their feedback:

> *No matter how trivial it is...and they just feel that the teacher is their friend. So whether it is wrong, with them they come and confide in you because you listen to them. You'll be amazed at some things the children come to tell you.*

T6 shows attentiveness and sensitivity in the way she relates with her pupils, so it can be said that she cares for them. Her actions refute the notion that it is not particularly necessary for teachers to develop a relationship with their students (Downie et al. 1974). Rather, her actions suggest that good teaching is in some ways dependent on teachers viewing their students as individuals (Nguyen, 2016). A caring teacher feels morally responsible for her pupils (Noddings, 2012), and

responds to them by building a trusting relationship (ibid). T6 believes gaining their trust helps them achieve more and the gains get transferred into academics: “and you know, it gives that child a sense of belonging. So, it helps them achieve more. When you now transfer it to academics, it helps them to achieve more…”. This thinking is in line with Nguyen (2016) who strongly opines that conceptions of care are embedded in good teaching and that teaching itself involves caring for others as they attend to the educational needs of their pupils through their teaching. T6 further mentioned that some of her pupils see her as their mum. This implies that the students feel that she cares as this is believed to be prevalent in relationships such as parenting (Pianta, 1992; Mayseless, 2016). This is also in line with Arthur et al. (2005), where teachers are described in a similar manner to mums.

T7 in her case is considerate of her pupils’ mood which she knows could have been affected negatively even before getting into the class: “so you put that into cognisance and get them into the mood for learning” while T8 and T10 listen to their students and ensure they feel heard. T8 in order to care for her pupils, “comes down to their level” by being accommodating and making them feel comfortable. T9 also does the same as she puts her students at ease so “they will feel comfortable to come and meet me at any point in time with whatever challenges, even outside of class, they are able to share with you”. T8, T9 and T10 listening carefully to their students and seeking to put them at ease, helps to build trust and according to T9, “boost their self-esteem”. This is supported by Lavy and Naama-Ghanayim (2020). Also according to Mayseless (2016), when students feel that their teachers care, they feel valued and worthy.

T9 showed her care for a less able child in her class by using her knowledge of assessment for learning to give questions at his level. This is in line with Lumpkin (2007), who expresses the importance of communicating clear and realistic expectations, however, T9 said: “I usually would ask him questions he can answer

in one sentence". It is unclear if she utilises the relationship she has built with this child to encourage the pupil to develop his confidence in his abilities and achieve even more (ibid).

9.2.3 School C

Three teachers indicate how they care for their pupils.

T11, T13 and T15 explain how they care about their students in various ways. For example, T11 explains how she uses pep talk to foster a friendly environment and help her students. This in turn, according to her, boosts their confidence and builds trust. She said, "if they have any issue concerning their work, they can always come to me". T11 through the relationship she has with her students is building trust which has a positive impact on her students' learning (Nguyen, 2016). T11 also uses effective student-centred pedagogical approaches such as giving one-on-one time, as well as closely monitoring her students to ensure learning is taking place. In doing this, she is placing her students at the centre of their own learning. According to Shulman (1986; 1987), learners must be the priority in the learning process and pedagogies which help facilitate the process for a good outcome are necessary. This is also in line with the constructivist theory and according to DeCastro-Ambrosetti and Cho (2005), a caring teacher's use of diverse instructional strategies is good practice that helps facilitate the process of learning.

T13 and T15 indicate that they care. T13 in her case develops a relationship with her pupils, who she said see her as "somebody who can mentor them; somebody they can bond with…" T13 seems to carefully build a caring and nurturing relationship with her pupils which promotes trust. This is in line with Nguyen (2016), while T15 listens and responds carefully to her students "because children are like sponges, so they don't get the wrong information for life". According to Noddings (2012), attentiveness, responsiveness and respect are central to caring about others. When teachers are attentive to their students, they will notice,

respond and deal with their needs appropriately. Listening, especially receptive listening, is an important pedagogical approach and is a powerful strategy for learning (ibid).

9.2.4 School D

Four teachers explained how they care for and about their students.

T16 and T17 explain how they care about their students. T16 shows concern for his pupils as he does not want "any child to be discouraged" on account of what he has done as the teacher. Therefore, at the end of each day he looks out for those "that are challenged… and still struggling, I have to stay by the child and guide and help, at least to push him...to (scale) through…". Then, T17 said: "then I have a special child in my class, so I work with him personally…". She also said, "a lot of times I spend my money to create that ambience...I spend my personal income...I had to buy a map. A globe with my money…". T16's action shows not only his concern about the child, but staying by and guiding the student proves the action he took based on his concern about his pupils' feelings. In being particular about helping this child to grow and actualise himself, T16 shows care and there is nothing to suggest this caretaking is performed grudgingly or perfunctorily, in which case, the claim to care would not have been authentic. The same can be said about T17, who cares, not only by personally caring for a child with special needs, but also attempts to provide resources which she believes will help her students, but which the school has not been able to provide. This echoes Noddings (2012), who states that a school cannot care for directly but can certainly provide an environment in which caring can flourish. The teacher, as a person, has the ability to leverage her relationship with her students and ability to feel the emotion of care, to care for her students. This also supports the belief of DMEE that different levels influence effectiveness, some more direct than others. In this case, the teacher/classroom level can be seen to have a more direct impact and is more significant than the school or systems level (Campbell et al. 2004).

T18 exemplifies natural caring, even above ethical care as she said: “You know, I am not just your teacher, I am your mother”. This thinking is in line with Griffin (1997, p.13) who declares that teaching is to some extent seen as ‘an extension of mothering’. It is also supported by Bullough (2008).

T18 also encourages the students to view mistakes as part of the learning process, and a way of strengthening her relationship with her pupils. Allowing her students to feel free to talk and express themselves helps the teacher identify mistakes and misconceptions that exist in the area of learning, which is key to effective teaching, but also achieves the purpose of nurturing the relationship between teacher and students (Lumpkin 2007).

T20 in her own case explains the importance of respecting her students and ensuring that the ‘students know that they are respected’. This thought is supported by McConnel et al. (2020) who states that an environment characterised by positive and respectful interactions with students is important to building a caring relationship. T20’s emphasis, not only on respecting her students but also on the students knowing that they “are respected” showcases the importance of students feeling cared-for and is in line with Noddings (2012), who posits that teachers caring is not complete until it is reflected in their students' feeling of being cared for.

9.2.5 School E

Only T25 showed evidence of ethical care amongst teachers interviewed in this school. She said:

> *For me, to build that child’s trust in me… when she tells me something...okay, she’s going to attend to me by two...it is very important that I keep to that promise. So that the child will not lose that trust in me, so she will feel important as well.*

T25 finds it important to provide a sense of security by making her students feel cared for and showing concern for them. She emphasised her desire for the child to feel important, which is achieved by giving the required support, help and encouragement as and when needed (Mayseless, 2016). This focus of the teacher is necessary in the building of a secure learning environment.

9.2.6 Summary of Interview Data and Field Note Observations on the Use of Care across the Five Schools

While the majority of teachers in Schools A, C and D showed care towards their students, only 1 teacher showed care in School E, while all the teachers in School B exhibited Care. This may be linked to the fact that School B is a faith based school. That said, literature suggests that teaching is a caring profession and as such, teachers are to be caring (Noddings 1984; Demetrulias 1994; Goldstein 2002; Hugman 2005). These teachers seemed to understand the Ethics of Care which is conceptualised by Noddings (2012) as when people are deeply affected by, and involved in, relations with others.

Care, which is believed to be the foundation of education (ibid) recognises students as individuals, placing value on meeting their needs and on preserving a relationship between the cared-for (students) and the carer (teacher). This caring relationship is often between unequal individuals such as in a parent-infant, teacher-student relationship. Its focus is to protect the more vulnerable such as the students due to their age while also creating a secure learning environment where they can flourish.

My findings, however, reveal that a lot of examples given by the teachers to do with care were given in relation to caring-about, rather than caring-for. While caring-about signifies a recognition that the pupil has a need, this kind of care does not guarantee that anything would be done about it. On the other hand, caring-for is characterised by direct attention and response to the needs of a student by carrying out certain actions in order to address such needs. It often entails direct

contact with the other person. It was only School D that seemed to utilise these two features of care as two of their teachers T16 and T17 showed concerns for their students and also explained how they went about attempting to solve the problems. That said, the examples of how they cared-for their students failed to reach the mark as suggested by care ethicists, as they did not show the completeness of the cycle in that there was no mention of an acknowledgement or response to their efforts from the students. This is a very important aspect of caring-for, as caring under the ethics of care is seen more as a relationship than as a virtue which focuses on the individual, hence the need for an acknowledgment from the person cared-for.

Nevertheless, caring-about (which is what could be seen in the way most of the teachers related to their students) is also a very important part of a teacher-student relationship as it precedes caring-for. Indeed, situations where teachers do not care-about and only care-for could be suspicious, as such teachers could merely be focused on meeting performative targets. Therefore, caring-about helps prevent teachers from responding inappropriately with the wrong motives (Nguyen, 2016). Caring-about also promotes student-centred focus in teachers, in line with constructivism and can be said to contribute to good teaching as students are recognised and treated as individuals (Nguyen, 2016) and supported to build knowledge and make meanings for themselves (Lumpkin, 2007).

Finally, literature (which is also supported by my data), reveals an interesting tie between care and practical wisdom. According to Halwani (2003), Care is a virtue (a character trait) and as a result, it requires the meta-virtue of phronesis in order to be well regulated and function properly, thereby achieving the aim of all virtues, which is flourishing.

Practical wisdom is what gives people the understanding of what to do at the right time, for the right reason and for the right people (Bradshaw, 2009). A good example from my data is a situation that T16 faced in relation to one of his

students who could not access the learning objective for the day, but seemed too self-conscious to admit it. T16 described how he could not but notice the child and immediately attend to his needs. By the end of the lesson, the boy was fine. This is an example of care which shows the caring nature of the teacher.

In conclusion, it is pertinent to mention something I noticed during my interviews and across the schools, besides the individual teacher's skills and innate quality. It is that the older teachers appeared to have longer years of teaching experiences and profession-relevant capacity developed over time, while the younger teachers seemed to exude more passion and had an obvious love for their work and responded to questions enthusiastically. The older ones seemed more keen on 'showing off' their expertise, they seemed more critical of the parents of the students in their schools and were also the ones with the most complaints about their schools' management. While this is outside the scope of this study, it may be worth investigating to understand age-related issues in relation to effective teacher attributes.

9.3 Practical Wisdom and Judgment

9.3.1 School A

All five teachers described how they used wise judgments in their day-to-day practice as teachers.

For example, T1 used practical wisdom in a situation where she had to change the focus of her lesson, on discovering that her students struggled and did not have a "firm foundation" in a particular topic. She deliberated on the fact that the shaky knowledge of the topic would make it difficult for them in later years and so she said:

> *...I had to change what I wanted to teach and I have to give them a good…[revision] and when I was satisfied that they really understood tessellation; that's when I could move onto the next topic.*

Also, T2 explained the case of a particular girl who had a history of unpleasant incidents that happened in the past:

> *...I knew I had to take it easy with the girl… I know she needs me. So in such a situation, I take her away from the class. And we might be doing math in the class, and I know that I could always come back to math, but right now, she needs to do a little bit of comprehension…*

Similarly, T3 while teaching a particularly tricky concept, observed that it really was not as challenging for everyone as she had thought, but still a specific group of children was struggling, therefore she decided to "create some kind of support system for those children. We put them together and work with them and take them through the steps".

Practical wisdom requires the skill of deliberation, whereby an individual engages in careful consideration in deciding on the best way forward in a given situation. Practical wisdom is necessary for teachers in making day to day decisions concerning their students and it aids them in choosing the best possible action in specific circumstances. T1, T2 and T3 exercised wisdom in deciding the best course of action, without needing to consult any of their colleagues or leaders. Neither did they consult the rules and regulations as these decisions had to be taken immediately and were not the type of decisions that regulations could help with. They used what Arthur et al. (2017) call 'pedagogical phronesis' which signifies wisdom in choosing appropriate pedagogy. T1, T2 and T3 know their students and understand why they need to find a way to help them learn; therefore, they use their experience and educational principles, such as interventions, differentiation and formative assessment. Their decision links pedagogical approaches with theory and experience (Lunenberg and Korthagen, 2009), and supports the argument of Arthur et al. (2017) that the subject competence of teachers needs

to be supplemented by practical wisdom. In other words, it is not enough for a teacher to simply know their subject but must in addition to their competence know how to make the best decision that would favour their students' learning.

However, T2 experienced another situation where wisdom meant following school policy and not her own way. She was faced with a child who felt the need to use a particular mathematical method in class, a method which happened to be different from that approved by the school. T2 not wanting the child to feel rejected, whilst desiring to follow the school rule suggested to the child "...use mommy's style at home… we are bridging there. You listen to them". It appears she saw the good in this other method as well, however her hands were tied. With Practical wisdom, she was able to make her student feel heard, while not compromising on the school's policy. Literature reveals that the more bureaucratic schools are getting, the less the opportunity there exists for teachers to use their conscience, as wisdom is being replaced more and more with rules and regulations and going against such rules could spell some kinds of punishment (Schwartz and Sharpe, 2006). Meanwhile, fact remains that there will always be specific cases in schools that cannot be covered by rules, hence the importance of developing the practical wisdom of teachers.

Practical wisdom is very useful in resolving complex ethical dilemmas in the social world (Schwartz and Sharpe, 2006). It provides answers to issues that are not discussed in teacher standards, nor mentioned in school rules and regulations. For instance, T1 explained the tough decision she had to make concerning a student who usually turned in his homework on time, but one time failed to do so for a reason that she thought, though truthful, was not cogent enough. She said: "... in fact his classmates were advocating for me not to punish him… they said Mrs. S, this is just his first time…". T1 described how bad she felt having to punish the child but she needed to be firm, she said:

I felt bad… but I just had to tell myself that if I let go, I am going to have more children fall into that trap and that is one thing I do not want because when I send homework, they don't play with my homework.

T1 had to rely on the intellectual meta-virtue of practical wisdom to make the right decision by her.

In the case of T5, she had an issue with the school's curriculum which she felt was not stretching the students enough, however, she was constrained by the school's policy. She said, "I keep telling them, it [curriculum] is written by someone… it's just a guide". T5 was constrained by the curriculum and while she knew the capabilities of the students in her class and believed they had the ability to do more, her school was reluctant to change things. She therefore devised a solution by getting extra books which she used to give her students extra work beyond what was stipulated by the curriculum. T5's case shows how rules and regulations can be a constraint and bring about a dilemma, however, practical wisdom presents an opportunity to use one's conscience and take actions which can resolve the particular situation.

T1 and T5 both describe how they were able to use wise decisions to solve particular issues when the right thing to do was unclear and as Bradshaw (2009) says, practical wisdom is the ability to do the right thing, at the right time, for the right reason. Teachers trying to figure out what's best for their students fall into this category.

9.3.2 School B

All five teachers in this school indicated that they used practical wisdom in their practice. For example, T6 said: "But as the lesson went on, I now discovered that some of the children, it was erm... it was like an easy test for them to just identify. So there and then I had to extend their learning…".

T6 also explained how at another time, some students had “achieved the lesson objectives” so again, the learning was extended automatically. T6 uses practical wisdom here but unconsciously, as an automatic decision was made concerning the next step for the pupils in her class. In teaching, sometimes there is limited time for reflection and this can be the explanation for T6’s action. This ability to make decisions unconsciously is believed to be developed from experience and teachers need to often make immediate decisions in the course of their teaching. Romiszowski (2016) observes that such unconscious decisions are made as frequently as every two minutes. Some researchers call this type of decision-intuitive pedagogical tact (Sipman et al. 2019). Intuition is defined as a teacher's ability to know instantly what to do in a complex classroom situation, without conscious information processing, but while intuition is given the benefit of being responsible for conclusions teachers reach instantly, it is still judged as an intangible concept in education (ibid).

T6 also used reflective practice as she explained that the impromptu changes she made in the course of teaching were going to be taken into cognisance during the curriculum review:

> *It also guides when you are planning the next lesson because now you’re seeing that on these children, they can actually do this. So next time… when we do curriculum review, those are the things that would come up*.

This shows that though T6 makes some automatic decisions which are based on experience and possibly intuition, she also thinks rationally and logically. She is deliberate about the more long-term plans and ensures that the changes in the classroom are reflected in the school’s curriculum. This can be said to be reflective practice. According to Schon (2006), reflective practice is typical of good professionals as they are always adjusting their actions in particular contexts in order to achieve a particular purpose as they continue to evaluate and reevaluate

in order to improve. T6's actions suggest that she seeks to improve the curriculum by reevaluating the same, based on her class experiences.

In T8's case, she used pedagogical phronesis in changing the teaching method used erstwhile for a child who failed to respond; a decision she made through reflection:

> *I may have to bring in another approach to ensure that they now properly understand… the child that keeps struggling with punctuation, then I had to change the way I teach punctuation, especially for that particular child…*

T8 used practical wisdom to discern that one of her students was not responding to a particular teaching method. Therefore, she used her knowledge of theory and pedagogy to decide on the solution to the boy's problem and she organised 'quick booster classes' for him. T8's action is in line with Lunenberg and Korthagen (2009) who explain that practical wisdom is the ability to combine theory, experience and wise judgment and is also supported by Arthur et al. (2017), who explain that good teachers exhibit pedagogical phronesis in their day to day dealings with their students. The fact that she also thought of the appropriate action considering the particular circumstance of this child, supports Aristotle who said that "a man of practical wisdom must take cognisance of the particulars" (as quoted from Baird, 2016, p.199). Understanding the particular facts is what initiates our understanding of steps to take in any situation where multiple solutions could be applied.

Also T6, T7, T8 and T9 explain how they cope with the unavailability of certain resources needed to teach, by improvising. For example, T9 needed telephones in order to teach sound in science, however the school only provided her with two, while she needed fifteen, so she found a solution: "I bought milk, and then emptied the cans and then taped the edges so that it is safe… so I had ample tins for them to work with…".

In the same vein T8, in the course of the term, found an additional teaching resource she thought would interest her students, so she put in an order for the school to purchase, however she said: “But what I did pending that time, I brought in a foam die… it is a big one and it is numbered… so we are using it…”.

These two examples describe the use of reflection in practice and in making decisions. In such situations as above, attention to reflection and decision making is key. According to Kinsella and Pitman (2012) wise judgments include being pragmatic, while reflection should be seen as a continuum which flows from receptive to intentional to tacit and to critical (ibid).

However, practical wisdom can also be used by teachers for other reasons, not directly connected to the learning process. For example, T6 describes how she consciously builds trust and friendship with her pupils, which yield great results:

> *It gives them a sense of belonging when you respond to their feedback, no matter how trivial it is… they just feel that the teacher is their friend. So whatever is wrong with them, they could come and confide in you… you’ll be amazed at some things the children come up to tell you… and I think it is because over time we’ve been able to build this bond or this closeness…*

The exercise of practical wisdom comes from an individual’s freedom to deliberate the best course of action to take in a particular situation (Kinsella and Pitman 2012). T6 realised that in order to get the very best from her students, she needed to make them feel comfortable and an important member of the class, who has a voice. This could be said to reveal practical wisdom on her part.

Practical wisdom is also needed when making more ethically complex decisions. For example, T10 had an experience where she explained that she was dealing with what she thought were unrealistic expectations from the school as she had some deadlines but also had to cope with her work with the students who

happened to have a lot of activities that day. Using practical wisdom, she explained that she found a way around this by giving her students more responsibility:

> *So, being alone in class...now I know that ok, there are students I can put into strategic places in the class to monitor the class… so that has helped a lot. Putting those rules, putting students in charge of different things…*

T10 realised that she could ask her students to do more, which would help reduce the onerous workload on her, but also help build certain skills in the students, such as being responsible individuals.

Finally, T7 had a situation with a parent who felt strongly about her child sitting beside another child. T7 explained how she used her discretion in arranging and pairing students in the first instance, however, while knowing that she could not grant the parent's request, she engaged the parent "in a kind way and I made her see the reason why the children were together… because they strengthen themselves".

Thus T7 used skilful communication to win the parent over to her way of thinking concerning the sitting arrangement. These are examples that support Schwartz and Sharpe (2006) who posit that practical wisdom is used for practical day-to-day decisions used to address particularities (not directly covered by rules and regulations) but which provide practical solutions to practical problems.

9.3.3 School C

All five teachers showed their use of practical wisdom and judgment. For example, T11 and T14 express how they improvise when they do not have the appropriate resources. T11 said:

...I just made them up, they are not the actual resources that I would have used… so such ones that are not readily available… so many that we don't have but we can make us of anything around us.

While T15 stated:

I feel that teachers can never be satisfied… it's like there is always more… you have to make your own resources, but it may not look as attractive as those ones you buy…

These two teachers show that they think of practical solutions to practical issues they face in the classroom. This is in line with Schwartz and Sharpe (2006).

In the case of T12, T13 and T14 they use pedagogical phronesis as they attempt to meet their students at their point of need. T12 for example explains how she is flexible in her approach to teaching and learning as she abandons her plans for the day when her students are not clear about the last lesson. She said: "So what's the point for me in rushing over something and they've not got a good grasp on it…" While T13 decided to include differentiation by pacing for children who seemed to need more time, as well as regrouping the children on realisation that the grouping was not working efficiently. These teachers can be said to be showing practical wisdom, which is the capacity to make holistic decisions which are of high quality in specific situations during the course of teaching (Lunenberg and Korthagen, 2009). These wise judgments are often made based on experience (ibid). Practical wisdom shapes the way we perceive situations and helps people find possible courses of action. In the case of T12 and T13, practical wisdom made them apply practical knowledge. According to Fehring and Rodrigues (2017), teachers often have the need to make immediate decisions concerning different situations in the here and now. Sometimes these decisions are made every two minutes mostly unconsciously (Romiszowski, 2016), but practical wisdom helps teachers navigate the complexity of decisions that have to be made where there

are no clear-cut answers (Winch, et al. 2015). These immediate decisions often give limited time for deep reflection, however, they are often based on theory and experience, though it is noted by literature that not all decisions can be made this way. According to Walton (2009), deliberation is a key part of practical wisdom from Aristotle's perspective and it is needed for more complex decision making.

T11 and T14 use practical wisdom in a specific situation concerning specific students. T11 referred to a student in her class who, though smart, was laid back and loved distracting other pupils. She said:

> *He will rather not do anything, he will want to talk with A, B and C… when he is not talking… he writes well, does well, but left alone, he cannot just concentrate and do his work.*

T11 having observed this and having a good knowledge of the boy's likes and dislikes decided to use something he liked to get him to do his work: "So what I do is...he likes food, I'll tell him you are not going for break unless you finish this one, you don't have to finish everything".

T14 uses a similar style to get a child in her class to do her work: "I have a pupil in my class, she is very good when it comes to discussing but when it's time to write, she gets put off… so that was a serious challenge". So, T14 said to the girl "you know we have just forty-five minutes, you haven't started your work… you might not go for break today...not because I want to punish you, but because you need to get this work done".

These two teachers have decided to use detaining students from going for break time and having their lunch on time as a means of getting the students to do their work and while wisdom has to be practical as issues encountered by the teacher are very practical, this decision also shows the ambiguous nature of practical wisdom (Schon, 2006). Indeed, as Jiang (2016) says, in specific educational situations, even experts differ on the best decisions to make regarding theoretical

principles which underpin actions. For example, while the constructivist view with its student-centred focus would frown at the practice of these teachers, Skinner's theory of operant conditioning would find their decision acceptable. Different theories may each have their value in explaining different situations, hence there will be different perspectives.

9.3.4 School D

All the teachers in this school indicated that they use reason in their practice. T16 explained a situation that proved quite challenging as he struggled to balance getting his students ready for college entrance exams (which sometimes come up within a few months of resumption for the first term), and still delivering the year six curriculum for the term. He said: "How do we manage it? How do we marry that, with the work we have to do here…". Using wise judgment, T16 was able to find a way of motivating his students: "Ok, are there related games that they can play...activities that are children friendly on the internet...Now there is a package we stumbled upon that we started using. It's called Nearpod…".

T16 found a way to motivate his students to learn using practical wisdom. This is in line with Arthur et al. (2017) who says that teachers must combine subject knowledge and knowledge of their students with wise decision making. T16 showed his understanding of his students by grasping the importance of them still enjoying learning, even while preparing them for exams.

T16 and T17 also explained their use of wisdom in adjusting learning for their students in order to give them the opportunity to access learning in class. T16 said: "...I have noticed that in him. So, once I observed and I noticed that, I went to him… I now wrote an application of BODMAS to whole numbers". While T17 described how during the planning of her lesson she pondered on how to teach a particularly tricky topic on patriotism. The school had given a template which she did not feel would work in helping her students learn, she then made the decision to create something that she felt was more inspiring and make the lesson more engaging.

T16 and T17 show that understanding one's students is key in making the major decision for their learning and as practical wisdom is context sensitive, knowing the people involved (in this case the students) is important in order to make the right decision. Also, T17 taking a decision in the planning stage, on how to give her pupils an exciting lesson even while teaching a difficult topic indicates the use of phronesis.

In the case of T19 and T20, they use improvisation to sort out the problem of inadequacy of resources. In T19's case, he decided to create his own videos as the resources he found on the internet did not relate directly to the Nigerian context:

> *I decided to create a video. We were doing singular and plural nouns. So I did a three minute video. Examples of proper and common nouns I gave were things that they could relate to…*

Similarly, T20 said, "you have to improvise...sometimes you have to make...create yours or find an alternative that actually works".

T19 and T20's actions are in line with Schwartz and Sharpe (2006) who opine that practical wisdom has to do with knowing how to improvise as a wise person desires to meet the needs of the people (in this case, students) being served.

9.3.5 School E

Three teachers indicated that they use practical wisdom.

T21, T22 and T25 show that they know their students and it is on this basis that they make wise decisions. For example, T21 stated: "In bringing out my worksheet I already know that this set of children in A would not be able to give me multiple sentences…". While T2 said: "I notice their facial expressions…".

These teachers show the importance of knowing the learners in order to make wise decisions which supports Shwartz and Sharpe (2006).

They also can be seen to make wise pedagogical decisions as they decide the best way to teach their students, for instance, T22 explained that she used peer learning when she encounters students who do not seem to get her teaching: “I will try to involve the child; what is the issue? When I notice that, I do peer learning”. While T25 uses worksheets to “hasten their understanding of the topic...or I use group tasks…”

These decisions concerning their students’ learning are made unconsciously during teaching. According to Schwartz and Sharpe (2006) sometimes we are able to determine the right action very quickly, without even realising that there was a decision. This is sometimes at the expense of other options aside from what we chose. These decisions are often made from habit and experience, but according to Arthur et al. (2017), for something to go from habit to full virtue, right actions must be chosen and emotions based on practical wisdom, guided by reflection.

9.3.6 Summary of Interview Data and Field Note Observations on Practical Wisdom across the Five Schools

My data reveal that 23 out of the 25 teachers interviewed in my 5 case study schools use practical wisdom and it is used in various ways; automatically during the course of teaching based on their experiential mind and also deliberately and reflectively based on the rational mind.

All the teachers in my case schools (apart from School E, with 3 teachers) showed the use of practical wisdom in their decision making. However, interestingly my findings show that in all the schools and with all the participant teachers, there were clashes between school rules/policies and the teachers’ ability to make the best decision for their students and for themselves. Typically, these teachers complained of a total lack of teacher autonomy, while a few thought they had only partial autonomy. This is captured in T19’s words: “how can teachers have autonomy when they have all these rules to follow”. I also noted T16’s complaint about the prescriptive nature of the school system he worked in while T14 also

commented on how she felt totally “deprofessionalised”. This shows that though practically all my participant teachers use practical wisdom, they are still restricted by rules.

The debate between the place of rules and regulations and the stifling of practical wisdom in the practice of teachers is a complex issue, because the more rules they have to follow, the more limited the opportunity there exists to practice phronesis (Schwartz and Sharpe, 2006). It would seem that one of the reasons why teaching is so regulated is the need for consistency and standardisation in the school system (Sachs, 2003), but while rules have a role to play in deliberations, they can only take care of the general and not context-specific issues. Indeed, rules can only provide watery solutions if there is an attempt to apply it to every problem (Shwartz and Sharpe, 2006). On the other hand, practical wisdom, which helps with context-specific situations, is ambiguous and value-laden (Schon, 2006), even though often available to offer direction to specific issues as its specialty is providing answers to particularities, rather than universal problems.

This point made by Schon (2006) is important as I made some crucial observations during my visits to the schools. I noticed that some decisions the teachers expressed during the interview were questionable and not in line with practical wisdom, which supports Schon’s point that using practical wisdom in decision making can be subjective.

For instance, while T2 had professed her love for transforming young minds and her care for children the day before, she seemed to show bias by prejudging a case I observed. She said to one of two students who were having a heated argument just outside the playground, “I have an idea already of who is gonna be wrong here”. The statement struck me as biased because there was no clear basis for this instant judgment on who was wrong from what happened right in front of us. This implies that though she had said many nice things during her interview the day

before, and while she may be relatively effective, she may need further training on handling such situations.

Also, In School B, there was a teacher who seemed to struggle with the school's discipline policy on corporal punishment. She expressed her frustration: "I grew up being beaten, that's how we were corrected… that is what I know that works for children…". The answer to misbehaviour in her judgment was corporal punishment. She however later said that she now follows the policy, even though "it is still a bit of a struggle…". Her statement made me wonder, if there were no school rules to guide such a teacher and hold her in check, what would happen?

These examples bring to the fore problems that can ensue from the subjective opinions of teachers, even as they handle context-specific situations and this might be the reason why schools find it difficult to outrightly trust the judgment of their teachers. However, according to Schwartz and Sharpe (2010) practical, moral skills are developed through experience and such experience is built through trial and error and feedback. Therefore, if these teachers are not allowed to make decisions and sometimes make mistakes, their practical wisdom will remain underdeveloped.

The fact that 23 teachers in my 5 case schools, who are all experienced teachers (none with less than 5 years experience), used practical wisdom suggests that practical, moral skills are developed through experience which is a by-product of trial and error and feedback. Even when these teachers make automatic decisions based on being able to recognise patterns, this is only made possible through their experience (ibid). That said, it is also implied from my data that their use of practical wisdom is driven by their overall belief of their work as teachers, the overall purpose of schooling and also by care for their students.

Practical wisdom is a very useful tool for teachers as they make a lot of decisions every day concerning their students. It is needed by teachers as context often differs and therefore a single-size solution would not work. Also, knowledge of

their learners is key in order to come up with bespoke solutions that would really address the issue and according to Higgs (2019), making these sound solutions is the hallmark of a professional.

This chapter concludes the presentation and discussion of the interview data and field observation. In chapter ten, I attempt a wrap up of the findings; the study's contribution to knowledge, theory and practices as well as key recommendations, including the adjustment in the conceptual framework that represents my recommended model of effective teacher practices.

CHAPTER TEN

SUMMARY, CONCLUSION AND RECOMMENDATIONS

10.1 Introduction

This final chapter presents a summary of the key findings and main conclusions, the study's contribution to knowledge, a model of the key determinants of teacher effectiveness, recommendations for policy and practice, and suggestions for further research. The study examined teacher effectiveness and its role in optimising students' learning in primary schools in Lagos State, Nigeria. It sought to understand effective teaching and learning practices, as well as the qualities that underpin teachers' effective practices in the classroom. The following section presents the summary of the key findings in relation to the emerging themes and particularly the key research questions which centred on how effective teachers describe and understand their effective teaching and learning practices and what personal qualities these effective teachers possess.

It is important to note at this point that the key findings and conclusions are summarised based on the general observations across the schools. Since there are only a few divergent views, I have chosen not to present my findings on a case by case basis; as similar observations largely cut across the schools. However, where there are differing perspectives across the cases, I have highlighted the disparities. In the following sections, I summarise the key findings and main conclusions from the study.

Table 10.1: Below shows the summary of key findings as presented and discussed in the preceding chapters: five, six, seven, eight and nine.

Research Questions	**Themes/Subthemes**	**Key Findings**
Research Question 1 How do effective teachers in private primary schools in Lagos State understand and describe their effective teaching and learning practices	1. Professional Knowledge - Pedagogical Knowledge - Content Knowledge	The teachers possess substantial professional knowledge in two important domains: Pedagogical Knowledge and Content Knowledge. Data revealed that the majority of these teachers mostly used the learner-centred pedagogy, while a few employed more of a teacher-centred approach. Furthermore, my findings suggest that a few teachers (who are specialist teachers, as opposed to class teachers) used a subject-specific pedagogy which is considered as a specialised type of professional knowledge referred to as Pedagogical Content Knowledge (PCK).

	2. Instructional Planning - Learning Objectives - Success criteria	Evidence from data shows that it is typical for the teachers to have learning objectives, but atypical for them to have success criteria which should be used by the students to self-assess how well they met the learning objectives.
	3. Differentiated Instruction	Almost all of the teachers show evidence of practising differentiation in various ways based on content, process, product, learning environment and learning style. However, a few appear to have a shallow understanding of the concept.
	Formative Assessment - Feedback - Questioning - Peer-Assessment - Self-Assessment	Majority of the teachers show that they understand the importance of using feedback and questioning in Assessing for Learning. However, less strength and understanding were shown in the use of peer and self-assessment as key AfL tools in optimising their students' learning and building metacognition in them.

RQ2: What are the personal qualities of these effective teachers?	Theme: Personal qualities of effective teachers - Care - Practical wisdom	Over half of the teachers seem to have a caring disposition towards their pupils and showed that they both cared-about and for them. In addition, my data reveal that the vast majority of the teachers in my five case study schools use practical wisdom in their decision making both in relation to their day to day teaching practices and also in finding solutions to more complex ethical dilemmas. Practical wisdom was also used in regulating their care for the students.

10.2 Summary of Key Findings

At the end of the five preceding chapters, I have presented observations from the interview data and field notes analysis. In this section and further to the summary in Table 10.1 above, I summarise the key findings and present the main conclusion that has been reached from the study.

10.2.1 Perceptions about Effective Teaching and Learning Practices

The first research question asked about how effective teachers in private primary schools in Lagos State understand and describe their effective teaching and learning practices. The following themes were identified in relation to the research question: a. Professional Knowledge; b. Instructional Planning; c. Differentiated Instruction; and d. Formative Assessment.

10.2.1.1. Summary of Key Findings on Professional Knowledge

The study observed that teachers who were considered effective in the context of their schools possess substantial professional knowledge in two important domains: Pedagogical Knowledge and Content Knowledge. In relation to Pedagogical Knowledge, data revealed that the majority of these teachers mostly used the learner-centred pedagogy (LCP) in their classrooms. By adopting this kind of pedagogy, these teachers ensure that pupils have a good understanding of concepts as they focus on their students, thereby enabling them to take control of their learning and construct their own understanding during lessons. This practice is in line with the constructivist theory in which teachers are seen as facilitators of learning rather than transmitters of knowledge. With this kind of pedagogy, students are active learners rather than passive consumers of information thereby, helping them to develop higher-order reasoning and giving them the ability to self-regulate their learning. LCP also enables teachers to operate within the elements of the teacher effectiveness factors of DMEE.

Furthermore, my findings also showed that my participants had good content knowledge. Amongst the professional knowledge teachers should have is the knowledge of the content they teach which is considered important to their effectiveness and relevant to students' learning. Being that this study was focused on the primary section, the majority of the teachers I spoke with were generalist teachers, teaching several subjects, including the core subjects such as Maths and English, but they also took non-core subjects such as Social Studies and Religious Studies. However, despite the fact that the majority of them were generalist teachers, they showed adequate content knowledge, and even though they did not delve deep into the content areas as the interview questions were not tailored after elucidating such facts, there was no sign that these teachers lacked a good understanding of their subjects, thereby debunking the views of McKeon (2004); Heywood (2005); Catling and Morley, (2013) who say that subject knowledge is

not a strong focus of primary school teachers. That said, it is possible for some teachers who indeed lack a deep knowledge of their subject to rely solely on the curriculum which would make it difficult for them to make links and extend their students' learning (Roche 2018).

Also, from the data, a few teachers, used PCK, a subject-specific pedagogy. Interestingly, the two teachers that used PCK were specialist teachers (also called subject teachers) - a Maths teacher and an ICT teacher. The ICT teacher can be described as having Technological Pedagogical Content Knowledge (TPCK), while the Maths teacher showed his deep understanding of mathematical concepts to improve his students' understanding. This is referred to as Mathematical Pedagogical Content Knowledge (MPCK). This is in line with literature (Koehlar and Mishra, 2009; Klieckmann et al. 2015) which links PCK to specific subject areas such as Technology and Mathematics. Therefore, while all the class teachers showed good subject knowledge, the only ones who showed evidence of this specialised knowledge called PCK were subject teachers, which could support researchers who say PCK is more easily identifiable in teachers who teach certain subjects such as Maths and science-oriented subjects, including Technology (Koehlar and Mishra, 2009). It is possible that the constant interaction of these subject teachers with their area of specialty continuously over time is responsible for their deep understanding of the content and the specific type of pedagogy best to use in teaching the particular content. It is, however, noteworthy that there were also a few other subject teachers amongst the participants, yet they did not show evidence of PCK.

Main Conclusion

My findings reveal that while these teachers are considered effective in the context of their respective schools, the majority of them lacked the subject-specific pedagogy called PCK, which is an integral part of a teacher's professional knowledge in line with Stronge (2018).

This suggests that the majority of these teachers still need some professional development in the area of subject-specific pedagogy. I also argue that the existence of teachers who are considered effective by their schools but are still using more of the teacher-centred approach and some possibly with limited subject knowledge, suggest that effectiveness is context specific and could depend on different parameters, which ultimately points to the varying definitions of effectiveness and its complex and controversial nature (Educational Development Trust, 2015). It emphasises the need to develop a far-reaching framework for defining teacher effectiveness in Nigeria.

10.2.1.2. Summary of Key Findings on Instructional Planning

Based on my findings, it may also be explained that planning is very important for effective structuring of learning activities to meet the needs of the students using national standards, school's curriculum, data as well as appropriate and engaging resources to ensure learning takes place. Effective teachers understand that teaching begins before a teacher steps into the classroom and would have pre-planned several things, not least the goals for the lesson (learning objective), how the goal will be reached (the teaching methods) and how to measure if or how well the goal was reached (success criteria) as also observed by Price and Nelson (2013). From the above, a crucial aspect of planning is having and sharing learning objectives and success criteria, which are believed to be an essential part of delivering quality instruction.

Main Conclusion

From the analysis of data, it could be concluded that it is typical for teachers who are considered to be effective in large and enduring private schools in Nigeria, particularly in Lagos State, to have learning objectives, but not typical for them to have success criteria. Success criteria help students to self-assess how well they have met the learning objectives and enables them understand the process of learning thereby, aiding the development of metacognitive skills in them. The

development of metacognition in learners is considered one of the newer aims of education (Creemers and Kyriakides, 2013; Azevedo et al. 2016). This gap is very significant as it points to a lack of understanding of its importance by the teachers. While these teachers are considered effective in Lagos State and the Nigerian context, it may cause them to be considered ineffective in locations where the value of students' self-assessment is taken very seriously. It suggests that this factor may not have been taken seriously by policy makers and practitioners as an important and effective way to ensure quality learning. If it was considered as significant, attention might have been given to it and the schools might have placed more emphasis on teachers' development of these skills. This shows that these teachers need continuous professional development in areas that their initial teacher training may not have covered but which are necessary in developing learners for the dynamic world of today.

Also, it is observed that the participants did not refer to the professional teacher standards or curriculum. These are strategic documents used for long-term planning. Rather, the teachers focused mainly on the lesson plans needed for daily instructions. According to Stronge (2018), an alignment of curriculum, standards and lesson plans are all integral to planning effectively. This type of alignment enhances students' learning outcomes. Possibly, a reason for their focus on the short-term planning may be the culture of performativity which forces teachers to pay more attention to the delivery of excellent results rather than on long-term objectives.

10.2.1.3 Summary of Key Findings on Differentiated Instruction

It appears that differentiation is widely perceived as an important element of good practice in large and enduring private schools in Lagos State, Nigeria. Almost all of the teachers showed evidence of practising differentiation in various ways based on content, process, product, learning environment and learning style. However, a few did not understand, while some appeared to have only a shallow

understanding of the concept. I may argue therefore that if there are some 'effective' teachers that still struggle with this concept, it is possible that less effective teachers (who are outside the scope of my study) may find it difficult to understand and even more arduous to practice. That said, the majority understood differentiation and its link to formative assessment; another student-centred teaching and learning practice, which was discussed in Chapter 8. Findings also reveal that differentiation by learning style is extremely popular amongst the twenty-five teachers I interviewed. This corroborates literature which argue that a lot of teachers find this form of differentiation intuitively appealing, even logical (Landrum and McDuffie, 2010), however using the learning styles of students to differentiate learning and meet their needs has been met with criticisms that its claim to effectiveness remains largely unsubstantiated (Muijs and Reynolds, 2018).

Main Conclusion

Teachers in my research showed evidence of good practice of differentiation and seemed to utilise it properly to improve their students' learning outcome. Differentiation can be developed through continuous professional development opportunities for teachers who struggle in this area.

10.2.1.4 Summary of Findings on Formative Assessment

From data, it appears that formative assessment is accepted among large and enduring private schools' practitioners (leaders and teachers), as one of the effective teaching and learning practices. There are certain strategies that aid the effective practice of formative assessment, some of which the teachers showed evidence of. For example, feedback and questioning are AfL tools that a vast majority of the teachers understood and used with their students. Feedback is one of the most important tools in AfL. My findings revealed that all the teachers used feedback effectively. In addition to the use of feedback, the teachers also used questioning as an AfL strategy. While several questioning techniques which

include closed-ended, open-ended, reflection, probing, random and inferential questions were used as a way to deepen their students' knowledge, it was discovered that the majority of the teachers emphasised on open-ended questions as a way of developing higher-order thinking in their students. However, less strength and understanding were shown in the use of peer and self-assessment as key AfL tools in optimising their students' learning and building their metacognitive skills.

This finding is very important because self-assessment is crucial for students in becoming self-regulated learners (Bartlett 2015). Peer and Self-assessment are important in students' understanding of the process of learning; and is crucial to helping them take ownership of their learning.

It is not clear why there has been a weak application of these elements as observed in the data analysis but it points to an area where policy-makers and practitioners need to give significant attention in their promotion of effective teaching and learning in Nigeria. Also, the fact that the majority of the teachers were not adept in the use of success criteria with their students, success criteria being a precursor to and foundation for self-assessment, I found very revealing and it confirms the weakness of the teachers in this area. Since the focus of self-assessment is building in the students an ability to self-monitor and self-regulate, thereby taking control of their own learning and developing metacognitive skills, it means therefore that the teachers are wasting a very good opportunity to develop these skills in their students. This could be either because it is not their focus or because they need further training in this regard.

Main Conclusion

The teachers appear to have limited understanding and capacity in terms of helping students understand the process of learning which is the focus of AfL, with metacognition being a part of the newer goals of education and required to flourish in the 21st century (Creemers and Kyriakides, 2013; Azevedo et al. 2016). Further, the implication of the fact that the teachers use questioning and feedback

more than peer and self-assessment could be that the teachers still tend towards the traditional methods of teaching where questioning and giving feedback is frequently utilised, meanwhile the teachers seem to believe they are running a student-centred classroom.

10.2.2 Personal Qualities of Effective Teachers

Issues relating to the second research question were largely explored in Chapter 9, which discusses the personal qualities or dispositions of the effective teachers interviewed in this study that might have an impact on their actions in the classroom. From my data, I discovered two important teacher dispositions that are critical to their effectiveness. They are care and practical wisdom.

10.2.2.1 Summary of Key Findings on Care

My findings indicate that over half of the teachers across the five schools show care towards their students which is in line with research that sees teaching as a caring profession. These teachers understand the Ethics of care, otherwise known as the duty of care. However, as natural care is believed to be the foundation of the Ethics of care, they showed evidence that they cared-for their students in a way that went beyond duty. These teachers regarded themselves as being 'in loco parentis' as they saw their roles as similar to that of a parent. This feeling of responsibility for the children by these teachers might be borne out of the fact that their students are young primary school children. This is in line with Dean's (2003) view that there is an 'affective' side to being a primary school teacher. That said, caring-about someone is equally important as it is a precursor to caring-for and so cannot be overlooked. Also caring-about is important in optimising students' learning and improving their outcome, because if teachers do not care-about the students, caring for them might be simply in order to meet performative targets. Therefore, it can be said that caring-about someone shows more of the character of the individual. According to Aristotle (2009), a person's character is

revealed by their actions, therefore a person who has the virtue (character) of care, will ultimately care-for others (action).

Also, my findings show that a vast majority of my interviewees, in response to my 'ice breaker' question on what they enjoyed about being a teacher, and my 'wrap up question' on why they remained as teachers, focused on the affective component of their profession, talking about their love for children.

Although, all the teachers mentioned their passion for the children, this did not quite come through during the interviews and observations, rather data revealed that only slightly above half (sixteen) of the twenty-five teachers showed that they actually cared-about their pupils. Meanwhile, care is a necessary quality for a teacher to possess as it plays an important role in accommodating students' peculiarities and addressing challenges and competing pressures within school environments.

Findings also reveal that some of these teachers deploy practical wisdom in caring-for their students as they make use of reason in making decisions. This is in line with Allmark (1995) who opines that since care can emanate from good and bad reasons, for something to qualify as 'good care', reason must be applied and it must be directed at the right thing and in the right way. This kind of reason according to Aristotle (2009) is practical wisdom. Practical wisdom is what gives people the understanding of what to do at the right time, for the right reason and for the right people.

Main Conclusion

These teachers showed more concern for their students (caring-about) that is, recognising that someone has a need, nevertheless it does not guarantee that anything would be done about the need. On the other hand, caring-for is characterised by direct attention and response to the needs of a student by carrying out certain actions in order to address such needs which must be acknowledged by the one cared-for, for it to be deemed effective. This is because

caring is supposed to be relational and not one-sided. Majority of my interviewees focused on the affective component of their profession, talking about their love for children. Also, over half of the teachers seemed to have a caring disposition towards their pupils and showed that they both cared-about and for them.

10.2.2.2 Summary of Key Findings on Practical Wisdom

My data reveal that almost all the teachers in my five case study schools use Practical wisdom in their decision making, both in relation to their day-to-day teaching practices and also in finding solutions to more complex ethical dilemmas. Practical wisdom was also used in regulating their care for the students. These teachers use Practical Wisdom for everyday decisions as well as complex situations where the solution seems unclear, but as they rely on practical wisdom, they are able to come up with solutions that resolve the dilemma. Indeed, it is seen as an important part of effective teaching and learning. It is especially useful to teachers who are faced with so many decisions in respect of their students each day, decisions which are not covered by the rules and regulations that exist in schools, as rules are generic in nature. Practical wisdom is thus used for context-specific situations where the solution is unclear.

While all my case study schools showed teachers using practical wisdom to make decisions, my data also revealed clashes between school rules and the teacher's ability to make the best decision for their students and themselves. There is the debate between the place of rules and regulations, (without which standardisation will be extremely difficult), and the stifling of teacher autonomy (Schwartz and Sharpe, 2006). Meanwhile, the ability to develop practical wisdom, according to Aristotle (2009) is through practice and experience which is then hindered because of numerous rules, regulations and standards which teachers are supposed to operate under, creating limited opportunities to exercise practical wisdom (Schwartz and Sharpe, 2006). Meanwhile, practical wisdom, which can offer direction to specific issues as its specialty is providing answers to particularities, is not being actively developed in the teachers. Practical wisdom

can be said to be a disposition that is part of the character of an effective teacher, one which underscores their behaviour in the classroom.

Main Conclusion

I garnered that 'who these teachers are', that is, their disposition and personal qualities, has an effect on their practice. These teachers were seen to possess strong Care Ethics as well as the meta-virtue of practical wisdom. These dispositions underpin their effectiveness as teachers. From the findings of the study, I can conclude that effective teachers have and operate by practical wisdom in their decision making and professional judgment, not just by the rules and regulations which are expected to guide the practice of teachers, such as the Professional Teacher Standards and the School's Curriculum. Thus, the relationship between teacher behaviour and teacher's personal qualities becomes quite obvious and relevant. This relationship is reflected in my model (see section 10.4) where I showcase the characteristics of teacher effectiveness based on my inductive study in this area.

10.2.3 Operationalisation of the Curriculum

Another important observation from the study relates to the operationalisation of the curriculum. The study revealed that while the teachers used their lesson plans in teaching, very few referred directly to the curriculum or the professional standards. The study did not ask if they had access to the standard. However, the 2017 National Assessment of Learning Achievement in Basic Education in Nigeria (NALABE) observed that copies of Nigerian Curriculum that prescribes what schools in the country should teach at various levels "are likely to be absent in some schools, this poses a challenge to the teacher who may have to depend on the past scheme of work or old notes to get inspiration on what to teach" (UBE 2017, P.51). Knowing what to teach and how to teach them may not be enough as the teacher standards and curriculum must also be considered and decisions on

what is best for the students' learning made based on knowledge of both students and standards.

10.3 Contribution to Knowledge

This study has made a number of contributions to knowledge, theory development and improved practices, some of which are summarised in this section.

10.3.1 Closing Existing Gaps in the Literature on Teacher Effectiveness and Teacher Practices in Large Private Schools

My literature search did not reveal any research literature on large, private, government-approved, long-standing primary schools in Nigeria and Africa at large. This study thus contributes to the closing of the existing gap in the body of evidence on large private schools' practices and contribution to educational development in Nigeria and Africa. The literature search also indicates that there is a dearth of studies in the area of effectiveness of teachers in private schools in Nigeria and even more so in the primary section.

10.3.2 Closing Existing Gaps in Teacher Effectiveness Research

Literature shows that many studies have employed a quantitative approach to examine issues around school and teacher effectiveness, and tend to miss qualitative concerns. Oftentimes, effectiveness is measured in terms of value added. The results of the students are used to determine the effectiveness of the teachers, hence the tendency to conduct research in this area numerically. This study presents a detailed narrative from effective teachers on how they interpret and understand their own effective teaching and learning practices. Also, conducting a qualitative study, using qualitative data collection tools such as semi-structured interviews and unstructured observation has given me an opportunity to find out what the lived experiences of effective teachers in large, private,

government-approved and long-standing primary schools in Lagos State, Nigeria are and factors that underpin their behaviour in the classroom.

10.3.3 Closing Existing Gaps in Theory

The usefulness of social theories lies in their relevance to practices and improvement of people's lived experiences. This study provides an opportunity to apply the theories that underpin my study which are the Dynamic Model of Educational Effectiveness (DMEE), Constructivism and the Virtue Ethics Theory. I use them to examine practical issues around teacher practices and experiences in large, private, government-approved and long-standing educational institutions in Lagos State, Nigeria. It also provides an opportunity to apply these theories in the explanation of issues in different socio-political contexts. Literature search indicates that little is known about studies that have tested or applied these theories in the study of private schools in Nigeria, and many studies that employed these theories are largely in developed countries (see Antoniou and Kyriakides, 2011; Christoforidou, 2013; Powell and Kalina, 2009; Hoff, 2020). According to Creemers (2006), the pressure that arises from the results of international studies can result in the simplistic application of knowledge from one educational system to another. This is under the assumption that results achieved in one country can be replicated in another country by simply transplanting some of the factors without any detailed knowledge of possible contextual factors which might work in some countries but work against effectiveness in another country.

Thus, it helps to highlight the usefulness of these theories in a developing country's context as well as identify various areas where improvements and adjustments may be needed to enhance the theories' relevance and effectiveness in the study of people, contexts, and intersectional issues around teacher capacity and students' outcomes across the world.

Though, there are several theories proposed under the Educational Effectiveness Research, these theories largely tend to discuss effectiveness from the viewpoint of teacher behaviour and actions in the classroom and how these factors promote students' learning (Kyriakides, 2005; Creemers and Kyriakides, 2008; Creemers and Kyriakides, 2013), but tend to miss possible reasons behind these teacher behaviours and actions. Therefore, my study also seeks to 'lift the veil' and explore the kind of dispositions behind the effective practices of these successful teachers, thereby gaining an understanding of what is responsible for their perceived effectiveness in the classroom. I believe this discovery would also contribute to knowledge in this area of teacher effectiveness.

My research has also created a new opening for further research in the field of teacher effectiveness. On the one hand, it has provided some baseline qualitative evidence on personal dispositions and perspectives on teacher effectiveness. Other researchers might find in the study a point of departure for investigating further concerns such as how effective teachers perceive and respond to barriers to teacher autonomy. It has also provided a point of departure for further investigations that might directly link teacher effectiveness to students' performance in private schools from learners' perspective. Significantly, researchers can find this work very useful for supporting their claims about the characteristics of an effective teacher from teachers' perspectives, as opposed to an outsider view of what and who teachers really are. Here, scholars have information on what they say about themselves and what they do.

10.3.4 Underlying Reason for Differential Teacher Effectiveness

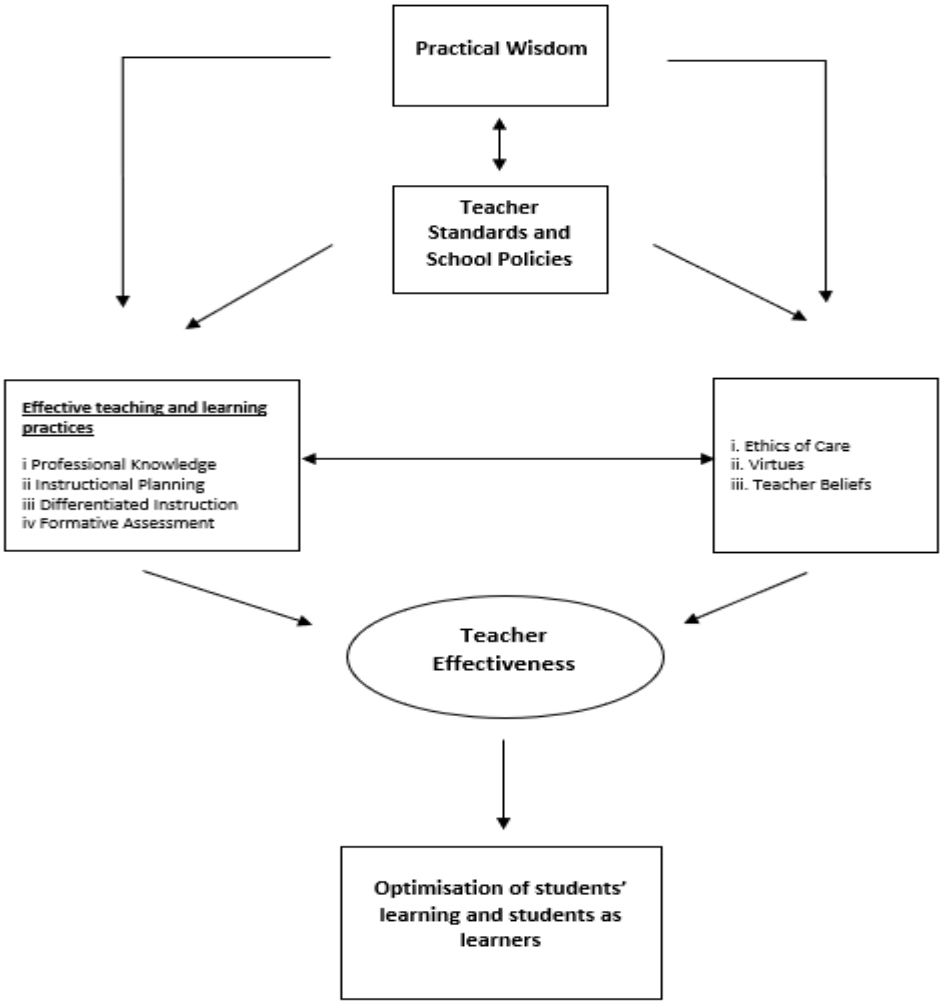
My study has been able to answer a question I asked in my introduction concerning why some teachers are able to implement the Teacher Professional Standards and the School's Curriculum while others are not. Through this study, I have come to an understanding that there are certain dispositions and personal qualities that drive the effectiveness and effective practices of these teachers

beyond rules and regulations contained in the Professional Standards or School Curriculum, which are the Ethics of care and possession of practical wisdom. My findings indicate that the majority of the teachers across the five schools show care towards their students. They also use practical wisdom in various ways; automatically during the course of teaching based on their experience and intuition and also deliberately and reflectively based on the rational mind and pedagogy.

10.4. Model of Key Determinants of Teacher Effectiveness

In addition to the exposition of the underlying reasons for the differential effectiveness among teachers, another important contribution of this study is the development of a teacher effectiveness model as summarised in Figure 10.1 (below) that shows key determinants of teacher effectiveness which consist of practices and dispositions that all come together to contribute to student achievement.

Fig. 10.1: Model of Key Determinants of Teacher Effectiveness



The box in the middle shows the Teacher Standards and School Policies which guide what teachers know, what they do and who they are. Their knowledge base (in the box on the left) based on my findings are professional knowledge, instructional planning, differentiation and formative assessment. While the box on the right shows the ethics, virtues and beliefs effective teachers have which are the ethics of care (a moral virtue) and intellectual virtues. Jointly, these two boxes (on the left and on the right) are what lead to teacher effectiveness and thereby the optimisation of students' learning. That said, my model suggests that; as important as standards and school policies are, practical wisdom is the most important factor required in teacher effectiveness and so places it strategically at the apex of the diagram. The diagram shows that not only is it needed in the

interpretation, understanding and implementation of teacher standards and school policies, but also its direct impact and importance to effective practices of teachers in the left box and their attitude in the right box, is depicted by the lines going directly from practical wisdom to these boxes. This shows that in some situations, practical wisdom is needed to operationalise the standards and in other situations, practical wisdom will be needed instead of standards and policies in making decisions in relation to the two boxes on the left and on the right, especially tricky situations where the standard is either silent or inoperable. Practical wisdom can be said to be essential in situations that are specific and context-based as well as situations that regular rules and regulations cannot resolve. For example, if the curriculum says a topic should be covered within one week, practical wisdom is what will assist the effective teacher in making the decision to be flexible and adapt her teaching in relation to the needs of her students. The teacher may therefore decide that moving on would be detrimental to the progress of her pupils and abiding by the set rule at that time would do more damage than good and so the teacher may choose to cater to the needs of her pupils, helping them gain a better understanding of the lesson and thereby improving learning outcomes. COVID-19 situation is another good example: most schools were closed for more than six months, and when they were allowed to re-open, less than the normal weeks for a full academic term was given to complete the work for the term. Practical wisdom would have been required by teachers to manage the time and to decide on the important aspects of the curriculum to cover within such a short time in relation to each individual learner in the classroom. This highlights the indispensability of practical wisdom for effective teaching especially when teachers have to make wise decisions that are beyond the 'limits' of rules and regulations thus confirming their expertise and professionalism. Practical wisdom can be said to complement standards and policies where the latter is lacking or not appropriate and is instrumental to the optimisation of students' learning.

My model is an improvement on my conceptual framework which assumed that standards were largely responsible for effective teaching and learning practices and for regulating teachers' values and attitudes. However, this model shows that standards and policies, while important for guiding the practice of all teachers (especially beginning teachers) and their values, is not sufficient by itself and needs the meta-virtue of practical wisdom. Therefore, my model suggests that it is practical wisdom and not standards that is most responsible for teacher effectiveness.

10.5 Recommendations

Considering the findings and major conclusions drawn from this study, I make the following recommendations in relation to theory, practice and further research.

10.5.1 Recommendations for Policy and Practice

Policy-makers and education managers at both government and institutional levels need to provide opportunities to develop Pedagogical Content Knowledge (PCK) which is subject-specific pedagogy and should be encouraged in teachers' practice in order to broaden their knowledge base, especially with a focus on Mathematical Pedagogical Content Knowledge (MPCK) and Technological Pedagogical Content Knowledge (TPCK). PCK needs to be incorporated in professional development programme designs, including in-school and special teacher development programmes to ensure it becomes part of regular teaching and learning practices.

Also, there is a need for a review of teacher guidelines and retraining of teachers on Instructional Planning. Such trainings need to ensure that success criteria are given attention because they are the foundation for self-assessment which leads to metacognition. This is a very important part of a student-centred classroom and when students are presented with a means to assess themselves against the learning objective, they are better able to take charge of their own learning.

It is recommended that even though the teachers are using a student-centred pedagogical approach, teachers are not to hand over total control of the learning to the students as suggested in constructivism. Rather, both direct and indirect instructions should be utilised as proposed by the Dynamic Model of Teacher Effectiveness where teacher effectiveness factors range in a graduating manner from traditional teacher approaches such as questioning and structuring to more student-centred approaches such as application and formative assessment. Also, something constructivism has been criticised for, which is now even more urgent because of the global pandemic- COVID-19, is more use of technology in education and learning. Technology in teaching and learning is in keeping with the student-centred approach and with technology, pupils are better enabled to take charge of their own learning.

School leaders and managers need to develop a framework for promoting inclusive and comprehensive use of formative assessment in schools. Schools should strengthen their teachers' understanding and use of formative assessment. Formative assessment should be seen as a fulcrum on which other effective teaching and learning practices rest as it informs planning, differentiation, appropriate use of resources and is important to the entire learning process. Strength in AfL brings about ability in other teaching and learning strategies.

There is a need to incorporate during initial teacher training and continuing teacher development programmes, modules and activities that aid the development of practical wisdom among teachers such as virtues and character education. The meta-virtue of practical wisdom is important to teaching and therefore should be given priority. Also, since practical wisdom is developed through experience, teachers should be given more autonomy and allowed to make more decisions, and even when they make mistakes, they gain experience.

Experience (though not the only thing) seems key to the effectiveness of teachers as it is required in having PCK, it is required for developing practical wisdom and in using the Ethics of care appropriately. Also, experience is necessary for the mentoring and development of the practice of beginning teachers as well as their character. Therefore, schools should find ways of retaining their experienced teachers and not losing them to unrealistic performative targets which often result in teachers losing their love and passion for teaching (Ball, 2003) and exiting the profession early.

10.5.2 Recommendations for Further Research

Having done this qualitative study and having obtained a deep understanding of the lived experiences of effective teachers, quantitative research can further be carried out to test my model of teacher effectiveness. Such a study may also need to explore how teachers may obtain more autonomy and allowances to use wise judgements in a neoliberal system where education has been privatised thus promoting performativity.

Further research should be carried out in respect to the use of learning style as a differentiated learning strategy, which teachers are convinced is a very helpful means of differentiating learning but which theory claims is unsubstantiated (see Muijs and Reynolds, 2018).

10.6 Implication for theory

Various elements of the constructivist's perspective have been confirmed by the practices of teachers who were considered effective by their respective large, private schools in Lagos where data were collected. By their strong pedagogy, these teachers ensure that pupils have a good understanding of concepts as they focus more on their students than themselves thereby enabling learners to take control of their learning and construct their own understanding during lessons. Being active in constructing their own understanding helps them to develop

higher-order reasoning and gives them the ability to self-regulate their learning. Nonetheless, my study adds to this theory by showing that teachers in a constructivist classroom who are constantly making instructional decisions and judgments concerning their students' learning, need to do so by applying the Ethics of care and practical wisdom. This is in line with an approach such as constructivism, that boasts of being student-centred.

The same thing applies to DMEE, one of the theories that guide my study which proposes eight teacher factors that promote effective teaching; however, this theory does not mention anything about teacher dispositions or personal qualities that may be responsible for these teachers' behaviours and actions. My research has highlighted this gap and opens a leeway for filling this gap that exists in DMEE.

My research shows that while Ethics of care requires practical wisdom in determining the appropriate kind of care a child needs at different points in their learning journey, practical wisdom remains a virtue that could contribute to advance moral virtues in the processes of education, the theory is not a comprehensive theory for explaining diverse aspects of teaching and learning processes. Scholars need to dig deeper into how both the ethics and practical wisdom could be advanced beyond an individual's application towards institutional, policy and structural development in order to enhance its application across the teaching and learning spectrum.

Appendices

Appendix A: Semi-structured Interview guide

RQ 1: How do 25 effective teachers in 5 primary schools in Lagos State understand and describe their effective teaching and learning practices?

1. What do you enjoy about being a teacher?
   - Probe: Could you tell me more about that please?

2. How do you involve the children in their own learning to meet the intended learning outcomes?
   - Probe: Can you give me a concrete example please?
   - Prompt: How do you gather evidence of pupils' understanding during teaching and learning?
   - Probe: Can you give me a concrete example please?
   - Prompt: Why is it important to give them time to respond to your formative feedback?
   - Probe: Can you give me a concrete example please?
   - Prompt: Why is it important to respond to their feedback?
   - Prompt: How does your assessment of pupils' learning inform your differentiated activities aimed at meeting their individual needs?
   - Probe: Can you give me a concrete example please?

3. How does your planning and use of resources encourage pupils' love for learning?
   - Probe: Can you give me a concrete example please?
   - Prompt: when you develop meaningful and worthwhile activities mapped back to the learning outcomes, do you ever find you need particular resources that you do not have?
   - Probe: Can you give me some concrete examples of that please?

Research Question 2: What are the personal qualities these effective teachers possess and how do these qualities enhance pupil's learning?

1. How do you promote wise and rational decision making in your pupils in class?
   - Probe: Can you give me a concrete example of that please?

2. How do you help them regulate themselves to prevent aggressive outbursts?
   - Probe: Can you give me a concrete example of this please?

3. How are the children in your classroom encouraged to stand up for, or advocate for themselves and for their classmates?
   - Prompt: Why in your opinion is this important?

- Probe: Can you give me a concrete example of this please?

You seem to be saying from your examples that prudence, courage and being fair in the classroom are important, so how do you encourage/role model children to act in these ways?

Research Question 3: How do these teachers understand and describe the barriers to teacher effectiveness and how are they able to overcome it?

1. What challenges have you faced as a professional teacher which posed a threat to your professional autonomy?
   - Probe: Can you give me a concrete example please?
   - Prompt: How did these challenges impact on your ability to plan for the kinds of high quality assessment for learning you spoke about earlier?
   - Probe: Can you give me a concrete example of that please?
   - Probe: How were they resolved?
2. To what extent do you work in collaboration with other teachers to optimise students' learning?
   - Probe: can you give me a concrete example of that please?
   - Prompt: Do you ever feel a sense of isolation as a class teacher?
   - Probe: Can you give me a concrete example please?
   - Prompt: Do you ever feel there is a sense of competition between you and other teachers?
   - Probe: Can you give me a concrete example please?
   - Prompt: How can this be managed so that it is a healthy competition and still promotes collaboration rather than sabotage?

3. Do you lead or engage in professional learning as an individual and/or as a school community?
   - Probe: Can you give me a concrete example of that please?
   - Prompt: If so, how has it impacted your professional practice?
   - Prompt: Would it be ok if I come to observe one of your professional learning sessions as an effective teacher, in order to understand good practice and how you build capacity for this in your school?

4. What keeps you going and makes you remain in the career despite the aforementioned challenges?

Appendix B: Sample Coded Transcript

Interview Question	Sample coded Transcript
So, how do you involve the children you teach in there learning to meet your intended learning outcome?	Sometimes, we…for example, I am not the only one **COLLABORATION** that makes the outcomes at times, because for example, if I have taught a particular topic, and I've discovered **ASSESSMENT** that the children struggled maybe I made…then I can throw it to the children that ok, what do you find challenging in the last class? **QUESTIONING, ASSESSING PREVIOUS KNOWLEDGE** What do you think we need to learn today? **QUESTIONING, FEEDBACK, SCL** So, by that, I am giving them an opportunity you know to express themselves **FEEDBACK**. So some of them can pick the outcome from… what they didn't understand in the previous class **SELF-ASSESSMENT,** so that I can reinforce that learning **REINFORCEMENT OF LEARNING**. Ok. So, the learning outcome majorly doesn't have to come from me **COLLABORATION, FACILITATING LEARNING, SHARING OBJECTIVES AND LEARNING OUTCOME**. Yes, So that at least, I am carrying them along INCLUSION and I am not just being the one dictating what they need to learn in class **FACILITATOR OF LEARNING**. Sometimes, they need to contribute to their learning **NOT PASSIVE LEARNERS; STUDENTS' ENGAGEMENT.** And also, we have quite a number of resources that keep them engaged **USE OF RESOURCES; STUDENTS' ENGAGEMENT, ACTIVE LEARNING.** Quite a number

Appendix C: Teacher Characteristics by School

School A					
	Years of exp	**Class (es) they teach**	**Subject(s) they teach**	**Other roles apart from teaching**	**Subject or class teacher**
T-1	12	All-Reception to Year 6	ICT	Assessment Coordinator	Subject teacher
T-2	26	Years 4 – 6	Mathematics, English, History, Geography, PSCHE	Key stage 1 leader	Subject teacher
T-3	10	Year 1	Mathematics, English PSCHE, History and Geography Supporting the class teacher	-	Teaching Assistant
T-4	12	Year 6	Mathematics, English P4C, PSCHE, History and Geography	Mathematics coordinator	Class teacher
T-5	15	Year 3	Mathematics, English PSCHE, History and Geography	English Coordinator	Class Teacher

School B					
	Years of exp	**Class(es) they teach**	**Subject(s) they teach**	**Other roles apart from teaching**	**Subject or class teacher**
T-6	15	Years 1 & 2	Numeracy, literacy, science, scripture, general studies, Verbal Reasoning, Quantitative Reasoning, PHCHE	Deputy head teacher, Year group coordinator, Harvest assembly coordinator, learning and development coordinator	Class teacher
T-7	20	Year 3	Numeracy, literacy, science, scripture, general studies, Verbal Reasoning, Quantitative Reasoning, PHCHE	Head Teacher, Year Group coordinator, Coordinator-Christmas concert, Year book Committee member, Committee member-fun fair	Class teacher
T-8	16	Year 3	Grammar, comprehension, spelling, creative writing, science, general studies, guided reading, handwriting	Head Teacher; Morning and after school duty; organizes school events and programs	Class teacher

T-9	18	Year 4	Literacy (Grammar, Creative writing, comprehension, guided reading) and science	Deputy head teacher, Literacy coordinator, inclusion manager	Class teacher
T-10	5	Year 5	Literacy, scripture, general studies, verbal reasoning, Quantitative reasoning, PHCHE	-	Assistant class teacher

School C					
	Years of Exp	**Class(es) they teach**	**Subject(s) they teach**	**Other roles apart from teaching**	**Subject or class teacher**
T-11	33	Year 6	Mathematics	Year head; Key stage 2 coordinator	Class teacher
T-12	10	Years 4 - 6	French language	Examination committee team lead; in charge of the organization	Subject teacher
T-13	21	Years 4,5 and 6	Creative writing	Social media administrator, Coordinator Debating Club, coordinator	Subject teacher

T-14	20	Years 1, 3 and 4	English grammar, comprehension, spelling, vocabulary, verbal reasoning, creative writing, mental math, quantitative reasoning, vocational aptitude	Spelling bee coordinator, facilitator for in-house workshops	Class teacher
T-15	12	Year 4 - 6	Science	Examination Committee member, Science department team lead; member world book day committee.	Subject teacher

School D					
	Years of exp.	**Class taught**	**Subject (s) they teach**	**Other roles apart from teaching**	**Subject or class teacher**
T-16	10	Year 6	Mathematics	Head of Maths department across all schools	Subject teacher
T-17	15	YEAR 5	Literacy and social studies	Literacy subject Lead	Class teacher
T-18	10	Year 5	Literacy and social studies	-	Class teacher

T-19	8	Year 6	Literacy and social studies	School's technology integration specialist; member of technology committee for	Class teacher
T-20	8	Year 1	-	Sectional head – lower school	Class teacher

School E					
	Years of exp	**Classes taught**	**Subject (s) they teach**	**Other roles apart from teaching**	**Subject or class teacher**
T-21	6+	Year 5	English language	School mom, yearbook committee member, production committee member, award leader	Class teacher
T-22	15	Year 2	Core subjects (Literacy, Numeracy and science) and Foundation subjects (Vocational, social studies, Home economics)	Monitoring pupils co-curricular activities House mistress (during inter-house sports)	Class teacher

T-23	10	Year 1	Core subjects (Literacy, Numeracy and science) and Foundation subjects (Vocational, social studies, Home economics)	School mom, Key stage 1 coordinator, member of quality assurance unit, member of yearbook committee	Class teacher
T-24	6	Year 4	Core subjects (Literacy, Numeracy and science) and Foundation subjects (Vocational, social studies, Home economics)	Year head	Class teacher
T-25	9	Year 3	Core subjects (Literacy, Numeracy and science) and Foundation subjects (Vocational, social studies, Home economics)	Key stage 2 coordinator of co-curricular activities	Class teacher

Overall teaching experience of the participants varies from 5 to more than 30 years. The different levels of experience brought variety, which I believe helped improve the quality of my data and also strengthened my findings and recommendations.

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