EXPLORING TEACHERS' PERCEPTIONS OF DIFFERENTIATED INSTRUCTION
IN THE FOUNDATION PHASE IN A TSHWANE SOUTH DISTRICT SCHOOL

by

SIFISO SIBANDA

STUDENT NUMBER: 53836170

submitted to the College of Education in accordance with the requirements for the
degree

of

Master of Education

at the

University of South Africa

Supervisor: Dr. M. Postma

July 2021

DECLARATION

Name: Sifiso Sibanda   Student number: 53836170

Degree: **Master of Education (Curriculum Studies)**

EXPLORING TEACHERS' PERCEPTIONS OF DIFFERENTIATED INSTRUCTION IN THE FOUNDATION PHASE IN A TSHWANE SOUTH DISTRICT SCHOOL

I declare that the above dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

I further declare that I submitted the dissertation to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at UNISA for another qualification or at any other higher education institution.

_____   __30 July 2021_

SIGNATURE   DATE

ACKNOWLEDGEMENTS

ABSTRACT

This study explored foundation phase teachers' perceptions of Differentiated Instruction (DI) at a Tshwane South District school in the Gauteng Province of South Africa. The aim was to find out how teachers' perceptions of DI influenced their classroom practices. The study intended to discuss findings on teachers' perceptions of DI that would improve classroom practice and teacher training programmes.

This case study was conducted within the social constructivism framework and was informed by existing literature on teachers' perceptions of DI. A narrative approach was used to gather and analyse personal experiences of eight purposefully selected participants using in-depth and focus group interviews.

The findings revealed that teachers believed that DI was relevant due to increasing learner diversity. However, they felt that DI was not fulfilling its promise due to numerous challenges faced by many schools and communities.

Recommendations to teachers, principals and the Department of Basic Education (DBE) were made based on the literature review and the findings of this study for the improvement of practice in the schools and in teacher training institutions.

KEY WORDS

LIST OF ACRONYMS

AFT	American Federation of Teachers
ANA	Annual National Assessment
Bed	Bachelor of Education
CD	Curriculum Differentiation
COVID-19	Coronavirus Disease
DBE	Department of Basic Education
DI	Differentiated Instruction
DoE	Department of Education
FG	Focus Group
FP	Foundation Phase
HOD	Head of Department
IE	Inclusive Education
MI	Multiple Intelligences
NSC	National Curriculum Statement
OBE	Outcomes Based Education
PIRLS	Progress in International Reading Literacy Study
SA	South Africa
SPEd	Special Education
SIAS	Screening, Identification, Assessment and Support
TIMSS	Trends in Mathematics and Science Study
UNESCO	United Nations Education, Science and Culture Organisation
UNISA	University of South Africa
ZPD	Zone of Proximal Development

Table of Contents

LIST OF TABLES

LIST OF FIGURES

CHAPTER ONE

1. PROBLEM AND ITS BACKGROUND

1.1 INTRODUCTION

This study explored teachers' perceptions of Differentiated Instruction (DI) as a strategy of meeting learners' needs in the Foundation Phase (FP) at a school in Tshwane South District, Gauteng Province, South Africa. The chosen school is situated in a metropolitan high-density suburb, characterised by a growing population and rich diversity in terms of language, ethnicity and economic prominence.

The aim of the study was to explore teachers' opinions and beliefs of DI, and how these perceptions influenced their classroom practices. The study hinged on the postulation that teachers' perceptions play a major role in the effective implementation of DI.

A study conducted by Rasheed and Wahid (2018) revealed that the learning process is affected by the learners' learning style, the emotional state of the learner, financial status, cultural background, motivation by the teacher, content modification and one's own current knowledge. Teachers, principals and all other stakeholders in education acknowledge that every student learns in different ways, and they unanimously agree that differentiation is the answer to increasing learner diversity in today's classrooms (Ober, 2016; Huebner, 2010; Kreitzer, 2016; Tomlinson, 2014; Suprayogi, Godwin, & Valcke, 2017).

1.2 BACKGROUND

Diversity in learning styles, the idea that individual students learn differently (Dixon, Ysee, McConnell & Hardin, 2014; Yu, 2016) rests on the constitutional equality clause that prescribes equal treatment and no discrimination in accordance with South Africa's Bill of Rights (1996). The Education White Paper 6 (2001) also emphasizes equal rights of learners and maximising their participation by exposing and reducing barriers to learning. Learners have the right to be treated according to their particular abilities and needs (Oswald & Villiers, 2013). DI has its roots in the Inclusive Education (IE) movement. To discuss differentiation meritoriously, it is eminent that it should be done in the context of IE. IE has its origins in Special Education (SPEd). The SPEd

model was meant to respond to the needs of children with learning challenges due to disability. When SPEd practices fell under criticism from human rights activists, its effectiveness was brought under the spotlight and this led to the introduction of integration. Integration brought learners with learning challenges into the regular classrooms (mainstreaming) to learn alongside learners with no learning disabilities so that they acquire certain life skills (UNESCO 2005).

The learner with a disability was expected to fit into the mainstream class. However, proponents of inclusion argued that difficulties experienced by learners have very little to do with learners' circumstances and qualities within them but are largely due to the way "we do" school (Gadzikowsk, 2016). They argued that instead of learners' needs shaping classroom practices, standardized curriculum goals take precedence. Teachers are often driven by unnecessary demands towards meeting or completing the syllabus rather than adjusting to the pace and the preferences of the learners. The concept of special needs was then re-conceptualised to deviate from the traditional perspective. DI an inclusive view, that facilitates the equitable provision of education opportunities to all learners across the learning spectrum was adopted (McIntush, Burlbaw & Turner, 2018).

DI is closely related to curriculum differentiation (CD), a concept that recognises students' learning preferences and includes them in designing the curriculum, for example, designing a curriculum for the exceptionally gifted (Rasheed & Wahid, 2018). DI, on the other hand, modifies any curriculum for the learner at the classroom level (Huebner, 2010; Solari, 2013). DI and CD are therefore interdependent but not synonymous concepts (Kanevsky, 2011). In this study, DI sometimes referred to as differentiation, refers to how the teacher makes learning objectives attainable by all learners in the classroom (Doubet and Hockett, 2015).

Differentiation is an international concept that is embraced by several agencies around the world. Korea has an education initiative that addresses increasing student diversity in classrooms. Canada has an initiative that is meant to deal with challenges brought in by immigration and population explosion (Cha & Ahn, 2014). USA, Belgium, Switzerland and many other countries have policies that prioritise the implementation of DI in all classrooms (Suprayogi, Godwin, & Valcke, 2017).

As a result, a number of governments and international organisations around the world have adopted the recommendations of the Salamanca Statement (1994). This statement was issued by UNESCO at a World Conference on Special Needs Education in Spain in 1994, and it recommended that all schools should be inclusive (Chauhan & Mantry, 2018). UNESCO's aim was to help governments spearhead inclusivity through all educational programmes in their jurisdictions, UNESCO (2005).

Historically, the provision of education in South Africa was exclusive. This created social inequalities in the spheres of further education and employment opportunities (Walton, 2011). To address these inequalities, the South African government consulted with and engaged at many levels with education stakeholders locally and internationally as a move towards transforming the education landscape to one that is inclusive (Oswald, 2013). To guide the process of transformation the government put the following policies in place among others, to be upheld by all learning institutions and organisations in the country:

"*The White Paper on Education and Training in Democratic South Africa (1995), the South African Schools Act (1996), the White Paper on an Integrated National Disability Strategy (1996) and the Education White Paper 6: Building an Inclusive Education and Training System (2001)" (Booyse, Le Roux, Seroto, & Woolhuter 2011:93).*

The Department of Basic Education (DBE) obligates teachers to acknowledge and address learning differences in all teaching and learning environments. In 2011 DBE published guidelines to assist teachers in dealing with increasing diversity in the classrooms. These guidelines favour the implementation of DI as the best strategy of supporting and facilitating effective learning in a diverse classroom (DBE,2011). According to the guidelines teachers must understand and use differentiated approaches when teaching, assessing or relaying assessment results.

Although the differentiation model has been widely researched, its effectiveness in practice is not clear (Drew, 2010; Huebner, 2010). Economic factors, social dynamics, and scarce resources bring new dimensions of diversity into the classroom every day (Kanevsky, 2011). Hoadley (2013) believes that these factors impact on the teachers' perceptions and the implementation of DI. The use of standardised curriculum goals such as administering the Annual National Assessment (ANA) and Progress in

International Reading Literacy Study (PIRLS) further complicates the implementation of DI (Beasley & Imbeau, 2015).

Further research is therefore warranted on the topic, to continually evaluate and reflect on the effectiveness of DI in the light of current trends in learner diversity. Through this case study, focused on School X in Tshwane South District in the Gauteng Province, the researcher explored how FP teachers perceive DI and how this probably shapes their classroom practice. This district was easily accessible to the researcher, and the school was selected through purposive sampling because it possessed unique characteristics to enable reliable answers to the research questions. The FP was selected for this study because it is where the basis for formal learning is established. If a solid foundation is laid, further schooling is made easier.

1.3 RATIONALE FOR THE STUDY

With an increasing call for IE in all educational settings, research shows that 'primary school classrooms in South Africa are characterised by an 'underprivileged pedagogy' (Hoadley, 2013:44). Limited opportunities are available for learners to explore, and the use of activities that probe abstract thinking is rare. Research shows that DI is not common practice in many classrooms, and the majority of schools cannot affirm its consistent implementation in day-to-day teaching and learning (Dixon et al. 2014; Lunsford, 2017). Although teachers can define DI and explain it in detail, its actual adoption in practice remains critical (West and West, 2016; Taylor, 2017; Suprayogi, Godwin, & Valcke, 2017).

A plethora of strategies were introduced by the government through the White paper 6 of Education, to support the execution of IE in the schools (Lake, 2010). The Education White paper contends for the necessity to change the education system as a whole, in a bid to challenge all obstacles that face learners in their everyday learning environments (DBE, 2001). It also emphasizes previously and currently disadvantaged groups of learners. It announces the move away from traditional forms of teaching that were not particularly inclusive, to more learner-centred approaches.

Among other strategies that govern the equitable provision of education, the Screening, Identification, Assessment and Support (SIAS) policy (DBE, 2014) is worth mentioning. SIAS was initially implemented in the schools in 2015 with the purpose of

ascertaining the barriers to learning and the support needed for such learners. The SIAS policy advocates for appropriate support programmes that address the impact of barriers to learning in the classroom to be developed. It continues to form the mainstay of dealing with increasing learner diversity in all learning spheres. SIAS is meant to provide guiding principles to schools in dealing with learners who may need support in their school work by selecting appropriate programmes that will suit their specific needs and improve their involvement (DBE, 2014). SIAS helps to manage and support the learning progressions which have emotional impact on learners within the system (DBE, 2009). According to the SIAS policy, efforts must be made to meet the learners' needs at their local school before referrals to special schools can be considered.

Guidelines for Full-service/Inclusive Schools (DBE, 2009) were also made available as part of the White Paper on Education to direct schools on the roles and significance of special school resource centres, and how to make the best use of inadequate expert skills to support learning of children with challenges. Guidelines for Responding to Learner Diversity in the Classroom were published in 2011, to outline various methods to using DI in the classroom (DBE, 2011). These guidelines, were designed with differentiation at the centre of the process of addressing diversity in schools. The guidelines were meant to influence in-service teachers' training programmes by simplifying the whole process of differentiation and making it easy to understand and implement. The guidelines favour innovativeness, flexibility and open-mindedness on the part of teachers (DBE, 2011). The aim was to ensure that differentiation became effective.

The expectation was that teachers should understand diversity contextually and be able to interpret the curriculum, taking into account all learner needs as they occur in each unique setting. However, Oswald & de Villiers (2013) and UNESCO (2005) indicate that the guidelines and other similar policy initiatives have not succeeded in changing school and classroom practices sufficiently, hence significant attempts are essential in providing equal learning opportunities to all learners (Ledwaba, 2018). This study, also aimed at promoting among teachers the culture of reflection on pedagogical practices in the light of learner diversity. It sought to encourage teachers to express their views on issues that pertain to their practice. The focus was on trying

to understand teachers' beliefs and opinions on the use and efficacy of DI strategies in order to make recommendations on how its effectiveness can be enhanced.

1.4 STATEMENT OF THE PROBLEM

DI has always been at the core of the National Curriculum Statement (NCS) which aims to ensure that children learn in ways meaningful to their lives. Whether teachers are prepared to spend enough time to persistently implement DI in the classroom or not, will determine the future of inclusive classrooms. (Tomlinson, 2015). The ever-increasing learner diversity gives rise to volatile classroom environments that influence teachers' attitudes towards DI and the adoption of learner-centred instructional practices (Hoadley, 2013; Beasley and Imbeau 2015). This study investigated FP teachers' perceptions of DI as a strategy of dealing with learner diversity.

1.5 RESEARCH QUESTIONS

1.5.1 Main research question

What are Foundation Phase teachers' perceptions of DI?

1.5.2 Sub-questions

How do FP teachers perceive [what are their perceptions] about the relevance of DI?

How do FP teachers feel about the effectiveness of DI?

What do teachers think about their pre-service and in-service experiences on DI?

1.6 AIMS AND OBJECTIVES OF THE STUDY

1.6.1 Aim

The aim of this study was to identify teachers' perceptions of DI and their impact on classroom practice in the Foundation Phase at a Tshwane South District School in the Gauteng Province of South Africa.

1.6.2 Objectives

The major objectives of this study were to:

Establish teachers' opinions on the relevance of DI.

Find out whether teachers believed in the effectiveness of DI or not.

Find out teachers' opinions on how pre-service training and in-service professional development programmes have impacted on their understanding of DI strategies.

1.7 DELIMITATIONS OF THE STUDY

The scope of this study was confined to the FP school teachers at one chosen school in Tshwane South District. It focused on the perceptions of teachers who taught FP classes only. The study was exclusively a qualitative investigation because it dealt with human insights and relations in their normal situation.

1.8 LIMITATIONS OF THE STUDY

The research was limited to one selected school in Tshwane South District. Time and financial restraints necessitated the restriction of the study to one primary school in one district, hence limiting it to the case study method. The study of one school limited the size of the sample, rendering the qualitative approach most appropriate in this case. The results of the study could not be generalised to a larger population because of the narrow scope of the sample size. The researcher worked at the research site and was acquainted with the neighbourhood. Findings were interpreted based on the researcher's experiences and the use of member checks.

1.9 CONCLUSION

This study was an attempt to understand FP teachers' perceptions of DI at a school in the Gauteng Province of South Africa. It sought to establish how these perceptions possibly influenced teachers' classroom practices. The National Curriculum Statement (NCS) embraced DI as a way of dealing with increasing learner diversity in the classrooms, to create equal learning opportunities for learners from all walks of life. DI is not a new concept in education but its effective implementation has been surrounded by controversy. Understanding the position of teachers in the FP on DI is critical in a quest to addressing the challenges and limitations hampering its effective

implementation, because unless teachers understand DI beyond theory its promise will remain a travesty. It is also of the utmost importance that teachers' perceptions on DI be understood to ensure that as implementers they are assisted in developing suitable mind-sets that will see DI fulfil its promises in all classrooms.

CHAPTER TWO

2. LITERATURE REVIEW

2.1 INTRODUCTION

This chapter reviewed literature on constructivism, social constructivism, differentiated instruction, diversity and factors that influence teachers' perceptions of DI. The discussion aimed at offering a synthesis of teachers' perceptions of DI and their classroom practices in order to find gaps in the present knowledge base, and help improve teaching and learning. Social constructivism formed the conceptual framework of this study and was used to explain the dynamics of teachers' perceptions of DI.

2.2 CONCEPTUAL FRAMEWORK

The conceptual framework is the rational conceptualization of the complete study (Kivunja, 2018). It must be metacognitive, philosophical and effective. The conceptual framework comprises of high order deliberation on the aims, rationale, methodology, data collection and interpretation, the world view in which the research is located and how the findings will be reported (Kivunja, 2018). According to van der Waldt (2020) a conceptual framework comprises of the particular interest of the researcher, a review of similar studies and a theoretical framework.

2.2.1 Constructivism as a theory

The theory of constructivism was upheld by John Dewey (2011) who is considered as the founding father of constructivism (Akpan, Igwe, Mpamah & Okoro, 2020). Major contributions to constructivism were also made by Vygotsky (1978), Piaget (1978) and Bruner (1996). Constructivism claims that people create knowledge rather than knowledge being transmitted to them (Dagar & Yadav, 2016). It asserts that when learners come across new information, they associate it with their previous knowledge, to decide whether they discard the new information or alter what they already know to accommodate new information (Akpan et al., 2020). Dagar & Yadav (2016), said that constructivism embodies one of the immense philosophies in education because of its vast suggestions on ways of teaching and how teachers can be trained to teach

effectively. The philosophy of social constructivism maintains that learners construct rather than discover knowledge.

Constructivist theories are influential as they have paved a way for a paradigm shift in instruction and pedagogy (Alanazi, 2016; Amineh & Asl, 2015). Constructivism favours practical approaches of learning like reflecting and talking about experiences. This often takes place in social settings where learners interact with peers and their teachers. The concept of constructivism, therefore, centres on the following claims: knowledge is constructed through interaction with others rather than transmitted; learning hinges on prior knowledge; learning takes place in social contexts and learners build and transform knowledge through engaging in authentic tasks (Dagar & Yadav, 2016).

According to Amineh & Asl (2015) constructivism is a combination of both behaviorialist and cognitive principles. It is an educational theory that prioritizes learners' prior knowledge in teaching and learning grounded on epistemology. It maintains a stance that learning is not a process of acquiring but of constructing meaning through interaction with the social and cultural environment (Amineh & Asl, 2015). Proponents of constructivism include among others, Maria Montessori (1967), Jerome Bruner (1996) and Vygotsky (1979). This study is focused mainly on the social constructivism perspective of Vygotsky (1979).

2.2.2 Social Constructivism as the Conceptual Framework

The socio-cultural theory is not another way of teaching; it is a theory that explains how children learn. It has its roots in epistemology and it underscores the role of learner experiences in all learning situations (Derakhshan & Faribi, 2015). According to Alanazi (2016) the history of social constructivism dates back to the days of Socrates who emphasised a process of dialogue between teachers and learners in order to explore, understand and interpret hidden knowledge. The socio-cultural theory contends that it is when learners play an active part in the thinking process, pondering on issues and coming up with conclusions based on reason and careful consideration that learning takes place (Alanazi, 2016).

Lev Vygotsky (1896–1934) developed the concept of social constructivism further by claiming that learning is socially driven. According to Moodle (2015) social constructivism concerns itself with progress, edifice, and how society works, in social groups sharing a culture, artefacts and meaning created through the collaborative effort of members of that particular group. Viney (2019) defines social constructivism as a theory which claims that knowledge is constructed within social contexts, and that truth is dependent on social dynamics. This argument is based on the assumption that there is no objective truth, knowledge can change as society changes (Viney, 2019). The Vygotskian theory forwards three important themes regarding the teaching and learning process; social interaction; role of a mentor and the zone of proximal development (ZPD) (Vygotsky 1979).

Social interaction

Vygotsky claimed that learning is a vastly collaborative process where learners interact with peers or their teachers, Vygotsky (1983). Social constructivism endeavours to challenge content-centred methods, it is learner-centred and concerted (Dagar & Yadav, 2016; Amineh & Asl, 2015; Jia, 2010; Rasheed & Wahid, 2018). Vygotsky (1983) posited that learners build knowledge by mutually helping each other refine new concepts in a social set-up. He argued that all advanced intellectual functions originate from social interactions and are entrenched in the learners' social backgrounds and should be interpreted as such (Akpan et al., 2020).

The social constructivist teacher will guide learners on how to deal with new encounters. Vygotsky (1983) refers to this guidance as social referencing. The idea of social referencing views group effort as an effective way of developing skills and strategies. Teachers should aim to provide enough opportunities for learners to learn from each other.

The role of a mentor

Vygotsky (1979) underscored the role of a mentor in tackling challenging tasks to reach a level of independence. The teacher must be a facilitator in the learning process, and be able to decide what assertions need to be made about the curriculum and make amends to instructional practices (Least, 2014). The support that is offered by the teacher is referred to by Vygotsky (1979) as scaffolding. Scaffolding is affording the learner individual support to enable their advancement from acquired knowledge towards novel conceptions. This is emphasised in the early learning years, in the foundation phase, and can still be applied throughout the other learning levels.

A social constructivist teacher does not dispense knowledge, they rather motivate, guide and act as a resource person who can assist by giving scaffolding tasks (Alanazi, 2016) in the zone between what learners can do independently and the point where they need support in order to solve problems (Tomlinson, 2014). This gap is called the Zone of Proximal Development (ZPD).

The Zone of Proximal Development (ZPD)

Vygotsky (1979) posits that the gap between doing something independently and with support illustrates phases of intellectual growth, which differs between people (Tomlinson, 2014). The ZPD is of great significance for teachers, if they would implement successful pedagogical practices in their classrooms as it informs their lesson planning (Least, 2014). Constructivist teachers must assist learners to arrive at a shared understanding by creating common ground and enhancing communication. ZPD informs teachers on how to offer scaffolding, ensuring that support is adjusted to the level of the learners current understanding (Alanazi, 2016).

This research was focused on differentiated instruction, an inclusive education strategy that aims to address issues of diversity in the classroom. The three Vygotskian themes namely social interaction; role of a mentor and the zone of proximal development (Lake, 2010) are of boundless impact and they formed the conceptual framework for this study. This conceptual framework was used as lenses through which data was collected and analysed.

2.3 DIFFERENTIATED INSTRUCTION

According to Cole (2019), DI is identifying student needs and meeting them so they can learn. Gadzikowsk (2016) says, DI is altering instruction, strategies or resources to meet the unique needs of all learners. Tomlinson (2014), avers that DI is the teachers' response to the diverse learning needs in a general classroom. According to Gadzikowski (2016) DI has been favoured mainly in special needs education, but further refers to developing research that supports the fact that DI also works effectively in mixed ability classes at both primary and secondary level. DI is one of the amazing theories that have changed teaching for the best (Suprayoyi, Godwin & Valcke 2017; Rasheed & Wahid, 2018). Aldosari (2018) supports this view when he points out that DI advocates for a shift from one size fit all approaches to methods that will allow for positive learner participation in the education system. Bajrami (2013) refers to DI as a primeval idea that continues to profile classroom practice in the wake of an increasingly civilising humanity, where critical thinking and problem solving form the basis of every vocation.

2.3.1 History of differentiated instruction

The oldest records of differentiated instruction, found in the literature I consulted date back to the 16th century in the American one-room school house system. These one-room school houses were general classrooms with learners of varying ages taught together by one teacher with no technology (Smith, 2010). Around 1889 new ideas surfaced suggesting that learners of the same age could learn material in a similar way. This lead to grading in the schools, so that learners of the same age were grouped to learn and progress at the same time (McIntush, Burlbaw & Turner, 2018). Around 1912, achievement tests were introduced to assess the level of learner abilities within grade levels (Weselby, 2014). These revealed that, despite previous assumptions that learners of the same age could learn similarly, there still existed disparities in learner performance with some failing to keep up with their peers (Smith, 2010). Teachers at that time began to work hard to use instructional strategies that sought to meet each learners' needs in terms of pace and learning style (McIntush, Burlbaw & Turner, 2018). Teachers tried to make each learner reach expected goals at their own pace.

2.3.2 Development of Differentiated Instruction within the South African context

DI instructional methods were and still are based on the belief that teachers can develop relationships with their learners, that will lead to a clear understanding of learner needs (Tomlinson & Imbeau, 2010). This understanding would then improve the presentation of material and assignments in ways that would answer to learners' needs and interests (Tomlinson, 2013, 2014). DI is consistent with the South African Constitution, which welcomes diversity in all forms and discourages exclusivity. All learners need DI, an opportunity to learn how to create, rather than consume knowledge (Rasheed & Wahid, 2018). In South Africa (SA), DI was accelerated in the post-apartheid era, in order to address the inequalities that existed due to the discriminating education policies of the apartheid government (Weselby, 2014).

Prior to 1994, the dual system of education that was in place lacked inclusivity. There was segregation in terms of race, gender and ethnicity. Mainstream schools accommodated children of "normal" needs and special schools provided special education to those learners who could not cope in the mainstream (Weselby, 2014). Special schools were few and mainstream schools had no teachers with special education training. Disabled learners from disadvantaged backgrounds were either left to attend mainstream schools, where there were no resources and teachers were not fully equipped to deal with their needs. They would go through very rigorous screening to be placed in very few special schools or remain out of school (Olk, 2019). This resulted in about over 200 000 disabled learners at that time remaining out of school (DoE, 2001).

The dual system of schooling failed to provide education at an equitable basis. The government then introduced a system that would create equal opportunities for all. Learners with disabilities were integrated into the main stream (UNESCO 2005). An Outcome Based Education (OBE) was established with the notion that every learner is capable of learning successfully but not at the same pace or same way. The National Committee on Education Support Services (NCESS) (1997) and the National Commission on Special Education Needs Training (NCSNET) suggested that OBE was not only inclusive but offered flexibility in curriculum coverage (Nel, 2017).

The adoption of OBE was a clear indication that policies were becoming more learner-centred and focusing on inclusion. Integration resembled the one-room school house approach whereby learners' needs were to be addressed in one classroom by one teacher with learner needs directly influencing instruction delivery (Nel, 2017). OBE aimed to make sure that there was inclusion in the school system.

Inclusion in education means responding to diverse learner needs in the classroom, by increasing their involvement in activities that appeal to their needs in line, with the South African Constitution (1996) (Chauhan & Mantry, 2018). This could be done by altering instruction, strategies and/or resources to meet the unique needs of all learners, which is called differentiation (Gadzikowsk, 2016). Tomlinson & Imbeau (2010), says that in differentiation teachers would adjust their lesson plans to suit the needs of learners instead of learners trying to adjust to the lesson plans. This suggests that DI is an inclusive education practice. It developed as a strategy that would make sure that all learners' needs are met in a diverse classroom.

In 2012, through the National Curriculum and Assessment Policy Statements of 2011 the Department of Education developed guidelines for responding to learner diversity in the classroom (Maddock & Maroun, 2018). This was to guide teachers on how to deal with diversity in the classrooms. DI is also reflected in the Education White Paper 6: Special Education, which recognises inclusivity in the classrooms amidst increasing diversity. According to the White Paper 6, learner participation must be increased by uncovering barriers to learning (DBE, 2001). Other policies that support DI include Building an Inclusive Education and Training System, South African Schools Act (1996), and the Screening, Identification, Assessment and Support (SIAS) document among others (Oswald & de Villiers, 2013). The government also established structures such as the Full-Service Schools (FSS), District-Based Support Teams (DBSTs), Institutional-Level Support Teams (ILSTs), Special Schools as Resource Centres (SSRC), Learning Support Educators (LSEs) (DBE, 2001).

DI is learner-centred, it ensures that each learner gets an opportunity in a way that appeals to their understanding and at a pace that suits them best. It is the recognition of every learners' personality, history, values, interests, learning preferences and capabilities that they bring into the classroom to upturn their impetus and success (Phasha, Mahlo & Dei, 2017; Rasheed & Wahid, 2018). Pasha, Mahlo & Dei (2017)

further notes that in a South African context DI not only focuses on disability it emphasises on social inclusion and addressing learners' diverse needs.

Sparapani & Perez (2015) emphasise that DI is a strategic approach to teaching that allows learners to make choices so that they learn through activities that are attuned to their interest. DI has become a necessity in all school settings due to inevitably growing learner diversity. It has gained favour in all modern learning situations due to its uncompromising learner-centred approach (ASCD, 2011). Teachers can differentiate content, present learning material through different means or learners can express their understanding of what is learnt in a variety of ways (Sparapani & Perez, 2015).

DI has evolved with technological advances and can be used even in digital classrooms making it easier to reach learners beyond the traditional four walls and in numbers (Danley, 2020). Many tech tools are at teachers' disposal to enhance DI by adopting different approaches such as listening and watching video clips, answering online questions, online quizzes and educational games. Teachers can use videos and enrich the environment by ensuring that the space looks professional and well illuminated. Technology offers the ability to break online classes into flexible-groups, such as the virtual breakout rooms and student-led chat forums to create a comfortable cybernetic space for learners (Rasheed & Wahid 2018). Learners may watch videos as in flipped classroom and enjoy extended classroom time, allowing them to learn at their pace. Technology allows the teacher to target learners' visual, aural, tactile and kinaesthetic senses (Danley, 2020). DI's relevance in the classroom is timeless and boundless.

2.3.3 Differentiated Instruction and Social Constructivism

According to Suprayogi, Godwin, & Valcke (2017), advocates of DI insist that the impact DI has on student learning is insurmountable because of its responsiveness to learners' personalities, backgrounds, and abilities (Tomlinson, 2014). DI is a social constructivist approach to teaching that emphasises on learner-centred methods, which is one of the most imperative contributions of social constructivism to education (Sparapani & Perz, 2015). Instruction is adapted beyond sequential and simple thinking to new levels of abstract thinking, where learners can create new knowledge in unique ways (Crim, Kennedy & Thornton, 2013). According to research all learners

can benefit from DI irrespective of their level of ability (Thakur, 2014). In the implementation of DI, teachers who take a social constructivist approach will not just disseminate knowledge but will provide constructivist learning environments for learners to construct knowledge, and learn from each other (Kapur, 2016; Lynchh, 2016)

Teachers should act as guides and provide necessary tools to facilitate the process of learning, taking into consideration inconsistencies between learner current knowledge and the new information (Alanazi, 2016; Vygotsky, 1986). Constructivist teachers are aware that learners do not understand matter the same, and that the ZPD differs from one learner to the other (Aldosari, 2018). They provide scaffolding according to each learners' needs. Constructivist teaching is about supporting learners in understanding new information, finding solutions to their problems in the context of their existing knowledge and co-constructing knowledge in their social context (Kapur, 2016). The constructivist teacher creates the activities that are adequately flexible to allow growth in student enquiry and an atmosphere in which learners can experiment, interact and experience learning material directly (Lynch, 2016).

Social constructivism, however, has been criticised for its emphasis on the ZPD learning along with its lack of structure (Lynch, 2016). Some scholars argue that teaching each learner within their ZPD may result in some learners falling way behind others with teachers not realising this fact due to the absence of standardised evaluations. Learners may stay comfortable in their ZPD, create no new knowledge, but just replicate what others in their group are doing (Kapur, 2016; Thakur, 2014; Crim et al. 2013; Lynch, 2016). Kapur (2016) argues that diversity means not all learners will be able to thrive in less structured environments, disadvantaging those who need structure and evaluation to make it. Learners who struggle with relationships may also find it difficult to thrive when working in groups (Thakur, 2014).

Despite its shortfalls, social constructivism promotes involvement in order to develop understanding through discovery which is the focal point of DI. It takes into account different learner needs across the learning spectrum, answering to challenges that come with diversity in the schools. It places each learner at their best position to learn effectively, thereby fostering inclusion (Aldosari, 2018). Whether DI becomes a reality

in each class is dependent upon (among other factors) the perceptions of the teachers, who are responsible for fostering constructivist learning environments.

2.3.4 Differentiated Instruction as a Teaching Strategy

Teachers must understand DI to implement it effectively. They must be capable of designing class activities that will equip learners with all necessary skills to understand the vital components of the prescribed educational programme (Dixon et al. 2014). DI is not about helping academically challenged learners only, but also concerns meeting the needs of all learners along the learning continuum in heterogeneous classrooms (Lunsford, 2017). Differentiation, according to Uche (2016) is the recognition that all learners have a different way of learning. DI is, therefore, a pedagogical practice tailored towards making learning opportunities accessible to all learners.

The essence of DI is teaching standardised content using different approaches such that every learner is met at the level of their understanding (Rasheed & Wahid, 2018). Effective use of grouping, assessment and classroom management strategies are essential (Weselby, 2014; Tomlinson, 2014) to ensure successful implementation of DI.

Differentiation can be done at different levels such as content, learning environment, and assessment levels. Teachers need to use such strategies as learning centres (areas in the classroom filled with manipulatives to trigger learner interest), curriculum compacting (high ability learners can skip the work they already know) and graded assignments among many more approaches in order to effectively differentiate instruction.

2.3.5 Advantages of Differentiated Instruction

DI by its nature is learner-centred. It focuses on the needs of learners. It tailors instruction towards meeting individual needs rather than group needs as in one-size fit all approaches (Tomlinson, 2014). When using DI, teachers endeavour to come up with ways that make learners learn in ways that suit them best. It strives for equity by affording each learner a fair chance of understanding material. All learners are given

due consideration and their needs directly influence what is delivered to them (Drew, 2010).

DI empowers learners, because it enriches their learning experiences. The presentation of learning material is done in many ways, giving learners options should they not understand one or the other approach. This intrigues learners' enthusiasm about engaging with learning material (Strogilos, 2018). In my teaching experience I have seen that promoting constructivist learning environments increases enthusiasm and conceptualisation as learners feel free to participate and valued. One of the premises of OBE is that "successful learning promotes even more successful learning". DI leads learners to grow eagerness for learning because they want to explore more (Weselby, 2018)

2.3.6 Disadvantages of Differentiated Instruction

The success of DI is connected to the number of learners in a class because it thrives on using flexible groups. Ideally the groups must not comprise more than five learners and not more than four groups per teacher (Strogilos,2018). This makes DI a challenge to implement in classes of over 20 learners without a teacher assistant. Varying lessons per individual are not always practical due to time constraints. Teachers may group learners in flexible groups and vary instruction according to the small group needs. This compromises its effectiveness (Drew, 2010) and leads to inconsistencies in DI application (Strogilos, 2018).

DI is a resource intensive strategy. A variety of materials are needed in order to facilitate effective attention to all learners' learning styles and intelligences. This caters for learners from different backgrounds. Under-resourced schools cannot afford DI due their economic standing, leaving learners disadvantaged (Strogilos, 2018). Even in well-resourced schools, teachers still have the challenge of having to juggle many resources in one lesson (Drew, 2010).

The success of DI hinges on parent-teacher communication as learners will need to continue with the practice of tasks at home, under parental supervision (Drew, 2010), especially in the Foundation phase. Where parental involvement is a challenge this may lead to drawbacks on the progress made in class.

DI is almost like organised chaos as such traditional teachers and principals may find it difficult to embrace (Strogilos, 2018). Some teachers may use DI to justify low expectations of some learners leaving those learners at a disadvantage. This may compromise the quality of the outcomes or lead to dumbing down of content that is below standard on struggling learners (Bajrami, 2013). DI has been criticised for being unrealistic in the context of standardised tests. Teaching is done in varied ways but expectations are standardized. This seemingly defeats the purpose of the strategy. Learners who do not like reading may avoid it completely only to be expected to display good reading skills in the test. According to Drew (2010), in this case DI is doing learners a disservice.

Despite its drawbacks, DI is essential. It is still an effective and valuable approach in the education of all learners, Strogilos (2018). Carefully planned and well executed it may offer a solution to complications that come with diversity in mixed ability classrooms, Bajrami (2013). In my years of teaching first grade I have seen differentiation work. I have had learners who were practically not ready for grade one at the end of their reception year with perceptual challenges, who later excelled remarkably in their first grade both in numeracy and literacy due to the use of DI strategies.

2.4 TEACHERS' PERCEPTIONS OF DIFFERENTIATED INSTRUCTION

Teachers' perceptions of DI are either positive or negative attitudes, opinions, emotional dispositions and state of mind on DI as a teaching approach (Amineh, 2015). Perception is the progression through which external stimuli is assimilated to bring meaning to it. According to Lunsford (2017) teachers' perceptions of DI play a key role in its execution, because perceptions inspire everyday choices. Perceptions influence decisions and actions taken by teachers in the classroom in response to diversity (Lynch, 2016). These instructional choices will determine whether all children learn or not (Aldosari, 2018). When teachers have positive perceptions about DI, they are likely to find a way to implement it effectively.

The impact of social constructivist perspective on this research is its ability to explain what teachers should offer to the learners to make teaching and learning effective.

According to Amineh (2015), understanding people's perceptions can enable us to predict how they may behave in different circumstances, and help determine their future needs. If teachers' perceptions of DI are understood, it is likely that this information can inform future teacher training programmes. Sparapani & Perz (2015) believe that the way teachers are taught deeply influence how they teach. Teachers perceptions are likely to be positive towards DI if they are trained to be constructivist teachers rather than being told to be. Teacher training must be informed and transformed in order to improve implementation of DI in the schools. Teachers who hold a constructivist view are likely to embrace DI as a teaching strategy because their personal construct system says knowledge need to be constructed and not transmitted (Lynch 2016).

According to Vygotsky (1978) language, social context, and cultural history are social tools that play indispensable roles in learners' intellectual development and in their perceptions about the world. The relevance of social constructivism as a conceptual framework in this study is based on its postulation that adults in the learners' milieu are channels for the tools of the culture that enhance their learning (Sparapani & Perz, 2015). Social constructivism calls upon teachers as mentors and facilitators to modify materials and structure an environment that fosters peer interaction to enable effective learning for all learners (Sparapani & Perz, 2015). The structured environment, materials and peer interaction are key principles of DI. The Vygotskian theory underpins the need for the creation of chances for learner-learner and teacher-learner collaboration in every classroom (Kapur, 2018).

Social constructivism is applicable in this research because it has been endorsed by philosophers and educationalists, among them Piaget (1886-1980) and Vygotsky (1896–1934) as an approach that attempts to eliminate teacher-centred methods of teaching and learning (Amineh, 2015, Vygotsky 1986). Lynch (2016) supports this view by stressing the importance of an apt constructivist learning environment (CLE) in all learning settings. The CLE according to Lynch (2016) will nurture debates and high level collaboration among learners. Lynch (2016) further suggests that in social constructivism, teachers should reflect on their teaching methods in order to move away from content-centred methods to learner-centred approaches. This reflection on teaching practices contributes to the teachers' ability to assess their effectiveness

against the level of diversity in their unique cases. Wu, Wan, & Wong (2015) assert that constructivist teachers should be more open to exploring and forming new notions about teaching and learning.

Suprayogi, Godwin, & Valcke (2017) believe that teaching beliefs are vital in prompting classroom behaviours that influence their exertions, determination, and willingness to embrace differentiated instruction in the face of diversity and challenging learner behaviour.

2.4.1 Factors affecting teachers' perceptions of DI

Resources

Learning resources are tools used to facilitate teaching and learning. Resources may be human or non-human such as textbooks and information and communication technologies (ICT) Dangara (2016). Resources are crucial to enhance students' learning through discovery and for providing both in-service and pre-service teacher training programmes that would aim to improve self-efficacy and equip teachers with constructivist attitudes (Wesley, 2017).

Many schools in South Africa are still under-resourced. Irregularities in terms of resource allocation are still far-reaching, from skilled teachers who can implement inclusive strategies such as DI to availability of electricity and textbooks in the schools (Lake, 2010). Mboweni (2019) explained how he observed poor physical conditions in classrooms of the selected schools, to an extent that teaching and learning in those conditions was a challenge. Lake (2010) points out that this is regardless of efforts by the government to mitigate these challenges by trying to redistribute resources equally. Many schools still lack funds to implement DI effectively, especially in mixed ability classrooms (Human Rights Watch, 2015).

In a study conducted by Badugela (2012), teachers decried the shortage of textbooks and they indicated that their schools were under-resourced, a fact that was detrimental to the implementation of DI. De Jager (2013) found that teachers complained that they were without resources to make DI a reality in their classrooms. Lake (2010) discovered that teachers who were knowledgeable and willing to implement DI said

they had resorted to teacher-centred methods due to lack of resources to make DI possible. Lunsford's (2017) findings also attested to challenges in the implementation of DI due to lack of resources. Sparapani & Perez (2015) confer that in the absence of resources and appropriate training, teachers return to traditional ways of instruction which hinder the learning process for many learners. According to Bray, Gooskens, Khan, Moses & Seekings (2010) the unequal distribution of resources as prevalent in most SA schools restricts teachers' effort to implement DI effectively.

Class size

The argument whether large class sizes have a negative impact on instruction delivery or not has been on-going for years (Wesley, 2017). A prominent study which came up with an unequivocal conclusion was carried out in Tennessee around the 1980s, according to de Jager (2013). A study project, Student Teacher Achievement Ratio (STAR) convincingly found that small classes were advantageous in trying to increase learner achievement. These findings were confirmed by the Brookings Institution in 2011, namely that a reduction of at least 32% in class size could increase student achievement considerably (Whitehurst & Chingos, 2011).

Further studies on class size carried out in other places like Texas and Israel also support the STAR findings. However, studies carried out in California showed inconclusive findings while studies in Florida and Connecticut showed no effects of class size on student achievement (Whitehurst & Chingos, 2011). Where all learners' educational needs are met and instruction is delivered with effectiveness high student achievement can be attained (Wesley, 2017). In cases where teachers struggle with large numbers of learners, differentiation may be a challenge to implement (Whitehurst & Chingos, 2011).

A study by de Jager (2013) indicated that teachers claimed maintaining discipline in a differentiated classroom was a challenge. The effect of class size wields itself on teachers' class management skills. Large classes mean a higher demand for differentiation because of wide diversity (Suprayogi, Godwin & Valcke,2017). This means diversity in character and more challenges with behaviour issues (de Jager, 2013). According to Lake (2010) large class sizes make DI very difficult to implement given the limited time in the instructional timetable and other resources. Oswald (2013)

found that teachers preferred smaller classes to facilitate effective teaching in ways that are meaningful to their learners. Dynamics in large classes means that learner achievement is affected adversely (O'Neill, 2012).

Sparapani & Perez (2015) argue that DI does not work in large classes only because teachers fear DI. Teachers lack necessary class management skills (Munro, 2013) as they believe that DI is chaotic and uncertain. Teachers will rather use standardised content-centred approaches that minimise learner participation and put learners in a 'leash' (Munro, 2013; Sparapani & Perez, 2015). Schanzenbach (2014) contends that class size matters because research backs the logic that learners thrive in small classes and teachers find them effective.

Training

Donohue & Bornman (2014) allude to the fact that teacher training in SA is oriented towards achieving policy goals rather than on the theory of knowledge that would help teachers understand and implement DI as an inclusive strategy in their classrooms. Teachers, therefore, lack constructivist skills that are key to the implementation of learner-centred approaches (Nel, Tlale, Engelbrecht & Nel, 2016). Under such circumstances it is difficult to make teachers change their content-centred classroom practices (Lake, 2010). In a study Munro (2013) found out that teachers are without necessary classroom management skills that would support effective implementation of DI.

Dixion, Ysse, McConnell & Hardin (2014) say that available teacher preparation programmes present teachers with superficial introductory theory to differentiation not sufficient for mixed ability classrooms. They further point out that professional development courses provided on differentiation lack depth in equipping teachers with constructivist skills that will help them to change their teaching practices. According to Nel, et.al, (2016) some teachers have not adopted constructivist views of being facilitators rather than dispensers of knowledge. Studies have also confirmed that some teachers are not confident in their abilities to deal with diversity reporting challenges in using constructivist approaches to teaching, such as group work and cooperative learning (Lake, 2010; Oswald & Villiers 2013).

Some teachers who participated in various studies acknowledged receiving training on DI but they noted that it was not sufficient to sustain its continued effective implementation in the face of increasing diversity and rising teacher-pupil ratios (Lunsford, 2019; Njagi, 2014; de Jager, 2013; Maddock & Maroun, 2018). Professional development workshops on DI were criticised by some teachers as too brief, poorly facilitated, not well timed and that their content hardly matched the current classroom realities (Marishane, 2013; Suprayoyi, Godwin & Valcke, 2017). In general, some teachers expressed inadequacy in terms of preparedness to implement DI (Engelbrecht, Mirna, Sugnet & van Deventer, 2016)

In some studies, however, teachers who had more training on DI either through professional development or pre-service training, felt more confident and willing to differentiate instruction, regardless of type of school or resources (Dixion et al., 2014; Temesgen, 2017).

Time constraints

Since learning is a process of constructing knowledge through interaction and reflections on experience, it calls for ample time. Time is needed to provide opportunities for this construction to take place. Time is also needed to design instruction that caters for all these learners who are at different ZPD levels. Finally, time is essential to prepare teachers and equip them on how to handle the process with effectiveness.

Although Tomlinson (2014) advises that DI planning does not require extra time, most teachers believe that planning DI lessons is time consuming (Lake 2010). Teachers in various studies said they did not have enough time for effective differentiation, considering the pressure to cover the syllabus, high expectations on results alongside vast workloads (Lake, 2010; de Jager, 2013; Njagi, 2014; Munro, 2013; Fereira, 2019). According to Wesley (2017) it would seem that overloaded timetables, standardized achievement goals, coupled with tight deadlines for testing, contribute to teachers' challenges in trying to implement DI effectively. Findings by Lunsford (2017) also confirmed that teachers are finding the availability of time affecting the implementation of DI.

Policy

According to Aristotle (384 – 322 BC) education is a political issue (Wesley, 2017). It is designed to serve the political ideologies of those who have the governing power (Sparapani & Perez, 2015). The present day state of SA education is a product of policies established during apartheid (Maddock & Maroun, 2018). Policies that govern education are not passed by educators themselves, so there tends to be a gap between policy goals, possibilities, and limitations of knowledge in the implementation of constructivist inclusive strategies like DI (Donohue & Bornman, 2014). Ferreira (2019) reveals that equivocal and difficult to implement government policies still impact teachers' daily practice over a decade since the implementation of the White paper 6. A study conducted by Oswald (2014) established the gap between policy goals and classroom realisms.

Teachers believe that OBE lacked structure and challenge standardisation in the curriculum is rife (Maddock & Maroun, 2018; Rasheed & Wahid, 2018). Textbooks and the learning objectives are in standard form. The scripted curriculum or the Annual Teaching Plans (ATPs) diminish prospects for lessons to be adjusted in ways that answer to the variations of learner preferences in the classroom (Wesely, 2017). Some teachers also bemoaned the unfairness posed by this DI approach in assessment (Lake 2010). Learners are expected to respond to standard assessments where instruction was personalised (Lazarin, 2014).

Policies around learners' discipline have also been criticised (Maddock & Maroun, 2018). The system of detentions for discipline are perceived to have no positive effect except creating disobedient non-complying students. Many teachers in Maddock & Maroun (2018) said CAPS has failed to raise the standard of instruction but has complicated the teaching process.

Socio-economic factors

Besides MI, and learning styles there are so many socio-economic factors at play in the classroom that bring diversity. These range from parental involvement, family economic background, emotional state of the learner, background knowledge Language of Teaching and Learning (LoTL). Parents and guardians are key role

players in education and their support in education cannot be undermined (de Jager, 2013; Department of Education, 2001). Teachers need to involve parents and guardians throughout the child's learning journey (de Jager, 2013). In most SA schools' teachers face challenges of poor parental involvement due to an array of socio-economic challenges (Nel, et.al, 2016). Teachers continue to face insubordination from parents and guardians who are just not interested in making it more difficult to meet the needs of all learners as they should (Ledwaba, 2018).

Language is one of the social tools by which education is driven. In schools, language also poses a barrier in cases where the home language differs from the LoTL (DBE, 2011; Nel, et.al, 2016). Sometimes teachers have to accommodate learners with visual, auditory, or even vocally impaired learners. In cases where teachers were not fully prepared, DI can be a challenge (DBE, 2015). Teachers should understand learners' emotional, visual and auditory needs and accommodate them in lesson planning. The classroom environment must be accommodating and positive.

2.5 DIVERSITY

Diversity is the essence of humanity and it manifests in almost all classrooms today. Diversity is discussed in this study as a major driver towards the need for DI. Tan (2019) defines diversity as the manifestation of variances that exist among people within a given social setting. Ly (2020) says that a diverse group has a variety of cultural and social features. These differences may be defined in terms of gender, race, ethnicity, religion or nationality. Diversity plays a major part in the need for inclusive education practices like DI in the classroom. Understanding diversity will inform pedagogical decisions taken by teachers to meet learners' needs in mixed ability classrooms.

Beasely & Imbeau (2015) describe contemporary classrooms as having a 'tapestry of diversity' in terms of academic profile, culture and language. Diversity in education implies that not all learners will learn from the same resource and same process, each will need a personalised programme (Rasheed & Wahid, 2018; Tomlinson, 2014; Njagi, 2014). Dunn (2020) believes that acknowledging diversity is the admission that people differ in one way or another. Armstrong (2019) avers that diversity is broad, it includes but is not limited to race, background, colour, language, ethnicity, gender,

nationality, physical ability, religion, mental ability, socio-economic status, learning styles and age, hence the need to diversify the way we deliver instruction.

2.5.1 Diversity: Howard Gardner's view

One of the recent contributions to understanding diversity in the classroom is the theory of multiple intelligences (MI) by Howard Gardner (1979). Gardner (1979) believed that individuals do not have one intellectual capacity but a variety of aptitudes and skills which he termed intelligences. Gardner (2013) described intelligence as a diverse dynamism rather than a single inborn human psyche (Ly 2020). Gardner (1979) contends that individuals display intelligence in the way they interpret the world around them, and decipher everyday challenges.

Gardner believed that children would prefer different ways of learning due to them being different by nature and nurture. He proposed eight forms of intelligence that he claimed define ways by which people learn new information, *see Table 2.5.1* below*. Gardner (1979) suggested that MI should influence the way instruction is delivered. He avers that diversity challenges educational systems to move away from one size fits all assumptions both in instruction delivery and in assessment for learning. Education systems should not be inclined to oral and rote learning styles of teaching and evaluation at the expense of practical, learner-centred approaches (Herndon, 2016).

According to Crim, Kennedy & Thornton (2013) the MI theory exclusively underpins and compliments DI as it emphasises that teachers need to recognise all intelligences in order to meet every learner's needs. The MI theory helps teachers understand diversity in the classroom by explaining the eight intelligences that manifest in intricate ways, directly influencing how instruction should be delivered. MI endorses individualized instruction; teaching each learner in the best way they can learn. It also calls for pluralisation which is teaching concepts in different ways and using various approaches of assessment, to enhance student learning (Derakhshan & Faribi, 2015).

Table 2.5 2 Summary of Gardner's Multiple Intelligences

Verbal-linguistic intelligence	well-developed verbal skills and sensitivity to the sounds, meanings and rhythms of words
Logical-mathematical intelligence	ability to think conceptually and abstractly, and capacity to discern logical and numerical patterns
Spatial-visual intelligence	capacity to think in images and pictures, to visualize accurately and abstractly
Bodily-kinaesthetic intelligence	ability to control one's body movements and to handle objects skilfully
Musical intelligences	ability to produce and appreciate rhythm, pitch and timber
Interpersonal intelligence	capacity to detect and respond appropriately to the moods, motivations and desires of others
Intrapersonal intelligence	capacity to be self-aware and in tune with inner feelings, values, beliefs and thinking processes
Naturalist intelligence	ability to recognize and categorize plants, animals and other objects in nature
Existential intelligence	sensitivity and capacity to tackle deep questions about human existence such as, "What is the meaning of life? Why do we die? How did we get here?"

The table above shows Multiple Intelligences as proposed by Gardner (1979)

The impact of the MI theory in this study is its ability to provide teachers with an explanation of why learners will learn differently, and how they can use multiple intelligences to exploit learner strengths without focusing on their weaknesses (Armstrong, 2017). MI clarifies how classroom objectives and support learning can be framed in a diverse classroom environment. It is its ability to unveil various schooling accessories that exist beyond traditional, conformist, verbal and common-sense methods such as rote learning and lectures that makes it relevant in this study. Herndon (2018) states that learners display more conscientious and intense interests to participate in the learning process when they are taught in the dominant learning intelligences. Keeping MI in mind will help teachers to present concepts in a number of ways (Gardner 2013).

Due to massive diversity in the schools, Gardner (1983) further suggested reforms in assessment methods. Assessment should take into consideration the diverse intelligences and be presented in a way that will allow all learners to have a fair chance of succeeding. He recommends that learning programmes should shift their focus on skill advancement and construction of knowledge. This needs talented teachers who are capable of using research-backed approaches alongside community support (Derakhshan & Faribi, 2015).

Despite claims by critics of MI who argue that its approaches "dumb down the curriculum" by creating an artificial "feel good" atmosphere, without practical support for it (Armstrong, 2017), MI continue to influence how instruction should be delivered. Armstrong (2017), downplayed MI due to lack of sufficient practical support for its validity. Kennedy & Thornton (2013), however, contend that given the fact that individuals resort to learning in ways they understand best and they have their strengths in, the concept of MI is exclusively fit to sustain and improve a differentiated classroom. MI brings to the fore the positive qualities of all learners, and it provides concrete means of holistically involving them in the process of creating new knowledge (Derakhshan & Faribi, 2015).

While MI is a rather new idea, it is an admission of the existence of different coherent abilities in an individual, clarifying how principles and views influence learner abilities (Murray & Moore, 2012). MI focuses on content, process and products. Teachers focus on adapting the environment to suit learner preferences alongside content and lesson delivery (Kennedy & Thornton, 2013). The MI theory can be used to facilitate differentiation of the content and how it is to be delivered. MI-inspired lessons appeal to a range of learners' intellectual domains (Murray & Moore, 2012). It offers learners the opportunity to construct new knowledge in environments that suit their abilities.

2.6 CONCLUSION

Although differentiation has been researched and used in education for decades, the question always remains whether it is, in fact, the answer to increasing diversity (Delsie, 2015). Can it offer equal learning opportunities in all classrooms? Do teachers understand what it really entails? Do teachers use it anyway and to what degree of

effectiveness? It was hoped that the outcomes of this exploration would bring to light the prevailing beliefs and practices of FP teachers in respect to differentiated instruction. The aim was that this research would help teachers to reflect on and evaluate their own pedagogical practices in the light of current trends in learner diversity. The research findings would provide necessary information to school principals and SMT members, to help them identify where teachers need support to improve access to learning opportunities by all learners in the schools. The outcomes of research would inform curriculum planners for teacher training programmes and further raise awareness with the Department of Education on the needs of staff members for staff development purposes.

CHAPTER THREE

3. RESEARCH METHODOLOGY AND DESIGN

3.1 INTRODUCTION

This chapter discusses and explores methodological choices for this research. The qualitative research method was chosen as the most appropriate approach in helping the researcher to answer the main research question. The case study research design served a good purpose towards achieving the aims and objectives of the study as mentioned in section 3.3. The role of the researcher in qualitative research methodology was outlined by discussing sampling procedures, data collection methods and how data was analysed. This chapter describes how the researcher handled issues of validity, reliability and ethical considerations of the research. The study sought to obtain an in-depth understanding of FP school teachers' perceptions of differentiated instruction and how it influenced their classroom practice. The chapter further outlines the plan of action towards arriving at the goals of this research.

3.2 RESEARCH APPROACH

This study intended to discover teachers' beliefs and opinions on the effectiveness of DI. A qualitative study approach emerged as the best method to get participants' opinions through less structured methods in order to explain phenomena (Dennis, 2016). The qualitative method allowed for the collection rich data from the perspective of a small number of participants to contribute to more general understandings of DI (Braun & Clarke, 2013). This research was conducted at a school in Tshwane South District, Gauteng Province in South Africa. Only foundation phase teachers at School X were interviewed.

3.3 RESEARCH DESIGN AND PARADIGM

This research was carried out within the constructivist paradigm. According to Adom, Yeboah and Ankrah (2016) the constructivist paradigm is an approach that states that reality is made by people in social ways, and it is a product of mutual understanding. The assumption in this research was that there are multiple realities (Creswell, 2013). The researcher believed that truth is subjective and can be established through

interaction with human subjects in their natural settings (McMillan and Schumacher, 2014). The researcher viewed subjects as participants or co-researchers who played an integral part in co-constructing the understanding of their perceptions of DI in the FP. This relativist approach helped the researcher to understand whether teachers understood DI and its effective implementation in the FP. The constructivist paradigm deemed qualitative research methods suitable in this case so as to facilitate an in-depth understanding of the participants' perceptions of DI. Therefore, this study adopted the case study design.

Heale & Twycross (2018) define a case study as a rigorous, organized exploration of an individual, group or community by a researcher to get in-depth data. This research design permitted the researcher to take a multifaceted and extensive topic, or phenomenon, and taper it down into (an) adaptable research question(s) (Creswell, 2013). According to Sammut-Bonnici & McGee (2017) the case study design attempts to present insights on unusual and innovative events in a particular situation.

This case study examined teachers' perceptions of DI in a natural setting. It sought to increase understanding of teachers' opinions through conducting in-depth interviews with several participants (Creswell, 2013).

3.4 POPULATION AND SAMPLING

The aim of this research was not to generalise the results to a population but to increase understandings into teachers' attitudes in the execution of DI. Participants were, therefore, purposefully selected FP teachers to maximise understanding of the phenomenon as it occurs in the FP (Omona, 2013).

The research targeted eight information-rich cases, all FP teachers. The target population was fairly small and the subjects shared the special characteristics relevant to the research (Leedy, Ormrod & Johnson, 2019), hence purposeful sampling was rendered appropriate. These participants were interviewed and a focus group meeting was conducted.

The school was selected with the belief that the learner population in the school is fairly diversified for teachers to have first-hand experience of current trends in learner

diversity. This judgment was based on the general assessment of the geographic and demographic location of the school.

3.5 DATA COLLECTION INSTRUMENTS

Data collection in qualitative research is directed by open-ended questions which should be unstructured and flexible (Mosera & Korstjens, 2018). According to Leedy, Ormrod & Johnson (2019), data collection is a procedure of constructing a body of knowledge which aims at bridging the knowledge gap in order to improve practice. The data collection method chosen depended on the researcher's goal, which was to understand the participants' personal viewpoints and their everyday practices in relation to differentiation (Mikos, 2014). In this study the researcher used in-depth interviews and a focus group discussion to engage with foundation phase teachers to gain insight into how they understood and interpreted their experiences of differentiated instruction. According to Gibbs (2018) interviews and focus group discussions are narrative instruments which in this research facilitated the outlining of the teachers' stance, understanding and opinions concerning DI.

3.5.1. *Semi structured in-depth interviews*

Semi-structured, open-ended interview questions provided a platform for both the researcher and the participants to interact and discuss DI in detail (Leedy, Ormrod & Johnson 2019). The researcher used an interview guide to probe the participant's reasoning (Burkett, 2013) enabling the effective collection of qualitative data on the topic. Both standard and individually tailored questions were used to understand teachers' experiences and opinions on DI. Schneider, Coates, & Yarris (2017), posit that the interview provides deeper, more detailed answers and allows further development of thoughts and responses.

3.5.2*. Focus Group (FG) Interviews*

A focus group is a combination of interview and observation techniques aimed at gaining understanding of a topic from the deliberations of a sample of a larger group

of the population (Schneider; Coates, & Yarris, 2017),). The researcher facilitated the discussions around the research questions. The focus group (FG) was best suited in this case because the researcher sought to better understand the experiences of a particular subgroup, which is the FP teachers in this case. The researcher facilitated a group discussion to get insight into the opinions of participants as suggested by Rapley (2014). The FG meeting gave participants an opportunity to discuss their opinions on DI as a teaching strategy that counters challenges of learner diversity in the FP. Nyumba et al. (2018) suggest the FG brings an understanding of the stories, points of view, beliefs, needs and concerns of participants. The interview was semi-structured consisting of probe questions, follow-up questions and exit questions.

3.6 *SAMPLING PROCEDURE AND SIZE*

According to Mosera & Korstjens (2018), sampling in qualitative research is the practice of deliberately choosing participants who offer rich data on the topic of interest. The frequently considered sampling strategies are purposive sampling, criterion sampling, theoretical sampling, convenience sampling and snowball sampling (Mosera & Korstjens, 2018). In this study the researcher used purposive sampling to select the participants. Purposive sampling refers to intentionally select a particular subcategory of the overall population, to more systematically comprehend their perceptions (Schonfielder, 2011). Leedy, Ormrod & Johnson (2019) suggest that the use of purposive sampling in exploring phenomena (teachers' perceptions of differentiation at School X) was based on the fact that participants (teachers in this school) were regarded as rich sources of information necessary for answering the research questions of the study. The population involved teachers who taught in the FP in the selected school. They were requested to randomly pick a number and those who picked number three were included as participants in the focus group interview. The educators who picked number one were included to participate in in-depth interviews. Each educator was given an equal chance to select any number.

Table 3.6. 1 Sample size: In-depth Interview

Educator	Grade taught	No. of Interviews
1	1	1
2	2	1
Total	2	2

The table above shows the number of teachers who participated in the in-depth interviews.

Table 3.6. 2 Sample size: Focus group

Educator	Grade Taught
3	1
4	2
5	3
6	3
7	R
8	R
Total	6

The table above shows the number of teachers who participated in the focus group interview.

3.7 DATA COLLECTING PROCEDURE

The researcher used interview schedules consisting of open-ended questions concerning participants' experiences, views and opinions of differentiation in the FP. According to Mosera & Korstjens (2018) interviews in qualitative research try to find the implications of fundamental themes in what participants say about their experiences. The interviews allowed for a healthy dialogue during focus group discussions. The researcher made arrangements with the participants before meeting them. The purpose of the interviews was clearly explained beforehand using information sheets sent via email. Participants were made aware that participation was voluntary and was to be conducted outside the hours of work. Participants were, therefore, asked to set times and dates that suited them. The interviews were carried out online on the Microsoft Teams platform. English was used as the prime language of communication but participants were allowed to code switch when it suited them to allow for accurate expression and clarity. In this respect probing questions were used by the researcher to explore all possible answers for the questions. The meetings were audio recorded after obtaining permission from the participants. Issues of

confidentiality were affirmed during and after the interview. Participants were thanked for taking part in the research.

Table 3.6. 3 Educator Profile: Focus group

Educators	3	4	5	6	7	8
Age	51	28	31	62	29	46
Gender	M	F	F	F	M	F
Teaching Qualification	Certificate in Education	B.Ed.	B.Ed.	Certificate in Education	H.B.Ed.	Diploma in Education
Teaching experience in years	26	5	7	32	4	12
Grade taught	1	2	3	3	R	R

The table above shows the biography of teachers who were sampled for the focus group discussion.

Table 3.6. 4 Educator Profile: In-depth Interview

Educators	1	2
Age	25-30	55-60
Gender	Female	Female
Teaching Qualification	Bachelor of Education Foundation Phase	Certificate in Education
Teaching experience	2 years	35 years
Grade taught	2	1

The table above shows the biography of teachers who were sampled for the in-depth interview.

3.8 DATA ANALYSIS AND INTERPRETATION

According to Creswell (2014), the process of qualitative analysis is a diverse and informative procedure that is conducted by observing patterns, themes, classes and symmetries. Flick (2013) says that data analysis is an essential phase in qualitative

research, as it determines the outcomes of the research. In this study, data was generated through online semi-structured interviews and focus group interviews, analysed through the narrative approach (Creswell, 2014). This approach took into cognisance the context and personal encounters of each participant (Dilshad & Latif, 2013).

Data from semi-structured interviews and the focus group were audio recorded, studied, coded and transcribed. Coding is the organized procedure of ordering and refining data for interpretation, it is defining what the data you are analysing is about (Gibbs, 2018). Data transcription is the act of providing a written version of spoken words (Stuckey, 2014). The researcher marked passages in the data using the codes and arranged the data in categories and labelled it according to themes and subthemes (Creswell, 2013). Data were interpreted to answer the main research questions of the study. A summary of findings was provided including recommendations arising from the findings. Data collected through the two instruments sufficed to provide a detailed understanding of participants' opinions and the rationale for their line of thought.

Analysing data helped the researcher to describe teachers' perceptions in some or greater detail (Flick, 2013). The processes of data collection and analysis were simultaneous so as to recognize possibilities that must be further probed and clarifications sought for unexpected results (Creswell, 2014).

O'Connor and Gibson (2003) describe the following stages in data analysis that were followed in this research as well.

Figure 3.7. 1 O'Connor and Gibson's stages in data analysis

Step 1: organizing the data

step 2: finding and organizing ideas and concepts

step 3: building over-arching themes in the data

step 4: ensuring reliability and validity in the data analysis and in the findings

step 5: finding possible and plausible explanations re the findings (communicating the information and organizing the information into a final report)

3.9 PRESENTATION

The data collected through in-depth interviews and FG discussions were processed using a narrative logic (McMillan & Schumacher, 2014). The findings were categorised into themes and subthemes, and also presented in narrative form.

3.10 CREDIBILITY AND TRUSTWORTHINESS

3.10.1 Validity

Noble & Smith (2015) define validity as the truthfulness of methods used and the accuracy in which the findings precisely resonate the data. Qualitative designs pass the validity test when there is a common understanding between the researcher's and the respondents' interpretation of events (McMillan & Schumacher, 2014). To enhance validity in this study a two-instrument strategy with mechanically and electronically recorded data was used. The two instruments, in-depth interviews and focus group interviews triangulated the results of the study (Creswell, 2014).

3.10.1.1 Triangulation

According to Parker (2013), when the researcher uses more than one method of collecting data it is called triangulation. Naeem (2019) says that data triangulation is sometimes referred to as cross-examination. It is a dual or even a multiple check of the findings attained from the research that helps the researcher to eventually arrive at a more complete and wholesome picture of the topic under investigation. Triangulation endeavours to chart out and expound completely the intricacy of human behaviour by studying it from more than one viewpoint (Naeem, 2019). Triangulation has been assumed to provide a comprehensive understanding about the phenomenon under study which would not have been possible should a single data collection method be used (McMillan & Schumacher, 2014). Triangulation encourages the researcher to search for more and better explanations about the issue being investigated. Carter, Bryant-Lukosius, DiCenso, Blythe & Neville (2014) posit that it is an approach to check validity through the merging of material from varied sources. In this research the researcher used data source triangulation (the use of multiple data collection methods) to test the validity of findings.

3.10.1.2. Prolonged involvement

Prolonged involvement refers to the span of time the researcher spends in the same setting with the considered participants. In this case, prolonged involvement was granted by the fact that the researcher belonged to the studied community. Although the participants were the researcher's colleagues the researcher did not hold any supervisory position at the school or in the foundation phase. The advantage of prolonged involvement is that it increased the measure of confidence between the researcher and the participants and to some extent reduced the threats of reactivity and respondent bias. The researcher was also aware that sharing experiences with participants may, however, pose a threat of researcher bias. Participants were likely to omit some details with the assumption that the researcher obviously knows about it. This may have led to missing valuable data crucial for the study. It was, therefore, paramount that the researcher maintained a positive attitude throughout the duration of the interviews, also making use of probing questions in order to get as much relevant information from the participants as possible.

3.10.1.3 Reflexivity

Reflexivity in qualitative research requires researchers to self-disclose their assumptions, beliefs, and personal values, that may shape their inquiry, early in the research to allow the understanding of readers' positions, and then to bracket those biases as the study proceeds (Creswell, 2014).

Lambert, Jomeen & McSherry (2010) argue that being completely unbiased in research is improbable and can thwart the research process. The researcher's biases on the topic under inquiry are vital to the exploratory process because this informs the choice of questions that are asked during the research and defines what the researcher considers to be essential for review, further shaping the interpretation of the data (Schneider, et al. 2017). According to Lambert, Jomeen & McSherry (2010) researchers should also guard against inclinations that will lead to what he refers to as the "Hollywood plot" that gives the impression that research findings are more positive than they actually are.

Reflexivity makes the researcher aware of his/her contribution to the creation of meanings and of lived experiences during the research process (Palaganas, Sanchez, Molintas, & Caricativo, 2017). Reflexivity was therefore a critical element of this study to maintain its credibility. The researcher used bracketing to incorporate reflexivity in this research.

3.10.1.4 Bracketing

Bracketing is a method used in qualitative research to diminish the potentially harmful effects of prejudices that may blemish the research process. It calls for a conscious setting aside of one's own beliefs about the topic under study or one's previous experiences, before and throughout the investigation (Chan, Fung & Chien, 2013). Creswell (2014) indicates that when the researcher is aware of personal bias and the need to avoid it so as to gain clarity and avoid any prejudice they are able to better describe a phenomenon in terms of its own natural arrangement. Steps were taken to maximise impartiality in this research in an attempt to ensure objectivity and ethical integrity. To make sure that findings were not compromised by self-interest, the researcher asked participants to provide member checks during and after the interviews.

3.10.1.5 Member checking

Birt, Scott, Cavers, Campbell & Walters (2016) say that there is a likelihood that the voice of the researcher may dominate that of the participants in data collection and analysis. It is, therefore, important that the researcher must be cautious not to enact their personal beliefs and interests in all stages of the research process (Birt et al., 2016). However, the potential for researcher bias might be reduced by actively involving the research participants in checking and confirming the results. According to Gibbs (2018), member checking is the most important exercise with which to strengthen a study. As a way of enhancing the trustworthiness of the findings in this study, after transcription of the audio recordings the researcher sent the interview transcripts to the research participants so that they could check for accuracy before analysing and interpreting the data (Creswell, 2013). The participants checked

whether their statements were a match of what they wanted to say or if the researcher had it all wrong.

3.10.2. Reliability

Reliability in qualitative research requires researchers to be thorough, cautious and authentic in all processes. The way in which interview questions are worded, how interviewer and respondent power relations are balanced, as well as the interview and respondent rapport are the key elements of reliability in qualitative studies (Kriukow 2018). It is about whether the researcher can depend and trust the data to answer the research questions to achieve consistency in the findings (Abdul, Raj & Chakraborty, 2015). The methodology and the nature of knowledge must be organised consistently to produce data that show clear relations between the concepts and categories on the topic of investigation (Leung, 2015).

To ensure that the findings are consistent with reality the researcher used established research methods such as purposeful random sampling, semi-structured questions and probing questions to ensure credibility. The process of what took place in the interviews was documented in detail as it unfolded to increase its dependability of the results. This should also enable any future researcher to replicate the work in similar settings, if not obtaining the same result. Steps were taken to help make sure as far as conceivable that the findings of the study were the result of experiences and thoughts of the participants' studies (Kriukow 2018). To ensure that the analysis of the results is consistent and reliable the researcher did transcription checking to avoid any obvious mistakes.

3.11 RESEARCH ETHICS

In order to comply with conventional research ethics, the researcher requested authorisation to carry out research as described below.

3.11.1 Approval to carry out a research study

The researcher first sought approval from UNISA's Ethics Committee to undertake this study. The researcher applied for authorisation to carry out the investigation at a selected school in Tshwane South District from the Gauteng Department of Education Offices. This allowed the researcher to access the selected school. The letter to the director outlined the purpose of the study, target population and the length of the study. Ethical considerations and the rights of the participants to participate by free will were lucidly stated and their privacy was guaranteed (McMillan and Schumacher, 2014). The researcher also requested permission from the principal of the participating school. Participants were sent letters requesting them to be part of the study. The letters outlined the purpose of the study, issues of confidentiality and anonymity, the duration of the study and times of the interviews. Participants were made aware that the interviews were to be voice recorded and they had to provide or decline permission for these recordings.

3.11.2 Confidentiality and anonymity

Hennink, Bailey & Hutter (2011) posit that anyone taking part in a research study has a rational anticipation that information given to the researcher will be preserved in a confidential manner. Confidentiality and anonymity are ethical practices intended to safeguard the privacy of human subjects while gathering, analysing, and reporting data. Anonymity is a procedure of collecting data without accumulating any individual, identifying information and thus maintaining confidentiality (Coffelt, 2017).

This study involved teachers who shared their personal opinions on the research problem. They were requested to make available their private time for the purposes of the study. Therefore, it was sensible to assure them in advance of confidentiality and anonymity. The information they provided was kept secure to avoid any possible harm they might incur as a result of the disclosure of such information. The researcher used codes and fictitious names for the school and for the participants.

3.11.3 Informed consent

According to Shahnazarian, Hagemann, Aburto & Rose (2017), informed consent is a voluntary agreement to take part in a research. The responsibility of the researcher is to make sure that participants do not merely sign a form but should understand the entire process of the research and its risks. The goal of the informed consent process is to provide sufficient information so that a participant can make an informed decision about whether or not to enrol in a study or to continue participation. The researcher designed an informed consent form for all participants to sign before conducting interviews and the FG discussion. The form gave the participants an understanding of the research and the freedom of choosing whether or not to participate in the study. The researcher made it clear to participants that no financial gain should be expected by either the researcher or any participants in the study. The consent form was stored separately from the data that were collected.

3.12 LIMITATIONS AND DELIMITATIONS OF THE STUDY

3.12.1 Delimitations

This study was limited to Foundation Phase teachers at one school. The essence of the study required a qualitative investigation technique because it dealt with human insights and their relations in their normal situation. Since the aim of this research was not to generalise the results to a population but to increase understandings into teachers' attitudes in the execution of DI the target population was fairly small. It consisted of eight information rich subjects who shared the special characteristics relevant to the research (Leedy, Ormrod & Johnson, 2019). To help identify the key themes of the research only two participants were interviewed before further exploring the emerging themes by conducting a focus group discussion. The study took place in Tshwane South District in the Gauteng Province of South Africa.

3.12.2 Limitations

Due to use of online platforms to collect data the researcher incurred additional costs to support participants with airtime and data vouchers. There were challenges of connectivity as some meetings were disrupted. Downloading and using Microsoft Teams with minimal technical support was a challenge to the researcher and the participants. Some participants became reluctant to participate due to lack of computer skills needed. Data collection was time-consuming and cumbersome as it was very difficult to get all focus group participants comfortable with Microsoft teams and able to log in successfully from different locations. Data collection for this research was carried out during the onset of the COVID-19 pandemic. This was a period of high uncertainty and emotional flux. This anxiety could also have influenced the way participants experienced their natural settings, and may have affected their perceptions.

3.13 CONCLUDING REMARKS

This chapter detailed the qualitative research methodology used in this research outlining the role of the researcher and the basis behind using a qualitative research approach. The choice of the case study research design was justified and its benefits discussed. The chapter explored the data collection methods used in this study. Data were collected by means of semi-structured interviews and focus group interviews and the analysis was outlined in detail. This chapter highlighted issues of credibility, trustworthiness and ethical principles that governed this study. Ethical certificates and permissions can be found as appendices at the end of the dissertation. The next chapter will be on the actual analysis and presentation data.

CHAPTER FOUR

4. DATA PRESENTATION, ANALYSIS AND INTERPRETATION

4.1 INTRODUCTION

In this study data were obtained by means of focus group and in-depth interviews. Data were then transcribed, coded and analysed using the narrative analysis approach. According to Creswell (2013) the narrative analysis approach requires gathering accounts of personal narratives through interviews and discussions and reporting on them in a sequential order in the context of participants' experiences.

The research questions and the literature review outlined in Chapter two, guided the discussion of the findings. The qualitative presentation of findings was done in accordance with the aim and objectives of the study. The aim of this study was to identify teachers' beliefs and opinions of DI in the Foundation Phase in a Tshwane South District school, and how these beliefs impact on their classroom practice.

Issues of confidentiality and anonymity were taken into consideration when data were interpreted and in the presentation and discussion of findings. The participants were referred to as participant 1, 2, 3, 4, 5, 6, 7 and 8. This meant that none of the responses could be linked to their true identities. Two teachers from the selected school were interviewed and one focus group comprising of six participants was formed. The main purpose of this study was to explore teachers' perceptions of differentiated instruction in the Foundation phase. This chapter presents analyses and interpretations of the data collected.

The remarks and interpretations made by participants were quoted verbatim as they were audio recorded during interviews in order to develop themes and subthemes to manage the discussion of the findings.

4.2 PRESENTATION OF DATA

This section presents the data collected through focus group, and in-depth interviews. A total of eight teachers were selected from School X in Tshwane South, Gauteng Province to participate in the focus group, and in-depth interviews. Data were transcribed and analysed narratively.

4.3 DEVELOPMENT OF THEMES AND CATEGORIES

The themes and sub-themes from raw data were developed within the framework of the main research aim. These themes were used to manage and order raw data in consideration of the theoretical framework and the literature review on teachers' perceptions of DI as outlined in Chapter two. The data from the two data collection techniques were classified into three themes and fifteen subthemes as shown in table 4.1 below. This classification made it possible for the researcher to deliberate on the findings of the study. The table shows that teachers' perceptions of DI at School X were influenced by three themes which are teachers' perceptions of the relevance of DI; teachers' perceptions of the effectiveness of DI and teachers' perceptions of their pre-service and in-service experiences on DI. The findings were categorised in the following three main themes under the main research questions.

Research question 1

What are FP teachers' perceptions of the relevance of DI strategies?

Theme 1: Factors that influence teachers' perceptions of the relevance of DI

Research question 2: What are FP teachers' perceptions of the effectiveness of DI strategies?

Theme 2: Factors influencing teachers' perceptions of the effectiveness of DI

Research Question 3: How does pre-service and in-service training impact on teachers' perceptions of DI?

Theme 3: Teachers' perceptions of their pre-service and in-service experiences of DI

Table 4.3 1 Themes and sub-themes

Research Questions	Themes	Sub-themes	
What are FP teachers' perceptions of the relevance of DI strategies?	Theme 1 Factors influencing teachers' perceptions of the relevance of DI	1.1	Learner profiles
		1.2	Background knowledge
		1.3	Socio-cultural and economic factors
		1.4	Pressure from increasing learner diversity
		1.5	Teachers' feelings about DI
What are FP teachers' perceptions of the effectiveness of DI strategies?	Theme 2 Factors that influence teachers' perceptions of the effectiveness of DI	2.1	Education policy and legislation
		2.2	Frustration due to lack of resources
		2.3	Classroom and class sizes
		2.4	In adequate time
		2.5	Work overload
		2.6	Classroom management
		2.7	Lack of parental involvement
How does pre-service and in-service training impact on teachers' perceptions of DI?	Theme 3 Teachers' perceptions of their pre-service and in-service experiences on DI	3.1	The gap between theory and practice in pre-service teacher training programmes
		3.2	Limited DI training in in-service professional development
		3.3	Increasing demand on the need for improved DI training

The table above shows themes and sub-themes of the research

4.4 DISCUSSION OF FINDINGS

In-depth interviews were the primary data collection method used to obtain data from participants about their perceptions of DI. The FG method was a secondary data collection instrument to further probe the responses obtained from the interview by engaging participants in a group discussion. Data obtained from FG were used to expand and substantiate data derived from in-depth interviews. The data showed about thirteen factors that influenced teachers' perceptions of DI. The factors were learner profiles, background of knowledge, education policy and legislation, classroom management, frustration due to lack of resources, classroom sizes, inadequate time, the gap between theory and practice, inadequacies in professional development and

the need to improve the impact of teacher training, emerged among some major factors that affect teachers' perceptions of DI during this study.

4.4.1 Theme 1: Factors influencing teachers' perceptions of the relevance of DI

Research Question: What are FP teachers' perceptions of the relevance of DI strategies?

The relevance of DI in the FP is largely influenced by such factors as different learner profiles, learners' background knowledge, socio-cultural and economic factors. According to the participants these factors were prevalent in their context and necessitated the need for DI approaches in their classrooms. This is in line with what Suprayogi, Godwin, & Valcke (2017) insisted on, that the impact of DI on student learning is insurmountable because of its responsiveness to learners' personalities, backgrounds and abilities.

Sub-theme 1.1 Learner profiles

Participants who were interviewed perceived DI as a relevant strategy. Here follows some of their verbatim responses:

"To me differentiation means that because people are different and learn differently they think things differently so we need different methods to help different people to understand things. The one thing I am trying to teach from the beginning of the year, let's take maths which is a fantastic to differentiate. When we do any problem sums or anything others will be doing little pictures, others will be using the abacus others will be using aah… little blocks or something the others will be using a method like minus or plus straight away because it's easier for them so that's what I love with differentiation it's very important".

"To me, DI triggers the differences in our learners be it in their learning styles, behaviour, and performance, interests their expertise and skill. I… I think the way in which different learners grasp new concepts, some learners may not be keen on numbers but prefer reading texts and so forth".

"Teachers must adapt their teaching to learners' learning styles to make sure that all learners are successful. Various methods must also be used to appeal to learners' multiple intelligences. The more ways we allow to explore a concept the more likely learners develop varied ways of solving their problems".

The responses of the teachers suggest awareness of the importance of using DI strategies in order to cater for diverse learner needs. There seemed to be an acknowledgement of diversity in learning styles and the existence of multiple intelligences among learners in their classrooms and that all learners learn differently. This finding implies that there is a need for a teaching approach that would accommodate all learners in the classroom, regardless of their readiness and interest.

Sub-theme 1.2: Learners' background knowledge

In school settings, background knowledge refers to information that children have acquired in the classroom or through life experiences. The participants' responses show a similar understanding of the importance of taking learners' background knowledge into consideration when planning and delivering instruction. The following views illustrate how the participants support this finding:

"…differentiation is a good strategy because it is learner-centred and will help the teacher to make different learners understand learning matter. DI makes sure that an attempt is made to meet everyone's needs. Learners also have different interests, others learn fast others are slow, In the foundation phase learners are also not on the same level of development some mature fast while others still lag behind. So using play and drawing lessons from their real life experiences which obviously different from one learner to the other is essential".

"Teachers must make children aware that there are as many ways of doing things as possible to solve problems, take them to educational tours as a school and expose them to the world outside. Involve parents encourage them to expose their children to geography and allow them to explore their environment as much as possible because this influences how children learn, background knowledge is important".

"Learners hail from different cultures, family backgrounds and have different learning styles etc. If I am to teach them successfully I need to understand their background and teach new concepts beginning from what they already know. I am happy to deal with these diversities because it affords me the chance to see different learners for who they are adding variations to would rather be monotonous class practices".

According to these findings it seems that teachers agree that it is essential to differentiate instruction to suit each learners' background knowledge. They appeared to be aware that these backgrounds must determine where the learner should start in the intended learning process. This suggests that DI is relevant in all learning settings to ensure that each learner is given the opportunity to learn from the known to unknown. This is consistent with Vygotsky's ZPD concept that claims that the learners' level of understanding must form the core of the planning process so that emphasis is placed on the relevance of learning tasks to various needs of the learners.

Sub-theme 1.3 Socio-cultural and economic factors

The existence of socio-economic and cultural factors such as age, disability, family income, community safety, home language, ethnicity and social support affect how well children learn. Participants were aware that they needed to take into account the potential impact of these factors when developing learning programmes. Two of the participants suggested:

"…differentiation can be really challenging because we don't know where these children are coming from for some maybe they come to school they can't focus because they are hungry they have no food at home. Some of the children you'll find that the language is a barrier, for some they live with guardians' or parents who are illiterate, others have never been to a holiday trip, some have been to the wild some have not. Life experiences are so diverse and the teacher has to be sensitive to these and accommodate all learners".

"Differentiation helps the teacher to use various ways that will accommodate learners from different social backgrounds as we have in our classes in this school. Teachers need to take into consideration learners' different physical needs, social

needs, emotional needs. These are often revealed in their behaviour or in their drawings or in the way they interact with their environment including their possessions. These factors influence the way children learn and we strive to include all in learning".

These findings show that teachers are conversant with the vastness of learner diversity in their classrooms and they are aware of the need to ensure inclusivity in this regard. This submits that teachers must work at understanding each learners' circumstances and prepare instruction tailored for their specific needs. This finding supports the claims of the socio-cultural learning theory by Vygotsky (1983) that calls for the utilization and the rewarding of the unique learner characteristics as an essential part of the learning process. It also coincides with the view of constructivists that place emphasis on "prior knowledge' which emanates from the learners' interaction with their social and cultural environment.

Sub-theme: 1.4 Pressure from increasing learner diversity

Diversity can be a challenge or a source of enrichment. Participants interviewed in this study had contradicting feelings towards diversity and the responsibilities it places on teachers. Some expressed their appreciation towards diversity that is found in their classrooms as follows:

"Diversity keeps me searching for more ways of doing things. It broadens my knowledge and skill. I love it yah … it keeps me rolling with the times (smile) there is no chance to lag behind. I always come up with solutions for new challenges. I deal with learners from different linguistic background in my class. This is complicated, because giving instructions in English when it's not their home language can be a problem. The other thing is different cultures and different ways of doing things, for example addressing adults or your peers. It's important to know what's wrong in my culture may not be wrong in theirs. So I endeavour to understand all those differences in order to meet those needs. Various forms of diversity make teaching interesting yet challenging at the same time! Every child I have ever taught is an individual. You as the teacher need to reach out to them in a way that will generate understanding of the world around them. It's challenging trying to treat 28 plus children as an individual but that's the beauty of teaching in

the Foundation Phase. You have a year to get to know your children and their needs. You spend plenty time with them".

"Learners hail from different cultures, family backgrounds and have different learning styles etc. I am happy to deal with these diversities because it gives me the chance to see learners for who they are adding variations to would rather be monotonous class practices".

"I love diversity. It makes me creative. Same methods and approaches every time can be tedious. Diversity brings variety and it makes me grow. It challenges me to grow in creativity through research and learn new things every day".

"Diversity brings variety which comes with challenges you know. Aah I feel challenged to think out of the box always. I always feel mandated to do the best whatever circumstance maybe so that every child gets what they deserve".

Some participants felt weighed down and failing to cope under the circumstances, and they had this to share:

"I find diversity challenging because there are a lot of things to do including sports, dealing with rowdy learners, dealing with complaining or uncooperative parents, and learner support. I have to keep class records and meet with parents when necessary. There is little time to be looking at who is different from who? Sometimes these reports they want are not important but we do them anyway at the expense of the learner. This also impinges on teachers' ability to teach effectively including the use of differentiated activities".

"I have come to appreciate diversity as the years have progressed. Having all these forms of diversity has challenged me as a teacher – to be intentional about finding different ways to teach a concept. I have also learnt to pitch my lessons to the average learner and then seek ways to scaffold and support those who are lower and challenge those who are above".

"That combination is a difficult one so that's why teachers need to have patience. You need to strategize find time to deal with their needs work with them step-by-step. Using different methods and styles which work for individual learners is not possible at all times. It is easier to teach all learners the same way but that is not

the best approach at all. Sometimes it is the only option because you must cover the syllabus and do assessments".

This finding makes it clear that teachers perceive diversity in different ways. While others are happy to embrace it and celebrate the differences among learners by making an effort to address them others, shun diversity and think addressing it effectively is a far-fetched reality given the circumstances in their context. The finding also reveals that some teachers think that teaching to the middle is the way to cope with diversity under the circumstances. This seems to imply that the way teachers feel about diversity will affect the way they deliver their instruction; they will either make an effort to differentiate or use a one-size fits all approach. This finding supports earlier findings made by Suprayogi, Godwin, & Valcke (2017) that a good number of teachers still use one-size fits all approaches despite their awareness that this leaves some learners at a disadvantage.

Sub-theme 1.5 Teachers' feelings about DI

Most participants in this study were in favour of the use of DI to address diversity in the classrooms. Below are some of their comments:

"Differentiation helps the teacher to use various ways that will accommodate learners from different backgrounds as we have in our classes in this school. Learners also have different interests, others learn fast others are slow, In the foundation phase learners are also not on the same level of development some mature fast while others still lag behind. So using play and differentiated activities is very essential".

"It is the best strategy. It helps you to look at learners in different ways from each other because the reality is that they are different and they learn differently. It directs teacher to focusing on learners needs which is key. Learning styles differ and differentiation is tailored toward addressing exactly that. So yaah! differentiation can be the answer as attention is directed towards appealing to learners' senses and learning styles".

"Yes, it could be. Foundation phase children are just entering the formal education system and they are never at the same level of development. They need those diverse approaches to make sure none is left behind".

"I would recommend differentiation as the best strategy because a teacher can present in different levels, different styles. Allow learners to sit in groups it allows flexible growth mind-set independent thinking, treat them fairly and equally giving them options and choice in learning/ participate in learning".

"I would recommend it because it does cater for differences in the classroom. In the FP learners are new to formal learning so if you are going to use a one size fit all approach you may lose most of them completely thinking that they are not smart. Their levels of maturity and cognitive development are still at different levels. They are still learning to discover their strengths so it is crucial that the teacher pays very close attention to each learners' needs in order to build a very solid foundation. If applied carefully DI strategies can also solve behaviour challenges in class every learner is met at their point of need. DI. tailors the teachers towards using different teaching methods and teaching various ways of solving problems".

"I would recommend it most and all the time. Those in less fortunate environments I would encourage them to improvise and be innovative with what they can find in their environment. Involve learners in collecting materials for use in class let them explore their environment and be practical as possible. Technology should be incorporated where practically possible".

From the above quotations, it seems that teachers believe in DI and they seem to agree that it could work. It is therefore implied that teachers appreciate the DI strategies and they acknowledge their relevance to classroom situations. This supports the findings made by Lunsford (2017). The teachers interviewed by Lunsford in the United States about DI conveyed positivity on DI and they expressed their convictions that it has possible positive effects on student learning.

4.4.2 Theme 2: Factors that influence teachers' perceptions of the effectiveness of DI

Research question 2: What are foundation phase teachers' perceptions of the effectiveness of DI strategies?

Whether DI met its obligations in the context of participants or not, this research was determined by such factors as Education policy and legislation, frustration due to lack of resources, classrooms and class sizes, inadequate time, work overload and challenges in classroom management. These factors were mentioned by participants as affecting how they feel about the effectiveness of DI at their school.

Sub-theme 2.1: Education policy and legislation

Government policies, laws and rules that govern the set-up of the education system provide a broad framework within which all teachers must operate. Participants expressed concern about the amount of assessment work. To support these findings three participants shared these views:

"CAPS is also an obstacle towards achieving differentiation goals. The problem with CAPS is that it is loaded with assessments forcing teachers to rush through learning content in order to assess. We cannot ignore it because it has to be done, and you would want to give a fair mark. The ANAs are standardized, reading tests also have to prepare learners to be reading at a particular speed and understanding by the age 9 or so. Some learners are slower than that but it does not mean they can't. This compels teachers to teach learners just to pass those tests. As I have already said CAPS is loaded we are always rushing trying to do this and that in order to reach assessment goals".

"I cannot do everything I want to do; I am limited by the curriculum. Standards are already set in such a way that I must teach to the specifications so that my learners can pass the assessments otherwise they will be retained. I must complete particular aspects of the curriculum in accordance with Annual Teaching Plans provided by the department. What if some of my learners are not ready for it at that time? I must aim that my learners pass the ANAs regardless of their level of capability at the end of the stipulated period. These are standardized in the sense that they were not set in consideration of the specific needs in each class"

"Standardized textbooks, learning material and assessments mean I have to spend a lot of time designing a curriculum that will fit my class best only to write a

standardized assessment at the end of it all. There is no consistency in this whole differentiation thing".

These findings reveal that teachers feel that curriculum standards deter their efforts to differentiate instruction. They expressed frustration over the number of assessments in the CAPS curriculum and the fact that they are standardised. This seems to imply that teachers see a lack of coherence between instruction delivery expectations and assessment expectations. This finding is consistent with claims made by Delsie (2015) who believes that differentiation is complex in its approach and Tomlinson (2014) who says DI is not easy to apply or to promote in schools.

Sub-theme 2.2. Frustration due to lack of resources

Resources are an important part of effective teaching and learning. Participants indicated that lack of sufficient resources had a negative impact on the effective implementation of DI in their classrooms. These are some of their verbatim responses:

"… we should have more scales in our classrooms you understand! not only one. We should have more counters, boxes, we should have computers and we should have things that are readily available in classroom not only for the library, things that are accessible to the children in the classroom. Each child should have his own apparatus to use for different things. We should have things like that as in an ideal school that would be fantastic. I'm certain some schools have gotten more resources are doing much better than we are doing. We have as many resources as we can in our school but as I said it is difficult because everything is costly today. If you have all these resources, you will have to have storage space for those resources".

"Resources are scarce. they are not enough for the needs. I usually augment available resources by improvising and looking for usable material from the internet from recommended websites and project it on the wall".

"It is easy to differentiate if resources are made available. Technology like projectors the internet and computers are available. They also help reaching out to learners. Learners share materials, now during the COVID-19 pandemic it is difficult to cope

as we have to limit sharing as much as possible. But we try our best with what is available you know… to make it work".

It seems learning and teaching resources play a major role in the effective implementation of DI. The findings reveal that teachers are finding it difficult to deliver differentiated instruction effectively due to limited resources. Mboweni (2019) experienced a similar finding when he was exploring teachers' morale. He found that that participants said they could not effectively deliver instruction as they should because they lacked sufficient resources.

Sub-theme 2.3 Frustration due to classroom and class sizes

The postulation that class size has a strong influence on learning is an ancient and contentious argument. Participants in this study admitted that classroom and class size play an integral part in the effective implementation of DI. To support this finding some participants had this to say:

"Space in the classrooms is very limited to enable the achievement of effective differentiation, it would be lovely if we could have learning stations in the classroom and you can stay there and work with children and work for as long as is necessary at a station doing this and then they move to another station".

"With classes so full there is that same problem as well as we do not have enough space for learning stations in my opinion. You could take one day and do something with e.g. water play the whole time with one group while others work with cards or sand on the other corner. I would love that, it would be fantastic but there is no space and that is a problem".

"There is not enough space to accommodate different learning centres and manipulative materials in the classroom, that would make it easier".

"…large classes under these circumstances make it difficult to attend to every learners' needs adequately".

"In my class I got 26 children imagine if I had 50 children like in some large schools in the country. I still find DI frustrating and time consuming because you have to keep on, you know, planning a different thing for those children at their different

levels. learners in the FP need close supervision and many groups may be difficult to manage".

"I think DI is very relevant in our schools but the reality does not ...I mean… measure up to the expectations of DI as anticipated by CAPS. Class sizes are too big and there are a lot of odds stacked up against our under resourced schools".

"It is possible to differentiate but in small classes. It is a challenge with large classes like 28 learners or above. During the COVID-19 pandemic class sizes were reduced by 50% pupils attending alternate. Teaching felt very different and effective. Teachers had time for each learner".

These findings suggest that teachers find managing differentiated activities in the classroom with large numbers a challenge. Participants were of the feeling that differentiation is exhausting because learners are too many in one classroom with limited space making it very difficult to meet the needs of all learners. Mboweni (2019) in his study in Bohlabela District also discovered that teachers said they could not deliver subject matter in their classrooms effectively due to overcrowding.

Sub theme 2.4. Inadequate time

According to participants, teachers are always racing against time to do what ought to be done and completed within given time frames. To support this finding, some participants explicate:

"… I can't really differentiate, there is not enough time, there are too many children, there is too much that must be done before the end of the year and that is the problem. I do differentiate as much as possible on my methods but it is difficult, it is not always possible and some children take long to even realise what they ought to do or what they are best at".

"Time allocated for themes/topics is not sufficient if you are to use different strategies for each learner, time is a major constraint especially within the CAPS framework that is overloaded with assessments and a lot of paper work on the part of the teacher. I am yet to see DI becoming fully effective".

"I think DI is sometimes frustrating because it is time consuming, you have to keep on, you know, planning a different thing for the children at their different levels".

"DI is challenging, cumbersome and time consuming but rewarding".

Wesley (2017) noted that participants felt that the limited time for instruction and the need to meet assessments deadlines frustrated teachers' inclinations to restructure and differentiate lessons. These findings also show that teachers in this study felt that limited time was an obstacle towards implementing DI effectively. This implies that teachers feel that DI could be effective if there was enough time to teach and fewer assessment demands.

Sub theme 2.5: Work overload

Participants felt that they were overloaded with unnecessary demands that interfered with their day-to-day teaching. To substantiate this finding some participants commented:

"It would be fantastic to be able to implement DI, but I have not seen it really work as claimed in theory. It sounds perfect, but yet difficult to implement given the circumstances. Teachers need to work round the clock to make it have a little effect. The demand on teachers is too much and sometimes unnecessary. There are extra-mural activities, authorities must just realise that putting pressure on teachers to produce this and that report is at the expense of the child. I believe in it; I just haven't seen it really become a success. I would love to do it absolutely with autonomy and less pressure for unnecessary goals and with little groups".

"If teachers would come into the classroom and concentrate on teaching only it will work even better. Teachers are overloaded with work, usually unnecessary expectations. There is too much interference from administrators, teachers work not only to benefit the child but to make sure the school admin is pleased and that, many times does not benefit the child at all. I feel teachers must be left to work".

These findings reveal that teachers feel that their time to focus on teaching and understanding their learners is compromised by extra mural, administrative demands and additional paper work. This means that teachers seem to believe that in the absence of all other demands and responsibilities outside instruction delivery DI can reach its effectiveness without hindrances. This coincides with findings by Aldosari (2018: 74) in his case study in the general education stages in Saudi Arabia, where

some participants felt that the overload of administrative responsibilities assigned to the teachers was an obstacle in the use of differentiated instruction strategies.

Sub Theme 2.6: Classroom management

Maintaining effective classroom discipline boosts learner confidence as the teacher will be able to pay more attention to individual needs. Participants pointed out that learner behaviour influences their willingness to use differentiated activities in the classroom. Participants had these views in this regard:

"Learners these days are rowdy and difficult to control, besides children in the FP especially the grade 1s, are still egocentric, working together to share resources can be difficult if they are to do it on their own while the teacher concentrates on another group. … and again children do not know really how to look after resources. Sometimes you've got such wonderful resources then you see in a little while they are not the resources you had at the beginning so that is also a problem again, learners are not responsible".

"There is a problem of working with groups in large classes. Lessons can become chaotic. Maintaining discipline is difficult and lessons may become unproductive".

"Learning material does not last, learners often become disorderly when left to work on their own, they tear books and break stuff easily. Discipline is also a challenge when you try to break the class into groups, lessons often become noisy and disorderly. I mean. To overcome these is by trying to be resourceful and innovative like… say aah using DIY materials where possible".

"Problems with behaviour hamper the smooth flow of differentiated activities in the classroom. Large classes are a challenge, time is the problem in most of the times so it is a two-way thing it's a yes you will try your level best and a NO because sometimes you find that you've got to move into something but still you have those learners who keep on disrupting lessons".

These findings show that teachers feel that learner behaviour is a challenge in their classrooms that affects their ability to implement DI effectively. This means that teachers believe that effective learning may not be possible in a noisy environment. It also reveals teachers' continuing battle with challenging behaviour in diverse

classrooms. These findings are consistent with the results of a survey of the American Federation of Teachers (AFT), which reported that 36 per cent of teachers in their survey had indicated they lost between two to four hours of instruction time per week due to disciplinary problems that compromise safety and leave teachers devastated (Sieberer-Nagler, 2016).

Sub-theme 2.7 Lack of parental involvement

Participants in this study noted parental involvement as one of the factors that influence their ability to implement DI effectively. Following are some of their verbatim responses:

"*Working with parents is very important because they may provide you with information that may help you to understand the learners' backgrounds. I observe learners when they are working and assess their work. When children are struggling then parents have to be involved in mapping every step forward. Some parents are very cooperative but at times parents have no interest, or they are simple in denial. Support in such instances may not be a success.*"

"*It is easy to identify children who are struggling because they cannot go through their work or they lack the enthusiasm. Assessing the root cause usually takes a lot of effort and screening. Always involving parents is the best idea. However sometimes parents may not always be being cooperative for various reasons.*"

From the above quotations participants seem to view parental involvement as the backbone of teachers' efforts of differentiating instruction for learners. This implies that teachers are aware of the major role that parents play in the learning of the child as they can provide a basis for understanding their profiles. This is consistent with the recommendations of the SIAS policy that stipulates parents must be involved in every step of supporting the learner.

Theme 3: Teachers' perceptions of their pre-service and in-service experiences on DI

Research question 3: How does pre-service and in-service training impact on teachers' perceptions of DI?

Modern day schools are faced with ever-increasing learner diversity. Teachers need to be fully prepared to use DI strategies to counter challenges of diversity. This should be supported by sound pre-service training and effective, ongoing in-service professional development courses. The extent to which teacher training is able to equip teachers with practical skills to use DI determines teacher efficacy and their perceptions of DI. Dixon et al. (2014) postulate that teachers must be capable of designing class activities that will equip learners with all necessary skills to understand the vital components of the prescribed educational programme. The gap between DI theory and practice in pre-service teacher training programmes, limited DI training in in-service professional development and the increasing demand on the need for improved DI training impacted on teachers' perceptions of DI.

Sub Theme 3.1 The gap between theory and practice in pre-service teacher training programmes

Participants had differing views on the impact of preservice training. Some participants felt that pre-service was not addressing differentiation as it should, as explained by two participants:

"We were not taught about differentiation when we were training, people didn't even think about it. There was just one thing for everybody so it's only in the later years that I realised that one can actually differentiate to accommodate learners through reading further. So it's not like I have been using it for many years. I adapt my teaching approaches to include all learners, for example I start with basic work and gradually decrease the difficulty level if a child doesn't understand the work, so I would like to get more training".

"Oooh yes! but I don't remember anyone mentioning differentiation in depth. It featured here and there just in passing. I feel differentiation must be a subject on its own. Teachers resort to one -size fit-all approach because they are not fully equipped during training. Teachers just use trial and error when they get to the classroom and they are faced with enormous diversity. Pre-service is yet to take differentiation seriously and address it in detail".

"Pre-service training only sells students teachers ideals. When DI is taught the idea is centred around small manageable classes of 16- 20 learners where the method

can work flawlessly. However, in practice it is extremely challenging because classes are large to 40+ then teachers have to try and adapt it to the situation".

"No, I don't think so. At the university they tell you how to teach, but it is as if the lecturers themselves are no sure of how to apply the theory into practice. When teachers get into the field they find that children have special needs and they have to adapt their teaching through trial and error".

Some participants felt that pre-service was doing its best to train teachers on differentiation. Some participants shared these sentiments:

"Everything was clear and well addressed, however, I think they can still improve the way they teach about differentiation by finding out from teachers the real classroom challenges so as to equip those who are still in training with realistic real life solutions that will work in our large South African classes".

"I feel that I got a good foundation during my pre-service training but I believe that most of your learning as a teacher is in the practical – seeing, doing and practising in an environment where you feel safe to take risks. I feel that I did not get enough opportunity to do this".

The findings point to the fact although participants differ on how comprehensive DI is covered in pre-service training they seem to converge on the fact that it is deficient and it needs to be improved to enhance its effective implementation in the schools. This implies that teachers do not feel they were fully equipped to deal with DI from the onset of their careers bringing their efficacy under the spotlight. These findings corroborate findings reported by Suprayogi, Godwin, & Valcke (2017).

Their results showed that there is a substantial relationship between teachers' belief in their abilities, constructivist teaching principles and the effective implementation of DI.

Sub theme 3.2: Limited DI training in in-service professional development

There were conflicting views on the issue of in-service training. Some participants felt that in-service training offered them good opportunities to learn how to implement DI.

They felt that these courses have had a positive impact on their practice. In support of this finding they said:

"I've done some courses that have been fantastic. We had a grade one teacher, I can't remember when? but, we went to Johannesburg always for her courses. She would say for instance while you are teaching and there is child who works fast, they can go outside and skip on the veranda because skipping helps with the development and so forth. We were doing something like… about brain gym activities. Amazing to me how to just stop and let all the children do those exercises is so fantastic. So I've also had courses which you go to sleep. The people who do these courses must be carefully chosen. Facilitators must be sharing from their own experience not just theory as taught at college".

"These courses have been quite helpful. You learn from others as you share experiences. Some training during staff development courses are also helpful to teachers so they can meet every learner needs by first identifying those needs. Some however, not everything may be possible to implement. My journey has been so different because 10 years' way back up to now things have changed so much due to these in-service courses".

Some participants complained about the absence of in-service training on differentiation. They noted with dismay that they have not attended any, but they would love to as they need help. The participants shared these views:

"I have not attended any DI courses yet, aah… but… if I would, I would like them to be able to equip me with strategies on how to effectively identify all these various forms of diversity in the shortest possible time. This, in order to facilitate effectiveness in my lesson delivery as early as possible in the year. It takes time sometimes to understand all learners especially with large class sizes that are common in our township schools".

"I have not attended any courses that deal specifically about how to use differentiation as a strategy! The mention of differentiation is almost incidental and no one actually deals with it directly as it occurs in our oversized classes. I wish the department and the principals will do something about this. They must ensure that teachers understand how to implement differentiation in the South African context not just in general as this does not meet the needs of a large school with

overcrowded classrooms as in the townships. The issue with differentiation is frustrating in the real life for a class teacher under such circumstances".

"I have never attended any in-service training on DI. I don't remember them being offered. But if I am to attend one I wish they will address the issue of how to use it effectively in large classes. We need strategies that work not ideals. Most of the differentiation strategies are not possible in large classes with scarce resources".

Considering participants' responses, it seems workshops on differentiation are either scarce or not available to some teachers. If ever they are available, they are not always effective and they sometimes miss the mark. Participants expressed dismay about the fact that sometimes it seems the facilitators themselves do not understand nor use the differentiated practices they promote and some workshops failed to meet their needs. These findings are in line with claims made by Wesley (2017) who states that some workshops that she attended were either too brief to be effective; affect her teaching practices or they were inconsistent with the realities found in the classroom.

Sub theme 3.3 Increasing demand on the need for improved DI training.

Teachers said they need training on differentiated strategies because they believe it should work. To support this finding participants shared the following sentiments:

"I feel if I had my way, differentiation should be absolutely a subject on its own. When you study whether you studying through post or whether you studying at a college or whatever, what teachers should know much more is about the person, how people's minds work and the fact that some children learn in this way or in that way. That is important to me, it took a while before I realised you know what? everybody isn't the same it sounds silly to think everybody is the same because everybody thinks differently and everybody learns differently. I think I've got a backlog a bit because of that I need to learn more about it. I believe in differentiation because it makes so much sense to me. I am learning a lot about it as well. I wish I knew earlier about differentiation my teaching would have been definitely different. I think there was a lack of insight by the department back then things may be different for those who are training now. We should have forgotten about how to write on a board they should have left things like that. They should have told us

more about children how they work how they think how we think about their emotions about that the person should have had more attention than the subjects".

"I wish there could be more courses on differentiation. The facilitators must be chosen carefully to be able to deliver stuff that will ignite teachers' zeal on differentiation. Teachers must be equipped to make learners feel valued and trusted to own their learning".

"They must provide us with courses that address real life experiences that we deal with in the classroom. I would like to attend courses that may give step by step guides towards tackling everyday challenges at least specific guidelines on DI, a model to follow while still learning to handle each situation differently".

"I have not attended any DI courses yet, aah, but… if I would, I would like them to be able to equip me with strategies on how to effectively identify all these various forms of diversity in the shortest possible time. This, in order to facilitate effectiveness in my lesson delivery as early as possible in the year. It takes time sometimes to understand all learners especially with large classroom sizes that are common in our township schools".

The responses show that teachers believe that training on differentiation in its current state is falling short and should be improved. This seems to imply that teachers do not feel fully equipped to implement DI and they need training to be able to meet learners' needs effectively, using DI. This corroborates with findings by Aldosari (2018) who found that lack of adequate teacher preparation in the use of differentiated strategies was among one of the main challenges hampering its effective implementation.

4.5 CONCLUDING REMARKS

In Chapter four the findings provided by the participants in accordance with the research questions were presented, analysed and interpreted. Three main themes emerged, from the collected data, factors that influence teachers' perceptions of the relevance of DI, factors influencing teachers' perceptions of the effectiveness of DI and teachers' perceptions of their pre-service and in-service experiences on DI. Participants also expressed their thoughts on how training should be improved, including a comprehensive practical component to theory that is already offered in the colleges and careful selection of facilitators for in-service courses. A summary,

concluding remarks and recommendations, areas of further research and limitations of the research are covered in Chapter five.

CHAPTER FIVE

5. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 INTRODUCTION

The key aim of this study was to explore teachers' perceptions of DI and their influence on classroom practices in the FP at School X in Tshwane South District. In chapter four, research findings from the in-depth interviews and focus group interviews were presented in accordance with the aim and objectives of this research. This chapter provides a summary, conclusions, recommendations and suggested areas of further study. This study provided an insight into various factors that influence teachers' perceptions of DI and their classroom practices. It also brought to light the extent of understanding by sampled FP teachers on the subject of DI in Tshwane South District. Teachers had an opportunity to state their thoughts, beliefs and feelings about what influences their choice of methods and approaches in teaching and assessment.

The constructivist paradigm and the case study method that were employed in this research helped to achieve the aim of the study. Participants were purposefully selected and data were then collected using the in-depth interviews and the FG interviews. Permission was sought from the Gauteng Department of Education to carry out research from the selected school before the sampling procedures started. After seeking permission from the selected school's principal in Tshwane South District, eight teachers were sampled for the interviews. Two teachers participated in the in-depth interviews and one focus group comprising of six participants was conducted. The rationale of selecting these participants was that they were considered as information rich subjects who would help in answering the research questions of the study.

Data were collected in compliance with the ethical rules and guidelines as stated by the Ethics Committee of the University of South Africa. The researcher collected data after first establishing good researcher–participant rapport. Trustworthiness of the research was guaranteed by using two data collection methods, the in-depth interview and focus group discussion. Interviews were audio recorded, and accurate notes were taken. Data of recorded interviews were transcribed for analysis, and member checking was conducted.

The researcher developed three themes and several subthemes from the data provided by participants to discuss the findings of this investigation. These themes and subthemes were informed by the research questions and the literature review in Chapter Two.

RESEARCH QUESTIONS

Main research question

What are Foundation Phase teachers' perceptions of DI?

Sub-questions

How do FP teachers perceive [what are their perceptions] about the relevance of DI?

How do FP teachers feel about the effectiveness of DI?

What do teachers think about their pre-service and in-service experiences on DI?

In the discussion of the findings, low inference descriptors and verbatim quotations of participants' significant accounts were used in order to guarantee the trustworthiness of the research. Confidentiality and anonymity of participants was ensured by code-naming all participants by the numbers 1 to 8.

5.2 SUMMARY OF THE FINDINGS

According to the findings of this research, participants accentuated the importance and the relevance of DI in the foundation phase because it offers strategies that promise to solve challenges of diversity by making learning accessible to all. Most participants were positive that DI should work, though they declared that they had not seen it work as it should yet.

The research findings showed that participants were aware of the massive diversity in terms of learning styles, interests and MI. They underscored the need for teaching approaches that would present the same learning material in different ways to meet the needs of learners in the classroom.

The findings of the study indicated that participants were positive that in addition to learning styles, interests and multiple intelligences, learner background knowledge must be a point of departure in teaching and learning. This is in line with the social

constructivism theory that emphasises that background knowledge plays a vital role in the creation of new knowledge and it facilitates the process of exploration (McLeod,2019).

Findings revealed that participants expressed distress due to the pressure they work under to meet curriculum demands on standardized assessments. Participants said that they found little time to concentrate on learners' individual needs. This is consistent with claims made by Taylor (2017). The apparent lack of resources and the pressure to prepare learners for examinations makes it a huge task for schools to create that extra time for teachers to attend to individual learner needs adequately (Taylor, 2017).

According to the findings, participants were exasperated by incoherencies in policies that limit teacher autonomy and their efforts to use differentiated activities. Standardised assessments that learners have to sit for and pass seemed to be at the centre of the dilemma. To meet these standardised outcome goals, participants favoured adopting instructional practices that are content-centred. This revealed that the understanding of DI among participants was haphazard. This view is supported by Wesley (2017) who states that despite multiple reform efforts, education is hampered from fulfilling its obligations to all learners because of lack of understanding of DI.

The study showed that participants find differentiation a challenge in the reality of scarce resources, despite their efforts and willingness to improvise. This included classroom sizes which limited the effective use of learning stations. Learning stations are known for promoting peer tutoring and collaboration that are the key in social constructivism theories. Vygotsky (1983:74) refers to social referencing where peer tutoring and the use of flexible group standards form part of class activities. Participants noted that flexible grouping was a challenge in overcrowded classrooms.

The findings presented evidence that participants are overwhelmed by large class sizes. Breaking up the classes into smaller groups which is common with contemporary teaching methods, posed a challenge with class discipline. Participants were not in favour of chaotic situations that often accompany group activities. They believed that differentiated instruction is ludicrous and leads to chaos. This finding is supported by Dixon et al. (2014) who indicated that many teachers are reluctant to

differentiate instruction. They plan activities that assume standard ability among learners, disregarding exceptionally gifted and academically challenged learners.

The study revealed that teachers are overwhelmed by excess workload. Some participants said that they find planning of differentiated activities cumbersome. Participants who are faced with this challenge think differentiated instruction requires more time and effort for preparation. According to McCarthy (2014), this could be ascribed to lack of self-efficacy to incorporate DI into regular planning.

Another finding from this study was that participants believed that there was a gap between theory and practice. They expressed dismay over insufficient training on DI, as its implementation is a subject that is scarcely understood. According to the findings of this investigation, new teachers lack the acumen to translate differentiated instruction theory into practice. At professional development courses on DI, experienced teachers decry the absence of model lessons for a differentiated instruction strategy. Teachers noted that training, both pre-service and in-service, in its current state, needs improving. This is supported by Silver, Strong & Perini (2010) who posited that the Education department must provide programmes that would equip teachers to translate DI theory into practice successfully. It is also in line with the assertions of the Education White paper which contends for the necessity to change the education system as a whole in a bid to challenge all obstacles that learners face in their everyday learning environments.

The study showed that in general teachers' perceptions of the relevance of DI were positive. Teachers believed that DI is a matching strategy to address diversity. They were positive that if barriers to its implementation were done away with, DI could solve the challenges of performance gaps that teachers see every year in the FP.

The findings also revealed that some teachers, however, had a negative perception of the effectiveness of DI. Some teachers thought that in the larger part of the SA context, where class sizes are large and resources are scarce, DI is an implausible concept. Some teachers had a negative perception of the way in which, they claim DI is inadequately employed across the education spectrum, from teacher training to its implementation in the classroom.

5.3 CONCLUSION

This qualitative study was informed by the social constructivism theory. It investigated teachers' perceptions of DI in Tshwane South District, Gauteng Province in South Africa. Rich data was collected from a purposeful sample of participants at a chosen school through in-depth interviews and a focus group discussion. The case study method was used. The participants gave their first-hand experiences on the implementation of DI, their thoughts, beliefs and feelings. The research revealed the key factors that influence teachers' perceptions of DI, and the participants suggested possible solutions that may help to improve practice.

It is anticipated that this study will contribute to the knowledge gap regarding teachers' perceptions of the implementation of DI in the FP. The recommendations made here should assist new and experienced teachers, principals and HODs, the Department of Education and Training and the Department of Basic Education to take action in future so that teacher training can be improved at all necessary levels with regard to DI. The recommendations should contribute to further improving of effective implementation of DI in the schools in order to ensure inclusivity.

The recommendations made in this study were informed by its findings and the review of literature in Chapter Two. They were drawn in accordance to the research questions stated in Chapter One. It is hoped that the recommendations will help in enhancing factors that influence teachers' perceptions of DI to improve its effective implementation in the classroom. The results of the study should create a platform for teachers to reflect on their differentiated practices in the light of ever-increasing diversity and to improve inclusivity in the schools. It is hoped that the recommendations of this study will improve the implementation of DI in the classroom by highlighting factors that influence teachers' perceptions in a way that hampers its effective execution.

5.4 RECOMMENDATIONS

Some of the negative perceptions identified were that DI needs extra time, is cumbersome, cannot be applicable in large classes and it leads to chaotic classrooms, among others. Based on the findings and the review of literature in Chapter 2, the following recommendations are forwarded:

1. To relieve teachers of the pressure they feel in trying to meet curriculum goals at the expense of concentrating on learner needs, it is recommended that the Department of Education should ensure that teachers are adequately trained to handle DI in diverse classrooms. Workshops that deal specifically with DI must be held frequently and must be available for all teachers countrywide. This study recommends that principals and HODs must make sure that teachers are familiar with all documents that are published by DBE (2011) on DI in order to assist with understanding and its implementation.

2. To ensure that teachers feel adequately prepared to handle DI and to improve their self-efficacy. This study recommends that the Department of Basic Education should consult with teachers when they develop DI professional development programmes, to identify problem areas to address the greater need. It is recommended that facilitators of DI workshops should be teachers who have been successful in implementing DI in the classroom and they should understand the current trends in learner diversity. The workshops should be very practical and be conducted according to the DI strategy.

3. To address the gap between theory and practice in using DI, the researcher recommends that the Department of Further Education and Training should ensure that all teacher training colleges and universities include, in their teacher training programmes a comprehensive module on DI. Such DI modules must comprise of a practical component that will expose student teachers to real life experiences in diverse classrooms, under the guidance of mentors and tutors, before they can be ready to handle classes of their own.

4. To deal with the issue of scarce resources, limited classroom space and to encourage the use of learning stations in the FP, the researcher recommends that schools must prioritise the acquisition of teaching and learning resources. DBE should hold schools financially accountable, ensure that all schools have a financial support system, that could sustain continuous provision of basic educational needs of the entire school population. DBE should further train school leaders on keeping sound financial accounts, to ensure that funds are channelled towards making education available to all learners on a continuous basis. The study further recommends that teachers should look beyond the four walls of the classroom and utilise space in the

immediate environment as a learning laboratory that extends learning opportunities for learners.

5. To solve the problem of limited time, large class sizes and work overload, the researcher recommends that teachers be trained regularly to be equipped in the use of contemporary teaching methods and the essential classroom management skills. This should equip teachers to manage classrooms that may be 'noisy' but productive. It is recommended that teachers should refrain from resorting to traditional ways of teaching whenever they feel under pressure. Instead, they should seek to understand the twenty-first century teaching and learning strategies. Teachers should always find a balance to fulfil the needs of the child within the demands of the curriculum, while not fulfilling the demands of the curriculum at the expense of the child.

5.5 AREAS FOR FUTURE RESEARCH

The study suggested the following areas of further research.

5.5.1. Future research may focus on conducting longitudinal studies to determine the impact of teacher training programmes on teachers' perceptions of DI in Tshwane South District and in Gauteng Province as a whole. In addition, models need to be developed to test the knowledge capacity of teachers to translate DI theory into practice in the context of large class sizes.

5.5.2 Future research studies may be necessary to determine the effectiveness of teachers' classroom management skills in diverse classrooms. In the light of data collected, teachers did not clearly demonstrate a robust adoption of creative and autonomous DI strategies, to prove that they are managing their classrooms well. This would challenge the routine implementation of the curriculum and the urge to resort to traditional teaching methods whenever pressure mounts.

5.5.3 The third area of future research is the conduction of a longitudinal study to determine the impact of the workshops on addressing the effective implementation of DI in Tshwane South District or in Gauteng Province. Data collected reflected poor attendance by teachers to such workshops with some workshops labelled by participants as a sheer waste of time, while others pointed out that they had never heard where they are offered.

5.6. LIMITATIONS OF THE STUDY

In conclusion, it is important to consider five main limitations under which this research was conducted.

The participants could only be interviewed after hours as per DBE regulations. It was a challenge getting the same time slot for focus group participants, after hours, as the participants were citing personal commitments at that time.

Some participants were not acquainted with online interaction platforms. This led to reluctance by some members to participate in the interviews. Interviews were conducted online, in compliance with the COVID-19 protocols and regulations.

Some participants had challenges with data and connectivity, resulting in disrupted interviews. The sample size for this research was limited to teachers who teach in the Foundation Phase at a Tshwane South District school in the Gauteng Province of South Africa.

5.7 DELIMITATIONS OF THE STUDY

To address the challenge of meeting participants strictly after hours, the researcher asked to meet the teachers on an afternoon that had been scheduled for a phase meeting on the school calendar.

The researcher had to supply participants with data so they could connect for interviews. Where connectivity was disrupted, the researcher arranged for another time slot to complete the interview.

To address the issue of participants' reluctance to participate due to technology challenges, the researcher asked participants to be at the school so they could get assistance from other willing colleagues to connect and conduct the interviews online.

To address the limitation of limited sample size, the study may be carried out in future with a larger sample size to expand the collection of possible data and to provide the researchers with an enhanced picture for analysis.

5.8 CONCLUDING REMARKS

This chapter concludes this investigation. It outlined the summary of the study and the conclusions based on the findings. The chapter also highlighted the recommendations of the study and listed proposed areas for future research. Limitations and delimitations of the study were stated. The researcher does not lay any claims on the flawlessness of the research methods used, nor does she claim that the findings are conclusive of facts on what happens in the classroom as far as DI is concerned. However, it is hoped that this research will make a contribution to a pool of knowledge that exists on DI and has exposed some areas of importance, that need attention towards achieving an inclusive education system.

References

Akpan, V. I., Igwe, U. A., Mpamah, I. B. I. & Okoro, C. O. , 2020. SOCIAL CONSTRUCTIVISM: IMPLICATIONS ON TEACHING AND LEARNING. *British Journal of Education,* 8(8), pp. 49-56.

Abdul, H., Raj, G. & Chakraborty, S., 2016. *Assuring Reliability In Qualitative Studies: A Health Informatics Perspective.* Queensland, Researchgate.

Adom, D., Ankrah, K., & Yeboah, A., 2016. Constructivism Philosophical Paradigm: implication for Research, Teaching and Learning. *Global Journal of Arts Humanities and Social Sciences,* 4(10), pp. 1-9.

Alanazi, A., 2016. A Critical Review of Constructivist Theory and the Emergence of Constructionism. *American Research Journal of Humanities and Social Sciences,* 2(0nline), pp. 1-8.

Aldosari, A. T., 2018. The Challenges of Using the Differentiated Instruction Strategy: A Case Study in the General Education Stages in Saudi Arabia. *International Education Studies,* 28 March, 11(4), pp. 74-83.

Amineh, R. J. & Asl, H. D., 2015. Review of Constructivism and Social Constructivism. *Journal of Social Sciences, Literature and Languages,* 1(1), pp. 9-16.

Armstrong, T., 2017. *Multiple Inteligencies in the Classroom.* 4th ed. Alexandria, VA: ASCD.

ASCD, 2011. *Using Technology to Differentiate Instruction.* Alexandria, VA.: ASCD.

Badugela, T., 2012. *Problems Facing Educators In Implementing The National Curriculum Statement: The Case of Tshifhena Secondary School, Vhembe District, Limpopo Province,* Pretoria: UNISA.

Bajrami, I., 2013. The Importance of Differentiation in Supporting Diverse Learners. *Journal of Education and Practice,* 4(22), pp. 149-155.

Beasely, J. G. & Imbeau, M. B., 2015. *Using the Tools of Technology to Meet the Needs of All Learners.* [Online]
Available at: http://www.igi-global.com
[Accessed 22 March 2019].

Birt, L., Scott, S., Cavers, D., Campbel, C. & Walters, F., 2016. Member Checking: A Tool to Enhance Trustworthiness or merely a nod to Validation?. *Qualitative Health Research,* 26(13), pp. 180-181.

Booyse, J. J., Le Roux, C. S., Seroto, J. & Woolhuter, C., 2011. *A History of Schooling in South Africa: Method and Context.* Pretoria: Van Schaik.

Bray, R. G. I. K. L. M. S. &. S. J., 2010. *Growing up in the new South Africa: Cildhood and adolescence in the post-aparthied Cape Town.* Cape Town: HSRC Press.

Bruner, J., 1996. *The Culture of Education.* Cambridge: Havard University Press.

Burkett, A. J., 2013. *Teacher Perception On Differentiated Instruction And Its Influence On Instructional Practice,* New Jersey: ProQuest LLC.

Carter, N., Bryant-Lukosius, D., DiCenso, A., Blythe, J. & Neville, A. J., 2014. Oncology Nursing Forum. *The Use of Triangulation in Qualitative Research,* 41(5), pp. 545-546.

Cha, H. J. & Ahn, M. l., 2014. Development of Design: Guidelines for Tools to Promote Differentiated Instruction in Classroom Teaching. *Creative Education,* 7 March , 10(3), pp. 511-523.

Chan, Z. C., Fung, Y., & Chien, W., 2013. Bracketing in Phenomenology: Only Undertaken in the Data Collection and Analysis Process. *The Qualitative Report,* 18(30), pp. 1-9.

Chauhan, N. & Mantry, S., 2018. Inclusive Education: Need Of The Day. *International Journal of Humanities and Social Science Invention,* 7(10), pp. 24-32.

Coffelt, T. A., 2017. Confidentiality and anonymity of participants. In: M. Allen, ed. *The SAGE Encyclopedia of Communication Research Methods. .* Thousand Oaks, CA: SAGE, pp. 227-230.

Cole, K., 2019. *Differentiated Instruction: Definition, Examples, and Strategies Posted in Pro Tips.* [Online]
[Accessed 12 May 2021].

Creswell, J. W., 2013. *Qualitative Inquiry & Research Design: Choosing Among Five Approaches.* Thousand Oaks, CA.: SAGE.

Creswell, J. W., 2014. *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches.* 4th ed. London: SAGE.

Crim, C. L., Kennedy, K. D. & Thornton, J. S., 2013. Differentiating for Multiple Intelligences: A Study of Students' Understandings through the Use of Aesthetic Representations. *Issues in Teacher Education,* 22(2), pp. 61-91.

Dagar, V. & Yadav, A., 2016. Constructivism: A Paradigm for Teaching and Learning. *Arts Social Sci Journal,* 7(4), pp. 200-205.

Dagara, U. Y., 2016. Educational Resources: An Integral Component for Effective School Administration in Nigeria. *Research on Humanities and Social Sciences,* 6(13), pp. 27-37.

Danley, K., 2020. *How to Differentiate Instruction Online to Meet Different Learning Needs.* [Online] Available at: https://www.graduateprogram.org/2020/06/how-to-differentiate-instruction-online-to-meet-different-learning-needs/
[Accessed 26 May 2021].

DBE, 2001. *Education White paper 6: Special Needs Education : Building an Inclusive Education and Training system.* Pretoria: Scientific Research Publishing.

DBE, 2011. *Guidelines for responding to learner diversity in the classroom through curriculum and assessment policy statement,* Capetown: Government Printing works.

DBE, 2014. *Policy on Screening, Identification, Assessment and Support,* Pretoria: DBE.

De Jager, T., 2013. Guidelines to assist the implementation of differentiated learning activities in South African secondary schools. *International Journal of Inclusive Education,* 17(1), pp. 80-94.

Delsie, J. R., 2015. Differentiation Doesn't Work. *Education week*, 6 January, p. online.

Derakhshan, A. & Faribi, M., 2015. Multiple Intelligences: Language Learning and Teaching. *International Journal of English Linguistics,* 5(4), pp. 63-72.

Dewey, J., 2011. *Democracy and Education.* Hollywood, CA.: Simons and rown.

Dilshad, R. M. & Latif, M. I., 2013. Focus Group Interview as a Tool for Qualitative Research: An Analysis. *Pakistan Journal of Social Sciences,* 33(1), pp. 191-198.

Dixion, F. A., Ysse, N., McConnell, J.M. &Hardin, T., 2014. Differentiated Instruction, Professional Development and Teacher Efficacy. *Journal for the Education of the Gifted,* 32(2), pp. 111-127.

Dixon, F. A., Ysse. N., McConnell, J. M. & Hardin, T., 2014. Differentiated Instruction, Professional Development and Teacher Efficacy. *Journal for the Education of the Gifted,* 37(2), p. 111 –127.

Donohue, D. & Bornman, J., 2014. The challenges of realising inclusive education in South Africa. *South African Journal of Education,* 34(2), pp. 1-14.

Doubet, K. & Hockett, J. A., 2015. *Differentiation in Middle and High School : Strategies to Engage All Learners.* Alexandria, Virginia: ASCD.

Drew, C., 2010. *Learning lifestyles: discourses of consumption in the online promotion of educational institutions.* Melbourne: Australian Association for Research in Education.

Dunn, L., 2020. *What is Diversity, Equity & Inclusion (DEI)?.* [Online]
Available at: https://www.inclusionhub.com/articles/what-is-dei
[Accessed 15 May 2021].

Engelbrecht, P., Mirna, N., Sugnet, S. & van Deventer, M., 2016. The Idealism of Aducation Policies and Realities in the Schools: The Implementation of Inclusive Education in South Africa. *International Journal of Inclusive Education,* 20(5), pp. 520-535.

Ferreira, C., 2019. *21St Century Pedagogical Practices in K-12 Education.* Bloomington: iUniverse.

Flick, U., 2013. *The SAGE Handbook of Qualitative Data Analysis.* London: Sage.

Gadzikowsk, A., 2016. *Everyday Differentiation: How Administrators Support Differentiation of Curriculum and Instruction in Early Childhood Classrooms.* Lincoln, NE.: Exchange Press, Inc..

Gardner, H., 1979. The child is father to the metaphor. Psychology Today. 12(10), pp. 81-91.

Gardner, H., 1983. *Frames of mind : the theory of multiple intelligences,* New York: Basic Books.

Gardner, H., 2013. *Multiple intelligences and education.* [Online]
Available at: https://infed.org/howard-gardner-multiple-intelligences-and-education/
[Accessed 11 March 2021].

Gibbs, G. R., 2018. *Analysing Qualitative Data.* London: SAGE.

Heale, R. & Twycross, A., 2018. What is a case study?. *Evidence Based Nursing,* 21(1), pp. 7-8.

Hennink, M. M., Bailey, A. Hutter, I., 2011. *Qualitative Research Methods.* 6th ed. London: SAGE.

Herndon, E., 2018. What are Multiple intelligencies and how do they affect learning?. *Lifelong Learning Matters*, 6 February, pp. 15-22.

Hoadley, U., 2013. *Building strong foundations: Improving the Quality of Early Education, South African Child Gauge.* Capetown: University of Capetown.

Huebner, T. A., 2010. What Research Says About … / Differentiated Learning. *Educational Leadership,* 67(5), pp. 79-81.

Human , R. W., 2015. *Human Rights Watch world report.* New York, NY: Human Rights Watch.

Jia, Q., 2010. Brief Study on the Implication of Constructivism Teaching Theory on Classroom Teaching Reform in Basic Education. *International Education Studies,* 3(2), pp. 197-199.

Kanevsky, L., 2011. Deferential Differentiation: What Types of Differentiation Do Students Want?. *Gifted Child Quarterly,* 55(4), p. 279 –299.

Kapur, R., 2018. *The Significance of Social Constructivism in Education.* New Delhi: University of New Delhi.

Kivunja, C., 2018. Distinguishing between Theory, Theoretical Framework, and Conceptual Framework: A Systematic Review of Lessons from the Field. *International Journal of Higher Education,* 7(6), pp. 44-53.

Kreitzer, K. E., 2016. *Differentiation for all learners: Applying Theory and Practice so all children reach their potential.* [Online]
Available at: http://digitalcommons.hamline.edu/hse_all
[Accessed 14 May 2019].

Kriukow, J., 2018. *Validity and Reliability in Qualitative research,* Edinburgh: University of Edinburgh.

Lake, N., 2010. *Teachers' Teaching Strategies in a Sample of South African Inclusive Classrooms.* Johannesburg: University of the Witwatersrand.

Lambert, C., Jomeen, J., & McSherry, W., 2010. Reflexivity: A review of the literature in. *British Journal of Midwifery in the context of midwifery research,* 18(5), pp. 321-326.

Least, S. K., 2014. *Differentiated Instruction: Its effect on proximal development,* New York : Digital Commons @Brockport.

Ledwaba, R. G., 2018. *Teacher training guidelines for curriculum differentiation in a Foundation Phase programme.* Pretoria: University of Pretoria.

Leedy, P. D., Ormrod, J. E. & Johnson, L. R., 2019. *Practical Research Planning and Design.* 12 ed. New York: Pearson Education.

Leung, L., 2015. Validity, reliability, and generalizability in qualitative research. *Journal of Family Medicine and Primary Care,* 3(4), p. 324–327..

Lunsford, K. J., 2017. *Challenges to Implementing Differentiated Instruction in Middle School Classrooms with Mixed Skill Levels,* Georgia: ScholarWorks.

Lynch, W. T., 2016. Social Epistemology Review and Reply Collective. *Darwinian Social Epistemology: Science and Religion as Evolutionary By-products Subject to Cultural Evolution ,* 5(2), pp. 26-68.

Ly, S., 2020. *The True Value of Bringing Diversity, Equity, and Inclusion Into Your Workplace.* Chicago: Northwestern University.

Maddock, L. ; Maroun,W., 2018. Exploring the Present State of South African Education: Challenges and Recommendations. *South African Journal of Higher Education,* 32(2), pp. 192-214.

Marishane, R. N., 2013. The right to basic education for all: Addressing the educational needs and barriers for immigrant learners in South Africa. *International Journal of Educational Administration and Policy Studies,* 5(1), pp. 1-7.

Mboweni, L., 2019. *Exploring Teachers' Morale in Selected Primary Schools of Bohlabela DIistrict,* Pretoria: UNISA.

McCarthy, J., 2014. *There is No Time to Differentiate: Myth Busting DI, Part 2.* [Online]
Available at: https//www.edutopia.org
[Accessed 29 July 2019].

McIntush, K.E. Burlbaw, L. M. & Turner, R. K., 2018. Day's Education in the One-Room Schoolhouses of Brazoria County, Texas (1918-1922). *Researchgate,* 9(4), pp. 92-107.

Mc-Leod, S., 2019. *The Zone of Proximal Development and Scaffolding.* [Online]
Available at: http://www.open.edu
[Accessed 22 December 2019].

McMillan, J. & Schumacher, S., 2014. *Reseach in Education Evidence Based Inquiry.* 7th ed. Edinburgh: Pearson Education Limited.

Mikos, L., 2014. Analysis of Film. In: U. Flick, ed. *The SAGE Handbook of Qualitative Data Analysis.* London: Sage, pp. 409-423.

Montessori, M., 1967. *The Absorsorbent Mind.* Nwe York: Dell.

Mosera, A. & Korstjens, I., 2017. Practical guidance to qualitative research:Sampling, data collection and analysis. *European Journal of General Practice,* 24(1), pp. 9-18.

Munro, J., 2013. *Effective strategies for implementing differentiated instruction,* Sydney: Australian Council for Education Research.

Murray, S. & Moore, K., 2012. Inclusion through multiple intelligences. *Journal of Student Engagement: Education Matters,* 2(1), pp. 42-48.

Naeem, S., 2019. *Data Triangulation in Qualitative Research - Helping Research writing for student & professional researchers.* [Online]
Available at: http://researcharticles.com
[Accessed 7 May 2021].

Nel, N. M.; Tlale, L. D. N.; Engelbrecht, P.; Nel, M., 2016. Teachers' Perceptions of Education Support Structures in the Implementation of Inclusive Education in South Africa. *Bulletin for Christian Scholarship,* 81(3), pp. 1-14.

Nel, M., 2017. *Inclusive education in South Africa - policies,* Potchefstroom: North-West University.

Njagi, M., 2014. Teachers' Perspective towards Differentiated Instruction Approach in Teaching and Learning of Mathematics in Kenya. *International Journal of Humanities and Social Science,* 4(13), pp. 52-56.

Noble, H. & Smith, J., 2015. Issues of validity and reliability in qualitative research. *Evidence Based,* 18(2), pp. 34-35.

Nyumba, T. O., Wilson K., Derrik, C. J. & Mukherjee, N., 2018. The use of Focus group Discussion Methodology:Insight from two decades of application in conservation. *Methods in Ecology and Evaluation,* 9(1), pp. 20-32.

O'Connor, H. & Gibson, N., 2003. A Step-by-Step Guite to Qualitative Data Analysis. *A Journal of Aboriginal and Indigenous Community Health,* 1(1), pp. 65-90.

Ober, J., 2016. *Research on Differentiated Instruction,* s.l.: ResearchGate.

Ober, J., 2016. *Research on Differentiated Instruction.* s.l.:Researchgate.

Olk, S., 2019. Improving Inclusive Education in South Africa. *Borgen Margazine*, 8 August, pp. 9-10.

Omona, J., 2013. Sampling in Qualitative Research: Improving the Quality of Research Outcomes in Higher Education. *Makerere Journal of Higher Education,* 4(2), p. 169 – 185.

O'Neill, G., 2012. *The effects of class size on teaching and learning ,* Auckland: Massey University.

Oswald, M. & de Villiers, J. M., 2013. Including the Gifted Learner: Perceptions of South African Teachers and Principals. *South African Journal of Education,* 33(1), pp. 1-21.

Palaganas, E. C., Sanchez, M. C., Molintas, M. P. & Caricativo, R. D., 2017. Reflexivity in Qualitative Research: A Journey of Learning. *The Qualitative Report,* 22(2), pp. 426-438.

Parker, I., 2013. Discourse Analysis: Dimension of Critique in Psycholog Qualitative Research in Psychology. *Qualitative Research in Psychology,* 10(3), pp. 223-239.

Phasha, N., Mahlo, D. & Dei, G. J., 2017. Inclusive schooling and education in African contexts. In: N. M. D. &. D. G. J. Phasha, ed. *Inclusive education in African contexts.* Rotterdam: Sense Publisher, pp. 1-17.

Piaget, J. & Inhelder, B., 1972. *The psychology of the child.* New York: Basic Books City Publication.

Rapely, T., 2014. *Doing Conversation, Discourse and Document Analysis.* London: Sage.

Rasheed, F. & Wahid, A., 2018. The Theory Of Differentiated Instruction and its applicability: An E-Learning Perspective. *VSRD International Journal of Technical & Non-Technical Research,* IX(1V), pp. 231-221.

Sammut-Bonnici, T. & McGee, J., 2017. *Case study,* Malta: John Wiley & Sons, Ltd.

Schanzenbach, D. W., 2014. *Does Class Size Matter?.* [Online]
Available at: http://www.greatlakescenter.orgGreatLakesCenter@greatlakescenter.org
[Accessed 3 4 2021].

Schneider, N. C., Coates, W. C. & Yarris, L .M., 2017. Taking Your Qualitative Research to the next Level: A Guide to the Medical Educator. *COMMENTARY AND PERSPECTIVE,* 1(4), pp. 368-378.

Schonfelder, W., 2011. CAQDAS and Qualitative Syllogims Logic. *Forum:Qualitative Social Research,* 12(1), p. 91.

Shahnazarian, D. Hagemann, J. M. S., Aburto, M. & Rose, S., 2017. *Informed Consent in Human Subjects Research.* Carlifornia: University of Southern Carlifornia.

Sieberer-Nagler, K., 2016. Effective Classroom-Management & Positive Teaching. *English Language Teaching,* 9(1), pp. 173-172.

Silver, H., Strong, R. & Perini, M., 1997. Integrating Learning Styles and Multiple Intelligences. *Educational Leadership,* September, 55(1), pp. 22-27.

Smith, K. J., 2012. The One-Room Schoolhouse Today Living History, Looking Forward. In: T. S. Poetter, ed. *Great Curricula: Lived Conversations of Progressive, Democratic Curricula in School and Society.* Charlote, NC.: Information Age Publishing, pp. 1-28.

Sparapani,E. F., Perez ,D. M.C., 2015. A Perspective on the Standardized Curriculum and Its Effect on Teaching and Learning. *Journal of Education & Social Policy,* 2(5), p. 78.

Strogilos, V., 2019. *The value of differentiated instruction in the inclusion of students with special needs/ disabilities in the mainstream.* [Online]
Available at: https://www.shs-conferences.org/articles/shsconf/abs/2018/03/shsconf_gctale2018_00003/shsconf_gctale2018_00003.html
[Accessed 14 May 2021].

Stuckey, H., 2014. The first step in Data Analysis:Transcribing and managing qualitative research data.. *Journal of Social Health and Diabetes,* 2(1), p. online.

Suprayogi, M. N.; Godwin, R. & Valcke, M., 2017. *Teachers and their implementation of differentiated instruction.* [Online]
Available at: https://www.researchgate.net/publication/318223907
[Accessed 23 July 2019].

Tan, T. Q., 2019. *Principles of Inclusion, Diversity, Access, and Equity.* Chicago: Oxford University Press.

Taylor, S., 2017. Contested Knowledge: A Critical Review of the Concept of Differentiation in Teaching and Learning. *Warwick Journal of Education,* 1(1), pp. 51-69.

Temesgen, Z., 2017. *Challenges to Implement Inclusive Education in Ethiopia,* Pretoria: University of South Africa.

Thakur, K., 2014. Differentiated Instruction in the Inclusive Classroom. *Research Journal of Educational Sciences,* Vol. 2(7), pp. 10-14.

Tomlinson, C. A. & Imbeau, M. B., 2010. *A Differentiated Classroom: Leading and Managing.* Alexandria: ASCD.

Tomlinson, C., 2015. *Understanding Differentiated Instruction (Quick Reference Guide).* s.l.:ASCD.

Tomlinson, C. A., 2014. *The differentiated Classroom: Responding to the needs of all Learners.* 2 ed. Alexandra: ASCD.

Uche, C., 2016. *Differentiated Instruction.* [Online]
Available at: http//www.edtheory.blogspot.com
[Accessed 29 July 2019].

UNESCO, 2005. *Guidelines for Inclusion:Ensuring Access to Education for All,* Paris: UNESCO.

van der Waldt, G., 2020. Constructing Conceptual Frameworks in Social Science Research. *The Journal for Transdisciplinary Research in Southern Africa,* 16(1), p. online.

Vygotsky, L., 1986. *Thought and Language,* Cambridge: The MIT Press.

Weselby, C., 2014. *What Is Differentiated Instruction, Examples of Teaching Strategies.* [Online]
Available at: https://education.cu-portland.edu/.../
[Accessed 22 June 2019].

Wesley, T. N., 2017. *Differentiation Challenges in Inner City School,* Arkansas: IGI Global.

Whitehurst, G. J. R. &. C. M. M., 2011. *Class Size: What Research Says and What it Means for State Policy.* [Online]
Available at: https://www.brookings.edu/research/class-size-what-research-says-and-what-it-means-for-state-policy/
[Accessed 13 May 2021].

Wu, C., Wan, S., & Wong, Y., 2015. Exploring Hong Kong secondary school teachers' teaching beliefs on differentiated instruction. Teaching for Tomorrow Todaay,. p. 158.

Yu, C., 2016. *What is Differentiated Instruction.* [Online]
Available at: https://www.teachthought.com
[Accessed 1 March 2019].

Appendices

Appendix A

Approval of request to conduct research

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

8/4/4/1/2

GDE RESEARCH APPROVAL LETTER

Date:	31 August 2020
Validity of Research Approval:	04 February 2020 – 30 September 2020 2019/589
Name of Researcher:	Sibanda S
Address of Researcher:	510 Newport
	208 Scheiding Street
	Pretoria
Telephone Number:	0785940591
Email address:	53836170@mylife.unisa.co.za
Research Topic:	Exploring teachers' perceptions of differentiated instruction in the Foundation Phase in Tshwane South District, Gauteng Province, South Africa
Type of qualification	Master's in Education
Number and type of schools:	1 Primary School
District's/HO	Tshwane South

Re: Approval in Respect of Request to Conduct Research

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

31/08/2020

The following conditions apply to GDE research. The researcher may proceed with the above study subject to the conditions listed below being met. Approval may be withdrawn should any of the conditions listed below be flouted:

1. Letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.

Making education a societal priority

Office of the Director: Education Research and Knowledge Management
7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

86

Appendix B

Permission to conduct Research from the school.

510 Newport

208 Scheiding Street

Pretoria

0002

The Principal

PEPPS Motheong Primary School

Tel: 0123737923

Email: head@motheong.co.za

Date:

RE: Request for permission to conduct research at PEPPS Motheong Primary School.

Title of the research:

Exploring teachers' perceptions of differentiated instruction in the Foundation Phase in Tshwane South District, Gauteng Province, South Africa

Dear Mrs. Berrange

I, Sifiso Sibanda am doing research in the Department of Curriculum Studies towards a Master in Education qualification at the University of South Africa under the supervision of Dr. M Postma, who is an Academic Supervisor. We have funding from UNISA for carrying out the research. We are inviting you to participate in this study entitled:

 Exploring teachers' perceptions of differentiated instruction in the Foundation Phase in Tshwane South District, Gauteng Province

The aim of the study is to identify teachers' beliefs and opinions on Differentiated Instruction in the Foundation Phase and their willingness or preparedness to implement it in the classroom in order to meet the learners' needs.

Your school has been selected because of the belief that, learner population in the school is fairly diversified for teachers to have a first-hand experience of current trends in learner diversity.

The study will entail conducting in-depth interviews with at least two teachers and carrying out one focus group meeting.

The study intends to bring to light the prevailing perceptions of FP teachers in respect of differentiated instruction. It will offer teachers a chance to reflect on and evaluate their own pedagogical practices in the light of learner diversity. It is hoped that the findings will highlight areas where teachers need support and development to improve inclusivity in the schools. It should contribute towards improving teacher training programmes and further raise awareness with the Department of Education on the needs of staff for staff development purposes.

There is no foreseeable risk involved in the research.

There will be no reimbursement or any incentives for participation and ffeedback procedure will entail emailing the research findings to the participants and the department of Education.

Yours sincerely   Sifiso Sibanda

Signature:

Designation: Researcher

Appendix C

Interview schedule

Main research question

What are Foundation Phase teachers' perceptions of DI?

Research Question 1

How do FP teachers feel about the relevance of DI?

Theme 1

Factors influencing teachers' perceptions of the relevance of DI

1. What does differentiation mean to you?
2. What is your idea of a differentiated classroom? Give examples of what you would expect to find in a differentiated classroom.
3. When you reflect on your years of teaching how do you feel about having various forms of diversity in one classroom?
4. How do you handle learner differences in your classroom?
5. You mentioned the differentiation of assessment as an important part of teaching. How do you differentiate assessments in the Foundation phase?
6. Would you recommend DI as the best strategy in addressing learner diversity in the foundation phase? What would you say?

Research Question 2: How do FP teachers feel about the effectiveness of DI?

Theme 2:

Factors that influence teachers' perceptions of the effectiveness of DI

1. Would you say differentiation is the answer to learner diversity in the foundation phase? Please explain.
2. Please describe how you go about identifying these various forms of diversity in your classroom.

3. You mentioned class size as another obstacle in implementing DI. How has this influenced your teaching at your current school?

4. CAPs recommends DI as the best way to achieve inclusivity in the classroom. What are your views about its effectiveness?

5. How do you feel about having to differentiate instruction?

6. CAPS offers guidelines to effective differentiation alluding that differentiation is about being innovative rather than a recipe. What are your views on this statement?

7. You mentioned time as one of the constraints in the implementation of differentiation. How does this affect you in trying to use differentiation strategies?

8. Please share with me if you find differentiation effective within the demands of CAPS?

9. How do you manage resources in your school with regards to differentiation?

10. What are some barriers, if any, that you encounter in the implementation of DI? (Please describe for me a time when you had to deal with a challenge when trying to implement differentiation in the classroom).

11. How do you overcome the barrier(s)?

Research Question 3: What do teachers think about their pre-service and in-service experiences on DI

Theme 3

Teachers' perceptions of their pre-service and in-service experiences on DI

1. Explain how your pre-service training influenced your views of DI as a teaching strategy. During your training years I believe you were taught on the subject of differentiation. Is there something that you wish could have been addressed differently to make the implementation of DI more effective?

2. Do you feel you are adequately trained to handle DI in your classroom?

3. How is in-service training influencing your views about DI as a teaching strategy? As a teacher you grow in knowledge every day you probably attend in-service courses, you experience new forms of diversity in your classroom

every year. Please share with me how this has affected your views on differentiation over the years?

4. Do you feel current Foundation phase training programmes are adequate to train teachers to teach learners with diverse learning needs?

5. In what ways can teacher training (including in-service training) be improved, so teachers can be adequately prepared to implement DI?

Focus Group Schedule

Research Question 1

How do FP teachers feel about the relevance of DI?

Theme 1

Factors influencing teachers' perceptions of the relevance of DI

1. What does the term differentiation trigger in your mind?
2. Which three DI strategies do you find most effective or most ineffective in your case?
3. What aspects of differentiation are important to you? Explain how this influences your teaching? How does the SIAS policy influence your teaching?
4. Would you say differentiation is the answer to learner diversity in the Foundation phase?
5. How likely would you recommend the use of DI as the best strategy to meet learners' diverse needs? What would you say?

Research Question 2: How do FP teachers feel about the effectiveness of DI?

Theme 2:

Factors that influence teachers' perceptions of the effectiveness of DI

1. How possible is it to create a differentiated environment at your school?
2. When you reflect on your years of teaching how do you feel about having various forms of diversity in your classroom?

3. What are some barriers if any that you encounter in the implementation of DI? How do you overcome the barriers?

4. CAPS recommends DI as the best way of achieving inclusivity in the classroom. What are your views about its effectiveness?

5. How do you feel about having to differentiate all lessons? What three words would you use to describe how you feel?

6. Please describe for me some ways of how you differentiate instruction in your foundation phase classroom? Do you think there are other ways of handling diversity other than differentiation please explain?

Research Question 3: What do teachers think about their pre-service and in-service experiences on DI

Theme 3

Teachers' perceptions of their pre-service and in-service experiences on DI

1. When you reflect on your pre-service training what is it, if anything, that you feel could have been addressed differently.

2. Reflect on in service training programmes on differentiated instruction that you have attended in the past (if any). How do they address your needs in the implementation of DI? Please give specific examples in your case.

Appendix D

Consent from Participants

CONSENT/ASSENT TO PARTICIPATE IN THIS STUDY (Return slip)

I, _____ (participant name), confirm that the person asking my consent to take part in this research has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation.

I have read (or had explained to me) and understood the study as explained in the information sheet.

I have had sufficient opportunity to ask questions and am prepared to participate in the study.

I understand that my participation is voluntary and that I am free to withdraw at any time without penalty (if applicable).

I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified.

I agree to the recording of the _____

I have received a signed copy of the informed consent agreement.

Participant Name & Surname (please print) _____

Participant Signature : _____

 Date : _____

Researcher's Name & Surname (please print) _____

Researcher's signature   Date

Appendix E

Consent to participate in Focus Group Interview.

FOCUS GROUP CONSENT/ASSENT AND CONFIDENTIALITY AGREEMENT

I_____ grant consent/assent
that the information I share during the focus group may be used by Sifiso Sibanda for
research purposes. I am aware that the group discussions will be digitally recorded
and grant consent for these recordings, provided that my privacy will be protected. I
undertake not to divulge any information that is shared in the group discussions to any
person outside the group in order to maintain confidentiality.

Participant 's Name (Please print): _____

Participant Signature: _____

Researcher's Name: (Please print): _____

Researcher's Signature: _____

Date: _____

Appendix F

Transcribed interviews theme 1

Research Question 1
How do teachers feel about the relevance of DI strategies in addressing diversity in the classrooms?
Theme 1
Teachers' perceptions of the relevance of DI strategies.

I.   What does differentiation mean to you?

Participant 1	To me differentiation means that because people are different and learn differently they think things in differently so we need different methods to help different people to understand things.
Participant 2	I think of something that is focused on learner needs. I think of methods that allow me to accommodate all the learners in the classroom. I think of focussing on different needs of learners in terms of learning styles. To include everyone irrespective of differences, for example include every child irrespective of language differences, but teach them on their level of understanding

I.   What is your idea of a differentiated classroom? Give examples of what you would expect to find in a differentiated classroom.

Participant 1	I would expect teaching methods to be different, because different people learn differently. I would expect things like building blocks, for example, in a Grade one class for example a sand box or anything that can help them learn though feeling to seeing to hearing even music and then the methods which is very important for me, that children learn to use the different

	methods so that they eventually choose the method that suits them best. I think that's the biggest task that us teachers have: to find out in what kind of methods we can use in teaching them.
Participant 2	I will expect the use of visual, tangible objects to manipulate, draw lessons from their background. Use a lot of role play and incorporate technology.

I. **When you reflect on your years of teaching how do you feel about having various forms of diversity in one classroom?**

Participant 1	It is difficult in this way that I am a teacher who works fast and I try and keep the pace fast. The problem is that I am not always so aware of which method will suit which child. There are too many children in one class in my opinion. We often have 28 children but there are cases where children are 40. That is why to me it's more important that I put different kinds of methods in place then to accommodate every child. In Grade 1, children do not know yet how they learn better, through hearing and seeing or what will be best for him a little picture or whatever. I've got to take that into consideration that little pictures as just a smiley picture or something make a difference to them. Teachers need to take into consideration learners' different physical needs, social needs, emotional needs. These are often revealed in their behaviour or in their drawings. These factors influence the way children learn and we strive to include all learners in learning.
Participant 2	Diversity keeps me searching for more ways of doing things. It broadens my knowledge and skill. I love it yah … it keeps me rolling with the times (smile) there is no chance to lag behind I always come up with solutions for new challenges. I deal with learners from different linguistic background in my class. This is complicated, because giving instructions in English when it's not their home language can be a problem. The other thing is

	different cultures and different ways of doing things, for example addressing adults or your peers. It's important to know what's wrong in my culture may not be wrong in theirs. So I endeavour to understand all those differences in order to meet those needs. Various forms of diversity make teaching interesting yet challenging at the same time! Every child I have ever taught is an individual. You as the teacher need to reach out to them in a way that will generate understanding of the world around them. It's challenging trying to treat 28 plus children as an individual but that's the beauty of teaching in the Foundation Phase. You have a year to get to know your children and their needs. You spend plenty time with them.

I. How do you handle learner differences in your classroom?

Participant 1	By using the Bloom's taxonomy, I am able to teach all learners the same and then vary assessment techniques. I can also use support and extension work to meet learners' needs on either side of the continuum. Differentiation helps the teacher to use various ways that will accommodate learners from different backgrounds as we have in our classes in this school. Learners also have different interests, others learn fast others are slow, In the foundation phase learners are also not on the same level of development some mature fast while others still lag behind. So using play and differentiated activities is very essential.
Participant 2	I feel differentiation is the best theoretical strategy to handle diversity. It is thought through and has everything in place to address diversity, but… aah I am not sure if it is completely feasible in practical as theory claims it to be. But we try to make

	it work though. Usually I break the class into groups according to criteria and work with those groups using chosen approaches suitable for that group. The groups can be based on their learning abilities, their interests, some may like soccer others may like art so I take note of that. Some children are mature and they need more challenging work others may still be in the early stages of their development in their age group so they will need work tailored to their abilities.

I. **You mentioned the differentiation of assessment as an important part of teaching. How do you differentiate assessments in the Foundation phase?**

Participant 1	The one thing I am trying to teach from the beginning of the year, let's take maths which is a fantastic to differentiate. When we do any problem sums or anything and we'll be doing little pictures others will be using the Abacus others will be using a little Blocks or something the others will be using a method like minus or plus straight away because it's easier for them so that's what I love with differentiation it's very important. When I do an assessment they can use any method they like as long as I can see and I try and do my assessment so that I can see what are they thinking I don't just want an answer but how they get there using methods that suit them best. That's my dream for them every year, that at this time they will be using those different methods successfully.
Participant 2	I would adapt text to the learners needs. I can use visuals to make more appealing to those learners who prefer pictures, or use diagrams graphs or songs and so on.

I. Would you recommend DI as the best strategy in addressing learner diversity in the foundation phase? What would you say?

Participant 1	I would start with yourself change the way you think change the way you teach as much as you can and find out what not only helps you to teach but what helps the child learn. They should incorporate repetition until learners get comfortable with different methods Build some resources that you can use in your classroom. Decide to specialise in a grade because each year you learn and do things different and better. Make children aware that there are as many ways of doing things as possible to solve problems, take them to educational tours as a school and expose them to the world outside. Involve parents encourage them to expose their children to geography and allow them to explore their environment as much as possible because this influences how children learn background knowledge is important. Some children may be mature and they need more challenging work others may still be in the early stages of their development in their age group so they will need work tailored to their abilities. Use poetry it a therapy it provides rhythm and they can enjoy playing around it opens the world of numbers and words so it's not just the people who can read or it it's just making them aware of all the things that they are that you can really just heading to
Participant 2	Yaah I will…I would say *differentiation is a good strategy because it is learner-centred and will help the teacher to make sure that an attempt is made to meet everyone's needs. Learners also have different interests, others learn fast others are slow, In the foundation phase learners are also not on the same level of development some mature fast while others still lag behind. So using play and drawing lessons from their real life experiences which obviously differ from one learner to the other is essential.* I can't take that away from them. To

	overcome lack of resources I improvise, borrow or buy anything possible.

Appendix G

Transcribed interviews theme **2**

Research Question 1: What are foundation phase teachers' perceptions of the effectiveness of DI strategies?

Theme 2: Teachers' perceptions of the effectiveness of DI

I. Would you say differentiation is the answer to learner diversity in the foundation phase? Please explain.

Participant 1	Differentiation would be the most wonderful thing on earth but you know what? We got so many assessments we are running against time the whole time. That makes it so difficult. I saw now with coronavirus that with a few children in your class you could give them so much attention and be able to differentiate. Now that you're back hundred percent they still want to be treated like princesses and princes they still want my attention the whole time and that's what makes it so difficult, time is scarce.
Participant 2	Yes. It gives you the opportunity to accommodate all learners in the classroom based on their different learning needs such as learning development.

I.   Please describe how you go about identifying these various forms of diversity in your classroom?

Participant 1	Working with parents is very important because they may provide you with information that may help you to understand the learners' backgrounds. I observe learners when they are working and assess their work. When children are struggling then parents have to be involved in mapping every step forward. Some parents are very cooperative but at times parents have no

	interest, or they are simple in denial. Support in such instances may not be a success.
Participant 2	It is easy to identify children who are struggling because they cannot go through their work or they lack the enthusiasm. Assessing the root cause usually takes a lot of effort and screening. Always involving parents is the best idea. However sometimes parents may not always be cooperative for various reasons.

P. **You mentioned class size as another obstacle in implementing DI. How has this influenced your teaching at your current school?**

Participant 1	I feel if they were smaller classes and we could really differentiate because I can't really differentiate there is not enough time there are too many to many children, there is too much that must be done before the end of the year and that is the problem. I do differentiate as much as possible on my methods, but it is difficult, it is not always possible. Some children take long to even realise what or what they are best at. Classroom sizes, space in the classrooms is very limited, it would be lovely if we could have stations and you can stay there and work with children and work for as long as is necessary at a station doing this and then they moved to another station.
Participant 2	*With classes so full there is that same problem as well as we do not have enough space for learning stations in my opinion as well you could take one day and do something with e.g. water play the whole time with one group while others work with cards or sand on the other corner. I would love that it would be fantastic but there is no space and that is a problem.*

Q. **CAPs recommends DI as the best way to achieve inclusivity in the classroom. What are your views about its effectiveness?**

Participant 1	It would be fantastic but I have not seen it really work as claimed in theory. It sounds perfect in theory but yet difficult to implement given the circumstances. Teachers need to work round the clock to make it have a little effect. The demand on teachers is too much and sometimes unnecessary. Authorities must just realise that putting pressure on teachers to produce this and that is at the expense of the child. I believe in it I just haven't seen it really become a success as I say I believe in it I would love to do it absolutely with autonomy and less pressure for unnecessary goals and with little groups.
Participant 2	Sometimes it is not compactible considering massive diversity in the classroom. Some learner remains not catered for because of large numbers.

Q. **Are there any guideline documents that you rely on, in trying to implement DI in your classroom?**

Participant 1	My main source is the CAPS document. I plan my class activities in the framework provided in there.
Participant 2	There is not so much about differentiation that I can use but I research and read about it, how it should be done and what is needed.

Q. **How do you feel about having to differentiate instruction?**

Participant 1	I wish I say I always do, but I can't. It's just too much. I try as much as I can but luckily there is some work that I can deliver in a standardised form as I see everyone ought to benefit as it is. Then *support the slow ones or give extension work to the*

	fast learners. The middle group is always wonderful is cover ways of meeting the standard. It's impossible I cannot differentiate they'd every lesson but I try as much as I can.
Participant 2	It is a good thing for me because I get to accommodate all learners. I use grouping to make differentiation as easy as possible to make sure learners who have like interest can work together. It takes time in preparation, it is not much easier but I keep my eyes on the prize being able to meet every learner at the point of need. So yes I enjoy it.

Q. CAPS offers guidelines to effective differentiation alluding that differentiation is about being innovative rather than a recipe. What are your views on this statement?

Participant 1	Being Innovative is a key. CAPS is also an obstacle towards achieving differentiation goals. The problem with CAPS is that it is loaded with assessments forcing teachers to rush through learning content in order to assess. We cannot ignore it because it has to be done, and you would want to give a fair mark. ANAs are standardized and children are required to measure up to standardized achievement standards in reading.
Participant 2	It depends on the teacher on what strategies suit their class best. Diversity can only be defined in context so it is up to the teacher to identify the different kinds of diversity existing in their classroom and deal with them accordingly. So yes DI can never be a recipe it should be a flexible strategy so that it is applicable in a universal manner.

Q. You mentioned time as one of the constraints in the implementation of differentiation. How does this affect you in trying to use differentiation strategies?

Participant 1	As I have already said CAPS is loaded we are always rushing trying to do this and that in order to reach assessment goals. Large classes under these circumstances make it difficult to attend every learners' needs adequately.
Participant 2	CAPS is overloaded with themes/topics; teachers can not sufficiently use different strategies within the given time framework there is also a lot of paper work on the part of the teacher. I am yet to see differentiation becoming fully effective I haven't.

Q. Please share with me if you find differentiation effective within the demands of CAPS?

Participant 1	Differentiation effectiveness varies from teacher to teacher. Resources and time are a constraint but teachers must do as much as they can. Teachers need to take time to reflect and strategize on how to make it work differentiation brings life it should makes learning interesting to all learners. All learners must benefit they must all be open to it. With all these drawbacks teachers ought to differentiate.
Participant 2	I cannot do everything I want to do; I am limited by the curriculum. Standards are already set in such a way that I must teach to the specifications so that my learners can't pass the standardised assessments otherwise they will be retained. I must complete particular aspects of the curriculum in accordance with Annual Teaching Plans provided by the department. what if some of my learners are not ready for it at

	that time? There are also things like the Olympiad the ANAs learners are expected to do all this and it is standardized.

Q. How do you manage resources in your school with regards to differentiation?

Participant 1	Resources play a very big role. Wwe should have more scales in our classrooms you understand! not only one. We should have more counters, boxes we should have computers and we should have things that are original not only for the library, things that are available to the children in the classroom. Each child should have his own apparatus to use for different things. We should have things like that as in an ideal school that would be fantastic. I'm certain many schools have gotten more resources are doing much better than we are doing. We have as many resources as we can in our school but as I said it is difficult because everything is costly today. If you have all these resources, you will have to have storage space for those resources. And again in children they do not know really how to look after resources Sometimes you've got such wonderful resources then when you see they are not the resources you had at the beginning so that is also a problem again children's behaviour.
Participant 2	There are learners with different languages and learning styles. Technology is available to assists with reaching out to learners and bring the outside word into the classroom.

Q. What are some barriers, if any, that you encounter in the implementation of DI? (Please describe for me a time when you had to deal with a challenge when trying to implement differentiation in the classroom).

Participant 1	It's even difficult having little groups because children today as well have become unruly and become undisciplined and it's very difficult to work with five or six children when the other children are doing something else because they are naughty and they are noisy and it distracts from that little group we are working with. So we got to take that into consideration take back into doing praise and as well children are not easy to handle today. I think in the schools where there are less children and they've already got them means they got the money to put lots of resources in place then fantastic for us at the normal school it's difficult for the government schools where there are so many so many learners it's nearly impossible and that's the problem I see. My dream is that every child must feel capable. Many children feel incapable because as teachers we are not patient enough. We need to understand learners' needs and find ways to help them.
Participant 2	Lack of resources and scarcity of time. Lack of innovativeness. Teachers can always make a plan and improvise. Special needs learners may still be left out in a regular classroom. These learners often need special intervention from for example occupational therapy or psychological evaluation for them to get further assistance

I. How do you overcome the barrier(s)?

Participant 1	The only way is when you do differentiation is by realising that differentiation also is for children who can work fast and for those who are not always more intelligent, those from a much

	better background that have their parents standby to help them. I cannot expect the same from all groups, so I will give them different tasks different readers different kinds of work also different mathematics. because I know that bears their assessment which they will all need to do at the end of it all and get the same results
Participant 2	I vary my teaching methods. There are different kinds of methods like when we working with turns that a few children will be able to use the rest will not be able to use them so much so you don't spend so much time on that you just make certain that those children who are exceptionally gifted don't get bored and I can see when they when they communicate with me they love those kind of methods so

Appendix H

Transcribed interviews theme 3

What are the foundation phase teachers' views on the role played by pre-service and in-service training courses in equipping them with skills to translate DI theory into practice? **Theme 3** The role of in-service and pre-service training in translating DI theory into practice

Q. Explain how your pre-service training influenced your views of DI as a teaching strategy. During your training years I believe you were taught on the subject of differentiation. Is there something that you wish could have been addressed differently to make the implementation of DI more effective?

Participant 1	We learnt a lot about play, reading and all those things and how teaching came about but I cannot remember anytime anyone talking about differentiation when I was at the college. Preservice training did cover topics like, language, culture, diversity and gender and how to handle them in the classroom. I wish someone should have mentioned differentiation and had practice on how to implement it.
Participant 2	There is a lot of theory that is covered. Practical however seems more challenging than what theory presents. Pre-service training needs to be intense when it comes to DI because it is the key to address social and economic inequalities that exist in society. It should be an in-depth study not to you know just making sweeping statements on the topic.

I. **Do you feel you are adequately trained to handle DI in your classroom?**

Participant 1	We were not taught about differentiation when we were training, people didn't even think about it there was just one thing for everybody so it's only in the later years that I realised that one can actually differentiate to accommodate learners through reading further. So it's not like I have been using it for many years. I acclimatize my teaching approach to include all learners, for example I start with basic work and gradually decrease the difficulty level if a child doesn't understand the work so I need more and continuous training.
Participant 2	I cannot do everything I want to do; I am limited by the curriculum. Standards are already set in such a way that I must teach to the specifications so that my learners must pass the standardised assessments otherwise they will be retained. The training is not enough, I want more.

I. How is in-service training influencing your views about DI as a teaching strategy? As a teacher you grow in knowledge every day you probably attend in-service courses, you experience new forms of diversity in your classroom every year. Please share with me how this has affected your views on differentiation over the years?

Participant 1	I've done some that have been fantastic. We had a grade one teacher, I can't remember when? You know, we went to Johannesburg always for her courses. She would say for instance while you are teaching it was a child who works quick is finished they can go outside and skip on the veranda because skipping helps with the development and things like that. I've were doing something like… about brain gym activities. Amazing to me how to just stop and let all the children do those exercises which is fantastic. So I've also had courses which you go to sleep. The

	people who do these courses must be carefully chosen. Facilitators must be sharing from their own experience not just theory as taught at college. Those small little practical things like sharpening a pencil that to me what is the most important to learn about your soon think you can take a poop in your window in your something and that person doesn't do it doesn't want to teach me anything so there have been some really good. I've learnt a lot from those people small little things that make a difference.
Participant 2	I have not attended any DI courses yet aah, but… if I would I would like them to be able to equip me with strategies on how to effectively identify all these various forms of diversity in the shortest possible time. This, in order to facilitate effectiveness in my lesson delivery as early as possible in the year. It takes time sometimes to understand all learners especially with large classroom sizes that are common in our township schools.

I. Do you feel the current Foundation phase training programmes are adequate to train teachers to teach learners with diverse learning needs?

Participant 1	No, it is a struggle for new teachers find it difficult to cope when they start teaching because the training programmes do not have a practical component. It also depends on which college or university one attends..
Participant 2	No, I don't think so. At the university they tell you how to teach, but it is as if the lecturers themselves are no sure of how to apply the theory into practice. When teachers get into the field they find that children have special needs and they have to adapt their teaching through trial and error.

I.   In what ways can teacher training (including in-service training) be improved, so teachers can be adequately prepared to implement DI?

Participant 1	I feel if I had my way, differentiation should be absolutely a subject on its own. When you study whether you studying through post or whether you studying go to a college or whatever, what teachers should know much more is about the person, how people's minds work and the fact that some children learn in this way or in that way. That is important to me, it took a while before I realised you know what? everybody isn't the same it sounds silly to think everybody is the same because everybody thinks differently and everybody learns differently. I think I've got a backlog a bit because of that I need to learn more about it. I believe in differentiation because it makes so much sense to me. I am learning a lot about it as well. I wish I knew earlier about differentiation my teaching would have been definitely different. I think there was a lack of insight by the department back then things may be different for those who are training now. We should have forgotten about how to write on a board they should have left things like that. They should have told us more about children how they work how they think how we think about their emotions about that a person should have had more attention than the subjects.
Participant 2	I wish there could be more courses on differentiation. The facilitators must be chosen carefully to be able to deliver stuff that will ignite teachers' zeal on differentiation. Teachers must be equipped to make learners feel valued and trusted to own their learning.

Transcribed Focus Group Theme 1

Research Question 1

How do teachers feel about the effectiveness of DI strategies in addressing diversity in the classrooms?

Theme 2

Opinions about the effectiveness of DI strategies.

I.   What does the term differentiation trigger in your mind**?**

Participant 3	It reminds me of different learning styles of teaching and approaches aimed at accommodating learner individual needs to help them to be successful
Participant 4	Attending to the needs of a diverse group of learners. This includes learners from different cultural backgrounds, learners with different learning styles, learners with different aptitude
Participant 5	Catering for the needs of learners based on their abilities. It is teaching one concept but at the level of the individual student abilities or providing different materials for students to reach the desired outcome.
Participant 6	It makes me realise that children in my class are not the same and that they are coming from different backgrounds in terms of language socio economic factors and things like that, these affect teaching.
Participant 7	It triggers the differences in our learners be it in their learning styles, behaviour, and performance, interests their expertise and skill. Aah… I think the way in which different learners grasp new concepts, some learners may not be keen on numbers but prefer reading texts and so forth.

Participant 8	Yoooh, it triggers the need to deal with different learners with different needs and learning styles. It means the exposure to variation in learning styles in the classroom as a teacher.

I. Which three DI strategies do you find most effective or most ineffective in your case**?**

Participant 3	*through content, presenting content at different levels, environment and product*
Participant 4	*As to date, the most effective strategy I use, is to continually assess learners so that I can adjust content to meet the learners needs and therefore address the diversity in the classroom. This forms a basis and a starting point.* *Getting to know your learners. Spending some time with them and getting to know what makes them tick. What fascinates and interests them.*
Participant 5	Grouping learners, relationship building and game based learning
Participant 6	Use of concrete objects to promote and improve learning. I would like to see eeh... for example, different workstations to cater for a bad and a good day. Creating an environment that makes learners feel comfortable and reduce anxiety. Fostering a positive learning culture so that learners acquire higher motivation that leads to wonderful learning.
Participant 7	Group activities, Individual reflection and continuous assessments.
8 Participant	DI strategies work but they demand a lot of time. This impacts on their effectiveness as you may miss out on some important steps during your preparation and then affecting the desired end result.

I.   What aspects of differentiation are important to you? Explain how this influences your teaching?

Participant 3	Assessing informally so as a check to see how you can adapt your next lesson to meet most of the learners learning needs.
	Addressing the various learning styles such as visual, auditory and kinaesthetic.
	• Provide textbooks and PowerPoints for the visual learners
	• Playing videos and songs with the auditory learners
	• Creating dances based on the learning. For example, when I teach patterns in maths we clap it and create different patterns with movement and dancing.
	I believe that giving learners variety when it comes to producing the end product. Instead of doing a worksheet or working in their workbooks every time, give them an assignment or a project, let them go out an explore outside, allow them to brainstorm their learning and ideas on a poster and present it.
Participant 4	A. Content, I choose content that will be easily understood by my learners,
	B. Process, I use group and cooperative work
	C. Environment, I enrich the class environment with a variety of materials.
Participant 5	Varied teaching methods and differentiated assessments. Assessments will actually not be the same. For the ones who are actually slow it will be at their level. Sometimes you find that some children you can say the child is slow and only to find that maybe he's got a problem with hearing or maybe he's got a problem with visual can't even see properly. and then you end up saying this child is not able to so yeah you need to use different things like my overhead projector so that we'll be able to see what it is that you talking about let's say maybe about hearing maybe I can have different stories which they listen to and then after listening to the

	story, they will be questions, the questions will be starting from easy to challenging, there will be some kind of progression in questions
Participant 6	It is helping the learner to learn in the best way they can.
Participant 7	It is not easy by I commit myself. Time is scarce. Teachers needs to go an extra mile try many different ways to help learners. I use grouping as a strategy. Eeeh… this helps with peer teaching. They can be mixed ability to ensure they learn from each other. Assessment must be designed to the right level. The assessment must be set to their level of understanding. Continuous assessment is key in the Foundation phase aah most of the time. Classroom management The classroom must have a rich environment, wall displays encourage independent and continuously learning, it encourages inquisitiveness.
Participant 8	Teaching learners from known to the unknown is all what matters. Learners understand things best if they are adapted to their context.

Would you say differentiation is the answer to learner diversity in the Foundation phase?

Participant 3	A. Yes it is. The teacher just needs to know their learners, their learning styles, strengths and weaknesses and use suitable teaching strategies to meet specific learner needs.
Participant 4	I think there are also other factors that contribute towards learner diversity such as parental involvement and language and communication.
Participant 5	I think it is an answer not the answer. I think there are many solutions to learner diversity and perhaps differentiation is the big one because it reminds us of our responsibilities to guide learners to the knowledge by any means possible. Differentiation is meant to

	affect teacher instruction but differentiation without feedback, teacher development or reflection, in my opinion is ineffective.
Participant **6**	Yes, I agree because each learner is different and brings unique experiences and ideas to the classroom. Support for individual learners is very important. adaptations to learning styles plays a greater part. Some children learn by seeing, others by listening and others learn better through manipulation and handling things. Teachers must adapt their teaching to learners' learning styles to make sure that all learners are successful. Various Methods must also be used to appeal to learners' multiple intelligences. The more ways we allow to explore a concept the more likely they develop varied ways of solving their problems.
Participant **7**	It is. It helps you to look at learners in different ways from each other because the reality is that they are different and they learn differently. It directs teacher to focusing on learners needs which is key. Learning styles differ and differentiation is tailored toward addressing exactly that. So yaah! differentiation can be the answer as attention is directed towards appealing to learners' senses and learning styles.
Participant **8**	Yes, it could be. Foundation phase children are just entering the formal education system and they are never at the same level of development. They need those diverse approaches to make sure none is left behind.

I. **How likely would you recommend the use of DI as the best strategy to meet learners' diverse needs? What would you say?**

Participant **3**	I would recommend differentiation as the best strategy because a teacher can present in different levels, different styles. Allow learners to sit flexible growth mind-set independent thinking, treat them fairly and equally giving them options and choice in learning/ participate in learning.
Participant **4**	DI is a good strategy and I would recommend that teachers use it every time.
Participant 5	I am very likely to recommend differentiation. I would say do your research see how you can adapt it to suit your class also talk to your colleagues about what you are doing and find ways to improve it. Let DI affect your instruction. Let it help to evaluate your teaching.
Participant **6**	In smaller classes it is possible to implement but may be a challenge with bigger groups.
Participant **7**	I would recommend it because it does cater for differences in the classroom. In the FP learners are new to formal learning so if you are going to use a one size fit all approach you may lose most of them completely thinking that they are not smart. Their levels of maturity and cognitive development are still at different levels. They are still learning to discover their strengths so it is crucial that the teacher pays very close attention to each learners' needs in order to build a very solid foundation. If applied carefully DI strategies can also solve behaviour challenges in class every learner is met at their point of need. DI. tailors the teachers towards using different teaching methods and teaching various ways of solving problems.
Participant **8**	It improves assessment result in other ways it improves learning. Unlike the formal teaching method that assumes all learners are the same all learners are treated according to their needs' There are many ways to address learner needs. Teachers need to look beyond the traditional methods of teaching and learning. I would recommend it most and all the time. Those in less fortunate

	environments I would encourage them to improvise and be innovative with what they can find in their environment. Involve learners in collecting materials for use in class let them explore their environment and be practical as possible. Technology should be incorporated where practically possible.

Transcribed Focus group: Theme 2

Research question 2

How do foundation phase teachers' perceptions of DI influence their classroom practice?

Theme 2-Teachers' perceptions about DI that influence classroom practice

I. How possible is it to create a differentiated environment at your school?

Participant 3	It is possible, you need to know how your learners learn their learning style, use collaboration group activities, offer extra help and support, use audio visual services to enhance learning. Challenges often arise when children must work at different work stations. Learners these days are rowdy and difficult to control, besides children in the FP especially the grade 1s are still egocentric working together to share resources can be difficult if they are to do it on their own while the teacher concentrates on another group.
Participant 4	I believe this is possible and every teacher should strive for this. Learners come from different backgrounds and have different learning needs so every teacher should try and diversify her classroom as often as possible.
Participant 5	I believe this is possible and every teacher should strive for this. Learners come from different backgrounds and have different

	learning needs so every teacher should try and diversify her classroom as often as possible.
	It is highly possible. The teacher just needs to get intentional in getting to know the students, grouping them accordingly then teaching them at their level.
Participant **6**	to say is that yes differentiation it can be really challenging because we don't know where these children are coming for some of the children if I'm that maybe they come to school they can't focus because they are hungry they were no food at home. Some of the children you'll find that the language is a barrier, for some they live with guardians' or parents who are illiterate, others have never been to a holiday trip, some have been to the wild some have not. Backgrounds are so diverse and the teacher has to be sensitive to these and accommodate all learners.
Participant **7**	It is possible to differentiate but in small classes. It is a challenge with large classes like 28 learners or above. During the COVID_19 pandemic class sizes were reduced by 50% pupils attending alternate. Teaching felt very different and effective. Teachers had time for each learner. With large classes the problem is that lessons can become chaotic. Maintaining discipline is difficult and lessons may become unproductive.
Participant **8**	It is easy to differentiate if resources are made available. Technology like projectors the internet and computers are available. They also help reaching out to learners. There is not enough space to accommodate different learning centres and manipulative materials in the classroom, that would make it easier. Learners share materials, now during the COVID-19 pandemic it is difficult to cope as we have to limit sharing as much as possible. But we try our best with what is available you know… to make it work

I. **When you reflect on your years of teaching how do you feel about having various forms of diversity in your classroom?**

Participant 3	Learners hail from different cultures, family backgrounds and have different learning styles etc. I am happy to deal with these diversities because it allows me to afford me the chance to see learners for who they are adding variations to would rather be monotonous class practices**.**
Participant 4	I find it challenging because in addition to extra-mural activities I have to document everything including reporting on learner behaviour sometimes these reports seem to be arbitrary, hence impinging on teachers' ability to teach effectively including the use of differentiated activities
Participant 5	I have come to appreciate it as the years have progressed. Having with all these forms of diversity has challenged me as a teacher – to be intentional about finding different ways to teach a concept. I have also learnt to pitch my lessons to the average learner and then seek ways to scaffold and support those who are lower and challenge those who are above.
Participant 6	that combination is a difficult one so that's why teachers need to have patience. You need to strategize find time to deal with their needs work with them step-by-step. Using different methods and styles which work for individual learners must be taken into consideration at all costs. If you are not sure consult with other staff members.
Participant 7	I love diversity. It makes me creative. Same methods and approaches every time can be monotonous. Diversity bring variety and it makes me grow. It challenges me to grow in creativity through research and learn new things every day.
Participant 8	Diversity brings variety which comes with challenges you know. Aah I feel challenged to think out of the box always. I always feel mandated to do the best whatever circumstance maybe so that every child gets what they deserve

I. **What are some barriers if any that you encounter in the implementation of DI? How do you overcome the barriers?**

Participant 3	Resources are scarce. they may not be enough for the needs. I usually augmented available resources by improving and looking for usable material from the internet from recommended websites and project it on the wall.
Participant 4	Definitely more work load on the teachers' side. Individualising your lessons to make sure that all your learners learn in their learning style would mean you spend more time on one topic and preparing for the topic. I feel that I am not properly equipped/ trained in this area as a teacher. Going on a short course would really give me as the teacher more confidence to implement more differentiation in the classroom
Participant 5	Language barriers Large class size
Participant 6	Lack of concentration on the part of the child. So you have to search for ways to capture their attention which may not always be possible due to lack of time. Learners with special needs in the regular classroom may need to be sent for further evaluation as bringing them at par with others may always be a challenge. One will need assistance to identify ways to handle them best. Challenges may continue and the child would rather benefit if they went to a special school. Problems with behaviour hamper the smooth flow of differentiated activities in the classroom. Large classes are a challenge, time it's the problem in most of the times so it is a two-way thing it's a yes you will try your level best and I a NO because sometimes you find that you've got to move into something but still you have those learners who keep on disrupting lessons. With CAPS it tells you that you've got to do this within a certain framework or a period of time but then you need to let say maybe use your extra time other people cannot I can do that maybe

	because I'm old I don't have children at home to worry about and I can stay for even longer turn spot for other people.
Participant **7**	*If teachers would come into the classroom and concentrate on teaching only it will work even better. Teachers are overloaded with work. Usually unnecessary expectations, there is too much interference from administrators, teachers work not only to benefit the child but to make sure the school admin is pleased and that many times does not benefit the child at all. I feel teachers must be left to work.*
Participant **8**	Time and other resources are never enough. Carelessness by learners in the use of the available resources. learning material does not last they tear books and break stuff easily. Ahh classes are too large and discipline is also a challenge lessons often become chaotic you know. To overcome these is trying to be resourceful and innovative like… say aah using DIY materials were possible.

I. CAPS recommends DI as the best way of achieving inclusivity in the classroom. What are your views about its effectiveness?

Participant 3	This approach offers a way to include learners with learning and intelligence differences in the general classroom. All learners have access to the curriculum in a variety of ways which makes learning experience more effective.
Participant 4	I agree with this statement, but there are many challenges for teachers to meet the needs of every learner. I am fortunate enough to teach in a resourceful school with 30 learners in my class. Even I struggle to differentiate lessons to meet the needs of all 30 of my learners. Time is definitely a constraint and I also feel that I may not have been properly trained and equipped in this area as a teacher.
Participant 5	If it is done right yeh it is effective. I think teachers must do honest reflections and ask for learner feedback and adjust accordingly.

Participant 6	I think my views for this one, is yes we've got to include children you cannot say that because so and so is the eyesight is not okay I don't want the child in the class we've got to accommodate children like that if you see a child, like that let's say maybe problem with eye sight s/he is supposed to come and sit in front where it will be able to if it's a problem with hearing then you are accommodating them. So inclusion it is if it is fair for all the children because all the children are actually you know special not unless if he supposed to go to a special school where it is beyond you. Sometimes I find that you are not qualified to be able to work with a child that is blind and using braces there are specialists for that. But inclusion I do agree that you've got to accommodate all that you
Participant 7	It is effective because it is beneficial to the learners. It enables teachers to better handle learners taking note of their differences.
Participant 8	DI allows the teacher to meet the needs of all the learners in the classroom aaah right. So it provides the learners despite their background or ability level with the chance of success. So I think DI is very relevant in our schools but the reality does not ...you know… measure up to the expectations of DI as anticipated by CAPS. Class sizes are too big and there are a lot of odds stacked up against the countries under resourced schools.

I.   What are your references when implementing DI in your classroom?

Participant 3	I use the CAPS document. I rely on the guidelines of the SIAS policy too in order to provide support to learners. I involve parents a lot.
Participant 4	Differentiation is a scarce subject I don't have a specific document that I can say has step by step guidelines but there are many books written by different people that can help. There is one author, Thompson or Tomlinson if you read her books they provide good guidance but its only theory.
Participant 5	Yes, inclusive education has been around for a while and there are publications on how to include all learners in all learning settings. I usually rely on such guidelines.

Participant 6	I probably rely much on what I learnt in college about inclusive education. I haven't seen documents that give a detailed guideline on DI.
Participant 7	I wish there was such a document, but what I do mostly is trial and error because even if you research about it, it does not fit my specific situation it is written for a different context.
Participant 8	The documents are available but sometimes I do not understand them, they are just not fitting to every situation they are just general.

I. How do you feel about having to differentiate all lessons? What three words would you use to describe how you feel?

Participant 3	I feel frustrated and de-motivated
Participant 4	Rewarding Hard work Time consuming
Participant 5	Overwhelming unnecessary tiresome
Participant 6	*In my class I got 26 children imagine if I had 50 children like in some large schools in the country. I still find DI sometimes frustrating, time consuming because you have to keep on, you know, planning a different thing for those children at their different levels. I think to be honest it is time-consuming and sometimes you find that you need more planning time at the end of the day you find that you are so tired because it is too much.*
Participant 7	Not easy, exhausting and time consuming. *Standardized textbooks, learning material and assessments mean I have to spend a lot of time designing a curriculum that will fit my class best only to write a standardized assessment at the end of it all. There is that lack of coherence in this whole differentiation.*

Participant **8**	DI is challenging cumbersome and time consuming but rewarding.

I. Please describe for me some ways of how you differentiate instruction in your foundation phase classroom?

Participant 3	I use a lot of visual approaches so that learners don't forget easily. I think differentiation is the only way to deal with diversity in the classroom today
Participant 4	Sometimes giving learners more freedom and flexibility could help handle diversity in the classroom. By doing this, learners will naturally choose and do things that they enjoy and can do. Involving and connecting with parents and even the community.
Participant 5	I use differentiated materials, games based learning increasing and decreasing the number range as needed. I think Bloom's taxonomy is another way of handling diversity in that questions are posed at different levels.
Participant 6	Flexible grouping and the use of group guided activities helps me a lot. I like keeping track of my learners' performance in check in order to be able to help them where they are struggling.
Participant 7	I use different teaching methods depending on the learners' needs.
Participant 8	Aah it involves you know... giving clear instructions also using visual aids

Transcribed Focus Group Theme 3

Research question 3

What are the foundation phase teachers' views on the role played by pre-service and in-service training courses in equipping them with skills to translate DI theory into practice?

Theme 3: Teachers feelings and opinions on the role played by their in-service and pre-service training in helping them translate DI theory into practice.

I. **When you reflect on your pre-service training what is it, if anything, that you feel could have been addressed differently.**

Participant 3	Everything was clear and well addressed however I think they can still improve the way they reach about differentiation by finding out from teachers the real classroom challenges so as to equip those who are still in training with realistic real life solutions that will work in our pre dominantly large South African classes.
Participant 4	I feel that I got a good foundation during my pre-service training but I feel that most of your learning as a teacher is in the practical – seeing, doing and practising in an environment where you feel safe to take risks. I feel that I did not get enough opportunity to do this.
Participant 5	Pre-service training only sells students ideals. when DI is taught the idea is centred around small manageable classes of 16- 20 learners where the method can work flawlessly. However, in practice it is extremely challenging because classes are large to 40+ then teachers have to try and adapt it to the situation.
Participant 6	I learnt that in the first place you need to have that patience. In the olden days it was a lot of rote learning, children were to listen to the teacher and repeat what the teacher says, now children are able to speak, ask questions and you've got to be a very good listener, and give praise and allow the child to ask the questions so that they take part fully, do not make assumptions.

	So whatever that has been used in the olden times yes it was ok. till now it can work partly. But in the times in which we are living in I think differentiation it is even smooth sailing because of learner-centred methods that we are using. Seating arrangement was also a hamper now you can create the environment you wish to.
	The learning stations that are prevalent today were not an in thing in the past.
7 Participant	Oooh yes! but I don't remember anyone mentioning differentiation in depth. It featured here and there just in passing. I feel differentiation must be a subject on its own. Teachers resort to one -size fit-all approach because they are not fully equipped during training. Teachers just use trial and error when they get to service and they are faced with enormous diversity. Pre- service is yet to take differentiation seriously and address it in detail.
Participant **8**	I wish differentiation at college could have been more phase specific than general. I feel it should come closer to home and specifically teach on how differentiation should be done in for example a grade 2 class. How do you handle a grade 2 learner who has auditory challenges and prefers to learn through visuals and mainly in his mother language that is different from the language of learning and teaching? Even during teaching practice differentiation is never a subject of discussion with those mentoring you. It is a question of you figuring it out on your own. I feel pre-service is too general and does not help much when you come into the field. More should be done to equip student teachers for practice.

I. **Reflect on in service training programmes on differentiated instruction that you have attended in the past (if any). How do they address your needs in the implementation of DI? Please give specific examples in your case.**

Participant **3**	I have not attended any courses that del specifically about how to use differentiation as a strategy. The mention of differentiation is almost

	incidental and no one actually deal with it directly as it occurs in our oversized classes. I wish the department and the principals will do something about this. They must ensure that teachers understand how to deal with differentiation in the SA context not just in general as this does not meet the needs of a large school in with overcrowded classrooms as in the townships. The issue with differentiation is frustrating with in the real life for a class teacher under such circumstances.
Participant **4**	I have not attended any programmes in this regard. I have done my own research and reading.
Participant **5**	I have never attended any in-service training on DI. I don't remember them being offered.
Participant **6**	These courses have been quite helpful. You learn from others as you share experiences. Some training during staff development courses are also helpful to teachers so they can meet every learner needs by first identifying those needs. Some however, not everything may be possible to implement. My journey has been so different because 10 years' way back up to now things have changed so much due to these in-service courses. We are using a lot of technology in the times in which we are and in the previous years it wasn't like that I've been exposed in to different schools, some of the schools they have equipment and some of the schools didn't have Now we are using a lot of technology and teaching is a little bit easier than when it was before. Now everything is it moving fast and the children that we are working with are so much exposed to technology in the sense that some of the things which you don't know sometimes they end up telling you that know it is not like this it is like that.
Participant **7**	I have never attended any in-service training on DI. I don't remember them being offered. But I am to attend one I wish they will address the issue of how to use it effectively in large classes. We need strategies that work not ideals. Most of the differentiation strategies are not possible in large classes with scarce resources.

Participant **8**	I have not attended any course that deal with differentiation. I wish there could be courses address real life experiences that we deal with in the classroom. I would like to attend courses that may give step by step guides towards tackling everyday challenges at least specific guidelines a model to follow while still learning to handle each situation differently.

Appendix I

Ethics Certificate

UNISA | university of south africa

UNISA COLLEGE OF EDUCATION ETHICS REVIEW COMMITTEE

Date: 2020/08/12

Ref: **2020/08/12/53836170/33/AM**

Name: Mrs S Sibanda

Student No.:53836170

Dear Mrs S Sibanda

Decision: Ethics Approval from
2020/08/12 to 2023/08/12

Researcher(s): Name: Mrs S Sibanda
E-mail address: 53836170@mylife. unisa.co.za
Telephone: 0785940591

Supervisor(s): Name: Dr. M. Postma
E-mail address: marlete@postma.co.za
Telephone: 0845062989

Title of research:

Exploring teachers' perceptions of differentiated instruction in the Foundation Phase, in Tshwane South District, Gauteng Province, South Africa

---

Qualification: MEd Curriculum Studies

Thank you for the application for research ethics clearance by the UNISA College of Education Ethics Review Committee for the above mentioned research. Ethics approval is granted for the period 2020/08/12 to 2023/08/12.

*The **low risk** application was reviewed by the Ethics Review Committee on 2020/08/12 in compliance with the UNISA Policy on Research Ethics and the Standard Operating Procedure on Research Ethics Risk Assessment.*

The proposed research may now commence with the provisions that:

1. The researcher will ensure that the research project adheres to the relevant guidelines set out in the Unisa Covid-19 position statement on research ethics attached.

2. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy on Research Ethics.

University of South Africa
Preller Street, Muckleneuk Ridge, City of Tshwane
PO Box 392 UNISA 0003 South Africa
Telephone: +27 12 429 3111 Facsimile: +27 12 429 4150
www.unisa.ac.za

130