CURRICULUM ADAPTATIONS FOR LEARNERS WITH LEARNING IMPAIRMENTS IN THE FOUNDATION PHASE IN THABO MOFUTSANYANA EDUCATION DISTRICT, FREE STATE PROVINCE

By

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DECLARATION

I, NompumeleloAlzinahMzizi declare that this thesis is my original and independent work, and that it has never been submitted to any other institution or faculty for degree purposes.

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NA MZIZI

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DATE:

DEDICATION

This thesis is dedicated to:

- My mother, Sarah Shongwe, who always encouraged me.
- My daughter, for her loyal support.
- My life-partner, for being patient and understanding

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ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
ANC	African National Congress
APA	American Psychiatric Association
CAPS	Curriculum and Assessment Policy Statement
C2005	Curriculum 2005
CSIE	Centre for Studies on Inclusive Education
CWPT	Class Wide Peer Tutoring
DBST	District Based Support Team
DI	Direct Instruction
DBE	Department of Basic Education
DoE	Department of Education
Edupol	Education Policy
ELLs	English Language Learners
FAL	First Additional Language
FET	Further Education and Training
HIV	Human Immune Virus
HL	Home Language
IDEA	Individuals with Disability Education Act
IEP	Individual Education Plan
ILEA	Inner London Education Authority
ISP	Individual Support Plan
IQ	Intelligence Quotient
LoLT	Language of Learning and Teaching
LSA	Learning Support Advisor
LSAs	Learning Support Advisors
LSM	Learning Support Material
LSMs	Learning Support Materials
NCESS	National Committee on Education Support Services
NCS	National Curriculum Statement

NCS, CAPS Statement	National Curriculum Statement, Curriculum, and Assessment Policy
NCSNET	National Commission on Special Needs Education and Training
NEPI	National Education Policy Investigation
NJCLD	National Joint Committee on Learning Disabilities
NQF	National Qualifications Framework
OBE	Outcomes-Based Education
PALS	Peer Assisted Learning Strategies
PEMDAS	Please Excuse My Dear Aunt Sally
Prisec	Private Sector Education Council
RNCS	Revised National Curriculum Statement
RSA	Republic of South Africa
RTI	Responsive-to-intervention
SA	Subject Advisor
SAs	Subject Advisors
SASA	South African Schools Act
SASAMS	South African School Administration, Management Systems
SBST	Site Based Support Team
SBSTs	Site Based SupportTeams
SIAS	Screening, Identification, Assessment and Support
STAD	Student Teams Achievement Division
TREE note	Topic sentence, note Reasons, Examine Reasons, note Editing
UNESCO	United Nations Educational, Scientific, and Cultural Organization
USNCERI Inclusion	United State National Centre on Education Restructuring and

ABSTRACT

In this research, the researcher focused on the level of knowledge and skills of foundation phase teachers on curriculum adaptations for learners with learning impairments. The sample consisted of 20 foundation phase teachers and 22 learners. Interviews were conducted with 20 teachers and the researcher observed the interaction between teachers and learners as well as the interaction between the learners themselves. Field notes were also taken during fieldwork.

The findings indicated that most teachers understood what the adaptations were; although only few aspects of the curriculum were understood to be adapted to the needs of learners with learning impairments. Some teachers gave learners varying activities whilst other teachers gave all their learners the same activities. The teachers mentioned that they gave different activities to individual learners during expanded opportunity time, which was, according to the researcher, time consuming.

The study recommends that the Learning Support Advisors (LSAs) and Subject Advisors (SAs) should conduct in-services training in which foundation phase teachers are trained in curriculum adaptations. Teachersshould be asked how they explore the meaning of curriculum adaptations. This strategy will help the facilitators to identify what teachers already know, and build on that knowledge. The question and answer technique will serve as an introduction to the training. The LSAs and the SAs should conduct the training using different teaching strategies. Thereafter, they should highlight strategies such as: Multilevel instruction; cognitive training which entails self - instruction, self - monitoring, scaffolded instruction and reciprocal teaching; content enhancement which entails graphic organizers; mnemonics and peer assisted learning strategy; direct instruction, peer tutoring and cooperative learning. The researcher designed the

following models to improve the knowledge and skills of foundation phase teachers on the implementation of curriculum adaptations for learners with learning impairments:

- In-service training model;
- Curriculum adaptations model;
- Model of an application for adaptation(s), and
- A model of a record sheet for adaptation(s).

KEY WORDS

Foundation Phase, curriculum, curriculum adaptation, learning impairment, learning disabilities, learning barriers, learners with learning impairment, curriculum differentiation, inclusive education and diverse needs

CHAPTER 1

OVERVIEW CHAPTER

1.1 INTRODUCTION

The White Paper No. 6 (DoE 2001b: 24) states that "…most learners with diverse needs leave school early due to the fact that the education system does not cater for their needs. Schools and the curriculum seem to be inaccessible to them. The Department of Education(2001b: 33) further states that the emphasis ofthe earlyidentification of barriers tolearning will focus mainly on learners in the Foundation Phase who may require support, for example by adjusting the curriculum, evaluation and presentation to suit the individual's needs.

In order for learning to be successful teachers should possess knowledge and skills for the adaptation of curricular to meet the special educational needs of learners withlearning impairments. This study therefore investigates the knowledge and skills of foundation phase teachers on curriculum adaptations for learners with learning impairments in the Foundation Phase in Thabo Mofutsanyana District**.**

1.2 BACKGROUND

The DoE (1997b: 55) believes that the separate systems of education which existed ('special' and 'ordinary') needed to be integrated to provide one system which would be able to recognize and respond to the diverse needs of the learner population. Within this integrated system, a range of options for education provision and support services should be provided. Learners should have the ability to move from one learning context to another. The system of education should be structured in such a way that, irrespective of the learning context, opportunities for facilitating, integration and inclusion of all learners in all aspects of the curriculum should be provided.

The Department of Basic Education (2011c: 5) states that including learners experiencing barriers to learning and development should be of special interest to the people working together in planning and teaching at each institution. The DBE (2011c: 5) believes that this can only be achieved if all teachers are able to identify and support learners experiencing barriers to learning and if teachers know how to plan for diverse learning needs. The most important part of including learners with diverse needs is that barriers are identified and intervention strategies are introduced by all relevant structures at school as well as outside the school. In order to address barriers in the classroom, teachers are encouraged to differentiate the curriculum.

It is also stated by the Department of Basic Education (2011d: 19) that the language periods should be the basis of support to learners with diverse learning needs, while improving the quality of learning for those who are progressing, providing evaluation tasks and measuring the time they take to write. According to the researcher, support must not only be done during language periods, but across the curricular as all teachers are language teachers. Teachers should mark the learners' work in order to monitor the progress of each individual learner. The learners' progress will determine the backlog if there be one and this knowledge will enable the teacher to plan appropriately. This implies that teachers have to adapt their curricular to accommodate learners with learning impairments in their classrooms. Hence, teachers should have the necessary knowledge and skills of curricular adaptations to be applied before, during and after lessons.

In 2001, the Department of Education released the White Paper 6 where it committed itself to providing educational opportunities that are inclusive (DoE 2001: 6). The researcher's opinion as a Learning Support Advisor are that, in the Thabo Mofutsanyana District, foundation phase learners with learning impairments seem to be neglected most of the time because of the workload teachers have and the lack of knowledge teachershave oncurricular adaptations. That is why the researcher decided to investigate curriculum adaptations for learners with learning impairment in the foundation phase.

1.3 PURPOSE OF THE STUDY

The purpose of this study is to investigate the level of knowledge and skills that foundation phase teachers possess on curriculum adaptations for learners with learning impairments. Thesignificance of this study will be highlighted in the following paragraph**.**

1.4 SIGNIFICANCE OF THE STUDY

The completion of this study will benefit the Free State Education Department in assisting foundation phase teachers indeveloping their knowledge on curriculum adaptations for learners with learning impairments, as most of the teachers do not adapt most of the aspects of the curriculum for learners with learning impairments. The only aspects adapted by the foundation teachers are: Time and sometimes activities.Teachers will be made aware of the benefits of curriculum adaptations**.** Furthermore, teachers who cannot adapt the curriculum for learners with learning impairments will be shown in this study how they could adapt the curriculum, by conducting in-service training.This study is also likely to encourage further research on educational practices in an inclusive educational environment**.**The following paragraph provides the problem statement for this study.

1.5 STATEMENT OF THE PROBLEM

Policy documentson Special Needs Education (DoE 1995; DoE 1997a; DoE 1999; DoE 2000 and DoE 2001b) advocate that those teachers should adapt their curricular when teaching learners with learning impairments. They mention that differentiated teaching strategies should be prioritized so that learners can access the curriculum. This implies that teachers should adapt the curriculum for learners with learning impairments, for them to access the curriculum.The researcher's experience shows that teachers fail to implement these adaptations. Instead of adapting the curriculum during teaching time, some teachers adapt the curriculum during the expanded opportunity time. They areunable to adapt some parts of the curriculum. For example: Assessment, material,

lesson plans,instructionand learning strategies. Learners with learning impairments are seemingly not accommodated in most classrooms.Hence, they may drop out of the education system altogether. As a result, this study wishes to investigate the level of knowledge and skills that foundation phase teachers have on the implementation of curriculum adaptations for learners with learning impairments. In order to effectively investigate the problem, the researcher should be able to find answers to the following questions:

1.6 RESEARCH QUESTIONS

- What are curriculum adaptations?
- Which factors influence curriculum adaptations for individual learners with learning impairments?
- What processes are followed in adapting the curriculum for learners with learning impairments?
- How do teachers apply curriculum adaptations for learners with learning impairments?
- Which teaching strategies are used for adapting the curriculum for learners with learning impairments?
- What learning strategies are used once the curriculum has been adapted?
- How do curriculum adaptations benefit learners with learning impairments in the foundation phase?
- What curriculum adaptation models are suitable for learners with learning impairments?

1.7 RESEARCH AIM AND OBJECTIVES

The following aim and objectives will guide this study.

1.7.1 Research aim

The aim of this study is to investigate thelevel of knowledge and skills of foundation phase teachers on curriculum adaptations for learners with learning impairments.In order to achieve this aim, the following objectives should be achieved by this study.

1.7.2 Research objectives

The objectives of this study are to:

- Explore the views of different teachers on the meaning of curriculum adaptations
- Identify and describe factors that influence curriculum adaptations for individual learners with learning impairments
- Explore the processes which are followed in curriculum adaptations for learners with learning impairments
- Analyze the ways in which teachers apply curriculum adaptations for learners with learning impairments
- Analyze teaching strategies which are used to adapt the curriculum for learners with learning impairments
- Analyze learning strategies that are used once the curriculum has been adapted
- Explore the benefits of curriculum adaptations for learners with learning impairments
- Examine how curriculum adaptations benefit learners with learning impairments in the foundation phase
- Develop curriculum adaptation models that are suitable for learners with learning impairments

The following section deals with the definition of concepts.

1.8 DEFINITION OF CONCEPTS

This section attempts to define concepts that would be used in this study. The concepts that will be briefly defined in this section are: the foundation phase, curriculum, curriculum adaptations, learning impairments, learners with learning disabilities, curriculum differentiation and inclusive education.

1.8.1 Foundation Phase

The Policy Document: Grade R – 3 (DoE 1997c:134) defines foundation phase as the first phase of the General Education and Training Band which comprises Grades R, 1, 2, and 3.

Grade R which was also known as grade O or pre - school Reception year , the age being four years and turning five years in the year of admission (DoE 1998: 13).

The Education White Paper 5 (2001c: 22) states that Grade R is the Reception Year.

1.8.2 Curriculum

Donald, Lazarus and Lolwana (2002: 18) define the curriculum as being more than just the syllabus. Apart from the content, the curriculum also includes the goals and processes of promoting the holistic development of the learner and the structure of the programme. UNESCO (2004: 13) supports the idea of Donald *et al*. (2002: 18) by adding that the curriculum is what is learned and what is taught (context); how it is delivered (teaching – learning methods); how it is assessed (exams, for example) and the resources used (e.g. books used to deliver and support teaching and learning).

After revisiting their definition, Donald *et al*. (2006:19) came up with a new definition by citing that a curriculum is often misunderstood as referring to the syllabus or the content

of what is taught. In other words, a curriculum is much more than this. It relates to the aims and purposes of the entire schooling programme. Thus, the curriculum includes: How the programme is structured, how decisions are made, the process and methods of teaching and learning, methods of assessment and evaluation, and a range of other factors that characterize how the programme is carried out.The processes and methods of teaching and learning regarding learners with learning impairments in the foundation phase have to be adapted to their needs.

1.8.3 Curriculum adaptations

Lee, Amos, Graguodas, Lee, Shogren, Theoharis and Wehmeyer (2006: 200) maintain that curriculum adaptations refer to efforts to modify the way in which content is presented or content in which the learner engages with and responds to in the curriculum. Bird, Alton and Mackinnon (2004: 141) believe that curriculum adaptations involve making changes by eliminating or adapting parts of the curriculum as well as the teaching and learning environment, which enables learners to learn from the curriculum designed for their age group in an inclusive education setting.

1.8.4 Learning impairments

Du Plessis, Conley and Du Plessis (2007: 23) state that previously, the term “learning disabilities” was used in South Africa and most of the American sources still use it. However, with the publication of the National Disability Strategy where the disability is seen as resulting from factors in the environment, learning impairments can be described as a general term which refers to a heterogeneous group of neurological disorders involving the basic psychological processes of the brain which manifest in difficulties with language (speaking, reading, writing and listening) and/or mathematical calculations (DoE 1997a).

1 8.5 Learners with learning disabilities/impairments

Dednam (2005: 364) states that a person with a disability is seen as a person with a physical impairment and one who is restricted from full and equal participation in society, but, Du Plessis *et al.* (2007:23) believe that learners with learning disabilities/impairments are those learners who experience difficulty with aspects of literacy, language, numeracy or a combination of these.In other respects, their intellectual functions are normal.Although they fall behind other learners in their age group, learning disabilities mostly go unobserved, and the first sign of them often come when learners hand in written work. These indications are often unusual or inconsistent spelling, reversal of letters in words or numerals in numbers, omission of parts of words or sentences, or omission of prepositions or pronouns. These learners might also pronounce words wrongly or misread them, and find it difficult to read new vocabulary or a new language.Reading speed is usually, though not always, slower than average.

1.8.6 Curriculum differentiation

Curriculum differentiation is the process of modifying or adapting the curriculum according to the different ability levels of the learners in one class (United Nations Educational, Scientific, and Cultural Organization (UNESCO 2004: 14).

A differentiated curriculum according to the Department of Basic Education (2010: 22) offers a variety of ways for learners who differ in abilities, knowledge, and skills to access the curriculum. Teachers offer differentiation to what learners learn (content), how learners learn (process), and how learners demonstrate what they have learned (product).

Differentiation implies adjusting tasks to appeal to the various interests, needs, aptitudes, experiences and previous achievements of individual learnes (DoE 2010: 10).

1.8.7 Inclusive education

Inclusive education describes a system in which diversity is valued and the learner's individual needs are met within the education system rather than merely being assimilated into that system (Swart,Engelbrecht, Eloff**,** Pettipher and Oswald 2004: 98).

Apollinaire (2007: 148) indicates that inclusive education means education that is non-discriminatory on the grounds of disability, culture, gender or other aspects of learners or staff that are assigned significance by a society. It involves all learners in the community, with no exceptions and irrespective of their intellectual, physical, sensory or other differences.

Apollinaire (2007: 148) further states that the Centre for Studies on Inclusive Education (CSIE) in the United States of America defines inclusive education as "children with and without disabilities or difficulties learning together in ordinary pre-school provision, schools, colleges and universities with appropriate networks of support".

Swart (2004) in Apollinaire (2007: 149) shares a similar conviction and describes inclusive education as a practice of promoting the participation and competence of every learner, regardless of age, gender, ethnicity, language, and class, disability, and HIV status.

1.9 THEORETICAL RATIONALE

In the Revised National Curriculum Statement (RNCS), it is stated that the RNCS assumes an inclusive approach to teaching, learning and assessment (DoE 2003a: 7).Programmes need to address any barriers that learners for whom the programme is being developed may experience. Teachers need to be aware of the social, emotional, physical and other needs of learners as they develop their Learning Programmes.

When assuring that matters of inclusion are taken care of (quality assurance), teachers are encouraged to think of any specific barriers to learning and/or evaluations that are there in different subjects and make provision for them when drawing a phase-long plan

that provides a framework for planning, organizing and managing classroom practice for each phase.The Department of Education (1999: 48) is also in favour of the fact that teaching and learning materials for classroom use should be evaluated to ensure that the full range of diverse learning needs of all learners is accommodated. In addition, teaching and learning practices require modification.

The Department of Education (2002a: 14) states that what should be achieved at the end of the learning process (learning outcomes), should not prescribe what is to be taught (content) or how it should be taught (method). Therefore, content and teaching strategies could be suitable for the learner's needs.

The Department of Basic Education (2011c: 4) as opposed to the DoE (2002a: 14) which did not prescribe what is to be taught, did prescribe what is to be taught in each grade. The content and context of each grade shows progression from simple to complex.

Further research is required in order to gain a clear understanding of the implementation of curriculum adaptations for learners with learning impairments. The researcher wishes to add to this pool of knowledge with this research.

1.10 PRELIMINARY LITERATURE REVIEW

Prior to 1996, the Department of Education had 17 Departments of Education, which were designated along racial lines. In 1996, the South African government amalgamated all the education departments into one Department of Education with one curriculum for all South African learners.Before 1996, learners with diverse needs were catered for in special schools, which were designated along categories of disability and race. Where learners with impairments did attend ordinary schools and were thereby misplaced, their curriculum was merely adapted in order to accommodate them. Learners were expected to "fit into" the school instead of teachers adapting the curricular to suitthese learners' needs; in order to facilitate their success in the learning

process. Most learners with diverse needs did not find the curriculum accessible (DoE 2005: 7).

The Department of Education (2002a: 14) has several components that are not rigid, which means they accommodate adaptations. There are no prescriptions in what is to be taught and the teaching strategies to be used.More time can be provided for evaluation and activities (DoE 2003a: 10).The Department of Basic Education (2011c: 5) states that including all learners should become the core of the organization, planning and teaching at each school. In order for impairments to be addressed in the classroom, teachers should use various curriculum differentiation strategies such as those included by the DBE (2010).

Signals of learning impairments are characteristics of learners with learning impairments as discussed by Lerner (1992:13); Rosner (1993: 15 – 17); Smith (1998: 139); Westhood (1997:12) and Smith *et al.* (2001:97 –101) in Landsberg, Kruger and Nel (2005:366) and Vaughn, Bos and Schumm (2007:70).Because these learners are a heterogeneous group, only certain signals will apply to one learner. For example: A learner has trouble understanding and following directions, has short attention span, is easily distracted or confuses similar letters and words such as b and d, to mention a few.

Curriculum adaptations refer to the adaptations in content, process and product. Content adaptation refers to adapting what is taught as well as adapting how learners are given access to what they need to learn. Smith (2007:182); Dettmer, Thurston, Knackendoffel and Dyck (2009:244); Prater (2007:232) and the DoE (2005: 34) mention that process centers on how the content will be taught and learned and lastly, Smith (2007:182); Prater (2007:232); Miller (2009: 457) and Friend and Bursuck (2006:337) believe that product refers to the manner in which the learner will be evaluated in terms of depth, amount, or independence ofproducts, usually in the form of tests, projects, written work, or oral presentation.

Vaughn *et al*. (2007: 72) believe that no one approach or technique is appropriate for learners with learning impairments because learners with learning impairments are so diverse. Miller (2009: 468) and the DoE (2005: 32) suggest that multilevel instruction is the approach to teaching that engages all learners in the class. Miller (2009: 468) further states that multilevel instruction is based on the assumption that one lesson is taught to the whole class and that all learners engage in the lesson, but in different ways. The teacher plans for all learners within the context of the single lesson taking into consideration the learners' learning styles.

Prater (2007: 237–243) argues that adapting the curriculum for learners with learning impairments can benefit learners in different ways. Varying the style and mode of presentation of content will help cater for different learning styles and capabilities. In general, making use of cooperative learning groups versus direct instruction, the modality of instruction (e.g. visual and auditory) and the amount of time or support provided to learners enhance understanding and increase interest. Decreasing the amount of material to be read by the learner can increase comprehension. The following section will highlight the research methodology of this study.

1.11 RESEARCH DESIGN AND METHODOLOGY

For the research to be fruitful, it was imperative that the researcher chose the optimal research design and methodology for this particular investigation.

1.11.1 Research design

Research design involves a set of decisions regarding what topic is to be studied, among what population, with what research methods and for what purpose (Babbie 2004:117).

The research approach that the researcher will use in this study is a qualitative approach, because individuals base the qualitative approach on a naturalistic phenomenological philosophy that views reality as multilayered, interactive, and as a

shared social experience to be interpreted. It is also concerned with the understanding of the social phenomenon from the participants' perspective. The social phenomenon referred to in this research is curriculum adaptations for learners with learning impairments. Understanding is acquired by analyzing the many contexts ofthe participants and by narrating participants' meanings for these situations and events. Participants' meanings include their feelings, beliefs, ideas, thoughts, and actions (McMillan and Schumacher, 2001:392). In this study, the participants' feelings, beliefs, ideas, thoughts and actions will be based on curriculum adaptations. Following is the research method to be used.

1.11.2 Research Method: Phenomenological Study

In its broadest sense, the term phenomenology refers to a person's perception of the meaning of an event, which is implementing curriculum adaptations for learners with learning impairments.A phenomenological study is a study that attempts to understand people's perceptions, perspectives, and understanding of a particular situation (Leedy and Ormrod, 2005:139). The phenomenon, which this research wishes to understand, is the teachers'level of knowledge and skills on curriculum adaptations for learners with learning impairments.

Fouche' (2005: 370) confirmed Leedy and Ormrod's (2005:139) opinionthat a phenomenological study aimed to understand and interpretedthe meaning that the subjects gave to their everyday lives. That was the reason the researcher chose teachers who had some learners with learning impairments in their classrooms. The following paragraphs highlight the population and the sample used when conducting this research.

1.11.3 Population and sample

The population and sample of this study will be discussed in the following paragraphs.

1.11.3.1 Population

Population was that group (usually of people)about whom the researcher wanted to draw conclusions (Babbie 2004: 116). The population for this study was teachers teaching in the foundation phase in the Thabo Mofutsanyana District. The following paragraph delt with the size of the sample for this study

1.11.3.2 Sample

Babbie (2004:116) maintained that selecting a samplerequired one to be more specific. Strydom and Venter (2002: 199) defined a sample as a small portion of the total set of objects, events or persons that together comprised the subject of the total study. The sample for this study was therefore 20 teachers teaching in the foundation phase in public schools. Which sampling technique was to be used for selecting the sample? The following sampling technique answers the question asked above.

1.11.3.3 Sampling technique

The sampling technique used was, non-probability sampling where purposefulsampling was utilized. In purposeful sampling, a particular case/participant was chosen because it illustrated some features or processes that were of interest for a particular study (Silverman 2000: 257).A number of 20 teacherswerepurposefully selected because the researcher assumed that these teachers taught learners with learning impairments. Hence they need to adapt their curricular for these learners to succeed in their learning experiences. This implies that these teachers have direct experience with the phenomena being studied.Following was how data was collected.

1.11.3.4 Data collection

In this study, the researcher used a variety of data collection methods to achieve a better understanding of participants and increase the credibility of the findings.

Participant observation (teachers and learners); field notes where the researcher will write notes to record what happened and semi-structured interviews, which will bethe direct verbal interaction between the interviewer and the participants (20 teachers).

Fouche' (2005: 370) suggests that the suitable methods for collecting data in a phenomenological study are: participant observation and semi-structured interviews; whereas Leedy and Ormrod (2005: 144) argue that methods for collecting data are in-depth, unstructured interviews with 5 –25 individuals. As data that are collected needed to be analyzed, the following paragraphs highlight data analysis**.**

1.11.3.5 Data analysis

Qualitative data analyses were primarily an inductive process of organizing the data into categories and identified patterns(relationships) among the categories. Inductive analysis meant that categories and patterns emerged from the data rather than being imposed on data prior to data collection (Mouton 2001:21).In this case, the transcribed texts of interviews, discussions and observations wereconsolidated and interpreted.

As the researcher will be conducting a phenomenological study, it will be imperative for content analysis to be used. Neuman (2000:135) states that content analysis is a technique for gathering and analyzing the content of the data whilst Leedy and Ormrod (2005: 140) believe that, when analyzing data in the phenomenological study, the researcher should search for meaning units that reflect various aspects of the experience and integrate the meaning units into a typical experience. With every research to be conducted, there are ethics to be considered. The following paragraphs deal with ethical considerations.

1.12 ETHICAL CONSIDERATIONS

Best and Kahn (2003: 121) emphasize the importance of conducting research in such a way that the dignity and concern for the welfare of all participants are upheld at all times

during the research process. As a result, the following ethical considerations are of paramount importance to this study:

- Prior to conducting this study, a written consent was obtained from the Free State Department of Education
- A request for conducting research in different schools was sent to principals of the identified Foundation Phase schools
- Teachers, whoparticipated in the research, were informed and anonymity assured and
- It was also ensured that the study was designed in such a way that it reflected the current activities for those specific grades

One might have limitations when conducting the investigation. Following were the envisaged limitations of the study.

1.13 LIMITATIONS OF THE STUDY

The limitations of this study were the transport, the funds to cover materials and photocopying, changing/ deployment/redeployment and retiring of teachers and a lack of assistant/support teachers. Fulfilling the role of the observer and not the participantwas unfamiliar to the participants and this influenced their behaviour. Personal contact and insight were compromised by the fact that the findings might be criticized in terms of the effect and personal bias. The research approach which the researcher used, qualitative approach, restricted the researcher from having more participants as it is time – consuming.

1.14 EXPECTED OUTCOMES

Free State Education Department will be able to:

- Assist foundation phase teachers in adapting and implementing the curriculum for learners with learning impairments

- Make foundation phase teachers aware of the benefits of curriculum adaptations for learners with learning impairments

Furthermore this study will:

- Contribute to the body of knowledge on the models Foundation Phase teachers could adopt and implement when they adapt curricular for learners with learning impairments
- Recommend further research and educational practices

The outline of the thesis follows:

1.15 CHAPTER OUTLINE

Chapter One highlights the introduction, background of the problem, purpose of the study, significance of the study, and the aims and objectives of the study. It briefly explains the research methodology.

Chapter Two reviews literature on the nature of inclusive education internationally in general, and in South Africa in particular.The researcher thought it was necessary for her to discuss inclusive education in this chapter, as inclusive education is about: Admitting that all children and youth can learn and need to be supported; Ensuring that education structures, systems and learning methodologies meet the needs of all learners; admitting and honoring the differences in learners and making it possible to a large extent that all learners participate in the culture and the curricular of other institutions (DoE 2001b: 16). This implies that curriculum adaptations are one of the strategies which could make learning more accessible and relevant for all.

Chapter Three reviews literature on learning impairments and curriculum adaptations.
Chapter Four highlights the research methodology and the research design that are employed in this study.

Chapter Five presents and analyzes qualitative data gathered in this study.

Chapter Six provides a summary of the findings, conclusion, recommendations and suggestions for future research.

1.16 CONCLUSION

This chapter was a review chapter where the researcher focused on the background of the study, the purpose of the study which was to investigate the level of knowledge and skills of foundation phase teachers on curriculum adaptations for learners with learning impairments. The significance of the study was also highlighted. The statement of the problem was based on White Papers (DoE 1995a; DoE 1997a; DoE 2000; DoE 2001b) where including learners in ordinary mainstream schools is emphasized and it also emphasized that teachers have to adapt the curricular in order to accommodate different learning needs. In this chapter the researcher mentioned the aim, research questions and the objectives of the study. Some concepts were also defined.The research design and methodology were also highlighted. Ethical considerations, limitations and the expected outcomes of the study were mentioned.

The National Curriculum Statement, Curriculum and Assessment Policy Statementhave been designed to cater for all learners, including learners with learning impairments.Teachers are expected to identify and support those learners with learning impairments by adapting the curriculum in order to make it accessible to all learners. The following chapter reviews literature on inclusive education.

CHAPTER TWO

INCLUSIVE EDUCATION

2.1 INTRODUCTION

It is necessary to retrace the steps that led to the global shift towards including learners with learning disabilities in “regular” schools. The process will be explored as it relates to the inclusion of learners with learning impairments in the “regular” schools. Once included, these learners are exposed to a curriculum that may not necessarily meet their educational needs optimally. Adapting the curriculum to support these learners is of paramount importance if they are to become equipped with suitable skills, knowledge, values and attitudes (DoE 2001a: 21).

As the aim of this study is to investigate the level of knowledge and skills of foundation phase teachers on curriculum adaptations, this chapter explains how learners with learning impairments became part of mainstream classes rather than being segregated due to their impairments. That is why the researcher decided to explain the following: Inclusion, inclusion in an international context, inclusive education in the South African context and preparing for inclusion.

2.2 WHAT IS INCLUSION?

Inclusion has come to mean different things to different people, to such an extent that authors, such as Mittler (2000: 2); Dyson (2001: 6); Frederickson and Cline (2002: 25); Centre for Studies on Inclusive Education (CSIE) (2000:1) and Booth and Ainscow (2002) in Thomas and Vaughan (2005:183) make us aware of the varieties of inclusion that exist in different international contexts.

Mittler (2000:2) states that inclusion involves a process of reform and restructuring of the school as a whole, with the aim of ensuring that all learners can have access to the whole range of educational and social opportunities offered by the school. This includes the curriculum on offer, the assessment, recording and reporting of learners’ achievements, the decisions that are taken on the grouping of learners within schools or classrooms, pedagogy and classroom practice, sport and leisure and recreational opportunities. Whereas Dyson (2001: 7) mentions that inclusion is a dedication to building a more democratic society, a more equitable and quality education system, and

a belief that extends the responsibility of regular schools to accommodate the diverse learning needs of all learners. These two definitions according to the researcher are in agreement.

Inclusion according to Frederickson and Cline (2002: 65) involve the school in a process of accommodation where the onus is on the school to change; adapting curricular, methods, materials and procedures so that it becomes more responsive to learner diversity. The CSIE (2000:1) and Booth and Ainscow (2002) in Thomas and Vaughan (2005:183) point out that inclusion involves valuing all learners and staff equally, increasing the participation of learners in, and reducing their exclusion from, the cultures, curricular and communities of local schools.It is about restructuring the cultures, policies and practices in schools, so that they respond to the diversity of learners in the locality. Inclusion is also about reducing barriers to learning and participation for all learners, not only those with impairments or those who are categorized as “having special educational needs”, but for all learners.

Inclusion in a broader context is about including everyone, regardless of ability, gender, language or disability, so that all learners can belong in school and have access to education. To understand inclusion in an international context, the researcher will briefly discuss a medical model, a social model, mainstreaming, integration and inclusion.

2.3 INCLUSION IN AN INTERNATIONAL CONTEXT

Schools do not function in isolation, but are influenced by economic, political and social development.What happens in schools is a reflection of the developments and changes in society, as those who work in schools are citizens of their society and local community, with the same range of beliefs and attitudes as any other group of people (Mittler 2000: 1).

Traditional conventions of schools and classrooms are therefore rapidly becoming outdated as the educational, social and political needs of our society continually

change. At the same time, societies are becoming more diverse and multicultural, resulting in classrooms consisting of learners from diverse ethnic, linguistic, cultural and socio-economic backgrounds and with diverse abilities (Frederickson and Cline 2002: 4). The following paragraphs highlight the nature of assessment, which was done to determine the learner placement, which was a medical model.

2.3.1 A medical model

A medical, deficit or 'within-learner' model is based on the assumption that the origins of learning difficulties lie largely within the learner (Naicker 1999: 13; Mittler 2000: 3 and CSIE 2002 in Thomas and Vaughan 2005: 109 and 138). According to this view, it follows that in order to help the learner, one need to find out as much as possible about the nature of these difficulties by means of a thorough assessment of the learner's strengths and weaknesses. One then uses this assessment to make a 'diagnosis' where possible and to plan a programme of intervention and support based on such an assessment. The aim is to help the learner to fit into the system and to benefit from what the school has to offer. There is no assumption that the school needs to change in any way to accommodate any particular learner or to respond to a greater range of diversity in its learner population.

Inner London Education Authority (ILEA 1985) in Thomas and Vaughan (2005: 69) suggests that it is the medical model that drives a view of learners with impairments: A model of something almost constitutional being wrong which needs to be diagnosed and treated. Medical models are fine in their place, when thinking about measles or chickenpox, but they are less helpful in the consideration of people and their relationship to the cultures and organizations in which they live and learn.

Learners with learning disabilities were therefore expected to fit in with the education system which is why they were placed at special schools where they received special education. In the Inclusion Charter's (2002) in Thomas and Vaughan (2005: 140)a vision of inclusion of restructured mainstream will change and adapt to accommodate

diverse needs outlined. A diverse mainstream would accept and cater for differences, not submerge, isolate or exclude learners.

Despite some significant moves away from a medical model of service delivery, the dominance of this model in defining the nature of education support services in South Africa has, resulted in a lack of attention being paid to how the education system was failing to provide for the needs of different learners. The medical model focused attention on what were seen as deficits in the learner rather than on educational needs and abilities. A social model was then introduced, which moved away from category of disability to the level of support.

2.3.2 A social model

It became evident that a paradigm shift which involved a refocusing was required by moving away from diagnosing, labeling and placement - to identification and support. The social model of disability is based on the proposition that it is society and its institutions that are oppressive, discriminatory and disabling. Attention therefore needs to be focused on the removal of obstacles to the participation of impaired people in the life of society, and in changing, regulations and attitudes that create and maintain exclusion (Campbell and Oliver 1996 in Mittler 2000:3).

Gross (2003: 5) suggests that the social model of disability is the disabling world. The lesson pace being too fast, totally print-based curriculum, few sign language interpreters, lack of equipment like laptop computers, teachers often giving long and incomprehensible instructions, young learners expected to sit still for long periods, lack of texts at right reading level for the learner to use, or tapes, and no lifts, stairs or ramps.

Gross (2003: 5) further states that teachers see themselves as significant, or not, in the school and classroom according to whether they are faced with acceptable and satisfactory learner reactions to school and academic work, or unsuccessful as a result

of problematic or troublesome ones. That is, when learners behave and achieve well, teachers tend to see themselves as important influences**.**When the opposite occurs, teachers see themselves as non-influential. In the latter situation learners' reactions are construed in terms of learner "pathologies" or of social determinants beyond the control of the teacher. In the context of education, the restructuring of schools along inclusive lines is a reflection of the social model in action.

There was a sense that segregation, particularly in the form of separate classes, separate schools and segregated institutions had been overdone and was largely unnecessary, even unjustifiable (Biklen, 1985 in Thomas and Vaughan 2005: 76). A shift in paradigm became more visible when normalization was introduced. 'Normalization' was taking shape in Scandinavia. With the term "normalization", Bank-Mikkelsen in Biklen (1985) characterized the policy of permitting people with impairments opportunities to live in as normal a fashion as possible. Normalization first gave rise to mainstreaming and later to integration policies.

2.3.2.1 Mainstreaming

Mainstreaming for some people means placing learners with disabilities into regular classes and providing no support services, no teacher preparation, and no special assistance to non - disabled learners on how to relate to their disabled peers. Others say mainstreaming means carefully integrating learners with disabilities into regular schools and classes with the appropriate support services and planning (Biklen 1985 in Thomas and Vaughan 2005:74).

Mainstreaming as outlined in White Paper 6 (DoE 2001b: 17) is defined as learners who have to change so that they can be placed in mainstream schools. Some learners were assessed and diagnosed by specialists who most often recommended that they be placed in special classes or remedial programmes for treatment and specialized teaching that would enable them to overcome their problems and "fit" into the regular classroom. The barrier is seen as being within the learner. With mainstreaming, the focus is on learners who need to change, and not the system.

Mainstreaming as a concept and practice is exclusionary in nature and focuses primarily on disability as a distinguishing characteristic and not on diversity other than the physical (Apollinaire 2007: 148). Following is an explanation onhow different authors view integration**.**

2.3.2.2 Integration

Skidmore (2004: 30) mentions that integration is an attempt to bring the special and mainstream sectors closer together without effecting a radical reconstruction of the mainstream, whose fundamental conditions of existence are taken for granted. Blamires (1999) in Mittler (2000:10) suggests that integration involves preparing learners for placement in an ordinary school. It implies a concept of educational or social "readinesses" for transfer from a special school to an ordinary school. On the other hand, Frederickson and Cline (2002:65) argue that integration is about making a limited number of additional arrangements for individual learners with learning impairments in schools which themselves change little overall.

Clark, Dyson, Millward and Skidmore (1997) as well as Wong (1998) in Apollinaire (2007: 148) maintain that integration means integrating learners with mild and moderate disabilities with their non-disabled peers. Apollinaire (2007:148) writes that integration does not necessarily challenge or alter in any way the organization and provision of the curriculum of all learners, but focuses on an individual or small group of learners.

Although integration involves more extensive participation of learners with diverse needs in age-appropriate activities with non-disabled peers yet significant instruction time still prevailed (Dyson 2001:7). The following paragraphs allude to what inclusion is according to different authors.

2.3.2.3 Inclusion

The concept of inclusion in education has gained a high status within various education systems, but there is still considerable confusion about what it actually means (Ainscow 2003; Friend and Bursuck 2002; Hodkinson 2005; Kavale and Forness 2000 in Green and Engelbrecht 2007: 5).Ainscow (2003) in Green and Engelbrecht (2007: 83) state that inclusion in education is a process and never-ending search to find strategies that effectively address diversity in schools and create inclusive school communities.Green and Engelbrecht (2007: 83) mention that inclusion recognizes that all learners, not only those who are vulnerable to marginalization, require schools that are responsive to all aspects of learner diversity. Inclusion in education is therefore not about a marginal part of the education system but, according to Booth (1999) in Green and Engelbrecht (2007: 83) inclusion constitutes a framework within which all educational development can take place.

Ainscow (1999) in Mittler (2000: 11) describes inclusion as involving the movement of learners from special to mainstream contexts, with the implications that they are "included" once they are there.It is a never -ending process, rather than a simple change of state and is dependent on continuous pedagogical and organizational development within the mainstream.

Inclusion can be described as a journey away from special settings, special staff, and being educated along with learners termed as having special needs (Frederickson and Cline 2002: 63). The US National Centre on Educational Restructuring and Inclusion (USNCERI 1995) in Frederickson and Cline (2002:66) defines inclusion as the provision of services to learners with disabilities, including those with severe impairments, in the neighbourhood schools in age-appropriate general classes. The necessary support services and supplementary aids (for the learner and the teacher) should be given to ensure the learner's success – academic, behavioural and social – and to prepare the learner to participate as a full and contributing member of society.

In White Paper 6 (DoE 2001b: 17) inclusion is defined as being aware of learners' diverse needs and building on what is common amongst them. It is about giving

support not only to learners, but also to teachers and the system as a whole. This support is important as it would benefit learners with diverse needs. Inclusion focuses on overcoming barriers to teaching and learning. Inclusion also focuses specifically on good teaching methodologies that will benefit all learners. It is about overcoming barriers in the education system so that a wide range of learning needs can be met. This implies that curriculum adaptations will be the answer for accommodating learners with learning impairments.

Today, a new way of thinking about special education has led to the policy of inclusion. The shift from mainstream to inclusion signals a dramatic philosophical change. It is a belief in the inherent right of all learners to participate meaningfully in society. It implies acceptance of differences and making room for learners who would be excluded. This practice of educating learners with learning disabilities together with their peers means creating learning communities that appreciate and respond to the diverse needs of its members. This implies that teachers have to adapt and change the way they teach, as they also need to cater for learners with learning impairments.One of the changes in teacher practice could be to adapt the curriculum in the inclusive classroom. The following section explains inclusive education in the South African context.

2.4 INCLUSIVE EDUCATION IN THE SOUTH AFRICAN CONTEXT

The context of education in South Africa is particularly complex because, in addition to the heritage of colonial education that it shares with several other countries in Southern Africa, recent history has shaped education in a very specific manner. The structure of education under the apartheid regime formalized abuses of the human rights of many of South Africa's citizens. As is well known, the country became a democracy in 1994 (Stofile and Green 2007: 52).

Stofile and Green (2007:53) further state that the priority for those shaping education policy after 1994 was, to transform education by addressing the disparities and inequalities of the past and creating one system that could provide all learners with

access to quality education.The challenge for the new government was, therefore, to develop policies that would ensure that the education system was manageable while simultaneously reflecting the progressive democratic ideas of the new South Africa.

The inclusive education system in South African schools is based on: The principles of the African National Congress' (ANC) National Education Policy Investigation (NEPI) report of 1992; the United Nations Educational, Scientific and Cultural Organization (UNESCO): Salamanca Statement of 1994; the White Paper 1 (1995); the Constitution (Act 108 of 1996); understanding the South African School's Act (SASA 84 of 1996); Integrated National Disability Strategy (DoE1997a); Quality Education for All: Overcoming Barriers to Learning and Development. The report of the National Commission on Special Needs in Education and Training and the National Committee on Education Support Services (NCSNET/NCESS DoE 1997b);White Paper 5 (DoE2000) Special Needs Education:Building an Inclusive Education Systemand the Education White Paper 6 (DoE2001b)Special Needs Education: Building an Inclusive Education and Training System, which wouldbe briefly discussed.

2.4.1 The African National Congress's NEPI report of 1992

The NEPI report was mainly concerned with systemic-preventative approach to specialized education, in contrast to the previous mainly individualistic-medical approach. Features of such an approach include the analysis of problems and issues within the broader social systems, taking into account social determinants of the problems presented.

The principles of the NEPI report were related specifically to a unitary system that is aimed at protecting human rights, values and social justice by ensuring non-discriminatory, non-racial and non-sexist practices. A redress of educational inequalities was of paramount importance through a democratic, yet cost-effective process (Lomofsky and Lazarus 2001:307). Following is how the Salamanca Statement outlines the change from education for the privileged to Education for All.

2.4.2 The Salamanca Statement of 1994

The broad changes in thinking, that marked the change from the end of the 1980s to the beginning of the 1990s are demonstrated nowhere more clearly than in the Salamanca Statement (UNESCO 1994).

This report called for inclusion to be the norm. It was agreed by representatives of 92 governments and 25 international organizations, all of whom formed the World Conference on Special Education in Salamanca, Spain in 1994.

The Salamanca Conference was faced with a situation where Education for All was far from a reality and where learners experiencing barriers to learning and development were among many groups who experienced barriers to their education. Simply persevering with traditional policies could not solve these problems. In particular, the barriers which different groups encountered could not be overcome simply by developing separate systems and schools for learners with diverse needs. Instead, a very different approach was needed which saw differences as normal and which tried to develop education systems which could respond effectively to diversity (DoE 2001a: 22).

The emphasis according to the UNESCO (1994: 6) in Swart and Pettipher (2005:8) was therefore on developing inclusive education systems that accommodate all learners, regardless of their physical, social, intellectual, emotional, linguistic or other conditions. This should include disabled and gifted learners, street and working learners, learners from remote or nomadic populations, learners' linguistic, ethnic, or cultural minorities and learners from other disadvantaged or marginalized areas or groups.

UNESCO 's statement was unequivocal in asking the international community to endorse the approach of inclusive schooling when it said:"We call upon all Governments and urge them to adopt as a matter of law or policy the principle of inclusive education, enrolling all learners in regular schools, unless there are compelling reasons for doing

otherwise".All learners "must" have access to mainstream schools. It then added one of the most strident calls for systemic and philosophical change in education services anywhere (UNESCO 1994 in Thomas and Vaughan 2005:128).

The UNESCO statement (1994) further argues that "regular schools with this inclusive orientation are the most effective means of combating discriminatory attitudes, creating welcoming communities, building an inclusive society and achieving education for all. Moreover, they provide an effective education to the majority of learners and improve the efficiency and ultimately the cost-effectiveness of the entire education system" (CSIE 2002 in Thomas and Vaughan 2005:139).

It is further stated in Swart and Pettipher (2005: 8) that UNESCO (1994) also mention that the inclusive education systems must recognize and respond to the diverse needs of their learners, accommodating both different styles and rates of learning and ensuring quality education to all through appropriate curricular, organizational arrangements, teaching strategies, resource used and partnerships with their communities.

These statements very clearly put inclusive education to the fore as the best way to build an inclusive society where all can benefit from education. It is clear that some learners may require more intensive and specialized forms of support to be able to develop to their full potential. Consequently, learners with learning impairments need to be afforded the same right to education in general education classrooms, as is applicable to all learners. A school needs to respond to all learners as individuals by reconsidering and restructuring its curricular organization and provision, and allocating resources to enhance equality of opportunity. The White Paper 1 of 1995 provided the essence of the diverse needs of learners.

2.4.3 White Paper 1 of 1995

In the White Paper 1 on Education and Training (DoE 1995: 16) it is stated that the over-arching goal of the policy must be to enable all individuals to value, have access to

and to succeed in lifelong education and training of good quality. The Department of Education further statedthat the educational and management processes must therefore put the learner first by recognizing and building on their knowledge and experience, and responding to their needs.

According to Swart and Pettipher (2005:17) the White Paper on Education and Training and the South African Schools Act (SASA84 of 1996) created the basis necessary in policy and legislation to facilitate a paradigm shift to inclusive education.Also, the SASA played a major role in emphasizing the importance of enrolling learners in any school of the parents' choice.

2.4.4 The South African School's Act 84 of 1996

The South African School's Act 84 of 1996 aimed to provide a unitary system that would be able to govern education in terms of organization, funding and any other related matters (DoE 1996). Lomosky and Lazarus (2001:307) state that in the SASA, access for all to a school of their parents' choice became legislated. Section 5(1) of the act states that: "A public school must admit learners and serve their educational requirements without unfairly discriminating in any way". However, the Act also contains gaps and weaknesses, mainly in the wording of some of the clauses, which restricts the rights of learners with learning impairments and undermines the development of an integrated inclusive education system. Despite this, in this legislation compulsory exclusion has been abolished, thereby abolishing legislation,which undermines the development of an integrated inclusive education system.

Two areas identified by Lomofsky and Lazarus (2001: 308) which highlight majorchanges to the previous legislationare, the introduction of school governing bodies, which are empowered to govern the school and the increased involvement of parents in their children's schooling. For change to be executed there needs to be a framework. In South Africa, this framework was outlined in the principles contained in the Constitution and White Papers on Education and Training System, which also emphasize the transformation process.

2.4.5 Principles and values contained in the Constitution (Act 108 of 1996) and White Papers on Education and Training System

The South African Constitutionof 1996 and White Papers on education and training (DoE 1995; DoE 1999; DoE 2000 and DoE 2001b) provide a comprehensive framework for the transformation process, which was needed to change the education system into one which would meet the needs of all learners. They also clearly integrate the notions of education and training, and argue that both are key to human resource development in a country and essential to the development of skills to sustain effective economic development. The White Papers not only argue that an integrated approach breaks down divisions such as between “knowledge and skills” which falsely stratified society, but also brought education policy in South Africa in line with international trends.

In isolating those values and principles which should inform education and training policy in South Africa, the Constitution and White Papers note four key areas of concern, which informs the vision and principles contained in the Department of Education (1997b: 39). These are, that the goal of education and training policy should be: To ensure that all adults and learners have access to a life - long learning process; to recognize that South Africa’s massive inequalities have existed in the past in the provision of education and that central to the policy development and planning is the need to redress those inequalities; that all state resources must be provided according to the principles of equity so that all learners have access to equal educational opportunities and to ensure that provision of education is of a good quality.

The Government’s duty is to provide the foundation for education to all learners and to fulfill its promise as stipulated in the principles of the Constitution (sections 9 and 29), which arealso ledby the recognition that a new and common education and training system must be based on the following:

- **Equity**

All the people are entitled to the foundation of education, including the foundation of adult education and further education. The education should be progressive, accommodative and be able to be reached.

According to the Republic of South Africa (RSA 1996) and Henrad (2003) in Engelbrecht (2009: 108), the principle of equality lies at the core of the constitution and it subscribes to a particular vision of equality, one which is usually called “substantive equality” in contrast with mere “formal equality”. Substantive equality demands a contextual approach, which takes into account differences in circumstances and supports the “need” to redress the imbalances of the past to achieve broad representation.

The Policy on Religion and Education (DoE 2003b: 7) states that the education process must aim at the development of a national democratic culture with respect for the value of all the people’s diverse cultural, religious and linguistic traditions. Together, there should also be non-discrimination in any way whatsoever.

- **Non-discrimination**

The state may not unfairly discriminate directly or indirectly against anyone on one or more grounds, including race, gender, sex, pregnancy, marital status, ethnic or social origin, colour, sexual orientation, age, disability, religion, conscience, belief, culture, language and birth.

The Constitution’s emphasis on the value of “non-racialism and non-sexism” is aimed at creating practices that treat everybody as equal – and that work specifically towards redressing the imbalances of the past where people were oppressed or devalued because of their race or their gender. For the values of non-racialism and non-sexism to have any meaning, all learners, irrespective of race or gender, have to be afforded the same opportunities to realize their potential (Nieuwenhuis, Beckmann and Prinsloo 2007: 59).

This implies that the non-discrimination provision is especially important in protecting learners with learning impairments from being discriminated against on the basis of characteristics which bear no relation to their right to education or their capacity to participate in the learning process. Not only should there be non-discrimination against these learners, but learners should also participate fully in their communities and all centres of learning should promote social integration.

- **Participation and social integration**

All learners must be provided with equal social and educational opportunities so that they participate fully in their communities. Opportunities provided at centres of learning must promote social integration.

Nieuwenhuis *et al*. (2007: 60) assert that the South African Constitution layed the foundation for a democratic and open society in which government is based on the will of the people. In an open society, every person is afforded opportunity and right to be a participant in, rather than an observer of, the democratic process. It means being given access to as wide a range of information as possible through as wide a range of media as possible. It also means encouraging a culture of dialogue and debate and a culture of discussion, which perpetually evaluates and reassesses values and priorities.

Engelbrecht (2009: 111) states that for meaningful participation which the democratic elections of 1994 and the finalization of the Constitution in 1996 made apparent to the majority of South Africans, introduced a new era of possibilities for an inclusive society in the process of developing transformation.When learners are integrated in all centres, it is expected that they have access to the curriculum.

- **Access to the curriculum**

The single curriculum should be reached by all learners.In South Africa, the curriculum followed at this present moment is National Curriculum Statement (NCS) and Curriculum and Assessment Policy Statement (CAPS) where Languages, Home Language (HL) and First Additional Language (FAL), Mathematics and Life Skills are taught in the Foundation Phase. It is stated in the Department of Basic Education (DBE 2011a: 14) that it is important for learners who experience mathematics barriers (for example) to be exposed to activity-based learning. Practical examples using concrete objects together with practical activities should be used for a longer time than with other learners, as moving to abstract work too soon may lead to frustration and regression. These learners may require or should be granted more time for completing tasks, acquiring thinking skills and assessment activities. Where necessary, all aspects of the curriculum must be accessible to all learners. Learners must be provided with the necessary support to enable them to access the curriculum effectively.

Waghid and Engelbrecht(2002) in Engelbrecht (2009: 111) mention that the key education policy documents and legislation, such as the White Paper on Education and Training (DoE1995 and DoE 1997a) and the South African School's Act(84 of 1996) stress the principle of education as a basic human right, as enshrined in the South African Constitution. This principle implies that all learners have the right to equal access to the widest possible educational opportunities and encapsulates the vision of an education system that not only recognizes the wide diversity of learners' educational needs but also expects schools to meet these needs.

Curriculum and Assessment Policy Statement (DBE 2011c: 4) outlines that social transformation should make sure that the past educational inequalities are addressed and the educational opportunities supplied for all people living in the country need to be equal. The following paragraphs are going to deal with what equal access to a single, inclusive system of education means.

- **Equal access to a single, inclusive system of education**

> A single, effective, appropriate and inclusive system of education must be designed so that all learners have equal access to a system that is responsive to their diversities. No learner must be denied access to the system, regardless of the diversities and needs.In the same vein, Swart and Pettipher (2001: 33) claim that access to education needs to be provided where all learners learn together across culture, ethnicity, language, ability, gender and age within a local community.

These principles and values are relevant to all components in the field of education, which include early childhood development, further education, higher education and adult education. How the government's commitment is demonstrated willbe discussed in the Integrated National Disability Strategy of 1997.

2.4.6 The Integrated National Disability Strategy of 1997

The White Paper on an Integrated National Disability Strategy (Office of the Deputy President 1997) was developed in order to demonstrate the government's commitment to uplift and improve the conditions for members of the society with disabilities. This would be done through the restructuring of society in various domains including the physical environment, education and attitudes (Lomofsky and Lazarus 2001: 310).

Swart and Pettipher (2005: 17) mention that in the White Paper on an Integrated National Disability Strategy, strategies for access to the curriculum for learners with impairments was emphasized, thereby further stressing and supporting the shift awayfrom the medical model of disability to the socio-critical model that was based on the premise that society must change to accommodate the diverse needs of all its people. This implies that teacher practices in the classroom should also change through curriculum adaptations. This change was strengthened and its practical implementation in the South African context detailed in the Department of Education (1997b).

2.4.7 Report of the National Commission on Special Needs in Education and Training and the National Committee on Education Support Services of 1997

The Constitution of the Republic of South Africa and the principles underpinning the White Papers on Education and Training provide a basis for all the work of the NCSNET/NCESS(Department of Education 1997b).They are used as a basis for the development of the initial formulation of the vision, principles and strategies relating to diversity and development in education and training (DoE 1997b: 53 – 54).

The education and training system which is envisaged by the NCSNET/NCCESS (Department of Education 1997b)is one which will cater for all learners and, which willdevelop and extend the learners' potential so that they can participate as equal members of society.

An important task of the NCSNET/NCESS as outlined in the Department of Education (1997b)is to develop an understanding of concepts such as "special needs", "learners with special educational needs" and "barriers to learning and development". Special needs are needs or priorities that must be addressed**.** Learners with special educational needs are those learners who, in the past, could not be accommodated in the mainstream education system due to the fact that they need special help. Barriers to learning and development are the factors which prevent learners from accessing education. These factors can be classified as intrinsic and extrinsic.

The range of factors resulting in barriers to learning can be viewed on a dynamic, interactive continuum from internal to external systems or factors. Internal factors are those factors or systems situated within the individual as a system, and are organic in nature. For instance, external factors are factors within systems that are in the environment and outside or "external" to the individual, for example: The classroom management and the curriculum.

In the joint Report of the two bodies (NCSNET/NCESS, DoE 1997)factors that are conceptualized as the key barriers to learning and development in the South African context were identified. These factors are socio-economic deprivation which include: Poverty and underdevelopment; lack of access to basic services; exposure to danger; inaccessible environments and unsafe buildings; barriers arising from impairments, including physical, cognitive, sensory, developmental and learning impairments; negative attitudes to and patterns of people with difficulties; the curriculum which is rigid; instructional language which is not the learners' home language; language of expression; not suitable and not enough provision of support services; shortage of policies and legislation; not recognizing and involving parents; disability and limited capacitation of human resource(DoE 1997b: 11).

These factors imply that the number of learners who could benefit from, and deserve to receive educational support, is much greater than if a narrow definition was adopted. The concept of education support is expanded to include a much wider range of supportive interventions, such as curriculum adaptations than traditionally offered by special education teachers**.**Therefore, it is expected that foundation phase teachers should also adapt their curricular for the benefit of learners with learning impairments.

Principles and values contained in the report of the NCSNET/NCESS include among others: The right to equal benefit and protection from the law, redress from the past inequalities faced by previously disadvantaged groups in order to create equal opportunities for all people, and an education system that is accessible and responsive to all learners.

The report of the NCSNET/NCESS emphasizes strategies for access to the curriculum for learners with impairments. These strategie are all aspects of the education system thatwould need to be changed if it is to respond to the needs of all learners:

- Separate systems of education, which existed, need to be integrated to provide one system

- Support services should move away from only supporting individual learners to supporting teachers and the system so thatthey can recognize and respond appropriately to the needs of all learners
- Ongoing organizational development called whole school development would occur within every school
- The education system must provide a flexible curriculum which would be able to respond to the differences among learners and that all learners engage effectively in the learning process
- Partnership between parents and teachersshould be developed
- Promoting rights and responsibilities of teachers and learners
- Developing programmes for teachers
- Development of holistic and integrated support services
- All resources in the community should be utilized to develop and support education provision through a structured community participation approach
- A preventative and developmental approach to support centres of learning which should be developed in such a way as to prevent social and learning problems from arising and lastly
- A funding strategy that will ensure redress, sustainability, and facilitate access to education for all learners, would be pursued within an integrated funding system (DoE 1997b: v –19 & 53 – 56 and Swart and Pettipher 2005:17 –18)

Similarly, most of the policy documents thus far in the transformation period in South Africa reflect a strong emphasis on the need for a significant paradigm shift. They all argue that the history of apartheid and its oppressive ideologies and practices have no space in a democratic South Africa.

Education must be meaningful and relevant to the lives of all learners. This implies that, if all the above-mentioned key areas could be met; learners would be given an education that will prepare them for future involvement in the community. The Ministry released a Consultative Paper (DoE 1999) which was based on the recommendations of the joint report of the NCSNET and the NCESS which has been published in the

Department of Education (1997b). The writing of White Paper 6 (2001) Special Needs Education: Building an Inclusive Education and Training System followed.

2.4.8 Building an Inclusive Education and Training System in South Africa

The right of every child to an education is proclaimed in the Universal Declaration of Human Rights and was forcefully reaffirmed by the World Declaration on Education for all (UNESCO 1993 in Apollinaire 2007: 154).Every learner has a fundamental right to education, and must be given the opportunity to achieve and maintain an accessible level of learning. This right is also applicable to South Africa. As stated in Section 2 of the South African Schools' Act (84 of 1996: 5), "The Constitution recognizes that everyone has the right to basic education".Every learner has unique characteristics, interests, abilities and learning needs, therefore education systems should be designed and educational programmes implemented to take into account the wide diversity of these characteristics and needs (Apollinaire 2007: 154). The following paragraphs highlight what inclusive education is.

2.4.8.1 What is Inclusive Education?

Since South Africa is characterized by diversity, defining inclusive education as an extension of an inclusive society may ignore many considerations important in our education system.

In the White Paper 6 (DoE 2001b: 16) inclusive education is defined as:

- Admitting that all children and youth can learn and need to be supported
- Agreeing and honoring the fact that all learners are unique in some way and their learning needs are not the same
- Ensuring that education structures, systems and learning methodologies meet the needs of all learners
- Admitting and honoring the differences in learners

- Wider than formal schooling and admits that learning also occurs within formal (school) and informal modes (buddy system)
- Changing attitudes, behaviour, adapting the curriculum and the environment in order to meet the learners' needs
- Making it possible to a large extent that all learners participate in the culture and the curricula of other institutions
- Developing the learners' individual strengths in order to enable them to participate critically in the process of learning

The British Psychological Society (2002) in Thomas and Vaughan (2005: 134) mentions that inclusive education differs from previously held notions of "integration" and "mainstreaming", which tended to be concerned principally with "special educational needs" and implied learners changing or becoming "ready for accommodation" by mainstream. This implies that the focus in inclusive education is on good teaching strategies that will benefit all learners. By contrast, inclusive education is about the learner's right to participate and the school's duty to accept. That is why it is so imperative for teachers to adapt the curriculum for learners with impairments, meaning adapting the environment, teaching strategies, material activities and assessments so that they can fully participate and benefit.This definition implies that curriculum adaptations are the answer for meeting all the learners' needs, regardless of their diversity.

Inclusive education is about…

- Rejecting segregation or exclusion of learners for whatever reason, be it ability, gender, language, care status, family income, disability, sexuality, colour, religion or ethnic origin
- Maximizing participation of all learners in the community schools of their choice
- Making learning more meaningful and relevant for all, particularly those learners most vulnerable to exclusionary pressures

- Rethinking and restructuring policies, curricular, cultures and practices in schools and learning environments so that diverse learning needs can be met, whatever the origin or nature of those needs

It is evident from the explanation above that inclusive education describes the process by which a school attempts to respond to all learners as individuals by considering and restructuring its curricular organization and provision and allocating resources to enhance equality of opportunity. The following section concentrates on how to prepare for inclusion, which entails the vision, the school system, professional development, attitudes and feelings, support, resources and collaborative learning.

2.5 PREPARING FOR INCLUSION

The White Paper 6 (DoE 2001b) deals with learners with special educational needs and is a natural extension of the earlier policy frameworks. It acknowledges that education for learners with impairments is inaccessible. White Paper 6 strives to create an education system that will eradicate inequalities through a process of inclusive education where learner, teacher and professional support services become representative of the South African population (Apollinaire 2007: 157). The following paragraphs highlight how the school can draw up its own inclusive vision.

2.5.1 Vision

Having gathered and shared information on the school's existing response to learners with impairments, the next step is to establish the broad vision, which the school holds for meeting learners' individual or special needs. The values and principles it would wish to adhere to, and its view on the entitlements of learners and parents. The vision must be personal to a school, and owned by those who work there (Gross 2003: 21).

The first step for creating an inclusive school is to create a vision for the school that will state clearly the objectives envisaged for quality education for all. For example, to meet

the needs of as wide a range of learners as possible and to let staff members see meeting the needs of all learners as part of their job. This implies that every teacher in the school will see adapting the curriculum for learners with learning impairments as each one's responsibility and not only certain teachers, as the vision would have been compiled by all the staff members irrespective of their competency. It would be binding, as it would include targets to be reached at a particular point – in - time, and would also be subjected to review so as to check whether teachers are still on par with what they have agreed on.

How should the school system respond to diversity? This question will be answered in the following paragraph.

2.5.2 The school system

The principle of social integration in a school context implies the facilitation of opportunities for learners and other members of the learning community to work and learn together in a cooperative environment. Skidmore (2004: 7) believes that a properly implemented policy of school restructuring will produce a system of schooling which is better adapted to meet the educational needs of all learners, and which will therefore eliminate or reduce to a minimum the problem of learners who fail to fulfill their learning potential in the formal education system. The school should be seen as more or less a successful agent of socializing learners into skills, behaviours and values required by existing society. This could be attained through curriculum adaptations, as curriculum contents would be adapted according to learner needs. Curriculum adaptations may require teachers to develop their professional teaching skills.

2.5.3 Professional development

The training of staff is critical to the development of a school's approach to inclusion andteaching of learners with impairments. In-service education and training for teachers need to be considered by the government to be a suitable mechanism to

implement development and, more specifically, change (Gibson and Blandford 2005: 135).

Identification of needs is the starting-point for any in-service training. It begins with the analysis of training needs. Professional development always addresses how to apply the knowledge and skills to learners with academic, behavioural, and other impairments. Areas of staff development include: Adaptations (cf.Chapter 3), collaboration, co-teaching, positive behaviour support strategies and fostering positive and cooperative social relationships.

As a Learning Support Advisor, the researcher observed that most of the foundation phase teachers found it difficult to adapt the curriculum for learners with learning impairments.They see it as an - add -on and they had a lack of knowledge thereof. One cannot separate poor teaching skills, negative attitudes and feelings of teachers as they all contribute negatively to the wellbeing of learners with learning impairments if not changed. The following paragraphs will briefly highlight the impact of attitudes and feelingson learners with learning impairments.

2.5.4 Attitudes and feelings

The Department of Education (2005) mentions that society's negative and harmful attitudes towards diversity in our society remainsa huge contributing factor to barriers to learning and development. Discrimination against people on the basis of race, class, gender, culture, disability, religion, ability, sexual preference and other characteristics manifest themselves as barriers when such attitudes are directed towards learners in the education system.

Teachers need opportunities to reflect on proposals for change that touch on their values and beliefs as well as affecting their day – to-day professional practice. Some teachers prefer to think through their attitudes to change on their own and resent being 'put into groups' to share their feelings on any subject (Mittler 2000: 134).

The attitudes of everyone working at schools need to change in order to achieve the principles of inclusive education while each school is unique, with its own unique style of bringing about change. Not only do learners with learning impairments need support, teachers need support too.

2.5.5 Support

The provision of a support system is the key to progress. The starting point must be classrooms and teachers. Swart and Pettipher (2005: 19) argue that support is the cornerstone of successful inclusive education. Inclusive schools and classrooms focus on how to operate classrooms and schools as supportive and caring communities in which a sense of community is fostered, where everyone belongs, is accepted, supports and is supported by all members of the school community. This, according to Swart and Pettipher (2005:19) implies that no teacher, parent, education support professional, learner or volunteer should have to handle significant challenges alone.

Swart and Pettipher (2007: 116) further point out that professional learning communities cannot be developed without the necessary support. Hargreaves and Fullan (1998) in Swart and Pettipher (2007: 116) mention that expecting individuals to change without offering institutional support is politically manipulative and dishonest. This is because not all barriers are within the learners, as most barriers according to the researcher, are extrinsic. Thus, supporting the institution in various ways, for instance by developing teachers in order for them to adapt the curriculum for those learners with learning impairments, rather than expecting learners to adapt to the curriculum.

Attfield and Williams (2003); Fullan and Hargreaves (1992); Schaffner and Buswell (1996); Villa *et al.* (1995) and West *et al*. (2005) in Swart and Pettipher (2005: 11) state that the aim of the support is to develop a culture that focuses on learning, and it should therefore develop learning capacity, collaborative relationships and leadership. Support

should be continuous and the nature of support must fit the needs of the recipients. The nature of support can include direct classroom support, such as:

- Coaching with the Principal or learning support staff
- Creating access to other ideas and practices through workshops and conferences
- Providing time for planning and consultation
- Continued teacher development and teacher learning; building trust and appropriate climate for shared and individual learning
- Recognition of development and celebration of successes
- Creating access to financial resources, equipment and materials
- Keeping staff informed of the latest research findings
- Providing opportunities to visit other schools and observe other teachers
- Providing positive and meaningful feedback and
- Using teachers' ideas to encourage colleagues

This implies that teamwork and collaboration can be of utmost importance in supporting each other.

Oswald (2007: 256) suggests that effective classroom management and planning and flexible grouping strategies allow for generous amounts of time for teaching and learning, providing all learners with access to the curriculum. Pre-and in-service education programmes need to validate a teacher's ability to reach all learners and to build a learner's strength when he/she adapts and modifies the curriculum and his/her teaching strategies to accommodate diverse learning needs within the inclusive classroom.

It is stated in the White Paper 6 (DoE 2001b: 49) that the district support personnel (DBST)and the site-based support teams (SBSTs) will be expected to provide curriculum support in the form of illustrative learning programmes, learner support materials and equipment, instruments which will be used when assessing learners and professional support for teachers.

At present in the Thabo Mofutsanyana Education District, all schools have SBSTs, but the problem is, not all of SBSTs are functional, the reason being that schools do not get enough support from the DBST. Without resources it is going to be difficult for schools to be inclusive. The following paragraphs highlight resources needed for the successful implementation of curriculum adaptations.

2.5.6 Resources

As stated in the White Paper 6 (DoE 2001b: 18), class teachers will be the first people to practice inclusive education. This implies that teachers, as the driving force of education in the classrooms, will need to improve their skills and knowledge and develop new ones in order for them to deal with the diverse needs of their learner population, including adapting the curriculum for learners with impairments. Illustrative learning programmes, support materials and assessment instruments also need to be provided by the district based support team (DoE 2001b: 20). This implies that if teachers can be given illustrative learning programmes, which will guide them on what is expected of them in terms of accommodating all learners in their planning, the support materials and assessment instruments needed will also be planned and included well in advance. Then, it would be easier for them to adapt the curriculum for learners with learning impairments and they would not see it as an - add-on.

The existing school resources should be distributed fairly to support inclusion. Community resources that are known should be drawn upon. Among the staff members, there are those members with expertise who should be fully utilized. Learner difference should be used as a resource for teaching and learning and also, the staff should develop resources to support learning and participation (Mittler 2000:116 and DoE 2001b: 48).

Seeing that inclusive education is about support, and accommodating diversity, whilst some of the resources need to be distributed fairly, it is of great importance for role players to collaborate.

2.5.7 Collaboration

Salend (2001) in Apollinaire (2007:160) cites that collaboration is also important to achieve an effective inclusive school. Salend (2001) further states that effective inclusion is a group effort, which involves collaboration among teachers, other professionals, learners, families and community agencies. The support and services that learners need are provided in the general classroom. People must work cooperatively and reflectively, sharing resources, responsibilities, skills decisions and advocacy for the learners' best interest.

Oswald (2007: 149) argues that collaboration is one of the essential features of inclusive school communities and should be cultivated consciously in schools. Teachers need to form partnership with each other, with parents, learners, support personnel and other community members for both emotional and technical support. Learners' interests, needs and goals become the focus of collaborative decision-making, creative problem solving and shared responsibility and accountability**.**

Gut, Oswald, Leal, Frederickson and Gustafson (2003) in Oswald (2007:149) emphasize that, opportunities for collaboration are the first steps to understanding how to help the whole learner and that those teachers who are willing to listen and give time and energy to the process of collaboration, discover new and generally undeveloped avenues for helping learners learn. Gut *et al*. (2003) in Oswald (2007:149) further state that collaboration applies to numerous school tasks, processes and activities, including planning the curriculum, teaching, assessing and supporting learners.

Friend and Cook (2003) in Swart and Pettipher (2005: 19) define collaboration as a style of direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work towards a common goal. Friend and Cook (2003) in Swart

and Pettipher (2005:19) further state that there are characteristics embedded in the definition of collaboration. Those characteristics are:

- Collaboration is voluntary
- Requires parity among participants
- Is based on mutual goals
- Depends on shared responsibility for participation and decision making
- Individuals who collaborate
- Share resources
- Share accountability for outcomes
- Share the sentiment that collaboration is difficult, but rewarding

Mittler (2000:120) points out that those learners with learning impairments can benefit greatly from small-group learning, but teachers have to ensure that all learners are benefiting and that the group is not forced to work at the pace of the slowest or fastest learners.This implies that foundation phase teachers should see meeting the needs of all learners as their job and bear in mind that all learners can learn, given the support. This objective of meeting the needs of all learners and offering the necessary support to the learners can only be met through curriculum adaptations. The school policy should be restructured by allowing those learners with learning impairments to answer fewer aspects of a common paper rather than answering the whole question paper, so that they could experience success which could also build their self-esteem. Without professional development, changing of attitudes by teachers, learners and the community; support from other teachers and the community, it would be difficult for teachers to adapt the curriculum for learners with learning impairments. Resources also play an important role when adapting the curriculum for learners with learning impairments, and not only human resources are needed, but also support materials, assessment instruments and illustrative learning programmes. Teachers also need to collaborate with each other and with other community members in order to make curriculum adaptations for learners with learning impairments a success.

2.6 CONCLUSION

The vision of inclusive education is to provide learners with learning impairments full access to education and the curriculum. This is compatible with all previous documents mentioned. In this thesis, a framework is provided for establishing an inclusive education and training system in South Africa which aims at systematically moving away from segregation and labeling of learners to the support for all learners. It provides guidelines for setting up initial facilities and accessing additional resources, setting guidelines on how learners experiencing barriers to learning and development are to be incorporated in full service or regular schools, and the adoption of a flexible curriculum and assessment policy.

Green(2001: 9) and Swart and Pettipher(2001: 38) explain that the education system and schools need to be restructured in order for all learning needs to be accommodated. For this restructuring to be effective, however, a reform of the curricula is also required. This is realized through the introduction of Curriculum 2005, which was later reformulated into the Revised National Curriculum Statement (RNCS), which is presently known as the National Curriculum Statement (NCS), Curriculum and Assessment Policy Statement (CAPS) for each approved school subject.

In this chapter the researcher concentrates mainly on inclusive education, the following chapter reviews literature on learning impairmentsin general and curriculum adaptations in particular.

CHAPTER THREE

LEARNING IMPAIRMENTS AND CURRICULUM ADAPTATIONS

3.1 INTRODUCTION

It is in accordance with the background established by the policies set out in the literature review in Chapter Two that education policies developed in the post1990 era, thus being the result of a negotiated process in which interest groups had to bargain to protect their fundamental principles by giving way on other issues that had to play a subsidiary role. In the final analysis, the challenge was to construct a unified education system (Nieuwenhuis *et al*. 2007: 53).

Dednam (2005: 371) states that until the early 1990s in South Africa, some learners with learning impairments received specialized support in special schools and classes, and teachers in these schools and classes were trained to teach them.However, insufficient facilities and support were available for learners who were learning impaired, especially in the rural areas. These learners are also labeled by their peers, teachers and the community as being “stupid” or “dumb”. With the acceptance of the policy on inclusive education, most of these learners are now taught in mainstream schools.

As Dednam (2005: 371) further states that teachers have to accommodate learners with learning impairments in their classrooms, he suggests that they should be motivated to support them by acquiring the necessary knowledge and skills on how to support them. They should also purposefully change their attitudes towards them, by not labeling them as “repeaters” or “slow learners”. Labeling of learners might bring negative results, as it could lower their self -esteem. It also results in the misplacement of learners or their exclusion from other education settings.Labeling of learners also causes the system to become resistant to change or unwilling to adapt in order to meet the learners’ needs. This implies that there is a need for curriculum adaptations, which will take into consideration the nature of the disability. The following section will highlight what

learning disabilities are, according to the Federal and the National Joint Committee on Learning Disabilities (NJCLD).

3.2 LEARNING DISABILITIES/IMPAIRMENTS

Numerous definitions for learning disabilities have been proposed, but none has been universally accepted. The two definitions that have had the most influence are a federal definition in the Individuals with Disabilities Education Act (IDEA) and a definition proposed by the National Joint Committee on Learning Disabilities (NJCLD) (Heward 2009: 253).These are definitions that were formulated in the United States of America (USA).

3.2.1 The Federal Definition

According to Hallahan and Kauffman (2006:172); Turnbull, Turnbull and Wehmeyer (2007:106); Vaughn, Bos andSchumm (2007:67); Smith, Polloway, Patton and Dowdy (2008: 135); Hallahan, Kauffman and Pullen (2009: 187) and Heward (2009: 173) the term “learning disabilities” is defined in IDEA as a disorder in one or more of the basic psychological processes involved in understanding or in using language, spoken or written, which disorder may manifest itself in an imperfect ability to listen, think, speak, read, write, spell or to do mathematical calculations. Such disorders include conditions such as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia and developmental aphasia. Such terms do not include learners who have learning problems, which are primarily the result of visual, hearing, or motor handicaps, of mental retardation, of emotional disturbances, or of environmental, cultural or economic disadvantages. The following paragraphs highlight learning disabilities as seen by the NJCLD.

3.2.2 The National Joint Committee on Learning Disabilities (NJCLD) Definition

Heward (2009: 173) states that the NJCLD is a group of representatives from 13 professional organizations concerned with the education, treatment and rights of children and adults with learning disabilities in the USA. The NJCDL (1990/2001) believes that the federal definition for learning disabilities contains several inherent weaknesses:

- Exclusion of adults. Learning disabilities can occur at all ages, but the IDEA definition refers only to school-age learners
- Reference to “basic psychological processes”. Use of this phrase has led to a debate on how to teach learners with learning disabilities, which is a curricular issue, not a definitional one
- Inclusion of spelling as a learning disability. Spelling can be subsumed under “written expression” and should be eliminated from the definition
- Inclusion of obsolete terms, including termssuch as dyslexia, minimal brain dysfunction, perceptual impairments, and development aphasia, which historically have proven difficult to define, only adding confusiontothe definition
- Wording of the exclusion clause. The IDEA definition suggests that learning disabilities cannot occur along with other disabilities.However, a person may have a learning disability along with another disability but not because of another disability

Heward (2009:174) maintains that in response to these problems with the federal definition, the NJCLD (1990/2001) developed the definition that learning disabilities is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning or mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to the central nervous system dysfunction, and may appear across

lifespan.Problems in self-regulatorybehaviours, social perception and social interaction may exist with learning disabilities but do not constitute a learning disability.

Although learning disabilities may occur concomitantly with other handicapping conditions (for example, sensory impairment, mental retardation, serious emotional disturbance) or with extrinsic influences (such as cultural differences, insufficient or inappropriate instruction), they are not the result of those conditions or influences.

Dednam (2005: 364) concurs with the definition of learning disabilities spelt out by Heward (2009); Smith*et al*. (2008); Hallahan and Kauffman (2006) and Vaughn*et al*. (2007) but refers to it as learning impairments.

The researcher on the other hand wishes to align herself with the definition by the NJCDL and partly with the IDEA definition.This implies that not only children have learning impairments, but also adults.Learners with learning impairments typically experience difficulties in one or more of the basic school subjects, and these difficulties are based on curricular issues which are not cognitive issues, such as mathematics or problems arising from the medium of instruction (where the learner is taught in a language other than his mother tongue), or the skills of reading, writing, listening and speaking. The learner's learning problems are instead due to the difficulty in processing information, that is; how sensory input is perceived, transformed, reduced, elaborated, stored, retrieved and used. Furthermore, reading has been mentioned by IDEA as the stumbling block in academic achievement, although some learners fare well in this area, yet have specific impairments in other subjects such as mathematics and writing. The previous paragraphs have discussed what learning impairments are according to different authors and the researchers' views, while the following paragraphs are going to make allusions to the causes of learning disabilities.

3.2.3 Causes of learning disabilities/impairments

For some researchers the causes of learning impairments (disabilities) are still a mystery (Dednam 2005: 364). Smith (1998:123) in Smith *et al*. (2008: 96) estimates that

more than 50 percent of learners who experience learning difficulties are learning impaired. The percentage of learners with learning impairments differs from community to community, as it seems that the occurrence of learning disabilities and associated learning difficulties is higher in disadvantaged communities. Poor communities are also poorly resourced, which could lead to limited educational facilities, overcrowded classrooms, insufficiently trained personnel and a shortage of teaching and learning material. Such factors could lead to learning breakdown and the system failing to sustain effective teaching and learning. That is why there is a need for curriculum adaptations, as some learners would need more time to understand what is taught due to the above mentioned factors which could cause learning breakdown.

Smith (2007: 171) believes that little is actually known about the causes of learning impairments. One assumption embedded in definitions of learning impairments is that the origins of many of these individuals' problems are neurological. This implies that there may be brain damage. Authors such as Smith (2007: 171) and Heward (2009: 187) think that heredity may make a more significant contribution to learning impairmentsthan was previously understood. They also mention that there is a strong relationship that exists between learning impairments and low socio-economic status. In the community where there is a lack of employment and scarce resources, learners leave school in order to find jobs to add to the families' income.This causes a continuous cycle of limited skills with fewer work opportunities, increased unemployment or poorly paid work and thus, ongoing poverty and exclusion. Today, because of modern scientific techniques, researchers are discovering some genetic causes of learning impairments. The following paragraphs highlight Turner's syndrome as one of the causes of learning impairments.

3.2.3.1 Turner's syndrome

Rovert (2004) in Smith (2007: 171) identifies that Turner's syndrome has a definite link to mathematics disabilities in girls. According to Marcovitch (2005:735) Turner's syndrome occurs in one of every 2 500 births. It is caused by either the absence of or an abnormality in one of the two X chromosomes. Classical Turner's syndrome is a

complete deletion of one X so that the karyotype is 45XO. Half of the people with Turner's syndrome have mosaicism with a mixture of Turner cells and normal cells, or other abnormalities of the X chromosomes, such as partial deletions or a ring X. They are females, both in appearance and sexually.Clinical features are variable and include short stature, with final height being between 1.295m and 1.575m and ovarian failure. Other clinical features may include a short neck, webbing of the neck, increased carrying angle at the elbow, widely spaced nipples, cardiovascular abnormalities of the kidneys, recurrent otitis media, squints, increased incidence of pigmented naevi, hypothyroidism and diabetes mellitus. Intelligence is across the normal range, although there are specific learning defects, which are related to hand – eye-coordination and spatial awareness.

Judith and Ross (2011), statethat Turner's syndrome (TS) is, a medical disorder which affects about one in every 2 500 girls. Although researchers don't exactly know what causes Turner syndrome, they do know that it is the result of a problem with a girl's chromosomes.

Girls with Turner's syndrome are usually short in height. Those who are treated for short stature reach an average height of about four foot seven inches (1, 4 metres).The good news is that when Turner syndrome is diagnosed while a girl is still growing, she can be treated with growth hormones to help her grow taller.

Most girls are born with two X chromosomes, but girls with Turner's syndrome are born with only one chromosome or they are missing a part of one X chromosome. The effects vary widely among girls with Turner's syndrome (Judith and Ross 2011). It all depends on how many of the body's cells are affected by the changes to the X chromosomes.

Turner's syndrome can cause a number of other health problems which occur most often in girls with Turner's syndrome, including kidney problems, high blood pressure, overweight, hearing difficulties, diabetes, and thyroid problems. Some girls with the condition may experience learning impairments, particularly in maths. Many have a difficult time with tasks that require skills such as map reading or visual

organization.Although people with Turner's syndrome may have certain learning impairments, the majority are able to attend regular schools and classes and are generally able to: Write well, learn well by hearing, memorise information as well as others and develop good language skills (Judith and Ross 2011). This implies that, through curriculum adaptations, learners with Turner's syndrome can be taught in regular classrooms.

- What is Turner's syndrome?

The University of UTAH (2012) concurs with Judith and Ross (2011) by saying that Turner's syndrome is caused by a missing or incomplete X chromosome. People who have Turner's syndrome are females. Turner's syndrome affects the genes involved in growth and sexual development, which results in girls with the disorder being shorter than normal and having abnormal sexual characteristics.

- How do people get Turner's syndrome?

Females need to have two X chromosomes. For one chromosome to be missing, the separation of a pair of chromosomes during the formulation of an egg has to occur. Turner's syndrome is not inherited as women with the abnormality cannot have children.

- **What are the symptoms of Turner's syndrome?**

Girls with Turner's syndrome are shorter than normal and may fail to start puberty when they should as the ovaries fail to develop properly. Women with Turner's syndrome appear to be short and strong, their arms turning out slightly at the elbow, a lower jaw receding, with a short webbed neck and low hairline at the back of the neck.

Powell and Schulte (1999) in Kirk, Mazzocco and Kover (2005: 759) mention that Turner's syndrome results from complete or partial loss of one of the two X chromosomes typically present in females and occurs in approximately 1: 2000-3000 live female births. According to Ross (2000) in Kirk *et al*. (2005: 759) the consequent physical phenotype is well-described and typically includes short stature, a webbed neck, a broad chest and a lack of spontaneous development of secondary sexual characteristics, with accompanying infertility.

Mazzocco (2001); Rovert, Szekely and Hockenberry (1994); Temple and Carney (1993) and Temple and Marriot (1999) in Kirk *et al*. (2005: 759) believe that the neuropsychological phenotype of Turner's syndrome is marked by poor performance in mathematics, sustained attention, and visuospatial skills, despite average overall intellectual functioning. Pennington *et al*. (1985); Powell and Schulte (1999) in Kirk *et al.* (2005: 759) mention that enhanced verbal versus non - verbal performance has been attributed to difficulties with visuospatial processing.

Rovert (1990) in *Kirk et al.* (2005:759) state that mild verbal and conceptual problems are occasionally present, whereas problems with spatial and perceptual skills are consistently evident in girls with Turner's syndrome.Temple and Carney (1993) in Kirk *et al.* (2005: 759) state that although the nature of the visual difficulties has not been specified, Mazzocco (2001) in Kirk *et al.* (2005: 759) mentions that young girls with

Turner's syndrome score significantly lower on visual – perceptual or visual – motor tasks than boys of the same age - and IQ- matched comparison group.

Hallahan and Kaufman (2006:168-170) name three categories of causes and divide them into genetics, teratogenic, medical factors, biochemical imbalance, environmental factors and lack of effective instruction.

3.2.3.2 Genetics

It is often said, "learning disabilities run in the family". Between 35 and 45 percent of parents and their siblings experience problems in the same field, e.g. reading and speech and language disorders.

Rosenberg, Westling and McLeskey (2008: 149) mention that genetic factors are the second most frequently cited factors that may contribute to or cause learning disabilities. They further state that in addition to that, research conducted with learners with reading disabilities has established that reading and writing disabilities tend to run in families.

Hallahan *et al.* (2009: 194) believe that there are two most common types of studies that are used to look at the genetic basis of learning disabilities. These are familiality and heritability studies. Familiality study is a method of determining the degree to which a given condition is inherited; looks at the prevalence of the condition in relatives of the person with the condition. Heritability study is a method of determining the degree to which a condition is inherited; a comparison of the prevalence of the condition in identical (i.e. monozygotic, from the same egg) twins versus fraternal twins (i.e. dizygotic, from two eggs). Can teratogenic cause learning impairments?

3.2.3.3 Teratogenic

Teratogenic factors are, according to Hallahan and Kauffman (2006: 178), chemicals that can disrupt the normal development of the fetus; which could be a possible cause of learning disabilities and other learning and behavioural problems.

These are aspects of the environment that cause developmental malfunctioning in humans that can cause learning disabilities. If a child ingests lead-based paint, the child's brain can be impaired; likewise, if a pregnant woman is exposed to lead from other sources, her fetus' brain can be impaired (Turnbull *et al*. 2007: 109). Which medical factors can cause learning impairments?

3.2.3.4 Medical factors

There are several medical conditions that can also cause learning disabilities. Many of these can also result in intellectual disabilities, depending on the severity of the condition. Premature birth places children at risk for neurological dysfunction. Anoxia – a shortage of oxygen during birth – may also be involved. Hallahan *et al.* (2009: 195) also adds to this by saying that pediatric Acquired Immune Deficiency Syndrome (AIDS) can result in neurological damage, which can result in learning impairments.

Smith *et al.* (2008: 137) concur with Hallahan and Kauffman (2006: 178) by emphasizing that high fever, encephalitis, meningitis, stroke, diabetes and pediatric AIDS have been linked with learning impairments.

In addition to what has been said by Hallahan and Kauffman (2006: 179-170), Heward (2009: 188-189) adds by naming two more causes of learning impairments. These causes are biochemical imbalances and environmental factors.

3.2.3.5 Biochemical imbalance

Heward (2009: 188) claims that several popular theories in the 1970s, which continued to find traction from time to time in the popular media, held that biomedical disturbances within a learner's body cause learning impairments. Heward (2009: 189) further elaborates by saying that research suggested that learning impairments can be caused by the inability of learner's bloodstream to synthesize a normal amount of vitamins.

Leifer (no date) mentions that a New York psychiatrist believes that there is no biological imbalance and when people come to him and say that they have a biological imbalance, he wants them to show him their lab results and there are no test results.

And so, he posed the question of what the biochemical imbalance was. The following responses were from different scientists according to Leifer.

What is believed today is that a chemical imbalance which is brain-based causes mental illness. However, Dr. Mark Graff mentions that the theory was derived from the drug industry. His cohort, Dr. Steven Sharistein and Dr. Elliot believe that there is no clean cut lab test to determine a chemical imbalance in the brain.

In spite of the funding by pharmaceutical companies in support of the chemical imbalance theory, the disease was disproved.

Joseph Glenmullen of Harvard Medical School believes that biochemical imbalance was however high blood sugar levels which could be treated by insulin injections. The symptoms clear and the re - test shows the blood sugar normal and that nothing like a sodium imbalance or blood sugar exists for depression or any other psychiatric syndrome**.**

Edward Drummond, M.D., Associate Medical Director at Seacoast Mental Health Centre in Portsmouth, New Hampshire, mentions that no biological aetiology (cause) has been proven for any psychiatric disorder in spite of decades of research. So people should not accept the myth that health professionals can make an acute diagnosis, neither should people believe that their problems are due solely to chemical imbalance.

Bruce Levine, a psychologist, states that biochemical imbalance does not cause attention deficit disorder.

Charles E believes that there is no proof in saying that the origins of mental illnesses are found in biology.

Psychiatrist David Kaiser adds by saying patients have been diagnosed with chemical imbalances despite the fact that no test exists to support such claim and there is no real conception of what a correct chemical balance would look like.Environmental factors can also cause learning impairments.

3.2.3.6 Environmental factors

Environmental factors – particularly impoverished conditions early in the learner's life and limited exposure to highly effective instruction in school. The tendency for learning impairments to run in families suggests a correlation between environmental influences on the learner's early development and subsequent achievement in school.

Turnbull *et al*. (2007: 109) argue that there are connections between genetics and environmental causes in that parents who experience problems with reading are likely to read less to their children during their children's early years. They further suggest that other environmental causes include pollutants and teratogens that can cause learning disabilities.

Environmental factors as highlighted by Heward (2009: 189) are virtually impossible to document as primary causes of learning disabilities.Environmental factors - particularly impoverished living conditions early in a child's life and limited exposure to highly effective instruction in school - probably contribute to the achievement deficits experienced by many learners who receive special education. Rosenberg *et al.* (2008: 149) concur with all the above-mentioned causes but distinguishes one more, namely lack of effective instruction.

3.2.3.7 Lack of effective instruction

It is likely that many learners are referred for possible identification with learning impairments because of poor teaching. Heward (2009: 189) expresses the concern that although the relationship between poor instruction and learning impairments is not clear, a great deal of evidence shows that many learners' learning problems can be remediated by direct, intensive, and systematic instruction. Heward (2009: 189) further states that, it would be naïve however, to think that the achievement problems of all learners with learning impairments are caused entirely by inadequate instruction. Nevertheless, from an educational perspective, intensive, systematic instruction should be the intervention of first choice for all learners with learning impairments.

Eggen (1998) Wiley and Hurnischfeger (1994) in Eggen and Kauchak (2007: 373) maintain that less effective teachers do not use their time as effectively, wasting

opportunities for learning and creating vacuums where management problems can occur. Some teachers seem unaware of the importance of time, viewing it as something to be filled – or even "killed" – rather than a valuable resource that increases learning.

The researcher wants to align herself with the above-mentioned authors' views, as teachers tend to use a one-size – fits-all approach when teaching learners. The researcher's observation was that sometimes teachers, through inadequate knowledge of adapting the curriculum, use teaching strategies which may not meet the needs of learners. For example:

- A teacher teaching at a pace, which only accommodates learners who are fast
- Sometimes, the teaching strategies exclude learners with learning impairments
- Materials which are used are discriminatory on the basis of culture and out of the learners' context
- A shortage of materials and equipment
- A one-size-fits-all kind of assessment

Dednam (2005: 365) reveals that learning impairments is primarily caused by the dysfunction of the central nervous system, although it may occur concurrently with environmental disadvantages, intellectual impairments and emotional disturbances. There are learners whose learning impairments cannot be pinpointed although they manifest clear signs of learning impairments. Others who display characteristics of learning impairments do not experience any learning difficulties. Intrinsic and extrinsic factors may also be intertwined to such an extent that it is almost impossible to determine whether the causes of learning impairments may be intrinsic or extrinsic in nature.As the previous paragraphs have discussed the causes of learning impairments, the following section looks at the general characteristics of learners with learning impairments.

3.2.4 General characteristics of learners with learning disabilities

Learning impairments are primarily described as deficits in academic achievement, for example: reading, writing, and mathematics and/or language (listening or speaking). Because learning impairments are heterogeneous, it is difficult to list a set of characteristics that adequately describe all learners with learning impairments. Learners with learning impairments seem more different from one another than alike in relation to how they learn. However, learners with learning impairments may have significant problems in other areas, such as social interaction, and emotional maturity, attention and hyperactivity, memory, cognition, metacognition, motor skills, and perceptual abilities, masking strategy and skills deficits (Turnbull *et al*. 2007:106- 107; Vaughn*et al*. 2007: 69; Smith *etal*. (2008:137-141) and Hallahan *et al.*(2009:199 - 201). This implies that there is a need for curriculum adaptations so that it can meet the needs of different learners within the mainstream class. The most common characteristics of learners with learning impairments are described briefly in the following sections.

3.2.5 Signals for possible learning impairment

Signals for learning impairments are characteristics of learners with learning impairments as discussed by Lerner (1993: 13); Rosner (1993: 5-17); Smith (1998: 139); Westhood (1997: 12); Smith *et al*. (2001: 97-101); Landsberg *etal.* (2005: 366); Eggen and Kauchak (2007: 141); Vaughn *et al*. (2007: 70); Smith *et al*. (2008: 138 – 139); Turnbull *et al*. (2007: 106-108); Rosenberg *et al*. (2008: 145 – 148) and Heward (2009:178 –186). These signals are grouped together and summarized. There is a discrepancy between these learners' potential and academic achievement, and there are substantial delays in their academic achievement. This could lead to these learners experiencing academic deficits.

3.2.5.1 Academic deficits

During the foundation phase years, a learner's ability and his or her achievement across learning programmes begins to vary significantly in the case of learners with learning impairments. These learners seem to have strengths similar to their peers in several areas, but their rate of learning in other areas is unexpectedly slower. The term "unexpected underachievement" is frequently used to describe learning impairments. The academic problems that identify a learning impairment fall into the areas of reading, mathematics and written expression. The most prevalent type of academic difficulty for learners with learning impairments is reading. Lyon *et al*. (2001) in Smith *et al*. (2008: 138) report that approximately 80 percent of learners identified as learning impaired have primary deficits in the area of reading and related language functions. Problems may be noted in basic reading skills and reading comprehension. Learners with learning impairments may struggle with oral reading tasks. They may read in a strained voice with poor phrasing, ignore punctuation, and grope for words. Oral reading problems cause tremendous embarrassment to these learners. Deficits in reading skills can also lead to acting-out behaviour and poor motivation.

Some learners with learning impairments may be able to say the words correctly but not remember what they have read. Comprehension problems may include one or more of the following:

- Identifying the main idea

- Recalling basic facts and events in a sequence

- Making inferences or evaluating what has been read

A learner with a specific deficit in reading may be described as having dyslexia (Turnbull *et al*. 2007: 107; Vaughn *et al*. 2007; 69 and Heward 2009: 179).

Another major academic problem area is mathematics. Learners with learning impairments may have problems in mathematical calculations or mathematical reasoning. These conceptual and skill areas include deficits in the four operations, the concept of zero, regrouping, place value, basic maths concepts, (e.g. one – to-one correspondence, sets), and solving maths problems. Learners may have abilities in

calculation but have disabilities in maths reasoning; they may make many errors in calculations but be able to perform calculations to solve a maths word problem. Often the rate of response interferes with success in mathematics; for example, a learner may be able to perform the skill, but unable to complete the number of problems required during the time allowed. A disability in mathematics may be called dyscalculia (Vaughn *et al*. 2007: 69 and Smith *et al*. 2008: 139).

The three main concerns of written expression are handwriting, spelling and written expression, including mechanical and creativity. The impact of written-language problems increases with the learner's age because so many school works require a written product. A learning disability in writing may be referred to as dysgraphia (Turnbull *et al*. 2007: 107; Vaughn *et al*. 2007: 69 and Heward 2009:182).Other characteristics of learning impairments are language deficits.

3.2.5.2 Language deficits

Language deficits are found in the areas of oral expression (expressive language) and listening comprehension (receptive language). Since these two areas control our ability to communicate with others, a deficit can have a major impact on quality of life – including life in the general education classroom. Common oral language problems include difficulty in retrieving correct words as learners often use a less appropriate word because the word they are searching for will not come to them. The response rate for learners with learning impairments may be slower than that of their non - disabled peers, and they may speak more slowly. If ample time is not allowed for a response, the learner's behaviour may be misinterpreted as failure to understand or refusal to participate. Learners with learning impairments tend to use simpler, less mature language and confuse sequence in retelling a story. Listening problems also can be easily misinterpreted. A learner with a disability in listening demonstrates that disability is a negative way – by failing to follow directions or by appearing oppositional or unmotivated (Smith *et al*.2008: 139).

The teacher's careful observation and assessment of a learner's language ability is important for ensuring the learner's success.Learners with language deficits may miss non - verbal language cues such as frowns. They may not understand jokes; they may laugh inappropriately or at the wrong times. Group work is often difficult, as is giving or following directions. Language disabilities can contribute significantly to difficulties in social situations as well.

3.2.5.3 Social – Emotional problems

According to Hallahan and Kauffman (2006: 189); Turnbull *et al.* (2007: 108); Smith *et al*. (2008: 139); Hallahan *et al*. (2009: 201) and Heward (2009: 185) some learners with learning impairments have real strength in the area of social skills; they are well liked by peers and teachers. However, several characteristics of learning impairments, like those noted in the area of language, can create difficulties in social and emotional life. Social skills which might be affected by the impairments of learners with learning impairments include: Resolving conflict, managing frustrations, initiating or joining a conversation or play activities, listening, demonstrating empathy, maintaining a friendship, and working in groups.Learners with learning impairments have also been shown to have a lower self-concept in academic and social relations.

Often positive interactions and exchange of information do not occur between learners with learning impairments and their peers or teachers. Because of behaviour and language differences, learners with learning impairments need more guidance and structure. Over time, these needs can create feelings of over dependency. Emotional issues may mask or exacerbate a learner's learning impairments; however, positive emotional health can enhance the performance of learners with learning impairments. Learners with Attention Deficits and Hyperactivity are easily distracted. The following paragraph briefly highlights how attention deficits and hyperactivity can contribute to learning impairments.

3.2.5.4 Attention Deficits and Hyperactivity

Researchers such as Hallahan and Kauffman (2006: 187); Eggen and Kauchak (2007: 142-143); Rosenberg *et al* (2008: 147); Smith *et al.* (2008: 140); Hallahan *et al*. (2009: 200) and Heward (2009: 185) argue that attention is a critical skill in learning. Deficits in these areas can have an impact on all aspects of success in school. When learners are not paying attention, they cannot respond appropriately to questions or follow directions. The excessive movement of a hyperactive learner can draw sharp criticism when it negatively affects the learning environment. Social problems occur when a learner interrupts others and does not listen to his or her peers.

Learners with attention problems often have trouble finishing work or rush through their work with little regard to detail.Smith *et al*. (2008: 140) mention that approximately 51 percent of learners with learning impairments also have attention problems, and it is estimated that 3 to 7 percent of school-aged learners have both learning impairments and attention deficit and hyperactivity disorder. Memory refers to the process of bringing information to consciousness or to the contents of memory. The following paragraph will concentrate on memory deficits.

3.2.5.5 Memory deficits

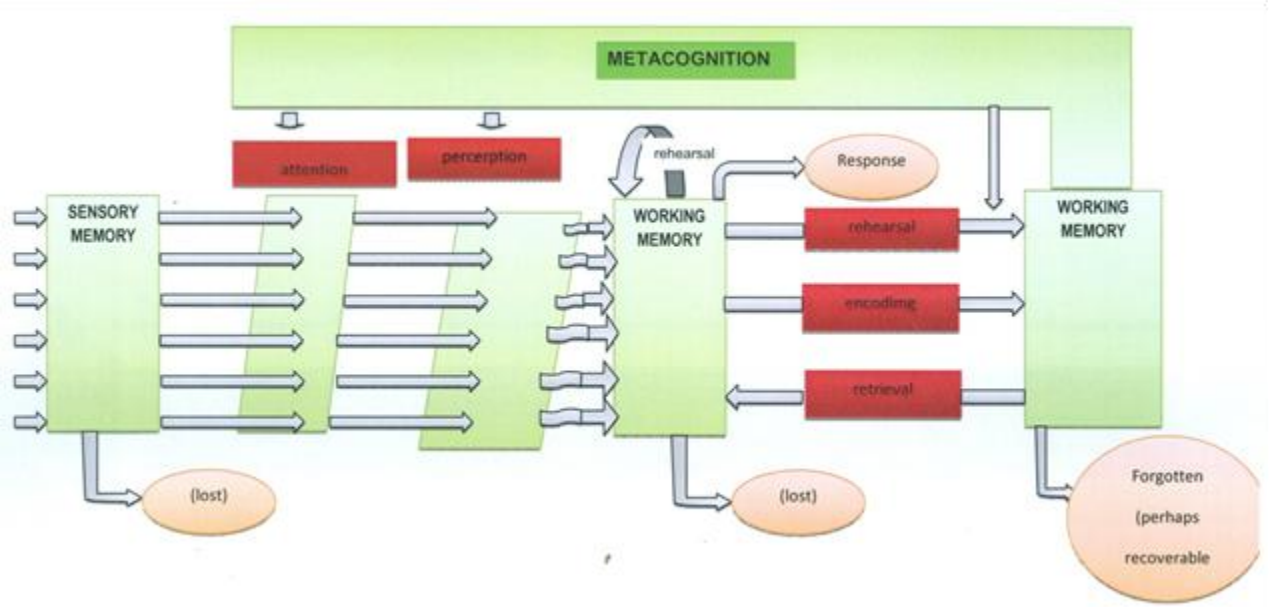
Rosenberg *et al*. (2008: 146) distinguish between two types of memory problems encountered by learners with learning impairments. These memory problems are short-term memory/working memory and long-term memory.

Hallahan *et al*. (2009: 200) also mention that learners with learning impairments have three types of memory problems, those being short-term memory, working memory and long-term memory. Short-term memory problems involve difficulty recalling information shortly after having seen or heard it, whilst working memory problems affect a learner's ability to keep information in mind while simultaneously doing another cognitive task. Long-term memory problems involve difficulty in retrieving, that is, how to recall (or

remember) information stored in the long-term memory. Sensory memory is the store that briefly holds incoming stimuli from the environment until they can be processed.

Eggen and Kauchak (2007: 204 and 207) maintain that learners with learning impairments have at least three types of memory problems. These are sensory memory, working memory and long-term memory. Neisser (1967) in Eggen and Kauchak (2007: 204) state that the sensory memory is the store that briefly holds incoming stimuli from the environment until they can be processed. On the other hand, Leakey and Haris (2001) and Pashler and Carrier (1996) in Eggen and Kauchak (2007: 204) mention that sensory memory is estimated to retain information for about one second for vision and two to four seconds for hearing.

Baddeley (2001) in Eggen and Kauchak (2007: 204) maintains that working memory is the store that holds information as a person processes it. Whereas long- term memory, according to Schacter (2001) in Eggen and Kauchak (2007: 204), is the person's permanent information store. The following represents the cognitive processes in our information processing system as outlined by Eggen and Kauchak (2007: 212).



The question posed by Eggen and Kauchak (2007: 212) is how does information move from sensory to working to long-term memory? To answer the above mentioned question, Eggen and Kauchak (2007: 212) propose four answers to the question by focusing on – attention, perception, rehearsal, encoding and retrieval – that moves information from one store to another.

- **Attention: The Beginning of Information Processing**

Attention is the process of consciously focusing on a stimulus. According to the model, attention appears next to sensory memory where information processing begins. All additional processing depends on the extent to which learners pay attention to appropriate stimuli and ignore distractions. Attention is where learning begins, attracting and maintaining learners' attention are essential (Mangels, Piction and Craik 2001; Valenzeno, Alibali and Klatzky 2003 in Eggen and Kauchak (2007: 212). The following paragraph highlights perception.

- **Perception: Finding Meaning in Stimuli**

Perception is the process people use to find meaning in stimuli. It is essential that learners accurately perceive the information they study. Their perceptions of what they see or hear enter working memory, and if these perceptions are not accurate, the information that is ultimately encoded in long-term memory is inaccurate. Prior knowledge, both in constructing understanding and in making information meaningful, influences perceptions as well. The following paragraph highlights rehearsal as one of the memory deficits.

- **Rehearsal: Retaining Information Through Repetition**

Rehearsal is the process of repeating information over and over either aloud or silently, without altering its form (Atkinson and Shiffrin 1998 in Eggen and Kauchak 2007: 213). Berk (2006) in Eggen and Kauchak (2007: 213) mentions that, although rehearsal can be used to hold information in working memory until used, if rehearsed

enough, it can be transferred to long-term memory. Rehearsal is a simple, but inefficient method of transferring information from working memory to long-term memory. Even though rehearsal can be inefficient, it is one of the first memory strategies that develop in young children. The following paragraph highlights meaningful encoding.

- **Meaningful Encoding: Making Connection in Long-Term Memory**

Encoding is the process of representing information in long-term memory (Bruning 2004 in Eggen and Kauchak 2007: 213). The information can be represented either visually or verbally. The goal in encoding should be to make information as meaningful as possible. Teachers can encourage meaningful encoding by promoting four processes: Organization, which is the process of clustering related items of content into categories that illustrate relationships; imaginary, which forms mental pictures of topics; elaboration, which expands on existing schemas; and activity, which puts the learner in the most active role possible in making connections. This implies that when teaching learners, teachers should keep in mind the cognitive processes in people's processing system in order to enhance understanding. The following paragraph highlights characteristics of learners with metacognition deficits.

3.2.5.6 Metacognition deficits

Learners with problems in metacognition might have difficulty focusing on listening, purposefully remembering important information, connecting that information to prior knowledge, making sense out of the new information and using what they know to solve a problem. They often lack strategies for planning and organizing, setting priorities, and predicting and solving problems (Eggen and Kauchak 2007: 220; Rosenberg *et al*. 2008: 147 and Hallahan *et al*. 2009:199).

As cognition refers to what we know and think; the following paragraph highlights the cognitive deficits.

3.2.5.7 Cognitive deficits

Learners with problems in cognition may make poor decisions or frequent errors. They may have trouble getting started on a task, have delayed verbal responses, require more supervision, or have trouble adjusting to change. Understanding social expectations may be difficult. They may require concrete demonstrations. They often have trouble using previously learned information in a new situation (Hallahan and Kauffman. 2006: 187 and Smith *et al*. 2008: 141).

On the other hand, Eggen and Kauchak (2007: 211) mention that cognitive deficits are the inabilities of moving information from the sensory to working to long-term memory, thus, attention, perception, rehearsal, encoding and retrieval. As the researcher has alluded to cognitive deficits; metacognition can be defined as the conscious awareness and control of one's own cognitive process. Following the discussion of cognitive deficits, perceptual differences are going to be discussed.

3.2.5.8 Perceptual differences

Hallahan and Kauffman (2006: 186); Hallahan *et al*. (2008: 199) and Smith*etal*. (2008: 141) point out that perceptual disorders affect the ability to recognize stimuli being received through sight, hearing or touch, and to discriminate between and interpret the sensation appropriately. A learner with a learning impairment might not have any problems in these areas, or he or she might have deficits in any or all of them. The following paragraphsemphasize motor skills and coordination problems as related to learning impairments.

3.2.5.9 Motor Skills and Coordination problems

This area has also been de-emphasized in the identification of an intervention for learners with learning impairments because it is not directly related to academics. However, it is common for learners with learning impairments to display problems in

gross motor areas; they often cannot throw or catch a ball or may have a clumsy gait. Common fine motor deficits include difficulties with using scissors, buttoning clothing, and handwriting. Individuals with learning impairments may also have a slow reaction time (Hallahan and Kauffman, 2006: 186 and Smith *et al*.2008: 141).

It should be mentioned that not all learners show *all* the manifestations of learning disabilities - only some of them in a variety of combinations and intensities that vary from learner to learner. They also do not benefit by the same methods of support and adaptations, although they may exhibit the same manifestations with the same intensity (Dednam 2005:365).

The previous paragraphs provided a brief overview of learning impairments; the next section deliberates on curriculum adaptations as it pertains specifically to learning impairments.

3.3 CURRICULUM ADAPTATIONS

The effective inclusive school requires reflective teachers who are willing to change their attitudes, teaching and classroom management practices, and curricula to accommodate individual learner needs. In inclusive classrooms, teachers are reflective practitioners who are flexible, responsive and aware of learners' needs. They think critically about their values and beliefs and routinely examine their own practices for self-improvement and to ensure that learners' needs are met. Teachers individualize education for all learners in terms of assessment techniques, curriculum accessibility, teaching strategies, technology, physical design (environment) adaptations and a wide array of related services based on their needs (Salend 2001: 7). The following paragraph defines what a curriculum is.

3.3.1 Defining the curriculum

In addition to the definitions cited by Donald *et al*. (cf.1.8.2), it is further stated in Donald *et al*. (2010: 18) that the curriculum includes the process of planning and decision-making. Armstrong (2003) in Hewitt (2006: 32) maintains that the term "curriculum"

means a set of decision-making processes and products that focuses on the preparation, implementation, and assessment of general plans to influence learners' behaviours and insights, whereas, Walker and Soltis (1997) in Hewitt (2006:32) state that the term "curriculum", refers not only to the official list of courses offered by the school, but also to the purposes, content, activities, and organization of the educational program actually created in schools by teachers, learners and administrators.

The researcher's understanding on these definitions is that the term "curriculum" means the organization of the entire educational programme, the Curriculum and Assessment Policy Statements (CAPS), the purpose, contentand presentation of the content, activities and assessment, which is carried out by the teachers, learners and administrators. The following paragraphs highlight curriculum developments.

3.3.2 Curriculum development

Curriculum development, at its best, is a comprehensive process that facilitates an analysis of purpose, designs a program or event, implements a series of related activities, and aids in the evaluation of this process. At its worst, curriculum development accomplishes none of these four activities. It is also evident that modern curriculum development involves much more than implementing a new course of study or simply adding a new standard (Wiles and Bondi 2007:73).

People's Education was a broad programmatic initiative, which gathered together the anti-apartheid movement's response to the curriculum and asserted the fundamental principles on which the ensuing reforms in the country would be founded. These were given definition and detail in the National Education Policy Investigation (NEPI) proposal and emphasized non - racism, non - sexism, democracy, equality and redress. The contribution of the Private Sector Education Council (Prisec) and the Education Policy and Systems Change (Edupol), as Jansen (1999a: 5) in Soudien (2007: 257) explains, lies in their emphasis on questions of school governance and teacher education.

The apartheid government put forward two proposals, one called the Education Renewal Strategy and the other A New Curriculum Model for South Africa.As a result of an alliance between academics working within the NEPI process and intellectuals in the trade union movement, a broad policy platform for education was developed that crystallized into the National Qualification Framework (NQF). What was interesting about this phase of curricular contention is that elements of what would later become the policy platform of the new government were presaged in each of the initiatives. What was more significant, however, was the emergence of a new curriculum that had at its heart the principle of integration (Soudien 2007: 85).

The Department of Education (1997c: 3) states that although the curriculum development should be guided by societal needs, it should be descriptive rather than prescriptive, as schools differ in context and learning needs and therefore need the scope to develop a curriculum that meets the needs of its learners and community.

The Department of Education (1997c: 7) further states that the outcomes-based approach has taken the requirements of learners experiencing barriers to learning and development into account in the process of developing learning programme guidelines. For learners who experience problems with the basic functions of reading, spelling, writing and calculations, alternative means of assessing will be provided to evaluate their true potential and their level of knowledge. The focus on demonstrations and alternative assessment methods, varying from complete exemption from all reading or writing inputs, to partial exemption by using tape recorders, amanuensis, etc., bears testimony to this paradigm shift.

Curriculum 2005 (C2005) was launched in March 1997 by the then Minister of Education, Professor Bhengu. It was described as a strategy for moving away from a racist, apartheid, rote-learning model of learning and teaching to a liberating and nation-building, learner-centred and outcomes-based one. The flagship intended to bridge gaps and encompasses all the learners in one unified system for the first time. It was first introduced into schools in 1998 and reviewed in 2000 by the Ministerial Review Committee (DoE 2001b: 17). Following the recommendations of this committee in mid-

2000, Curriculum 2005 evolved into the draft Revised National Curriculum Statement (RNCS) for Grades R - 9. This curriculum aimed to equip learners with skills, which would ultimately enable them to contribute to, and participate in, an inclusive society. In order for the curriculum to provide learners with these skills, the Revised National Curriculum Statement Grades R - 9 builds on the vision and values of the Constitution and Curriculum 2005. The RNCS had the following principles:

- Social justice, a healthy environment, human rights and inclusivity
- Outcomes-based education, which considers the process of learning as important as the content
- A high level of skills and knowledge for all
- Clarity and accessibility (DoE 2002a: 10 - 12)

The National Curriculum Statement (NCS) Grades 10 - 12 (General) is sensitive to the issue of diversity; that is why it promoted human rights, inclusivity and environmental and social justice (Soudien 2007: 131)

It is further stated by Soudien (2007: 131) that the NCS Grades 10 - 12 (General) suggested that all learners should receive the necessary support so that they could be able to develop to their full potential. This could be reached through curriculum adaptations. An important commitment in the policy was also embodied under the heading ‘Valuing indigenous knowledge systems’.

Soudien (2007: 131-132) mentions that the principle of multiple intelligences made it possible to process information to make sense of the world. The NCS (Grades 10 - 12) acknowledged the rich history and heritage of our country. In 2010, the NCS (Grades 10 - 12) was later modified and called the Curriculum and Assessment Policy Statement (CAPS).

- **General aims of the South African Curriculum**

The Curriculum and Assessment Policy Statement (DBE 2011c: 4-5) states that:

(a) The National Curriculum Statement (Grades R - 12) promotes knowledge, skills and values which are needed by learners in their daily lives.

(b) The National Curriculum Statement (Grades R – 12) serves the purpose of:

- Equipping all learners with knowledge, skills and values in order to participate meaningfully in society
- There should be accessibility to higher education
- Making employment accessible to learners who have graduated from education institutions
- Making employers aware of the learners' capabilities

©The National Curriculum Statement (Grades R – 12) is based on the following principles:

- *Social transformation:*To provide quality of life for all
- *Active and critical learning*: Active participation for all learners
- *High knowledge and high skills:*Standards to be achieved should not be compromised
- *Progression:*Content should be at the learners' level and life experience
- *Human rights, inclusivity, environmental and social justice:*The rights of everyone should be considered with no discrimination whatsoever
- *Valuing indigenous knowledge systems:*Acknowledging the past as useful knowledge
- *Credibility, quality and efficiency:*Providing an education that is of a high quality and which can be compared to other countries

These principles imply that there is a need for curriculum adaptation for learners with learning impairments in the Foundation Phase. The next section will attempt to show how this curriculum development accommodates learners with learning impairments.

3.4 ACCOMMODATION OF LEARNERS WITH LEARNING IMPAIRMENTS

The White Paper 6 (DoE 2001b: 32) states that what needs to happen in all our educational institutions is quality education which is non-discriminatory and inclusive. It is further stated in the White Paper 6 (DoE 2001b: 33) that early identification of barriers to learning will be crucial so that learners who need support can be supported at an early stage. This can be done through curriculum adaptations. The following paragraph defines what curriculum adaptations are.

3.4.1 Curriculum adaptations

Curriculum adaptations refer to modifications that relate specifically to instruction or content of a curriculum and any adjustments to learning, teaching and assessment environment, assessment techniques, that enhance a learner's performance or allow at least partial participation in learning activity, structured learning programmes and assessment (DoE 2005: 9). Miller (2009: 466) adds by saying that adaptations involve changes to the curricular content, changes to the conceptual difficulty level of the curriculum or changes to the instructional objectives and methodology. Hewitt (2006: 270) on the other hand believes that curriculum adaptations imply actions at the classroom and teacher level. It is to take the curriculum and adjust it to fit the needs or to modify and use existing materials for insertion in a regular curriculum for very specialized reasons.

The National Curriculum Statement has several components that are flexible enough to allow for adaptations. Examples of these flexible features were:

- What the learners needed to achieve at the end of the learning process and what the learners should attain emphasized that learners should be active participants. This could be attained through learning – through -play (DoE 2002a: 14)

- What was to be taught and the teaching strategies thereof were not prescribed (DoE 2002a: 14)

- Activities could be flexible (DoE 2003a: 10)

- The context could be made relevant to the learners' needs (DoE 2003a: 10)

- More time could be provided for assessment and execution of a task (DoE 2003a: 11)

- Assessment strategies were flexible (DoE 2003a: 1)

- The phase- long plan could be differentiated (DoE 2003a: 2)

All aspects of the curriculum, as mentioned earlier, needed to be developed to ensure that the diverse needs of learners were addressed. While some of this could be done at national and provincial levels through legislation, teachers in collaboration with parents needed to take this further on a practical level to ensure that the needs of specific learners were met. Differentiation is part of CAPS. Following the definition of curriculum adaptations, the researcher will highlight some factors that inform curriculum adaptations.

3.4.1.1 Factors that influence curriculum adaptations

As mentioned in 3.2.5above, factors that inform curriculum adaptations are:

- Academic deficits
- Language deficits
- Social-emotional problems
- Attention Deficit Hyperactivity
- Memory deficits
- Cognitive deficits
- Meta-cognitive deficits

- Perceptual differences
- Motor skills and coordination problems

For adaptations to be done, it is not necessary for a learner to show all the above-mentioned manifestations of learning impairments. When a learner displays some of them, adapting the curriculum would result. After a learner has been identified as having one or more of these manifestations, there needs to be a process which will inform curriculum adaptations.

3.4.1.2 The processes that are followed in adapting the curriculum for learners with learning impairments

The approach advocated in White Paper 6 (DoE 2001b: 24) is basically different as it makes it clear that barriers do not reside primarily within the learner. The researcher wants to align herself with is advocated in the White Paper 6 (2001b: 24) as some barriers are extrinsic such as the systemic ones.

Smith *et al*. (2008: 257) believe that because of the difficulty in measuring some of the nebulous constructs included in the definition of learning impairments, the federal government in America has specified stronger criteria to assess and identify learners with learning impairments. Following are the minimum standards on identifying learning impairments**:**

- Multidisciplinary team: A group of individuals, including a classroom teacher, at least one individual qualified to perform diagnostic examinations of learners, and a learning disability specialist, is required to determine eligibility
- Observation: A learner must be observed by at least one member of the team in the general education classroom. The purpose of the observation is to document the manifestation of the disability in the classroom

Criteria for determining a learning impairment as outlined by Smith *et al*. (2008:142-143) and Hallahan and Kauffman (2006: 173):

- The team must determine the existence of a severe discrepancy between achievement and intellectual ability in one or more of the following areas: Reading skills, reading comprehension, mathematical calculations, mathematical reasoning, written expressions, oral expression and listening comprehension

- The team may not identify a learner as having learning impairments if the severe discrepancy between ability is primarily the result of a visual, hearing or motor handicap, mental retardation, emotional disturbance or economic disadvantage
- The team must document that appropriate learning opportunities have been provided
- A written report is required to provide information to document that each of the above criteria was met

Smith (2007: 174) mentions that the use of Intelligence Quotient (IQ)-achievement discrepancy model, which is a comparison between scores on standardized intelligence and achievement tests, which gives the identification process some appearance of objectivity and the results are easy for parents and teachers to understand. Fletcher *et al*. (2002) in Hallahan and Kauffman (2006: 173) mention that some authorities have objected to using an IQ-achievement discrepancy to identify learning impairments on other conceptual grounds. Hallahan and Kauffman (2006: 173) further state that some authorities have pointed out that IQ is not a very strong predictor of reading ability, furthermore, IQ scores of learners with learning impairments are subject to underestimation because a learner's performance on an IQ test is dependent on their reading ability to some extent**.**

On the basis of the above-mentioned criticisms of IQ-achievement discrepancy tests, researchers have proposed an alternative means of identifying learners with learning impairments. This is referred to as the responsiveness – to-intervention (RTI) model. The American Individual Disabilities Education Act (IDEA) describes this approach "as a process that determines if a learner responds to a scientific, research-based

intervention as a part of evaluation procedures" whereas the National Joint Committee on Learning Disabilities (NJCLD 2005) mentions that this model is based on the assumption that a learner without impairments will make satisfactory progress when given intensive, well-designed instruction (Hallahan and Kauffman2006: 174 and Smith *etal*.2008: 143).

The ways of determining a learning impairment involve the following components as outlined by Hallahan and Kauffman (2006: 174):

- Learners are provided with "generally effective" instruction by their classroom teachers
- Their progress is monitored
- Those who do not respond get something else or something more, from their teacher or someone else
- Again,their progress is monitored
- Those who still do not respond qualify for adaptations

On the one hand, Smith *et al*. (2008: 143) propose that research-supported instructional and behavioural supports are implemented for all general education learners and progress is monitored on an ongoing basis. Learners who lag behind peers in progress receive more individualized, intensive instruction with frequent monitoring to determine the needed adaptations. Parents should be notified and included in planning and monitoring at this stage.

The Individualized Education Programme (IEP) is central to ensuring that an appropriate education is provided to the learner with impairments. The IEP is a written document developed collaboratively among parents and school personnel. It is the learner's individualized programme plan that details services and goals related specifically to the learner's educational needs (Prater 2007: 24; Smith *et al*. 2008: 144; Raymond 2008: 70 and Turnbull *et al*. 2007:118-119).

On the other hand, the Department of Basic Education (DBE 2010: 68) suggests the following process as “the curriculum ladder as a strategy for adaptation”:

- Can the learner do the same activity as his peers?
- If the learner cannot do the same activity as his peer, he is given the same activity with adapted expectations
- If the learner cannot do the same activity with adapted expectations, he is given the same activity with adapted expectations and materials
- If the learner cannot do the same activity with adapted expectations and materials, he is given a similar activity with adapted expectations
- If the learner cannot do a similar activity with adapted expectations, he is given a similar activity with adapted material
- If the learner cannot do a similar activity with adapted material, he is given a parallel activity
- If the learner cannot do a parallel activity, he is given a parallel and functional activity with assistance

Herwitt (2006: 270) believes that adaptations as a process is not tied to a particular pattern or model. The researcher wants to align herself with Herwitt (2006: 270) as each learner is unique, there sould be no pattern tied for the process of adaptations. Adaptations should be done whenever it suits the learner’s needs and not the teacher’s needs.

As a Learning Support Advisor based in Thabo Mofutsanyana where the research has been conducted, considering all processes mentioned above, there is not even a single process followed in our schools. The adaptations would be for those learners identified by class teachers as having learning impairments or those learners who have been recommended by the Site Based Support Team (SBSTs) who would explain to referring teachers, after brainstorming that: e.g. some learners need lesser work/activities, more time than others, not necessarily mentioning the term ”adaptations”.

It is also difficult for the SBSTs to make such recommendations, as most of the SBSTs are dysfunctional let alone the DBST, which finds it difficult to meet and discuss referrals.That is why teachers in most cases identify and decide on interventions.At those schools where the SBSTs are functional, their problem when recommending adaptations is that, Subject Advisors (SAs) are not in favour of it as they see it as disadvantaging learners. The problem does not lie with the SAs alone, but also with the LSAs as most of them are not well conversant with the CAPS.

The other problem faced by the district officials on curriculum adaptations, is that, it is not clear whose responsibility it is, either the SAs or LSAs. It is stated in the White Paper 6 (DoE 2001b: 19) that in order to support teachers so that they can use good and differentiated teaching strategies, and to eliminate some of the systemic barriers the education support personnel will be trained. In actual fact, no training has been received by LSAs in good and differentiated teaching strategies.

Guidelines for inclusive learning programmes (DoE 2005) and Guidelines for Inclusive Teaching and Learning (DBE 2010) are there, but not for all schools and all personnel, only the full-service schools and resource centres know and have them. In South Africa there is a system called South African School Administration Management System (SASAMS) that in cooperates the National Strategy on Screening, Identification, Assessment and Support (SIAS) which is not even used in most schools in Thabo Mofutsanyana, as only a full-service school and resource centre personnel were trained in these skills.

The process normally followed by teachers when referring learners with learning disabilities is:

- The class teacher identifies the barrier
- The class teacher supports the learner who experiences the barrier
- If there is no progress, the teacher approaches the coordinator of the SBST for help

- The SBST coordinator assesses the problem and, if the need arises, calls a meeting of the SBST members and the case is discussed
- Team members suggest the intervention for the problem and the teacher is expected to go back to class and support the learner
- If the learner does not show any progress, the LSA is called in and further interventions are suggested
- If again the learner does not show any progress, a referral form is filled in and a learner is further referred to the DBST where the LSA then presents the case (Free State Department of Education 2007: 6 - 8)

The Individual Education Plan (IEP) or the Individual Support Plan (ISP) as referred to in the National Education Department, is something not considered in the Thabo Mofutsanyana District where the researcher is based as the Learning Support Advisor.

The following paragraphs highlight the teacher's role in adaptating the curriculum for learners with learning impairments.

3.4.1.3 The teacher's rolein curriculum adaptations

DoE (2001b: 19) in White Paper 6 states that the curriculum is the most significant barrier to learning.

Prater (2007: 232); Smith *et al.* (2008:168); Dettmer *et al*. (2009:245) and Miller (2009: 457) support the idea that curriculum adaptations refer to the adaptations in content, process and product. The following paragraphs highlight how the teacher can adapt the classroom management, the content, the process, the product and the grading for learners with learning impairments.

- **Classroom management**

Classroom management according to Eggen and Kauchak (2007: 371) means teachers' strategies that create and maintain an orderly learning environment through developing learner responsibility; creating positive classroom climate and maximizing opportunities for learning. Emmer and Stough (2001) and Jones (2005) in Eggen and Kauchak (2007: 371) mention that developing learner responsibility requires a cognitive approach to management, an approach that emphasizes the creation of an orderly classroom through the development of learner understanding.

Creating a positive classroom environment is an essential component of a productive learning environment (Brown 2004 and Emmer and Stough 2001 in Eggen and Kauchak 2007: 372).When the climate is positive, both the teacher and the learner demonstrate mutual respect and courtesy, and everyone feels safe to express thoughts and opinions without fear of embarrassment or ridicule. An essential element of a positive classroom environment is a caring teacher who communicates respect and concern for others (Certo, Cauley and Chafen 2002 and Davis 2003 in Eggen and Kauchak2007: 372).
Weinstein and Mignano (2005) in Eggen and Kauchak (2007: 372) mention that the class management goal is to maximize the amount of time learners spend learning, meaning that time needs to be divided in the following manner:

- Allocated time: The amount of time a teacher or school designates for a content area or topic
- Instructional time: The amount left for teaching after routine management and administrative tasks are complete
- Engaged time: The amount of time learners are actively involved in learning activities
- Academic learning time: The amounts of time learners are actively involved in learning activities during which they are successful

The learning environment includes the physical outlay of the classroom; the number and grouping of learners as well as other physical environment elements such as temperature; time of the day; light and noise (Prater (2007: 238). On the other hand,

Dettmer *et al*. (2009: 244) suggest that learners should be seated according to attention or sensory need andlearners need to be removed from distractions.

The physical arrangement of the classroom and the management of space for group, paired, and individual activities should be provided. How can content be adapted? This is going to be briefly discussed in the next paragraphs.

- **Content adaptation**

Content adaptation refers to adapting what is taught as well as adapting how learners are given access to what they need to learn. Adapting what is taught may include a completely different curriculum (substituting curriculum) or an adaptation in curricular goals (alternative goals). Content changes may also involve the amount or difficulty level of the work to be achieved. One strategy for dealing with content accommodation is to select the core concepts each learner must master (Dettmer*et al.* 2009: 244; DoE 2005: 34; Smith 2007: 182; Smith *et al*. 2008:168 and Miller 2009:457).

Prater (2007: 237-238); Dettmer *et al*. (2009: 250-251) and the DoE (2005: 34) believe that text materials can be adapted by using voice- recorded materials; DVDs; simplified versions of the classroom text; changing the modality of text input, usually reading it aloud or on audio file; allowing a peer to read a text to a learner and decreasing the amount or density of content (such adaptations include selecting another text with similar content by using easier vocabulary, highlighting key concepts, omitting unnecessary or distracting parts of context, or writing abridged versions of text). Content could also be adapted by adding definitions of key terms; adding interest to important content and adding cues, signals and questions.

The following will serve as examples of content adaptations as mentioned by Prater (2007: 231).

- Size: The amount of content the learner is expected to learn – number of vocabulary or spelling words to be learned at one time

- Difficulty: The difficulty level of a skill or activity – Allowing a learner to use a calculator. Simplifying directions

- Alternate goals: Adapting the outcomes expectations for learners while using the same materials – Adapting the outcome of matching states and capitals to recognizing state names

- Substitute curriculum: Using different instruction and materials to meet the learner's goal – providing lower-vocabulary reading materials

How the process can be adapted is discussed briefly in the following paragraph.

- **Process adaptation**

Prater (2007:238) states that process adaptation centers on how the content will be taught and learned. Process accommodations involve how the teacher instructs; how much support is provided to the learner; how much time is allotted to instruction; the degree of sophistication of the instruction and teachers' various activities and strategies needed by the individual learner.

According to Dettmer *et al*. (2009: 244) the following are examples of adapting the process:

- Use a multisensory approach for presenting materials
- Provide a written copy of material on the chalkboard
- Demonstrate skills before a learner does seated work
- Mark the material that must be mastered
- Reduce the amount of material on paper
- Decrease the pace of instruction
- Have a learner follow text while listening to arecorded version

The following paragraph highlights how instruction can be adapted for learners with learning impairments.

- **Adapting Instruction**

Prater (2007:237) suggests that the instructional needs of learners with learning impairments vary. The possible types of instructional adaptations are limited but include categories such as the manner in which instruction occurs (e.g. cooperative learning groups versus direct instruction) and the modality of instruction (e.g. visual, auditory). Dettmer *et al*. (2009: 244) as well as Nieman and Monyai (2006: 70) concur with Prater (2007: 237) by mentioning that adapting instructional strategies, teachers can use concrete objects to demonstrate concepts and use voice changes to stress points and repeat important information.

Prater (2007: 237);Smith *et al*. (2008: 168)and Miller(2009: 457) point out by adding that the amount of time needs to be adapted (change the amount of time allowed for learning; change amount of time for completing activities) or support provided to the learner (change the amount of individual assistance) by arranging peer tutoring. On the other hand, Gibson and Blandford (2005:65) suggest that only one instruction should be given at a time. Gibson and Blandford (2005: 67) also mention that instructions should be available orally, visually and in writing,

The following are examples of instructional adaptations as mentioned by Prater (2007: 231):

- Input:The manner in which instruction is delivered – Visual or auditory prompts; hands-on projects; discussion or lecture; and additional structure to the lesson
- Level of support:Personal assistance such as peer educator, additional materials such as manipulatives, visual aids, audio books
- Time:The amount of time allowed for completing learning – decreasing the pace of instruction

TheWhite Paper 6 (DoE, 2001b: 18) states that in mainstream education, differentiated teaching strategies should be prioritized so that learners can access the curriculum. For the teacher to see whether teaching and learning was effective, learners need to be assessed.The assessment could be done in different ways. Thefollowing paragraph mentions some adaptations to the product.

- **Adapting the product**

Product refers to the manner in which the learner will be evaluated in terms of depth, amount or independence of products usually in the form of tests, projects, written work or oral presentation (Prater 2007: 232).

Nieman and Monyai (2006: 70) and Dettmer *et al.* (2009: 244) suggest that the product can be adapted by the way in which a learner with learning impairments is allowed to respond to an instruction. Instead of writing down the answers, a learner is encouraged to answer verbally. By allowing a learner to speak answers into a voice recorder rather than writing responses (Miller 2009: 457) and allowing recorded or written reports instead of oral (Smith *et al*. 2008:168 and Dettmer *et al.* 2009: 244). The other aspects which could be used for adaptations as recommended by the Department of Education(2002b: 16) are amanuensis (reader and scribe), multiple choice and short questions in preference to long answer questions.

The Department of Education (2011b: 22) emphasizes that the minimum requirements for achieving grades may not be compromised. However, within a flexible learner – based and learner – paced approached to the curriculum, all learners could be enabled to achieve their full potential.

Gibson and Blandford (2005: 65) indicate that extra time should be given to a learner with learning impairments. Dettmer *et al*. (2009: 237) alsoindicate that outcomes need to be adapted by reducing the number of practice problems, questions or highlighted text. In short, the learners are expected to master most but not all of the content.

Learners cannot learn without being given feedback to themselves and to their parents. This could be done through grading.

- **Grading**

Prater (2007:245) maintains that grading communicates information to learners and their parents about a learner's academic progress in the classroom. Munk and Bursuck (2001b) in Prater (2007: 245) state that assigning grades serves a number of purposes. That is, grades (1) summarize a learner's performance in grade-level curriculum, (2) reflect a learner's effort and work habits, (3) reflect progress towards outcomes and (4) reveal strengths and weaknesses. Dettimer *et al*. (2009:244) fully concur with Munk and Bursuck (2001b) in Prater (2007: 245) but add that grading should also changethe percentage required to progress. A learnerwith learning impairments need not be penalized for handwriting or spelling tests and lastly, the teacher should use the scoring templates and rubrics.
Prater (2007:246) mentions that grades can be adapted in the following ways:

- Adjust grade weights: Teachers can adjust the percent activities orproducts count toward a final grade

- Modify learning outcomes:When teachers write IEPs, they can specify the curriculum the learners will be expected to master and then include an explanation that the learner will be graded on mastery of the curriculum

- Modify the work programme: With a contract and a modified work programme, a learner with learning impairments can progress through grade material at a rate appropriate for the learner's skills and abilities

- Grade improved performance:Teachers can track learner's performance and award extra points for improvement in academic and self-management behaviours

- Add written comments:To minimize confusion and misperception, teachers can write comments on report cards to clarify their grading criteria
- Grade products and performance:In addition to a letter or number of grade, teachers can give learners' grades for effort and progress made during the term

- Assign pass or fail grades:Although learners with learning impairments rated many grade adaptations as unfair, in one survey, low achievers felt a pass or fail grading system was less judgmental than number or letter grades. In order to implement a pass or fail grading system, theteacher would have to determine the criteria of passing the class and communicate the criteria to the learner

- Use checklists:The teacher can develop a competency checklist from the learner's IEP outcomes and assessment standards and attach the checklist to the learners' report card. Checklists can allow the learner and the parents to see which skills the learner mastered during the term, for example, mathematics, facts, grammar, addition and subtraction procedures etc.

The Department of Education (2011b: 13) refers to grades as national codes and or achievement levels and or promkotion requirementswhich determines whether the the learner has been promoted, progressed or should be retained.

Learning should not be compromised for learners with learning impairments, so that they reach their full potential (DoE 1997c: 7, DoE 2011b).Teachers should ensure that classroom assessment practice is appropriate, varied and strategically suited to the diverse needs of learners. To achieve this, according to Swart and Pettipher (2007: 109 –110) individual learning and shared learning are in continual interaction. Focusing on either dimension in isolation is futile and will not bring about 'deep' or sustainable change. It is therefore evident that learning should be the focus of all activities of individuals and systems in the inclusive school to ensure deep-level change.

Considering the format in which the task is presented, e.g. the tables, illustrations, etc., a range of teaching and learning strategies can be followed to make these accessible to learners with learningimpairments.

3.4.1.4 Teaching strategies that are used to adapt the curriculum for learners with learning impairments and learning strategies that are used after the curriculum has been adapted for learners with learning impairments

Vaughn *et al*. (2007: 72) argue that no one approach or technique is appropriate for all learners with learning impairments because learners with learning impairments are so diverse. Elbaum, Vaughn, Hughes, and Moody (1999) in Vaughn *et al*. (2007: 72) state that in the last five years, researchers have analyzed data that provides us with a good indication of the best practices for learners with impairments. For example, whole class, large groups, small groups, pairs and one-on-one.

A learning strategy can be defined as “an individual’s approach to a learning task. A strategy can also be definedas how a person thinks and acts when planning, executing and evaluating performance on the task and its outcomes” (Deshler and Lenz 1989: 205 in Heward 2009: 203). These definitions imply that every learner is unique, and teachers should bear that in mind when planning their teaching (teaching strategies) and when planning the learners’ task and evaluating performance.

The following paragraphs highlight different teaching and learning strategies as some of them are intertwined.

(a) Multilevel Instruction

Multilevel instruction and assessment is important as it will benefit learners with learning impairments. Adaptations should also play an important role. At the beginning of the year, learners should be assessed in order to establish the nature and extent of barriers experienced by them. The results thereof would enable teachers to establish the current level of performance of all learners. Ongoing diagnostic assessment should also be conducted in order to determine how each lesson can be differentiated and adapted.

This will also inform necessary interventions (DoE 2005a: 32 and Vaughn *et al.* 2007: 78).

Miller (2009: 468) concurs with the DoE (2005a: 32 and Vaughn *et al,* 2007: 78) by saying that multilevel instruction is an approach to teaching that engages all learners in the class in the same curricular areas but with differing outcomes and varying levels of difficulty. Miller (2009: 468) further states that multilevel instruction is based on the assumption that one lesson is taught to the whole class and that all learners engage in the lesson but in different ways. The teacher plans for all learners within the context of the single lesson. Miller (2009: 468) recommends a four-step process for developing lessons:

- Step 1

Identify underlying concepts to be taught. Kim *et al*. (2004) and Slavin (2000) in Vaughn *et al*. (2007: 74) suggest that learners with learning impairments are more successful when they have a good idea of where they are going, thus, being given activities that orientate them to the task and the materials. Friend and Bursuck (2006: 322-323) suggest that identifying major topics and activities; presenting an outline of the content; providing background information; stating concepts and ideas to be learned in the lesson; motivating learners by showing the relevance of the activity and stating the outcomes of the lesson can benefit learners with learning impairments.

- Step 2

Identify various methods that can be used to present the identified concepts – for example, integrating visual, auditory and hands-on activities into the lesson. Additionally, differing levels of questioning can be used. Vaughn *et al.* (2007: 78) argue that learners with learning impairments may have difficulty processing information when it is presented in only one way. In order to assist these learners, it is important to present the information in multiple ways.

Friend and Bursuck (2006: 329) identify the following concept as an example: Vehicle: A method of transportation that takes a person from one location to another. This

definition uses a number of words that grade three learners might not know. Instead, a simpler definition those younger learners can understand needs to be considered: Vehicle: An object that takes you from place to place. If the teacher was teaching a vehicle using a definition, he/she might say:

> A vehicle is an object that takes you from place to place. What is a vehicle? (Point a picture of a car). This is a car. It is an object that takes you from place to place. It is a vehicle.

- Step 3

Provide a variety of methods for learner practice. Different instructional materials and methods of practice can be used to facilitate the learner's learning. The assessment standards and level of difficulty of the practice can vary depending on the learner's interest, needs and abilities. Gerstein and Baker (2001) and Graham and Harris (2003) in Vaughn *et al*. (2007: 78) state that allowing learners to demonstrate their learning in multiple ways is also important. The majority of learners with learning impairments have writing problems that persist over time. Raymond (2008: 74) suggests that access to learning is enhanced by flexible means for learner expression or demonstration of competences, including practices that reduce motoric and cognitive barriers.

- Step 4

Make decisions about evaluation methods.The methods of evaluation should be based on individual ability levels and should closely match the method used for practice. Hallahan *et al.* (2009: 213) mention that the most common adaptations for learners with learning impairments are extended time and small group setting administration. Some learners with learning impairments also receive adaptations such as dividing the assessment into multiple sessions and individual assessment. These adaptations are typically standard and do not alter the scoring of the test. Learners with learning impairments may also receive adaptations that are considered nonstandard and affect the scoring of the assessment. An example of a presentation adaptation for a learner with learning impairments is to have directions read aloud. If reading is not the construct

being assessed, the problems may also be read aloud. For example, on an assessment of mathematics, a learner may be able to have word problems read aloud.

Thus, multilevel teaching involves thinking about adaptations in four areas: concepts to be taught; methods of teaching the concepts; methods for the learner practice and methods of evaluation. For instance, by giving learners with learning impairments basic information, making learning visible, providing learners with extended practice, feedback and varying their method of evaluation, perhaps orally, instead of written responses.

Many teachers still tend to think that it is correct to use the 'one-size – fits-all' approach to teaching. In reality, all teachers are faced with a group of learners of which each and every one has his/her unique character, interests, styles and pace of learning and working. "One - size" does not fit all.

Hallahan and Kauffman (2006: 193) and Hallahan *et al*. (2009: 203) on the other hand identify four major instructional approaches to alleviating the academic problems of learners with learning impairments, namely: Cognitive training; content enhancement; direct instruction and peer tutoring. These approaches when used are often combined. The following paragraph highlights how cognitive training as a learning strategy can change thoughts or thought pattern of learners with learning impairments.

(b) Cognitive training

According to Hallahan and Kauffman (2006:19) and Hallahan *et al*. (2009:203) cognitive training is a group of training procedures designed to change thoughts or thought patterns. For example, there are four types of cognitive training strategies, namely, self - instruction, self - monitoring, scaffold - instruction and reciprocal teaching.

- **Self-instruction**

The purpose of self - instruction is to make learners aware of the various stages of problem - solving tasks while they are performing them and to bring behaviour under

verbal control. The five - step strategy that learners learned to use involved saying the problem aloud, looking for important words and cycling them, drawing pictures to explain what was happening, writing the math sentence and writing the answer. For example: Problem definition: "What do I have to do?" Planning: "How can I solve this problem?" Strategy use: "The five - step strategy will help me look for important words." Self - evaluation: "How am I doing?" Self-reinforcement:" Good job, I got it right" (Hallahan and Kauffman. 2006: 192 and Hallahan *et al*. 2009:203).

- **Self-monitoring**

Self-monitoring is a technique that requires learners to keep track of their own behaviour. For example, after working on several mathematics problems, the learner can check his or her answers and then record on a graph how many of the answers were correct. After several days, the learner and teacher have an observable record of the learner's progress (Hallahan and Kauffman 2006: 192 andHallahan*etal.*2009:203).

- **Scaffold instruction**

Scaffold instruction is a cognitive approach in which the teacher provides temporary structure or support while learners are learning a task; the support is gradually removed, as learners are able to perform the task independently. For example: The teacher models a three-step strategy for writing, saying the steps aloud: *Think,* who will read this, and why am I writing it? *Plan* what to say using a Topic sentence, Reasons, Examine reasons, and Ending (TREE). *Write and Say More*: While modeling the strategy, the learners and the teacher discuss various aspects of it and the learners gradually memorize the strategy and implement it on their own (Hallahan and Kauffman 2006: 192 and Hallahan et al. 2009: 204).

- **Reciprocal teaching**

Reciprocal teaching is a cognitive teaching strategy whereby the learner gradually assumes the role of co-instructor for brief periods; the teacher models four strategies for

the learners to use, namely, predicting, questioning, summarizing, and clarifying.For example: In reading, the teacher begins reading selections by having learners make predictions based on the story titles, headings or other appropriate passage features. In this way, learners are encouraged to activate background knowledge and information to set a purpose for reading. Teachers then foster practice of good questioning strategies by requiring learners to ask “teacher like” questions rather than fill – in – the – blank questions. In addition, if learners are unable to ask a question, the teacher might provide an appropriate question word as a prompt.

Summarizing strategies for learners include finding the main idea and supporting details and stating this information in their own words without looking at the text.Learners are told to look for a topic sentence or to give a name to a list of items as ways to identify the main idea.Finally, learners point out information that is unclear or unknown as they clarify new vocabulary, unfamiliar expressions or ambiguous information (Meese2001: 318 in Hallahan *et al*. 2009: 205). The following paragraph discusses content enhancement.

(c) Content enhancement

Content enhancement is a general term for a wide range of techniques teachers use to enhance the organization and delivery of curriculum content so that learners can better access, interact with, comprehend and retain that information (Hoch *et al*. 1999 and Lenz and Bulgren 1995 in Heward, 2009: 195). It is further stated in Heward (2009: 195) that there are four types of enhancements, which are often helpful to learners with learning impairments. These are: Graphic organizers; note taking; mnemonics and peer assisted learning strategies. These involve the pairing of highly structured tutoring sessions. Whereas Hallahan *etal.* (2009: 205) identify only two types, thus, graphic organizers and mnemonics.

- **Graphic organizers**

According to Meyen, Vergason and Whelan (1996) in Lee, Amos, Gragoudas, Lee, Shogren, Theoharis and Wehmeyer (2006: 200) graphic organizers are “visual displays teachers use to organize information in a manner that makes the information easier to understand and learn”. They involve efforts to structure information or arrange important aspects of a concept or topic into a pattern using graphic modalities (Bromley, Irwin-De Vitis and Modlo 1995 in Lee *et al.* 2006:201).

Hallahan *et al.* (2009: 205) write that graphic organizers are visual devices that employ lines, circles and boxes to organize information. These are hierarchic, cause/effect, compare/contrast and cyclic or linear sequences, whereas Dye (2000); Horton, Lovitt, and Bergerud (1990) and Ives (2007) in Heward (2009: 195) mention that graphic organizers are visual - spatial arrangements of information containing words or concepts connected graphically that learners can see meaningful hierarchical, comparative and sequential relationships.

Archer and Gleason (2004) in Friend and Bursuck (2006: 327) suggest the following five guidelines for constructing graphic organizers:

- Determine the critical content (for example, vocabulary, concepts, ideas, generalizations, events, details, facts) that the teacher wishes to teach to learners

- Organize the concepts into a concept map, a type of graphic organizer or visual representation that reflects the structure of the content, such as stories, feature analysis diagrams and timelines

- Design a completed map

- Create a partially completed map to be completed by learners during instruction

- Create a blank concept map for learners to use as a post reading or review exercise

- **Mnemonics**

The term mnemonic comes from the name of the Greek goddess of memory, Mnemosyne. Mnemosyne's name was derived from mnemon, meaning mindful. Today, a mnemonic refers to any memory-enhancing strategy. Mnemonic strategies are systematic procedures for enhancing memory by providing effective cues as a "cognitive cuing structure" such as word, sentence or picture devices (Hallahan and Kauffman 2006: 187). The word mnemonic refers to a word, sentence or picture device or technique for improving or strengthening memory (Belleza 1991; Lombardi and Butera 1998 in Lee *et al*. 2006: 202; Test and Ellis 2005 in Cole and Wasburn-Moses 2010: 18).

Test and Ellis (2005) in Cole and Wasburn-Moses (2010: 18) further state that mnemonics can be either teacher or learner- created. The three main types of mnemonics strategies are keyword, pegword and letter. Keyword mnemonics involve choosing words that sound like the word or words to be remembered and creating a visual representation. For example: Learners can picture a skateboard with two sets of two wheels each to recall the mathematics fact 2 x 2.

A pegword mnemonic uses words that are associated with specific numbers in order to help learners recall facts. An example would be "shoe" for "two" and "door" for "four" and create a story connecting two shoes with door to assist learners in remembering this fact

A letter mnemonic is perhaps the most common mnemonic strategy in which one word or phrase that starts with the same letter is made. An example of this strategy is: Please Excuse My Dear Aunt Sally (PEMDAS), for order of operation to an acronym. Using mnemonic strategies to help learners with memory problems remember curriculum content, the teacher transforms abstract information into a concrete picture that depicts the material in a more meaningful way (Hallahan and Kaufman 2006: 186; Heward 2007: 203 and Prater 2007: 237).

- **Peer Assisted Learning Strategy**

Fuchs and Fuchs (1998b) in Hallahan and Kauffman (2006: 196) mention that, in response to increasing learner academic diversity within general education settings, researchers at Vanderbilt University have developed a framework for instruction that results in increased individualization, higher levels of learner engagement and greater teacher accountability for learner learning. Smith (2007: 184) mentions that Peer-assisted learning strategies (PALS) are instructional approaches that use classmates as tutors who exchange the roles of coaches and players. PALS are used across a wide range of grade levels from pre-school through to secondary school to teach learners many different skills. For example: Pre-school learners have helped each other learn the core or foundation skills of reading (e.g. sound-symbols relationships, sight words). English Language Learners (ELLs) with learning disabilities have improved their reading comprehension and intermediate school learners have improved their skill in charting and graphing data.

(d) Direct Instruction

Hallahan and Kauffman (2006: 193); Friend and Bursuck (2006: 312); Vaughn *etal.* (2007: 74) and Hallahan *et al.* (2009: 208) maintain that direct instruction (DI) focuses on the details of the instructional process. Advocates of DI stress a systemic analysis of the concept to be taught, rather than an analysis of the characteristics of the learner. A critical component of DI is task analysis. Task analysis involves analysis of problems which is done by the teacher and afterwards by teaching learners to synthesize the task.

Direct instruction or explicit teaching is a set of teaching behaviours that have been validated through research for over two decades (Bickel and Bickel 1986; Brophy and Good 1986; Larrivee 1986; Rosenshine and Stevens 1986; in Raymond 2008: 77).

Referred to as direct instruction, explicit teaching or effective teaching principles, these behaviours include six instructional functions, namely:

- Reviewing and re - teaching as necessary
- Explicit presentation of new content by the teacher
- Guided initial practice
- Feedback and correction
- Independent practice and
- Weekly and monthly reviews to support maintenance (Rosenshine 1986 in Raymond 2008: 77)

It is further stated in Raymond (2008: 77) that Algozzine, Ysseldyke & Campbell (1994); Englert (1994); Levin and Long (1981) and Lloyd (1984) mention that, in general, research on direct instruction indicates that the teacher should play an active and direct role in the instructional process and should provide relevant practice and should verify that learning has occurred before moving on.

Direct instruction according to Eggen and Kauchak (2007: 423) refers to an instructional model designed to teach well-defined knowledge and skills that are needed for later learning. Examples of direct instruction as mentioned by Eggen and Kauchak (2007) are: Introduction and Review; developing understanding; guided practice and independent practice.

Introduction and Review: Teachers begin with a form of introductory focus and review previous work.

*Developing Understanding:*Teachers describe and model the skill or explain and present examples of the concept. Teachers emphasize understanding.

Guided Practice: Guided practice mean that learners practice the skills and identify additional examples of the concept and the teacher provides scaffolding.

Independent Practice: Learners practice the skills on their own. For example: This can also be done through peer tutoring (Eggen and Kauchak 2007: 423).

(e) Peer Tutoring

Hallahan *et al*. (2009: 206) and Smith (2007: 183) indicate that several types of peer tutoring arrangements have been used successfully with learners with learning impairments. Two examples are: Class wide peer tutoring (CWPT) where learners are taught by peers who are trained and supervised by the teacher; and peer assisted learning strategies (PALS), which involve the pairing of a higher performing learner with a lower performing learner, with the pairs then participating in highly structured tutoring sessions.

Kroeger and Kouche (2006: 6) mention that Fuchs*et al.*(2001) and Greenwood, Delquadri and Carta (1997) believe that class wide peer tutoring and peer assisted learning strategies address a common core of instructional learning strategies. Both methods for example, place significance on the development of reciprocal one – on - one relationship that challenges traditional one-way tutoring relationship.

According to Lemmer, Meier and van Wyk (2006: 103,104) peer tutoring is an effective method for providing individualized help to supplement large-group learning. It involves learners teaching other learners of similar age. Cooperative learning is another useful teaching strategy that teachers can use.

(f) Cooperative learning

Cooperative learning refers to a family of instructional practices characterized by the use of teams to support academic learning (Johnson *et al*. 1994 and Johnson and Johnson 1996 in Raymond 2008: 77). In cooperative learning, positive independence is fostered while individual accountability is retained. Instructional assessment standards are selected to include both academic content learning and group work skills.Attention is given to actively teaching and coaching the group work skills necessary for effective everyday adult functioning. The efficacyresearch on cooperative learning among learners in general is substantial and robust (Johnson *et al*. 1984 in Raymond 2008:78).

Eggen and Kauchak (2007: 431) define cooperative learning as a set of instructional models in which learners work in mixed-ability groups to reach specific learning and social interactive outcomes. For example:Student Teams Achievement Division (STAD), the independent practice phase of direct instruction is replaced with team study during which team members check and compare their answers. Team study is followed by quizzes and individual improvement points lead to team awards.
On the other hand, Putnam (2009: 82) believes that cooperative learning involves learners working together in pairs or in small groups to achieve academic goals. Putnam (2009: 82) further states that researchers have demonstrated that cooperative learning produces high achievement, and positive social and psychological outcomes.

Woolfolk (2004: 494) writes that reciprocal questioning is another cooperative learning approach that can be used with a wide range of ages and subjects. It requires no special material or testing procedures. After a lesson or presentation by the teacher, learners work in pairs or triads to ask and answer questions about the material. The teacher provides question stems and then the learners are taught how to develop specific questions on the lesson material using the generic question stems. The learners create questions and then take turns asking and answering. How do curriculum adaptations benefit learners with learning impairments? The following paragraphs try to answer this question.

3.5 BENEFITS OF CURRICULUM ADAPTATION

Deshler, Schumacher, Harris and Graham (1999); Kame'enui and Simmons, (1999);Lenz, Deshler and Kissam(2003) and Scruggs and Mastropiere (2000) in Lee*et al.* (2006: 200-201) mention that curriculum adaptations are fundamental in efforts to promote progress in general curricular for learners with other disabilities, particularly, with learning impairments.

Vaughn *et al.* (2007: 77) believe that with the new technology and its increasing availability, more learners with reading, writing and mathematical disabilities are able to overcome their academic problems through the use of technologically based learning.

According to Eggen and Kauchak (2007: 461 - 462), assistive technology is a set of adaptive tools that support learners with learning disabilities in learning activities and daily life tasks. For example: Devices that enhance the keyboard, such as making it larger and easier to see, arranging the letters alphabetically to make them easier to find, or using pictures for non - readers are adaptations that accommodate impairments.

Vaughn *et al.* (2007: 77) further state that adjusting the workload by dividing it into smaller sections or tasks, a task can be made more manageable. Smith (2007: 182) concurs with Vaughn *et al* (2007) by emphasizing that those instructional materials and activities could be adjusted by breaking down tasks into smaller pieces (chunks) to help many learners with different types of learning needs.

Adapting the manner in which the learner demonstrates learning enables learners with learning impairments to be more successful. Smith (2007: 182) also mentions that tasks need to be made more interesting by developing attentionand by making assignments interesting. One other way is to vary the format of instruction and activities.

Researchers have studied mnemonics and learners with learning impairments in both laboratory settings (i.e., one – to - one with trained experimenters rather than classroom teachers) and classroom settings (Hallahan *et al*. 2009: 206). Findings for those studies revealed that the mnemonic keyword method resulted in increased recall of information; small groups of learners with impairments could be taught using a variety of mnemonic strategies over a period of days without diminishing the effectiveness of the specific mnemonics. Learners with learning impairments could be taught to create their own mnemonics and apply them successfully. Learners with behavioural disorders benefited from teacher-created mnemonics and were able to retain the information longer than learners who were not provided with mnemonics.

Mnemonics appeared to result in increased motivation, efficacy and willingness to learn (Mastropiere and Scruggs 1998 in Hallahan and Kauffman 2006: 188). Teaching learners with learning impairments how to organize and associate information, how to use mnemonic devices and key words and how to use rehearsal can help them

remember information. This idea is also advocated by Prater (2007:237); Hallahan *et al*. (2009: 206); Smith (2007: 185) and Heward (2009:199).

Graphic organizers are effective in enabling learners to assimilate new information. Flow charts, semantic maps, webs and Venn-diagrams are good examples of graphic organizers (Lee *et al.* 2006: 200). Friend and Bursuck (2006: 327) mention that when using graphic organizers, it would be easier for learners with learning impairments to remember several main ideas than to remember many isolated details. Using a concept map which learners fill out as the teacher presents the lesson is an excellent way to keep them on task. Many learners with learning impairments benefit from a multisensory approach; seeing the information on the graphic, hearing it from the teacher and writing it on the map helps them better retain the information presented.

The progammes named, peerassisted learning strategies (PALS) are based on research-proven best practices in reading, such as phonological awareness, decoding and comprehension, and activities. PALS are effective for learners with and without learning impairments at all grade levels (Fuchs, Fuchs, and Burish 2000 in Hallahan and Kaufman 2006: 196). The PALS instructional approaches multiply the opportunities for individualized instruction and the implementation of validated instructional tactics across the entire classes of learners (Smith 2007: 184).

Villa and Thousand (1998) in Raymond (2008: 79) believe that peer tutoring is frequently an effective way to increase the amount of individualized instructional attention. Improvement in learner learning is attributed to the increased opportunity for academic responding time coupled with immediate feedback. Peer support networks and “peer buddies” have also been associated with more effective social integration of learners with impairments. The purpose of these structured peer relationships is primarily non-academic. They provide an opportunity to support the development of social skills and social relationships among learners with and without impairments.

Smith (2007: 184) expresses the opinion that using classmates as teachers, frees the teacher to provide more intensive support to learners who need them most. The

procedures also actively involve learners in learning. Peer tutoring has consistently proved effective and boosting gains in learning.

Cooperative learning strategies according to Mastropiere and Scruggs (2004: 235) and Woolfolk (2004: 494) could be effective in addressing the academic, personal, social, racial and ethnic relation development in the inclusive classroom while costs are reduced. Eggen and Kauchak (2007: 433) mention that as learners work together, they do indeed find that they are much more alike than different.

In addition to using teaching strategies that benefit all learners in an inclusive classroom, teachers have to acknowledge that certain learners will still need planned and specific interventions to address the barrier to learning that they experience (Walton, Nel, Hugo and Muller 2009: 108).

3.6 CONCLUSION

Education White Paper 6 on Inclusive Education sets the tone for quality education for all learners in a unified education system.It moves from assessing learners merely for placement which went along with labeling, to assessing learners in order to determine the level of support needed by each learner. The focus is on curriculum adaptations which will facilitate the maximum participation of all learners. The following chapter broadly elaborates on the methodology the researcher used when conducting the research.

CHAPTER FOUR

RESEARCH METHODOLOGY

4.1 INTRODUCTION

Having alluded to learning impairments and curriculum adaptations in Chapter 3, this chapter highlights the research methodology for this study. This is a phenomenological study. A phenomenological study according to McMillan and Schumacher (2010: 24) describes the meanings of a lived experience. The researcher "brackets" or puts aside all prejudgments and collects data on how individuals make sense out of a particular experience or situation. Gay, Mills and Airasian (2009: 12) concur with McMillan and Schumacher (2010: 24) by stating that, in a phenomenological study, the experience of the participants in a particular concept is investigated.

McMillan and Schumacher (2010: 346) believe that the purpose of a phenomenological study is to describe and interpret the experiences of participants regarding a particular event in order to understand the meaning the participants ascribed to that event. This can be thought of as capturing the essence of the experience as perceived by the participants. This implies that the researcher, through the research methodology she applied, wanted to find out what meaning the participants made on curriculum adaptations through their experiences, though the researcher knew what curriculum adaptations for learners with learning impairments entailed.

Foundation Phase teachers were purposefully sampled as the researcher believed that they engaged in curriculum adaptations in their daily teaching as almost all learners in the foundation phase experiencedbarriers in one way or another. Another point, which the researcher focused on, was the schools where teachers normally referred learners to Site Based Support Teams (SBST), which was a symbol for understanding learning disabilities.

The research methodology process examined the experience of each participant and recognized that those experiences had a relationship with the phenomenon (curriculum adaptations).

4.2 RESEARCH METHODOLOGY AND DESIGN

Research methodology according to Henning, van Rensburg and Smit (2004:36) is more than a collection of methods, and the so-called “methodology chapters” in dissertations were not so much about setting out methods, but about reasoning what their value in a study was and why they had been chosen – using the rich literature on methodology to inform the argument. Babbie and Mouton (2001: 75) in Henning *et al*. (2004: 36) say, “[research] methodology focuses on the process and the kinds of tools and procedures used”. Henning *et al*. (2004: 36) further state that there was a distinction between the term “methods” and the term “methodology”. The latter, “methodology”, refers to the coherent group of methods that complement one another and that had the “goodness of fit” to deliver the data and findings that reflectthe research question and suit the research purpose. The research question in this study is what curriculum adaptations are, and the research purpose was to investigate the level of knowledge and skills of foundation phase teachers on adapting curricula for learners with learning impairments.

Leedy and Ormrod (2010:12) viewed the research methodology as the general approach the researcher took in carrying out the research project. To some extent, this approach dictated the particular tools the researcher selected. In this study, the researcher made use of the phenomenological method where semi-structured interviews, observations and field notes to collect data were utilized. The phenomenon that was studied was curriculum adaptations for foundation phase learners with learning impairments, where 20 teachers and 22 learners were interviewed and observed. Identified learners wereobserved and field notes were taken. The following paragraphs highlight the research design for this study.

4.2.1 Research design

Henning *et al*. (2004: 36) maintained that the research design looked towards what the end product was. Nieuwenhuis (2007c: 70) maintained that a research design was a plan, which moved from the underlying philosophical assumptions to specifying the selection of respondents, the data gathering techniquesused and the data analysis done. In this study, the researcher started first by selecting a sampleof teachers teaching in the foundation phase, in the Thabo Mofutsanyana Education District. The second aspect in planning was the data gathering techniques, which were the interviews, observations and field notes, and how data was going to be analyzed.

The following paragraphs highlight the qualitative research approach, which was followed by the researcher.

4.2.1.1 Qualitative research

Qualitative research as a research design is concerned with understanding the process and the social and cultural contexts which underlie various behavioural patterns and is mostly concerned with exploring the “why” questions of research. Qualitative research typically studies people or systems by interacting with and observing the participants in their natural environment and focusing on their meanings and interpretations (Holloway and Wheeler 1996 in Nieuwenhuis 2007b: 51).

Jansen (2007: 50) maintains that people often describe qualitative research as a research that attempts to collect rich descriptive data in respect of a particular phenomenon (curriculum adaptations) or context, with the intention of developing an understanding of what is being observed or studied. Jansen (2007: 50) further states that qualitative research therefore focuses on how individuals and groups view and understand the world and construct meaning out of their experiences. In this study, the researcher interviewed and observed individual teachers so as to find out what their understanding and experience on curriculum adaptations are.

Qualitative research according to McMillan (2012: 12) stresses a phenomenological model in which multiple realities are rooted in the subjects' perceptions. A focus on understanding and meaning is based on verbal narratives and observations rather than numbers. Qualitative research often takes place in naturally occurring situations, which are foundation phase classrooms in this study.

This implies that the research, which was conducted, focused on how teachers view and understand curriculum adaptations for learners with learning impairments. The following paragraphs highlight characteristics of qualitative research as outlined by different researchers.

- **Characteristics of qualitative research**

Characteristics of qualitative research as described by Leedy and Ormrod (2005: 95-97) are as follows:

- **Purpose**

Qualitative researchers seek a better understanding of complex situations. Their work is often exploratory in nature and they may use their observations to build theory from the ground up (Leedy and Ormrod 2005: 95). According to Creswell (2005) in Ivonkova, Creswell and Clark (2007: 257) the goal of qualitative research is to explore and understand a central phenomenon (curriculum adaptations), which is the concept or process explored in a qualitative research study.

McMillan and Schumacher (2010: 324) believe that historically, qualitative researchers cited two major purposes of a study, namely, to describe and explore and to describe and explain. In this study, the researcher describes and explains curriculum adaptations for learners with learning impairments in the Foundation Phase.

McMillan (2012: 18) concurs with Leedy and Ormrod (2005) by saying that the purpose of qualitative study is to provide rich narrative descriptions of phenomena that enhance understanding. On the other hand Gay, Mills and Airasian (2009: 14) think that the central focus of qualitative research is to provide an understanding of a social setting or activity as viewed from the perspective of the research participant. The researcher interviewed and observed teachers in the classrooms. This was done in order to gain information on the knowledge and skills foundation phase teachers had on the implementation of curriculum adaptations for learners with learning impairments.

- **Process**

Leedy and Ormrod (2005: 95) believe that the qualitative research process is more holistic and "emergent", with a specific focus, design, measuring instrument (e.g., interviews) and interpretations, developing and possibly changing along the way. Researchers enter the setting with open minds, prepared to immerse themselves in the complexity of the situation and interact with their participants. Categories (variables) emerge from the data, leading to "context-bound' information (cf. 5.4), and/or theories that help to explain the phenomenon under study (curriculum adaptations for learners with learning impairments in the foundation phase).

Gay and Airasian (2003: 169) indicate that the qualitative research process has five characteristics, namely:

- Real-world for the study: The sources of data for qualitative research are thereal-world situations and natural non-manipulated settings. In this study, these were: Teachers, learners and the classrooms

- Qualitative data is descriptive: Data in the form of interview notes, observations, records, documents and field notes are the basis for analysis and interpretation (cf. Chapter 5)

- The research emphasizes a holistic approach to the setting and participants: The research is immersed in the details and specifics of setting. It is the detailed recording of the processes occurring in the natural setting that provides the basis for understanding the setting, the participants and their interaction. The researcher recorded the interviews and observed teacher-learner interaction in the classroom

- Qualitative data is analyzed inductively: Patterns and relationships are developed from collecting or observing multiple specific instances. Thus, the qualitative researcher does not impose an organizing structure or make assumptions about the relationships between the various data prior to collecting evidence. As the data is analyzed, the researcher seeks specific pieces of data that can be generalized. He/she seeks to find patterns and common themes

- The researcher strives to describe meaning as seen from the perspectives of the research participants. The researcher and the "peer debriefer" described the meaning of the participants' responses (cf. 5.2.1.1, 5.2.2.1, 5.2.3.1, 5.2.4.1, 5,2,5,1, 5.2.6.1 and 5.2.7.1)

- **Data collection**

Leedy and Ormrod (2005: 95) mention that qualitative researchers operate under the assumption that reality is not easily divided into discrete, measurable variables. Qualitative researchers are often described as being the research instruments because the bulk of their data collection is dependent on their personal involvement (interviews and observations) in the setting. Rather than sample a large number of people with the intent of making generalizations. Qualitative research tends to select a few participants who best shed light on the phenomenon under investigation.

Gay and Airasian (2003: 197) concur with Leedy and Ormrod (2005: 95) by also stating that the most commonly used sources are observations and interviews. Each of the data types share one common aspect, namely, the researcher is the

primary source of data. Ivonkova *et al*. (2007: 257) state that qualitative data is collected from people immersed in the setting of everyday life in which the study is framed. The researcher serves as an instrument of data collection and asks the participants broad, open-ended questions to allow them to share their views about and experiences with the phenomenon (core curriculum adaptations). In this study, the researcher selected only 20 participants from the foundation phase. Interviews, field notes and observations were conducted to collect data.

- **Data analysis**

Literature on qualitative data analysis documents a range of approaches, processes and procedures whereby researchers extract some form of explanation, understanding or interpretation from the qualitative data collected from the people and situations that they are investigating. Nieuwenhuis (2007a: 99) argues that data analysis is usually based on an interpretative philosophy that is aimed at examining meaningful and symbol content of qualitative data. It tries to establish how participants make meaning of specific phenomenon (curriculum adaptations for learners with learning impairments in the foundation phase) by analyzing their perceptions, attitudes, understanding, knowledge, values, feelings and experiences in an attempt to approximate their construction of the phenomenon (curriculum adaptations). This is best achieved through a process of inductive analysis of qualitative data where the main purpose is to allow research findings to emerge from the frequent, dominant or significant themes inherent of raw data, without the restraints imposed by a more structured theoretical orientation.

Qualitative analysis is a relatively systematic process of coding, categorizing, and interpreting data to provide explanations of a single phenomenon of interest (curriculum adaptations for learners with learning impairments). Researchers negotiate permission to return to the field if necessary, to seek additional data and to validate emerging patterns. Most qualitative researchers have learned that there is no set of standard procedures for data analysis or for keeping track of

analyticalstrategies. Making sense of the data depends largely on the researcher's intellectual rigor and tolerance for tentativeness of interpretation until the analysis is completed (McMillan and Schumacher 2010: 367).

Gay *et al.* (2009: 449) share the same sentiments as McMillan and Schumacher (2010: 367) when coming to the process of data analysis, by stating that the process focuses on becoming familiar with the data and identifying potential themes; examining the data in depth to provide detailed descriptions of the setting, participants and activity; and categorizing and coding pieces of data and grouping them into themes.

- **Reporting findings**

Quantitative researchers construct interpretive narratives from their data and try to capture the complexity of the phenomenon under study (curriculum adaptations for learners with learning impairments in the foundation phase).They use a personal, literary style and they often include the participants' own language and perspectives. Although all researchers must be able to writeclearly, effective qualitative researchers must be especially skilled in this area (Leedy and Ormrod 2005:97).

Gay *et al*. (2009: 16) maintain that qualitative research reports include clear and detailed descriptions of the study that includes the voices of the participants. Gay *et al.* (2009:16) further state that the report also includes a description of the role of the researcher and his/her biases or preferences concerning the research topic or research processes.

McMillan and Schumacher (2010: 312 – 324) have outlined the following characteristics of qualitative research:

- **Natural Setting**

Qualitative research occurs naturally. There is no manipulation or control of behaviour or settings, nor, are there any externally imposed constraints. Rather, the setting is the actual classroom, school, clinic, or neighbourhood. This research was actually conducted in the classrooms, which are natural settings. Nieuwenhuis (2007c: 78-79) concurs with McMillan and Schumacher (2010: 321) by mentioning that qualitative research is based on a naturalistic approach that seeks to understand phenomena (curriculum adaptations for learners with learning impairments in the foundation phase) in context, and in general, the researcher does not attempt to manipulate the phenomenon of interest. In other words, research is carried out in real-life situations (classrooms) and not in an experimental situation.

- **Context sensitivity**

The situational context is very important in understanding behaviour. This is based on the belief that human actions are strongly influenced by settings in which they occur. Essentially, behaviour that does not take into account the context as is assumed to be incomplete. Nieuwenhuis (2007b: 59) concurs with McMillan and Schumacher (2010: 322) by saying that, placing people in their social contexts, there is a greater opportunity to understand the perceptions they have of their own activities.

- **Direct Data collection**

The investigator usually acts as an observer in the setting that is being studied, either as the interviewing observer or the person who studies artifacts and documents. Qualitative researchers want to have information directly from the source. They do this by spending time in direct interaction with the setting (McMillan and Schumacher 2010: 322).

Gay *et al.* (2009: 14) mention that qualitative data tends to be gathered from interviews, observations and artifacts. On the other hand, McMillan (2012: 13) mentions that in qualitative research, data is collected through multiple sources including verbal descriptions, field notes, observations, documents, photographs and narratives.

The researcher was the interviewing observer. She observed the interaction between teachers and learners, and among learners themselves. Time was also spent in direct interaction with the classroom setting. Teachers and learners were interviewed, and field notes were written.

- **Inductive data analysis**

McMillan and Schumacher (2010: 323) argue that qualitative researchers do not formulate hypotheses and gather data to prove or disprove them. Rather, the data is gathered first and then synthesized inductively to generate generalizations. The emphasis is on inductive reasoning. The process is like the flannel. In the beginning, the data may be unconnected and too extensive to make much sense, but as the researcher works with the data, progressively more specific findings are generated. Patton (2002: 41) suggests that the immersion in the details and specifics of the data is done in order to discover important patterns, themes and relationships. It begins by exploring, then confirming, whilst guided by analytical principles rather than rules, and it ends with a creative synthesis.

Qualitative data according to Gay *et al*. (2009: 16) are analyzed inductively. The qualitative researcher does not impose an organizing structure or make assumptions about the findings before collecting evidence. Rather, the researcher focuses on discovery and understanding, which requires flexibility in the research design. Gay *et al.* (2009:16) further state that as data is analyzed, the researcher seeks to find patterns, relations or common themes among the data.

McMillan (2012: 13) believes that data analysis in qualitative research is interpretive, inductive and ongoing. It searches for themes and it analyzes text.

The researcher started first by gathering data from 20 teachers and 22 learners, then data was sifted to make generalizations and specific findings were generated (cf.5.5). Even data which was irrelevant was also singled out, meaning that data which did not belong to a specific theme was also highlighted.

- **Participant perspectives**

McMillan and Schumacher (2010: 323) maintain that qualitative researchers try to reconstruct reality from the standpoint of participant perspectives, as the participants they are studying, see it. The goal in qualitative research is to understand participants from their own point of view. Creswell (2005) in Maree (2007: 28) concurs with McMillan and Schumacher (2010: 323) by mentioning that the goal of qualitative research is to explore and understand a central phenomenon, which is the concept exploited in a qualitative research study. The researcher on the other hand, tried to understand the participants' point of view by giving them a chance to explain and show their skills in adapting the curriculum for learners with learning impairments.

- **Complex understanding**

McMillan and Schumacher (2010: 324) mention that central to qualitative research is the belief that the world is complex and that there are few simple explanations for human behaviour. Behaviour results in the interaction of multiple factors. It follows then that, the methods that investigate behaviour, as well as the explanations, need to be sufficiently complex to capture the true meaning of what has occurred. These lead researchers to examine multiple perspectives.

Patton (2002: 41) believes that the whole phenomenon which is under study is understood as a complex system that is more than the sum of its parts. The focus is on complex interdependencies and system dynamics that cannotmeaningfully be reduced to a few discreet variables and linear, cause-effect relationships. The following paragraphs explain the sampling procedures that were undertaken in this study.

4.2.2 Sampling

The population for this study was 20 teachers teaching in the Foundation Phase and 22 learners in the Thabo Mofutsanyana Education District. Strydom and Delport (2002: 333-334) mention that sampling procedures have two major groups. The first is probability sampling that is based on randomization and non-probability sampling which does not include any type of random selection from a population.

Sampling according to Nieuwenhuis (2007a: 79) refers to the process used to select a portion of the population of study. Qualitative research is generally based on non-probability and purposive sampling rather than probability or random sampling approaches.

Leedy and Ormrod (2005: 199) mention that in probability sampling, the researcher can specify in advance that each segment of the population will be represented in the sample. Leedy and Ormrod (2005: 201 – 203) mention five types of probability sampling. They are: Simple random sampling; stratified random sampling; proportional stratified random sampling; cluster sampling and systematic sampling.

Whereas McMillan and Schumacher (2010: 129) believe that probability sampling is drawn from a larger population in such a way that the probability of selecting each member of the population is known. McMillan and Schumacher (2010: 136) instead state six examples of probability sampling, for example: Simple random sampling;

systematic random sampling; stratified random sampling; cluster sampling; proportional sampling and non-proportional sampling.

The second group is non-probability sampling that is done without randomization. McMillan and Schumacher (2010: 129) indicate that in non-probability sampling, the researcher has no way of guaranteeing that each element of the population will be represented in the sample.

Furthermore McMillan and Schumacher (2005: 206) mention that some members ofthe population have little or no chance of being sampled. There are three types of non - probability sampling mentioned by McMillan and Schumacher (2005: 206). These are: Convenience sampling (also known as accidental sampling); quota sampling and purposeful sampling. Convenience sampling is, for instance, those that arrive on the scene by mere coincidence. Quota sampling is a variation of convenience sampling. It selects respondents in the same proportions that they are found in the general population, but not in a random fashion.In purposeful sampling, people or other units are chosen for a particular purpose.

- **Convenience or accidental sampling**

In convenience or accidental sampling, there is no pretence of identifying a representative subset of a population. It takes people of other units that are readily available (McMillan and Schumacher 2005: 206). On the other hand McMillan (2012: 138) maintains that in convenient or available sampling, a group of subjects is selected on the basis of being accessible or expedient.

- **Quota sampling**

McMillan and Schumacher (2005: 206) believe that quota sampling is a variation of convenience sampling. It selects respondents in the same proportion that they are found in the general population, but not in a random fashion. Quota sampling,

according to McMillan and Schumacher (2012: 138), is used when a researcher is unable to take a probability sample, but is still able to select subjects on the basis of characteristics of the population.

- **Purposeful sampling**

McMillan and Schumacher (2005: 206) mention that in purposeful sampling people or other units are chosen for a particular purpose. For instance, foundation phase teachers were chosen as the researcher believed that they have knowledge on curriculum adaptations for learners with learning impairments. McMillan (2012: 138) believes that in purposeful or purposive sampling, the researcher selects particular elements from the population that will be representative or informative about the topic of interest.

The researcher chose purposeful sampling for the study, as only foundation phase teachers were sampled in order to investigate their knowledge and skills on the implementation of curriculum adaptations for learners with learning impairments. Why purposeful sampling? The following paragraph highlights why the researcher chose purposeful sampling to select the participants for this study.

4.2.2.1 Purposeful sampling

In purposeful sampling, a particular case is chosen because it illustrates some features of a process that is of interest for a particular study. In purposeful sampling, the researcher must first think critically about the parameters of the population and then choose the sample case accordingly. Clear identification and formulation of criteria for the selection of the respondents are therefore of cardinal importance (Strydom and Delport 2002: 334-335).

Purposive sampling simply means that participants are selected because of some defining characteristic that make them holders of the data needed for the study

(Merriam 1998; Le Compte and Preissle 1993; Marshall and Rossman 1995 in Henning *et al*. 2004:71). For this study, only 20 foundation phase teachers were sampled and not only on the basis of teaching in the foundationphase but also on the basis that they were knowledgeable about curriculumadaptations for learners with learning impairments and 22 learners who were identified by their teachers as experiencing barriers to learning and development.

The following section highlights different methods that were used to collect data.

4.2.3 Data collection

Regardless of the kinds of data involved, data collection in a qualitative study takes a great deal of time. The researcher should record any potentially useful data thoroughly, accurately and systematically, using field notes, audiorecordings, sketches, photographs or any other suitable means (Leedy and Ormrod 2005: 143). Various data collection instruments are utilized in both qualitative and quantitative research, such as interviews, observations, questionnaires, etc.

The researcher decided to use semi-structured interviews as the questions and order of presentation were determined, as well as observation of both the teachers' presentations and the learners' engagement and field notes. During interviews, the researcher wrote each response verbatim.When observing, the researcher had no preformedfocus, the intent was to record and study behaviour as it normally occurred. Field notes were also written where the researcher wrote in her impressions on the observations. What was heard was also written. The following paragraphs explain how the researcher conducted interviews.

4.2.3.1 Interviews

An interview is a purposeful interaction in which one person obtains information from another. Interviews permit researchers to obtain important data they cannot acquire

from observation alone, although paring observations and interviews provides a valuable way to gather complementary data (Gay *et al.* 2009: 370).

Nieuwenhuis (2007c: 87) provides the following definition of interviews: "An interview is a two-way conversation in which the interviewer asks participants questions in order to collect data and to learn about the ideas, beliefs, views, opinions and behaviours of the participants". Nieuwenhuis (2007c: 87) further states that the aim of qualitative interviews is to see the world through the eyes of the participants. Interviews can be a valuable source of information provided they are used correctly. The aim is always to obtain rich descriptive data that will help the researcher with the participant's construction of knowledge and social reality.

Fraenkel and Wallen (2010: 445) mention that interviewing is an important way for a researcher to check the accuracy of – to verify or refute - the impressions he/she has gained through observation. Fraenkel and Wallen (2010: 446) further state that the purpose of interviewing people is to find out what is on their minds – what they think or how they feel about something.

Semi-structured interviews generally last for a considerable amount of time and can become intense and evolved, depending on the particular topic (Greef, 2005: 297). Nieuwenhuis (2007c: 87) mentions that the semi-structured interview is commonly used in research projects to corroborate data emerging from other data sources. It seldom spans a long time period and usually requires the participants to answer a set of predetermined questions.It does allow for the probing and clarification of answers.

Participants were made to feel comfortable and at ease.Another important factor was that the researcher had a set of predetermined questions before hand. The interview schedule was also handed to participants and it was read aloud together. Participants were allowed to choose questions they wished to answer at specific stages. As the researcher had learnt the schedule in advance she was able to concentrate on what the participant was saying during the interview and was able to occasionally monitor the coverage of the scheduled topic. The researcher spent 30minutes with each participant.

Learners with learning impairments were also interviewed in order to find out whether they learned what they were taught. The interview lasted for five minutes with each learner.

Semi-structured interviews were selected to collect data from foundation phase teachers teaching in the public schools because they involved direct interaction between individuals, and this interaction had both advantages and disadvantages as compared to the questionnaire.

- **Advantages of interviews**

McMillan and Schumacher (2010: 206) argue that interviews have the following advantages:

- It helps to build a positive relationship between the interviewer and the respondent

- The interview technique is flexible and adaptable.

- It can be used with different problems and types of persons, such as those who are illiterate and too young to read and write. Responses can be probed, followed up, clarifiedand elaborated to achieve specific accurate responses

- Non-verbal as well as verbal behaviour can be noted in face – to- face interviews and the interviewer has an opportunity to motivate the respondent

- **Strengths of interviews**

Fraenkel and Wallen (2010: 447) indicate the following strengths of interviews:

- The outline increases the comprehensiveness of data and makes data collection somewhat systematic

- Logical gaps in data can be anticipated and closed

- Interviews remain fairly conversational and situational

Although interviews have advantages, they also have some disadvantages. Hence the following section highlights disadvantages of interviews.

- **Disadvantages of interviews**

McMillan and Schumacher (2010: 205-206) further highlight the disadvantages of interviews as follows:

- Interviews are potential for subjectivity and bias, higher cost and time-consuming

- Depending on the training and expertise of the interviewer, the respondent may be uncomfortable in the interview and unwilling to report true feelings

- The interviewer may ask leading questions to support a particular point of view

- The interviewer's perception of what was said may be inaccurate

- Anonymity is not possible

Furthermore, Fraenkel and Wallen (2010: 447) have mentioned the following weaknesses of interviews:

- Important salient topics may be inadvertently omitted

- Interviewer flexibility in sequencing and wording questions can result in substantially different responses from different perspectives, thus reducing the comparability of responses

As the researcher chose semi-structured interviews as one of the data collection strategies, the following paragraphs highlight how the semi-structured interviews were conducted.

- Recording interviews

Henning *et al*. (2004: 74) maintain that if possible, and if the interviewee has agreed to it, video recordings may be made. Technical assistants such as video recording personnel should then be selected in the same way as the researcher would have selected a co-researcher and should also be contractually bound not to disclose information of any kind. A participant needs to feel comfortable with whatever mode of recording is being used.

If possible and if permission is obtainable from the participants, the researcher should record interviews on tape or video. A tape recorder allows a much fuller record than notes taken during the interview. It also means that the researcher can concentrate on how the interview is proceeding and where to go next (Greef 2002: 304).

The researcher was determined to record the responses of the participants using avoice-recorder, but unfortunately all participants did not allow the researcher to do as planned. Instead of being recorded, detailed, “process notes” of the interviews were taken. As the researcher could not recall everything which transpired during the investigation, field notes had to be written as part of the data collection method.

- Field notes

The keen observations and important conversations one has in the field cannot be fully

utilized in a rigorous analysis of the data unless they are written down. The qualitative researcher's field notes or observation notes contain what was seen and heard by the researcher without interpretation. The participant observer's primary task is to record what happened without inferring feelings to the participants (Welman and Kruger 2002: 187).

Gay and Airasian (2003: 209) maintain that field notes are the records of what the observer has specifically seen or heard. Gay and Airasian (2003:209) further state that field notes contain personal reactions or what the observer has experienced and thought about during an observation period.

Hinckley (2005) in Maree and van der Westhuizen (2007: 295) believes that the researcher will utilize field notes in conjunction with a reflective diary during the research process. Field notes will contain descriptions of the researcher's reflections regarding conversations, interviews and moments of confusion, intuitions and stimulation of new ideas during the study.

The researcher wrote whatever transpired in the field, thus, what was seen and heard was written in a notebook. The events were sequenced in the order they occurred. Having alluded to various data collection methods used by the researcher, it was imperative to highlight the way in which the collected data was analyzed. The following section describes observation as the second data collection instrument that was adopted in the study

4.2.3.2 Observation

Observation is the systemic process of recording the behavioural patterns of participants, objects and occurrences without necessarily questioning orcommunicating with them (Nieuwenhuis 2007c: 84).

Gay *et al.* (2009: 366) areof the opinion that observing is when a qualitative researcher obtains data by watching the participants. The emphasis during observation is on

understanding the natural environment as lived by participants, without altering or manipulating it.

The researcher observed 20 teachers and 22 learners, thus the presentation done by the teachers, the learners' engagement and the end product, everything which happened in the classrooms including the classroom management.Though the period was 40minutes, the observation time differed from one hour to one hour 20minutesas no time was stipulated for activities. The observation as part of collecting data for the research lasted for four months due to the number of schoolsand the distance to be travelled in order to collect data. The researcher did not study any documents that teachers have designed for curriculum adaptations as she thought that inclusivity was part of their daily lesson plans. Having alluded to various data collection methods used by the researcher, it is imperative to highlight the way in which the collected data was analyzed.

4.2.4 Data analysis

Qualitative data analysis is primarily an inductive process of organizing the data into categories and identifying patterns (relationships) among the categories. The outcomes of analyzing are thus, to make general statements about relationships and among categories by discovering patterns in the data (McMillan and Wergin 2006:96).

Qualitative data analysis according to Henning *et al*. (2004: 127) is an ongoing, emerging and interactive or non- linear process. Before one begins with an analysis, data is transcribed, which simply means that texts from interviews, observational notes or memos are typed into word-processing documents. These transcriptions are then analyzed either manually or with computer programs. This is done by organizing, reducing and describing data.

The central task during data analysis according to Creswell (1998) in Leedy and Ormrod (2010: 142) is to identify common themes in people's description of their experiences. After transcribing the interviews, the researcher typically takes the following steps:

- Identify statements that relate to the topic:The researcher separates relevant from irrelevant information from the interview and then breaks the relevant information into small segments (e.g., phrases or sentences) that each reflects a single specific thought

- Group statements into "meaning units":The researcher groups the segments into categories that reflect the various aspects ("meanings") of the phenomenon as it is experienced

- Seek divergent perspectives:The researcher looks for and considers the various ways in which different people experience the phenomenon

- Construct a composite:The researcher uses the various meanings identified to develop an overall descriptionof the phenomenon as people typically experience it

The researcher followed the following steps:

- By re-examining the content, semantic units such as paragraphs and phrases relevant to the questions were noted

- The researcher asked herself questions such as: Are the phrases relevant to the phenomenon (curriculum adaptations)? How does the implementation of curriculum adaptations benefit learners with learning impairments? Does it apply to the objectives of the study?

- The initial sifting and sorting through the data led to the following questions: What was the theme discussed in each unit? The theme was “curriculum adaptations for learners with learning impairments in the foundation phase”, which entailed the views of different teachers on curriculum adaptations; individual factors that inform curriculum adaptations; the process which informs curriculum adaptations; ways in which teachers apply curriculum adaptations; analyzing teaching strategies which are used to adapt the curriculum; analyzing learning strategies used once the the curriculum has been adapted for learners with learning impairments and the benefits of curriculum adaptations. This schematically delineated a number of segments representing topics

- Data was consolidated, which is the process of reading, thinking, trying to get interim topics, changing them when others were more suitably placed, checking them until every piece of data and meaningful information was categorized under various topics. Later, re-editing the topics and data until they were suitably placed. This was the most time-consuming activity and demanded the researcher’s full attention and judgment

- Data was then coded and the phases were listed in groupings under tentative topics that seem to fit together

- The researcher further evaluated the data for adequate confirmation and usefulness. The topics were developed into selected categories

- Data was displayed in an organized visual representation of information that allowed the researcher to draw conclusions

The paragraphs that follow highlight the process which was followed before the research was carried out.

4.3 PROCESS OF THE RESEARCH

A thorough literature review from different sources regarding the problem statement, aims, and objectives mentioned in the previous paragraphs was undertaken. An investigation was done on the level of the knowledge and skills foundation phase teachers have on curriculum adaptations for learners with learning impairments (cf.1.3).

Foundation phase teachers who participated in this study were identified, the project and procedures discussed with them. An application for conducting the research project was sent to the Free State Department of Education (cf. Addendum A). After the approval was granted (cf. Addendum B), letters were written to Principals requesting permission to conduct the research project at their schools (cf. Addendum C). The investigation was conducted with 20 teachers teaching in the foundation phase and 22 learners in the Thabo Mofutsanyana Education District who were purposefully selected.

An interview schedule was drawn up (cf. Addendum D). The researcher intended to use a voice-recorder whilst conducting interviews, but teachers were not happy about being recorded, and answers were written verbatim. The researcher also made use of an observation sheet to record learning during the process of curriculum adaptations (cf. Addendum E) and field notes were also taken. Data collected from teachers was followed by a detailed analysis. The following paragraphs highlight the status, the role, objectivity and trustworthiness of the researcher.

4.4 THE STATUS, ROLE, OBJECTIVITY AND TRUSTWORTHINESS OF THE RESEARCHER

At the time of this study, the researcher was 47 years old. The researcher is a female, a single parent of one daughter. At the time of the investigation, the researcher was the Learning Support Advisor. The researcher has been in this position for sixteen years and the experience gained in this position has given the researcher insight into

intervention procedures for learners with learning impairments in the foundation phase rather than retaining learners after school.

Before the research was conducted, the researcher first asked for permission from the Free State Department of Education to carry out the research. After the department had granted permission, the researcher compiled a letter to the principals, the interview schedule and the observation sheet.

The researcher's role included conducting semi-structured interviews,where only 20 teachers from the foundation phase in the public schools were interviewed. The researcher also observed the interaction between teachers and learners and among learners themselves. Twenty two learners with learning impairments were also observed. Field notes were taken. The researcher noted whether learners with learning impairments were participating and benefiting from curriculum adaptations. The observations were also written down.

It was necessary to check the assumption of the research study in terms of trustworthiness, this was done to verify that the researcher had conducted the research correctly and the process of the research was carried out efficiently. Participants were ensured that interviews would be confidential. The following section highlights the reliability and validity of the research.

4.5 RELIABILITY AND VALIDITY OF THE RESEARCH

In this section the researcher wanted to find out as per the research methodologies used whether in this study, data was indeed reliable and valid.

4.5.1 Reliability

Gay and Airasian (2003: 141) believe that reliability is the degree to which a test consistently measures whatever it is measuring. The researcher did not rely on one

data collection method. Interviews, observations, field notes and informal discussions yielded the information the researcher needed to gather.

Gay *et al.* (2009: 378) state that reliability is the degree to which the study data consistently measures whatever it measures. Gay *et al*. (2009: 378) further state that, although the term reliability is usually used to refer to instruments and tests in quantitative research, qualitative researchers can also consider reliability in their studies, in particular the reliability of the techniques they are using to gather data. Whereas, Fraenkel and Wallen (2010: 147) mention that reliability refers to the consistency of scores or answers from one administration of an instrument to another, and from one set of items to another.

Reliability according to McMillan (2012:137) is the extent to which participants' scores are free from error. In other words, reliability is the consistency of scores.

In order for the researcher to ensure that the semi-structured interview instrument was reliable, only the areas of interest were chosen and the questions and their order were predetermined.

The following section highlight the validity of the research conducted.

4.5.2 Validity

Babbie (2007: 146) mentions that validity refers to the extent to which an empirical measure adequately reflects the real meaning of the concept under consideration. In this study the concept under consideration is curriculum adaptations.

Fraenkel and Wallen (2010: 148) maintain that validity has been defined as referring to the appropriateness, correctness, meaningfulness, and usefulness of the specific inferences researchers make on the data they collect. Fraenkel and Wallen(2010: 148) further state that validity therefore, depends on the amount and type of evidence there

is to support the interpretations researchers wish to make concerning data they have collected. In this research, the researcher made use of interviews where 20 teachers and 22 learners were interviewed and observed and field notes written as the type of evidence.

Validity in qualitative research refers to the degree of congruence between the explanation of the phenomena and the realities of the world (McMillan and Schumacher 2010: 330). It is further stated by McMillan and Schumacher (2010: 330) that validity of qualitative designs is the degree towhich the interpretations have mutual meanings between the participants and the researcher.

Validity according to McMillan (2012:131) is defined as the degree to which an instrument measures what is says it measures or purports to measure. McMillan (2012:131) further states that validity is an overall evaluation of the extent to which theory and empirical evidence support interpretations that are implied in the given uses of scores.

Thus, the researcher wanted to investigate the level of knowledge and skills foundation phase teachers have on the implementation of curriculum adaptations for learners with learning impairments in the foundation phase in Thabo Mofutsanyana. All the questions which were asked were appropriate or suitable, as they all evolved from the phenomenon to be studied (curriculum adaptations).

In order to ensure validity, Gay *et al.* (2009: 376) maintain that a peer debriefer can be used in order to test one's growing insights through interactions with other professionals. For example: Identify a critical friend, colleague or significant other who is willing and able to help reflect on the research by listening, prompting and recording insights throughout the process.

McMillan and Schumacher (2010: 334) state that a peer debriefer is a disinterested colleague who discusses the researcher's preliminary analysis and next strategies.

Such discussion makes more explicit the tacit knowledge the inquirer has acquired. The peer debriefer also poses searching questions to help the researcher understand his/her own posture and its role in the inquiry.

A peer debriefer is also known as an external coder (Maree and van der Westhuizen 2007: 38). Maree and van der Westhuizen (2007:38) further state that qualitative research requires the use of various strategies to enhance validity, including obtaining the service of an external coder to verify the qualitative results.

The researcher also used a peer debriefer in order to ensure validity. The peer debriefer, who is a colleague, was willing to read all the participants' responses and come up with hisown interpretation thereof.

Due to unforeseen circumstances, the researcher had to be a translator, which compromised the richness of data as some Sotho words can have a different meaning depending on the context in which they have been used. The researcher was aware that teachers did not consider her as the researcher, but as their Learning Support Advisor who normally assisted them with intervention strategies for learners experiencing barriers to learning and development. The following paragraphs highlight the trustworthiness of the study.

4.5.3 Trustworthiness

Nieuwenhuis (2007c: 80) argues that it is generally accepted that engaging multiple methods of data collection, such as observation, interviews and documents analysis will lead to trustworthiness. In addition, involving several investigators or peer researchers to assist with the interpretation of the data could enhance trustworthiness. Gay *et al*. (2009:113) mention that trustworthiness of data collection may be addressed through the use of multiple data sources to address each of the research questions.

McMillan and Schumacher (2010: 379) argue that although gauging the trustworthiness of data is done at the time of each field experience and in reflex records, it is also important during pattern seeking. The researcher should select trustworthy evidence for pattern seeking by qualitatively assessing solicited versus unsolicited data, subtle influences among the people present in the setting, specific versus vague statements and the accuracy of the sources. Selecting trustworthy data also involves an awareness of the researcher's assumptions, predispositions and influence on the social situation.

The researcher used different methods of data collection, thus, interviews, observation and field notes. The peer debriefer was also utilized so as to assist with the interpretation of the data. The next paragraphs explain what transferability means. Can this particular study be transferable? The answer to this question will be given in the paragraphs to follow.

4.5.4 Transferability

Transferability is the alternative to external validity or generalization, in which the burden of demonstrating the applicability of one set of findings to another context rests more with the investigator who would make the transfer, than with the original investigator (Strydom and Delport 2002: 252). Gay *et al*. (2009: 375) mention that transferability is when descriptive, context-relevant statements are included so that someone hearing about or reading a report of the study can identify with the setting.

As this is a qualitative study, its findings cannot be generalized; hence the study will not have external validity. The researcher is not going to generalize the findings of the research. Triangulation has different meanings to different researchers. The following paragraphs highlight different meanings of triangulation.

4.5.5 Triangulation

Henning *et al*. (2004:103) state that it is not only in the use of a variety of data collecting

methods and sources, but also in the use of different approaches to “working the data” or building the interpretative text, that the strength of the inquiry is built. Henning *et al*. (2004: 103) further state that the word is recognized from its place in the methodological discourse, but have tried torefrain from using it for some time because it has limitations as a metaphor and it does not fit the methodology, which has more to do with “interpreting and sourcing in various ways” to build a complete picture or text than with calculating a position from three different vantage points.

Babbie (2007: 113) mentions that triangulation sometimes means the use of several different research methods to test the same findings. Nieuwenhuis (2007c: 80) thinks that triangulation is a traditional strategy for improving the validity and reliability of research or evaluation of findings, and that researchers involved with qualitative studies frequently use triangulation but fail to define the concept within the context and paradigm from which they operate. Without such clarification readers may become confused about what is meant by triangulation in a qualitative study.

The important fact is that Nieuwenhuis (2007c: 80) mentions that triangulation is the traditional strategy for improving the validity and reliability of research, but fails to tell the researcher what strategy to use in order to improve validity and reliability of the research. Gay *et al*. (2009: 377) state that triangulation is the process of using multiple methods, data collection strategies and data sources to obtain a more complete picture of what is being studied and to cross - check the information. McMillan and Schumacher (2010: 379) on the other hand suggest that researchers use triangulation, which is the cross-validation among data sources, data collection strategies, time periods and theoretical schemes. To find regularities in data, the researcher compares different sources, situations, and methods to see whether the same pattern keeps recurring. A theme of institutional collaboration could be cross - checked by comparing data found in artifact collections, informant interviews and field observations of project meetings.Researchers sense, however, that even though they directly observed, heard or recorded only one instance, for some types of analysis a single incident is meaningful.

On the other hand, Fraenkel and Wallen (2010: 452) believe that when a conclusion is supported by data collected from a number of different instruments, its validity is thereby enhanced, that kind of checking is often referred to as triangulation. The researcher triangulated data from three sources, namely, semi-structured interviews, observations and field notes.

As part of observations, learners were also interviewed in order to find out whether they learned what they were taught. The following paragraph highlights ethical considerations which were considered before the research was conducted.

4.6 ETHICAL CONSIDERATIONS

A written consent was obtained from the Free State Department of Education. A written request to conduct the research was forwarded to the principals and relevant teachers were informed that participation was voluntarily, and anonymity was ensured. It was also ensured that the study was designed in such a way that it reflects the current activities for specific grades.

4.7 CONCLUSION

The focus of this chapter has been on the research methodology and research design the researcher chose to gather information from participants. A qualitative research approach was used where its characteristics, advantages and disadvantages were also highlighted. The different methods of gathering data, thus, semi-structured interviews with its advantages and disadvantages, observation and fieldnotes were highlighted. The status, role, objectivity and trustworthiness of the researcher were also outlined. Furthermore, this chapter also explained how data was to be analyzed. The researcher tried to find quality criteria; by ensuring that only the areas of interest were chosen and questions were predetermined. To ensure validity, all questions were appropriate as they evolved from the phenomenon to be studied.Multiple methods of collecting data were used in order to address each of the research questions (trustworthiness).

The results could not be transferred, as this was a qualitative study. Triangulation was done through interviews, observations, and field notes. As no one could conduct any research at schools without getting permission from the relevant body in the Free State Department of Education, it was imperative for the researcher to obtain permission from the Free State Department of Education. An application letter for conducting research at Thabo Mofutsanyana Education District was forwarded to the Free State Department of Education. After approval was granted, application letters to the principals of the schools where the research was going to be conducted were also written. Confidentiality of the results and findings of the study was also assured. The observation in each class was scheduled to be 40minutes as per each period, but it differed from one hour to one hour 20minutes as learners were given more time up until the activities were completed.The time spent for learner interviews was five minutes and 30minutes for each teacher. The interviews and observations lasted for four months. The following chapter concentrates on the findings of the research.

CHAPTER 5

DATA PRESENTATION, ANALYSIS AND FINDINGS

5.1 INTRODUCTION

Leedy and Ormrod (2005:150) believe that there is usually no single “right” way to analyze the data in a qualitative study. Leedy and Ormrod (2005: 150) further state that the researcher begins with a larger body of information and must, through inductive reasoning, sort and categorize it and gradually boil it down to a small set of abstract, underlying themes. The researcher often determines the specific characteristics to be studied only after carefully scrutinizing the body of material in search of potentially meaningful characteristics to identify and count.

In this study, the researcher applied the inductive applied approach whereby the researcher identified chunks or units of meaning in the data.The following paragraphs present and analyze data that were collected in this study.

5.2 DATA PRESENTATION

In most qualitative research studies, the aim is to engage in research that probes for a deeper understanding of a phenomenon (curriculum adaptations) and not to search for causal relationships. Qualitative research sets out to penetrate the human understandings and constructions about it (Nieuwenhuis 2007c: 81). The researcher made use of different data collection methods (cf. 4.2.3) to make a complete picture of what had been studied. Following are the findings of the interviews, observations and field notes.

5.2.1 Data on Curriculum adaptations

The following was the research question:

What are curriculum adaptations?

The interview question to answer this research question is:

In your opinion, what are curriculum adaptations?

Responses:

P – A: It is reducing the content to be taught.

P – B: Ho ya ka nna mme. Nna ke otlwisisa hore ke ho fokotsa mosebetse oo o ofang bana bane ba hao.Thabo, ha ke mofe mosebetse o lekanang le wa bana ba bang, ho bane o dieha ho qeta. E…., mme maMzizi, wa tseba keng, Thabo ka nako enngwe oa makatsa. Hake mofile mosebetse wa Numeracy, ho bane yena o sebedisa di counters, o o etsa kaofela o tshwanang le wa ba bang. Ke bona eka o rata mosebtsi wa matsoho ha holo, nkare ho etsa, mme.

Translated version:

According to me, madam.It is reducing work/activities given to learners. As for Thabo, I normally don't give him the same amount of activities given to other learners, because he takes a long time before finishing what was given to him. Yes…. Ms Mzizi, you know what, sometimes Thabo is amazing, if given Numeracy activities, as he uses counters, he does the same activities as others. What I have recognized is that he is a tactile learner, madam.

P – C: According to nna, curriculum adapt the curriculum for learners with problems**.**

Translated version:

According to me, curriculum adapt, the curriculum for learners with problems.

P – D: Wa tseba keng mme, it is about lowering seo ke se rutang bana, le mokgwa oo ba tla nkarabang ka ona, feela nna ha ke kgothalletse hore ba arabe ka molomo.Ke batla ba ngole mme, ba ngole hle, ba seke ba bua feela, ba ngole.

Translated version:

You know what madam; it is about lowering the content and assessment. Personally, I don't condone learners answering verbally instead of writing the responses. I prefer that learners should write, they should write, not only speaking, but also writing.

P – E: Kuchaza ukusebenzisa izindlela eziningi ezingasetshenziswa ukusiza izingane ukuze zifinyelele ezingeni lazo ngokunciphisa umsebenzi, activities, nokwandisa isikhathi ngoba abanye ba slow.

Translated version:

It means, using different ways of assisting learners so that they can achieve, according to their levels, by reducing work, activities, and adding time as others are slow.

P - F: Is catering for learners' different needs, for example differentiated tasks.

P – G: When doing numeracy, I let them count and if there are those ke ba siileng morao, I will go back, ke ba rute hape, feela ke se ke sa ba ruti tsohle.Ke se ke ba ruta mosebetse oo ke nahanang hore o balekane.

Translated version:

When doing numeracy, I let them count and if there are those left behind, I will go back, and re-teach, but, reducing the content. Teaching them only what I think would be enough for them.

P – H: Ke hore, mosebetse wa bana o ke ke wa tshwana le wa bana ba bang ho ya ka kellello tsa bona, o unique, according to their levels mme maMzizi. O ya hopola mohlang o neng o re tshwaretse workshop, mme, o ne o re bana bana ba unique, jwale re tshwanela ho ba fa mosebetsi ho ya ka di levels tsa bona. O ya bona bana ba babedi ba neng ba dutse mona, in fact bane ba le seven, ba hlolehang, feela ke ne ke sala le bona everyday mme maMzizi, ke ya tseba hore ha ke ya tshwanela, a kere o ne o re ke discrimination, mme, feela e ile ya nthusa le bona ya ba thusa. Jwale mme, ke ne ke o jwetsa ka bana ba babedi, le bona ke ntse ke sala le bona, feela ona wa moshemane yena mathata a hae ke a lapeng jwale mme wa hae ha a batle hotla sekolong ho neng ke moromella. Mme maMzizi, ha nka kopa principal hore ke ye lapeng la bo ngwana enwa, na nka be ke entse phoso?

Translated version:

It means learners' activities cannot be the same for all of them, one needs to consider their knowledge, the learner is unique, according to their levels madam Mzizi. Do you still remember the day you conducted a workshop for us, you said every learner is unique, then, we have to give him orher activities according to his/her level. Have you seen the two learners seated next to my table, in fact they were seven they showed no progress. They remained with me after school Miss Mzizi. I know I shouldn't have done that because you said it was discrimination. Madam, that strategy helped me a lot, and it also assisted them (learners) a lot. Then madam, I was telling you about the two learners, I still remain with them after teaching time, but the boy has social problems and his mother doesn't to come to school. I have invited her several times but never

responded. Madam Mzizi, would it be correct if I can ask for permission from the principal so that I could go to this learner's parent?

P – I: Ke ka moo ke nyenyefatsang mosebetse oo ke o fang bana, nkare ka nako enngwe ho ya ka di level tsa bona. Le ho ba ekelletsa nako, mme, hore ba kgone ho qeta mosebetsi oo o ba fileng ona.

Translated version:

It is the way I reduce activities given to learners. What I can say is, sometimes according to their levels. Adding time, madam, so that they can finish activities given to them.

P – J: It is about work. Bana ba bang ba otlwisisang ha ke re – ba ngola di sentences – then – bana ba bang bona ba ngola mantswe feela. Ha e ba ke sa fose mme, ke ho fokotsa mosebetse oo o ba rutang ona, ho bane ha o ba ruta o mongata ha ba no utlwisisa a kere ba slow, jwale e kare ba dieha le ho utlwisisa. Feela he, e seng bona kaofela, jwale ba tshwarella ba bang.Hei! Mme, ho bima ho sebetsa hoya ka pace ya bana bana, Foundations for Learning le yona ke ena ka mona e re file hore ntho enngwe le enngwe re e etsa ka nako e kae. Jwale re maphathephathe.Ha o sa tseba le ho epha nako eo wena o e batlang for bona bana bana ba slow, feela mme, ho tla loka ha o tsebe hore ba thaba jwang ha ba nepile.

Translated version:

Some learners understand when I say – write sentences – then – others writewords only. If I'm not mistaken, it is reducing the content to be taught, because if you teach a lot of things, they cannot understand. But, not all of them, they delay others. Hei! Madam, its difficult to work according to the learners' pace. On the other hand, Foundations for Learning gave us time limit for whatever one needs to do, and now we are as busy as bees. One cannot even allocate time to assist slow learners, but

everything would be fine. You don't know how excited do they become when they have achieved.

P – K: It is giving learners more time to complete the task given, a kere mme.

P – L: Giving learners, mme, mosebetsi a sa tshwaneng o mong o le bonolo, o mong o sa tshwane ho ya ka hore ba jwang. A kere ba bang ba qeta ka speed mme, ha ba bang bona hei! Mme, ba nka nako pele ba qeta**.**

Translated version:

Giving learners, madam, different activities, some being easy, other activities being different depending on how learners are. You know some are fast madam, whilst others hei! Madam, they take a long time before completing.

P – M: Eya ke yona, e ya bo! eo ya hore, changing from higher level to lower level. A kere bana ba bang ha ba otlwisisi, mohlomong o ba phahametse, jwale o tlameha ho ya leveling ya bona, ba tlo kgona ho o otlwisisa, e bele o be slow ho bane ba bang ha ba tshware ka pele.

Translated version:

Yes, it is, it is bo!That one, meaning changing from high level to low level. Some learners do not understand, perhaps your level as an educator is too high,then you need to be at their level so that they can understand, and your teaching (pace) has to be slow because others take a long time to understand.

P – N: Ke nahana hore ke ho fihlella ngwana ka ho e kgetha, ho fihlella sepheo sa hae. Ka ho etsa di activities tse fapaneng.

Translated version:

I think that it is reaching out to a learner in a specific manner, to reach his/her goals, by differentiating activities.

P – O: Uku-accommodeyitha ingane, like, ukuriphitha, ukwehlisa izinga lomsebenzi, ukuya kwi level yakhe, - but, nakhona, ngithi angeke ngihlale ngilehlisile izinga ngasosonke isikhathi ngoba ngihlala ngipositive ukuthi uzobangcono.Njengabanye lapha kuleclass lami, bebengakhoni, kodwa ngenxa yokuthi bengilehlisile izinga ngiya ngepace yabo, hayi, sebefana nezinye nje izingane. Kodwa phela, uyazi ukuthi bangefane, yo! Kukhona nje engisabayekile ngoba noma ngikhuluma nabo, ngisaphindaphinda ngize ngibone ukuthi bayezwisisa ukuthi bafanele benzeni.Kodwa lokho kuphinde kungijabulise ngoba uma bezithola right, bajabula bafe, uyobabona bebonisa abanye.Ngisho ngithi bajabule onkabi.

Translated version:

Is to accommodate a learner, like repeating, reducing activities, to suit the learner's level, - but, I will never always keep on reducing activities because I always believe that the learner would end up performing better even if given the same activities. Some of the learners couldn't cope, but because of the reduction of activities and teaching according to their pace, they are now performing just like other learners. You know, they won't be the same. Yo! There are those who still need repetition. I repeat until I am satisfied that they really understand what isexpected of them. That also makes me happy because if they get activities correct, they become excited, and they'll be sharing with others. I'll be saying, "poor kids are excited".

P – P: I can say, it is, it is, a good and fair discrimination of learners who are heterogeneous.

P – Q: E, ke hore ke,…..is the inclusion of learners with learning problems in the classroom situation.

Translated version:

E, it means, is,… is the inclusion of learners with learning problems in the classroom.

P – R: We should not discriminate learners, when we teach them.

P – S: It is to enrich or reduce se curriculumung hore re kgone ho finyella bana, ke sepheo sa ho finyella bana.

Translated version:

It is to enrich or reduce what is entail in the curriculum so that we can reach learners, it aims at reaching learners.

P – T: E, e, e, e, eya bo! E bolela hore bana ha ba lekane ka bokgone kaofela, e ne, titjhere, o tla tlameha a e katametse ho bona a be le mosebetsi o sa tshwaneng ho akaretsa di potential tsa bona. Ke sa tsebe hore ke arabile hantle ho ya ka karabo yaka.

Translated version:

E, e, e, e, that's true. It means that learners are not equal, and the teacher mustgive learners different activities according to their potential. I am not sure whether did I answer correctly, considering my answer.

According to interview results, the following clusters were done:

5.2.1.1 Clustering of responses

Lowering content (lowering content, reducing content, lowering seo o se rutang bana, ho ruta bao ke ba siileng morao feela ke sa ba ruti tsohle, ho ruta mosebetsi oo ke nahanang hore o ba lekane).

Reducing activities (ukunciphisa umsebenzi, activities, ke ho nyenyefatsa mosebetsi oo ke ba fang ona, titjhere o tlameha a be le mosebetsi o sa tshwaneng ho ya ka di potential tsa bona).

Assessment (mokgwa oo ba tla nkarabang ka ona)

Methods of presentation (ukusebenzisa izindlela eziningi ezingasetshenziswa ukusiza izingane ukuze zifinyelele ezingeni lazo, catering for learners' different needs, mosebetsi o keke wa tshwana ho ya ka kelello tsa bana, enrich or reduce se curriculumung ho finyella bana, o tlameha a e katametse ho bana.)

Pace (o be slow, ngiye nge pace yabo).

Additional time (ukwengeza isikhathi, ho ekelletsa nako, giving learners more time).

Repetition

Significant other responses

Is a good and fair discrimination of learners who are heterogeneous.
It is the way learners can respond to questions.

Irrelevant information

Adapt the curriculum for learners with impairment.
Is the inclusion of learners with learning problems in the classroom situation.
We should not discriminate learners when we teach them.
Enrich content**.**

- **Interpretation by the researcher**

The majority of participants as per the number of responses, seven, said curriculum adaptations was lowering the content to be taught to learners. Four, said it was reducing the activities given to learners. Three said it was using different methods of presentation in order to reach all learners. Another three said it was giving learners with learning impairments additional time. Two mentioned that it was the teacher's pace when delivering instruction and other significant responses were: Curriculum adaptations were a good and fair discrimination of learners who were heterogeneous and it was a way in which learnerscould respond to questions. Three of the participants mentioned irrelevant answers**.**

- **Interpretation by the "peer debriefer"**

It was evident that the majority of interviewees did have knowledge of what curriculum adaptations were (17). Two interviewees confused inclusive education with curriculum adaptations. Three interviewees were totally not focused as they mentioned irrelevant answers. This was evident in the interviewees' responses, thus, one said "adapt the curriculum for learners with impairments". The second one said "is the inclusion of learners with learning problems in the classroom situation", she confused curriculum adaptations with inclusive education, and the third one said "we should not discriminate learners when we teach them".

5.2.2 Data on factors that influence curriculum adaptations for individual learners with learning impairments

The following was the research question:

What individual factors inform curriculum adaptations for learners with learning impairments?

The interview question to answer this research question is:

What factors inform curriculum adaptations for individual learners with learning impairments?

The responses:

P – A: Memory, sequencing, concentration or attention

P – B: Memory problems, learners who do not know medumo mme, ha ba kgone le ho bopa mantswe. Concentration, when e le kgutshwane.

Translated version:

Memory problems, learners who do not know sounds madam they cannot remember words. Concentration, if it is short.

P – C: Mona ke nkile how to identify them – learners who cannot hold a pen – omits other letters when writing, reverse letters for example b/d, n/u, etcetera, the learner who is unable to write in lines, others have problems in pronouncing some words.

Translated version:

I have considered how to identify them – learners who cannot hold a pen – omits other letters when writing, reverse letters for example, b/d, n/u, etcetera, the learner who is unableto write in lines, others have problems in pronouncing some words.

P – D: Memory problem – o mo jwetsa now, if you turn around, o lebetse. Tjo! Ba bang bona ba slow – le thinking ya bona e slow.

Translated version:

Memory problem – you tell him now, if you turn around, he has forgotten. Tjo! Others are slow – even their thinking is also slow.

P – E: Concentration, memory – short-term nelanguage nayo, uNomvula yena uhyperactive.

Translated version:

Concentration, memory – short-term and language, Nomvula is hyperactive.

P – F: Memory, concentration, hyperactivity, omission.

P – G: Not carrying instructions, no self-esteem – ha ba e tshepi, language, memory, le di fine-motor muscles tsa bona ho bane ha ba ngole hantle.

Translated version:

Not carrying instructions, no self-esteem –they are not confident, language, memory and fine-motor muscles as they struggle to write.

P – H: Ho nale ba memory mme. Hai! Hai! Hai! Le concentration, ba bang they cannot copy from the chalkboard, I don’t know hore ebe banale bothata ba mahlo na.

Translated version:

Th*ere are those with memory problems madam, Hai! Hai! Hai! Even concentration, others cannot copy from the chalkboard, I don't know whether are they are shortsighted*.

P – I: Language – mme, the tongue, e kare e potile hlakoreng le wrong.Le short - term memory ho bane ha o mmutsa ntho eo o e rutileng ka sebakanyana, o lebetse.

Translated version:

Language – madam, the tongue, it seems as if it is turning into the wrong direction. Even short-term memory because when you ask him something you have just taught – he has forgotten.

P – J: Copying from the chalkboard – ba bang ha ba tsebe di letters, ha o bitsa lentswe, o e ngolla lentswe le sile. Mohlomong o tloha a sa le otlwa hantle, ho discriminator, ke ka hoo ke tla ba isa leboteng ho re ba bale di letters.Ba bang e kare ha ba tsebe letho ho kopanya, jwale ka ha ha o ngotse lenswe "P-a-l-e-s-a", yena a tlameha ho lekopanya, ha a kgone.Ha e mong yena a sa tsebe ho ngola. Ba bang, mme, ba omitha ba e kenyetse di vowels tsa bona.

Translated version:

Copying from the chalkboard – some don't know letters, when dictating, the learner will write any word. Perhaps it is because he did not hear the word correctly to discriminate that is why I will take them to the wall where I have pasted letters so that they could read them. , it seems as if they cannot synthesize, for example, if one has written a word "P-a-l-e-s-a", and the learner is expected to synthesize, he is unable. The other one cannot even write. Others, madam, omit, and add their own vowels.

P – K: Eye-hand coordination, incorrect transcription and others are omitting vowels.

P – L: Motor skills, ha a kgone ho ngola hantle. Ho metjha, ha a kgone ho identifaya di similarities. Ha a kgone le ho bontsha the number 3. Language – ha aba tlameha ho bitsa mantswe, ba le bona lentswe, but reads between the lines, ha bale se ngotsweng, o bala se ba tlwang ke yena. Fine-motor skills, Jacobs, ha a kgone ho recaller, memory, and le Nobela ha a kgone ho hang. Visual and fine - motor skills, and ha kgone ho builder a sentence.

Translated version:

Motor skills, the learner is struggling to write. Matching is difficult, identifying similarities.Cannot show the number 3.Language – if they have to say a word, they see it, but read between the lines. He does not read what has been written, he reads what he wants. Fine-motor skills, Jacobs cannot recall, memory, even Nobela cannot do a thing. Visual and fine-motor skills, and cannot build a sentence.

P –M: Ke na le bona, they struggle with language, for example, kebe – instead of tsebe. Le bane ba lebalang bo di sounds, letters, phonics vowels, ke se ke akareditse. Ba poor eyesight ba be ba revese le di letter formation. Le ba hyperactive le bona ba teng.Ke nahana di felletse – they are all now.

Translated version:

I do have them; they struggle with language, for example, "kebe" for "tsebe" (ear). There are those others who forget sounds, letters, phonics, vowels, and all the others. Even poor eyesight and they also reverse letter formation. Those who are hyperactive are also there. I think this is all – they are all now.

P – N: Slow – ha a tsebe le ho dula stil. Ke nahana hore o hyperactive.Omission ya medumo. Boholo ba bona concentration ha eo. Ba bang ba nale problem ya short-term memory ho bane ba lebala ka pele.

Translated version:

Slow – he cannot sit still. I think he is hyperactive. Omission of sounds.Most of them cannot concentrate. Others are having short – term memory problem as they forget quickly.

P – O: Yiconcentration, futhi ufanele abe neconcentration ngoba umsebenzi omningi ngama instructions, manje uma eneconcentration emfushane kuba nenkinga. Ezinye yizingane ezibuya emakhaya lapho abazali bengasebenzi khona, bajika babenenkinga lapha esikoleni.

Translated version:

Short concentration span, the learner needs to concentrate as most of the work to be carried out is through instructions, and if the learner is having short concentration span, it becomes difficult. Some of the learners are from familieswhere both parents are unemployed, and learners end up experiencing barriers at school.

P – P: They are learners with auditory problem and visual and may be motor-coordination.

P – Q: I think, the reversals, absenteeism and ha ke tsebe nka e beha jwang. The school like this, is a section 21, but learners don't have pencils and poverty also mme, like parents, ha ba kgone ho ba rekela di files hore ba kenye mosebetsi ka hare and lack of support from parents.

Translated version:

I think, the reversals, absenteeism and I don't know how can I say it. The school like this, is a section 21, but learners don't have pencils and poverty also madam, like parents, they cannot afford to buy them files so that they file their work and lack of support from parents.

P – R: Ngwana enwa o a stragila – when she has to copy on the chalkboard. She cannot read.

Translated version:

This learner is struggling – when she has to copy on the chalkboard.She cannot read.

P – S: Di fine- motor muscles ha di so developi – not well developed. Ba bang ke ba e kulelang. Heredity, bo mme ba bona ha bo monate, ba na le short-term memory, spelling, concentration spel, no concentration at al.

Translated version:

Fine-motor muscles have not yet developed – not well developed. Others are ill.Heredity, their mothers are not well. They've got short – term memory, spelling, concentration spel, and no concentration.

P – T: Ba bang ha ba ngola ba siya, ba nale bothata ba medumo. Ha baqetelle hantle mantswe, ba a siya, mme. Ba bang, mohlala, ha ba batla ho ngola bo"sh" ba ngola bo "j". Ba bang ke reversal. Ho nale ba sa kgoneng, oa tseba ha u bua kapelenyana o sa lebetse, mme, le ha o ka mofa pene hore a e ise ho mme Lephondo, o tla kgotla a o botse hangata, bolebadi bo teng le bona. Concentration, ke yona e ba bolayang ha holo.Mang, mang, ose a entse eng, o ya bona mme, ba bang ba batla ba na le mathata ho tswa hae.

Translated version:

Some of them don't complete what they are writing, they lack knowledge of sounds. They don't complete words; they leave them being incomplete, madam. Others, for example, if they want to write "sh" they write ":j". Others reverse. There are those who cannot at all, you know if you speak fast, he forgets, madam, even if you can give him a pen to give to madam Lephondo, he will come back and ask you several times – he is forgetful. Concentration is what kills them a lot. Someone has something – can you see madam, others have problems manifesting from their homes.

5.2.2.1 Clustering responses

Academic Deficits (unable to write in lines, not knowing sounds, unable to construct words, not knowing letters, ha a kgone ho builder a sentence, letter formation, spelling, cannot read).

Language Deficits (language, not carrying instruction, pronunciation, slow).

Social-emotional problems (no self-esteem).

Attention Deficits and Hyperactivity (hyperactivity, ha a tsebe ho dula still o hyperactive, attention).
Memory (memory, ka pelenyana o se a lebetse).

Cognitive Deficits

Perceptual Differences (sequencing, discrimination, eye-hand co-ordination, synthesizing, ho identifaya di similarities, motor – co-ordination, auditory problems, poor eyesight, visual, transposition, o a sokola ha a tlameha ho copy on the chalkboard, incorrect transposition.)

Motor Skills and Coordination Problems (Fine motor skills, fine motor muscles, motor skills).

Irrelevant information

Environmental factors (Abazali abanye abasebenzi, poverty, family background, mathata ho tswa hae, absenteeism, section 21 school, lack of support from parents, heredity, illness).

- **Interpretation by the researcher**

The participants mentioned factors that inform curriculum adaptations for individual learners with learning impairments as follows:

Perceptual differences: Visual and transposition, enjoyed the highest frequency (four), discrimination and visual (two), sequencing, eye-hand co-ordination, synthesising, motor co-ordination and poor eyesight were only mentioned once. Memory problems were mentioned 13 times. Language deficits were rated as the third factor that informs curriculum adaptations by the interviewees (nine). The academic deficits were mentioned eight times. Attention deficit hyperactivity and motor skills coordination were mentioned six times. Social-emotional problems were mentioned once.

Six participants confused the causes and the factors. One participant was uncertain of what was the question all about. This was evident as the participant said “I think, the reversal, absenteeism and ha ke tsebe nka e beha jwang. The school like this, is a section 21, but learners don’t havepencils and poverty also mme, like parents ha ba kgone ho ba rekela di files hore ba kenye mosebetsi ka hare and lack support”.

- **Interpretation by the “peer debriefer”**

Most interviewees' responses (14) said that individual factors that inform curriculum adaptations for learners with learning impairments were perceptual differences. Thirteen (13) mentioned the memory deficit. Nine mentioned the language deficit. Eight mentioned academic deficit. Six mentioned attention deficit hyperactivity. Five mentioned motor skills and coordination problems and one mentioned social-emotional problems. Instead of mentioning individual factors that inform curriculum adaptations for learners with learning impairments, six interviewees mentioned causes of learning impairments. One interviewee mentioned the irrelevant information saying, "the school like this, is a section 21, but learners don't have pencils and poverty also mme, like parents ha ba kgone ho ba rekela di files hore ba kenye mosebetsi ka hare and lacks support from parents".

5.2.3 Data on the processes which are followed in curriculum adaptations for learners withlearning impairments

The following was the research question:

What process is followed in adapting the curriculum for learners with learning impairment?

The interview question to answer this research question is:

How do you adapt the curriculum for learners with learning impairments?

The responses:

P – A: By first giving the whole class, umsebenzi ofanayo, after sometimes, bengatholi lutho, I then decided to give them fewer work kunezinye izingane.

Translated version:

By first giving the whole class, the same activities, after sometimes, if they get nothing, I then decided to give them less work than other learners.

P – B: Ke bafa mosebetsi o tshwanang – the same, mme. Ha ba o fosa, ke bafa mosebetsi o thswanang le wa the whole class, but o sa lekaneng jwalo ka dipalo – bona, I give, give them less work and homework.

Translated version

I give them the same activities – the same, madam. When they get it wrong, I give them the same activities as the whole class but less, for example, in numeracy – I give them less work and homework.

P – C: Ke sebedisa role-play, ke etsa…., ke sebedisa di pictures and bona bana ba nang le mathata ke be ke ba rorisa, praise them, ke be ke kopana le batswadi hore re thusane.

Translated version:

I use role-play, I do… I use pictures and for those with learning impairment, I praise them, praise them, then after I meet with their parents so that we can help one another.

P – D: A ke re ke tla be ke ntse ke ruta, ke bafe mosebatsi o tshwanang – then, ha ba o fosa, ke bafa o mong o tshwanang feela o mo nyanyananyana, ke tle le bona jwalo.

Translated version:

I will be teaching, I will give them the same activities – then, if they get the activities wrong, I give them the same activities but less, and proceed with them like that.

P – E: Ngiqala ngibaphe bonke umsebenzi ofanayo izikhathi ezimbadlwana, bese ngibapha ofanayo, kodwa ongalingani nowabanye. Uma ubehlula nawo lowo, ngibapha owabo bebodwa ongafani nowabanye.

Translated version:

I start first by giving all of them the same activities several times, and then I give them the same activities but less than the one I have given to others. If they still don't cope with that, I give them different activities.

P – F: Learners are given the same mosebetsi o tshwanang, ya ba ba bang ba sa o qete, ka bona hore mathata a teng, ya ba ke bafa mosebetsi o tshwanang feela o sa lekaneng.

Translated version:

Learners are given the same activities, and some did not complete writing the activities, I saw that there are problems, and I gave them the same activities but with less activities.

P – G: Learners are given the same activities mme, feela, ba bang, ba fuwa o monyane, ha ba bang, ba fuwa o different all together, jwalo ka, ha ba bang ba ngola di words, bona ba ngola di sounds feela.

Translated version:

Learners are given the same activities, madam, but, some are given fewer activities, whilst others are given different activities alltogether, *for example, if some write words, then others write sounds only.*

P – H: Ke ba file mosebetsi o tshwanang pele, mme maMzizi, eitse ha ke bona hore level ya bona ha e tshwane, ka bafa mosebetsi o sa lekaneng le wa ba bang, ha ba bang bona ke bafa o sa tshwaneng ho hang. He! Mme, ha o sobone, bana ba.

Translated version:

I gave them the same activities first, madam Mzizi, when I realized that their levels are not the same, I gave them less activities than others, and some are given different activities all together. He! Madam, you haven't seen these learners.

P – I: Bana ba fuwa mosebetsi o tshwanang kaofela, ha ba o fusa, ba fuwa mosebetsi o tshwanang le wa ba bang feela o monyenyana – le wona ha ba ka o fosa, ba tla fuwa o fapaneng ho ya ka level ya bona.

Translated version:

Learners are given the same activities, if they get them wrong, they are given the same activities but less – and if they can still get them wrong, they will be given different activities altogether according to their level.

P – J: Ke ba fa mosebetsi o tshwanang pele, ere ha ba o fosa ha holo, e be e le hona ke ba fang o sa tshwaneng.

Translated version:

I give them the same activities at first, and if they get it wrong, dismally, it is then that I will be giving them different activities.

P – K: By giving them homework or something to do at their homes, by giving them alphabets or syllables, ba, be, bi, bo, bu.

P – L: Ke ile ka ba fa mosebetsi o tshwanang kaofela, ha ke qeta ho maka, ka bona hore bana ha ba kgone, yaba ke se ke ba fa mosebetsi o sa tshwaneng. Ke ya kgolwa ke nkile dikgwedi tse pedi, yaba ke bona hore ke kgotlele morao ke diehisa ba bang. Yaba ke se ke bafa mosebetsi o fapaneng ho hang le wa ba bang.

Translated version:

I first gave them the same activities, after marking, I saw that these learners cannot cope, and I then gave them different activities. I hope I have taken two months, and then I decided to go back as I realized I was delaying other learners. I then substituted their activities all together.

P – M: First start with the same activity, and those who cannot do the same activities are given the different one – lower level ho bane ba ya lebala le ho lebala.

Translated version:

First start with the same activity and those who cannot do the same activities are given the different one - lower level because they forget.

P – N: Ke ba fa mosebetsi o tshwanang and after hoo ha o ba hlola, ke ba fa mosebetsi oo ke o fokoditseng.Ba bang ke bafa mosebetsi o e kgethang o sa tshwaneng le wa ba bang.

Translated version:

I give them the same activities and after that, if they cannot cope, I reduce the activities. I give some of the learners special activities, which are different.

P – O: Ngibapha bonke umsebenzi ofanayo, umangabe engakhoni ukwenza umsebenzi ofana nowabanye, kulapho-ke ngizomnikeza ongafani nowabanye. Ngesinye iskhathi kwabanye, ngehlisa izinga uma abanye ngibapha 5 ngimnikeza 3.Kwabanye ngisebanzisa amapictures.

Translated version:

I give them all the same activities, if the learner cannot do the same activities as others; it is then that I give him different activities. Sometimes, with some learners, I reduce the number of activities, when I give others learners 5, I give him 3. For some learners I use pictures.

P – P: Learners are grouped according to their ability, only the educator knows.

P – Q: For reversals, I came with a programme to help them, like using a robot, if it is red, it is where ba tlamehang ho ngola teng. For absenteeism, e, we call a meeting – a foundation phase parents and we tell them that they should help them with homework, e, e, e, like, le everything they use at school.

P – R: When he cannot read the same paragraph le bana ba bang – ke mofa mosebetsi o monyane o mong – ke ekelletsa nako.

Translated version:

When he cannot read the same paragraph with other learners – I give him another activity to do – and add time.

P – S: Ke ne ke ba fa mosebetsi o tshwanang, yaba ke bona hore ke ya ba emetsa, ka ba fa o sa lekaneng le wa ba bang ka weight. Ba bang ke tlo ba qala fatshe, fatshe, fatshe, ho bane ha ba tsebe letho.

Translated version:

I used to give them the same activities, and then I realized that it is a burden to them, I gave them less activities with lower weight. Some of them, I am going to start from scratch, from scratch, from scratch, because they know nothing.

P – T: Wa tseba, mme, ke ba fa ntho e tshwanang pele, ke ba shebe, then, ho tloha moo, ke ya ba sheba – ha ho le teng ba nang le mathata, mme, ke ba groupa ba le bang, e be ke bafa mosebetsi o sa ba lekaneng. Ba na ba hlileng ba hloleha ha holo, ke bafa o fapaneng le wa ba bang.

Translated version:

You know what madam, I give the same thing first, and observe them, then, after that, I observe them – if there are any of them experiencing problems, madam, I group them together, and then give them activities that they can handle. Those who can't cope, I give them different activities all together.

5.2.3.1 Clustering of responses

Can the learner do the same activity as peers?

By first giving the whole class umsebenzi ofanayo; ke bafa mosebetsi otshwanang; ngiqala ngibaphe umsebenzi ofanayo izikhathi ezimbadlwana; learners are given the same mosebetsi o tshwanang, learners are given the same activities; learners are given the activities mme ba bang ba fuwa omonyane, ha ba bang ba fuwa o different all

together (at the same time); first start with the same activity; ngibapha bonke umsebenzi ofanayo.

If the learner cannot do the same activity as peers, he is given the same activity but with adapted expectations.

After sometimes, bengawutholi, I then decided to give them fewer work kunezinye izingane; ha ba o fosa, ke bafa o tshwanang le wa the whole class, but o sa lekaneng; haba o fosa, ke ba fa o mong o tshwanang feela o monyenyanenyana; ngibapha ofanayo, kodwa ongalingani nowabanye; ha ba sa o qete, ya ba ke bafa mosebetsi o tshwanang feela o sa lekaneng; ha ke bona hore level ya bona ha e tshwane, ka bafa mosebetsi o sa lekaneng le wa ba bang; ha ba bang ke ba fa o sa tshwaneng le wa ba bang ho hang; ha bo o fosa, ke bafa o tshwanang feela o monyanyana; ha o ba hlola, ke bafa mosebetsi o o ke o fokoditseng ba bang ke bafa mosebetsi o e kgethang o sa tshwaneng le wa ba bang (o sa tshwaneng, o e kgethang, same; ngesinye isikhathi kwabanye ngehlisa izinga, uma abanye ngibapha 5 ngimnikeza 3;when he cannot read the same paragraph le bana ba bang, ke mofa mosebetsi o monyane o mong; yaba ke bona hore ke ya ba emetsa, ka bafa o sa lekaneng ka weight;ha ho le teng ba nang le mathata, mme, ke ba groupa ba le bang, e be ke bafa mosebetsi o sa lekaneng.

If the learner cannot the same activity with adapted expectations, he is given the same activity but with adapted expectations and materials.

Kwabanye ngisebenzisa amapictures.

If the learner cannot do the same activity with adapted expectations and materials, he is givena different and parallel activity.

Uma ubehlula nawo lowo, ngibapha owabo bebodwa ongafani nowabanye; le wona ha ba o fosa, ba tla fuwa o fapaneng ho ya ka level ya bona; ha ba o fosa ha holo, e be e le hona ke bafang o sa tshwaneng;ka bona hore haba kgone, yaba ke bafa mosebetsi o

sa tshwaneng; ke bafa mosebetsi o fapaneng le wa ba bang; those who cannot do the same activities are given the different one – lower level (confuses different and lower); umangabe engakhoni ukwenza umsebenzi ofana nowabanye, kulapho-ke ngizomnikeza ongafani nowabanye.

If the learner cannot do a different and parallel activity, he is given a parallel and functional activity with assistance

Ba bang ke tlo ba qala fatshe, fatshe, fatshe, ho bane ha ba tsebe letho; bana ba hlileng ba hloleha ha holo, ke bafa o fapaneng le wa ba bang.

Irrelevant information

Ke sebedisa role-play, ke etsa…., ke sebedisa di pictures and bona bana ba nang le mathata ke be ke ba rorisa, praise them, ke be ke kopana le batswadi hore re thusane.
Learners are grouped according to their ability, only the educator knows.
For reversals, I came with a programme to help them, like using robot, if it is red, it is where ba tlamehang ho ngola teng. For absenteeism, e, we call a meeting – a foundation phase parents and we tell them that they should help them with homework, e, e, e, like, le everything they use at school.

- **Interpretation by the researcher**

The majority of the participants as per the number of responses (17) mentioned that they first gave learners the same activity. Twelve participants said if the learners could not do the same activity as others; the learners were given the same activitybut with adapted expectations. One participant said if the learner could not do the same activity but with adapted expectations, she gave the learner the same activity but with adapted expectations and material. Out of 20 participants, seven of them mentioned that if the learners could not do the same activity with adapted expectations, the learners were then given a different, parallel activity and two participants mentioned that if learners

could not do the same activity with adapted expectations then, they gave the learners a parallel and functional activity with assistance. Three participants' answers were irrelevant as one said she/he used role-play and added by saying "ke etsa…, ke sebedisa di pictures and bona bana ba nang le mathata ke be ke ba rorisa, praise them, ke be ke kopana le batswadi hore re thusane".From the response, it was obvious that the participant misunderstood the question.

- **Interpretation by the "peer debriefer"**

Most of the interviewees said they started by giving their learners the same activities. It was evident from the interviewees' responses that they only followed three processes of curriculum adaptations whilst others followed only two steps. One interviewee even made an example of reading as she said, when the learner could not read the same paragraph as other learners; he/she was given different work and additional time.

That was: Can the learner do the same activity as peers, if the learner could not, he is given the same activity but with adapted expectations and if the learner could not do the activity with adapted expectations, he is given a different parallel activity to do. Only two of the interviewees said they give learners a parallel and functional activity with assistance. Three of the interviewees were not quite clear about what was expected of them, (one) said "ke sebedisa role-play, ke etsa…., ke sebedisa di pictures and bona bana ba nang le mathata ke be ke ba rorisa, praise them, ke be ke kopana le batswadi hore re thusane." The second one said "learners are grouped according to their ability only the educator knows" and the third interviewee said "for reversals, I came with strategies to help them like using a robot, if it is red, it is where ba tlamehang ho ngola teng, for absenteeism e, we call a meeting – a foundation phase parents and we tell them that they should help them with homework e, e, e, like, le everything they use at school."

5.2.4 Data on the ways in which teachers apply curriculum adaptations for learners with learning impairments

The following question was asked:

Which different curriculum aspects need to be adapted for learners with learning impairments?

The responses:

P – A: Umsebenzi obafundisa wona kanye nalowo abazowubhala.

Translated version:

The work that you teach them and what they are going to write.

P – B: Seo ke se rutang, mme, le di activities tsa bona. Ha ngata ba qeta ka speed because they don't think, they just write-but I've tried to stand by them, sothat they could concentrate and I will give them nako e ekelleditsweng.

Translated version:

What I teach, madam, and the learner activities. Usually they do their activitiesfast because they don't think, they just write – but I have tried to stand by them so that they could concentrate and I will give them more time.

P – C: Extra time, ke, ke mofe mosebetsi o monyane daily, motivation, bo dinaledinyana, bo dipompongnyana.

Translated version:

Extra time, I, I give him less activities daily, motivation, just like the stars, sweets.

P – D: Content and assessment, but ntho eo ke e batlang ke hore bana ba tlamehile ba ngole – ke yona ntho eo ke e batlang.

Translated version:

Content and assessment.But what I want is that learners must write – that iswhat I want.

P – E: Into eyi 1 bayenza isikhathi eside esingafani nesabanye, icontent, ngoba abanye uma bebhala istory, bona babhala amagama.

Translated version:

They spend more time doing one thing that is content, because when some write stories, they write words.

P – F: The tone, differentiated tasks and time.

P – G: Mosebetsi wa bona ho bane ha ba tshwane, le nako. Bane ba bang, they take long time to finish, mme. Ke buwa stadig ho bane ha ke buwa stadig, ba ya tshwara, mme, ke ya o bolella.Ba bang ke bafa chance ya hore ba arabe ka molomo, and ba araba hantle ntho e o tlwahalang.

Translated version:

Their activities, because they are not the same, and time.Those others, they take long time to finish, madam. I reduce the pace of presenting, they grasp, madam, I'm telling

you. I give some a chance to answer orally, and they answer correctly, something, which makes sense.

P – H: Mosebetsi o rutwang bana o ke ke wa tshwana, nako ya bona ya ho qeta mosebetsi, le ka moo o ba rutang ka teng ho ya ka di levels tsa bona.

Translated version:

The content being taught would not be the same, time to finish the activities, and the way content is presented, according to their levels.

P – I: ke nahana ke content, le hoekelletsa nako ya bao ba slow. Le assessment hape.K e na le bana ba babedi mona, in actual fact ke ne ke e nale ba bahlano.Phela nna mme maMzizi, le ka di holidays ke ne ke sa kwale bitsong la bana ba na, and they really enjoyed it. Nna ha ngwana a sa kgone ho etsa se ke se lebelletseng ho ena, mme, ha ke fumane phomolo. I can't just relax. But now, ba setse ba le babedi feela.Ba le ba bedi jwalo ba tsamaya treatment sepetlele.Feela ke ya tla le bona.

Translated version:

I think it's content, and additional time for those who are slow, and assessment. I've got two learners here, in actual fact I had five of them. You know madam Mzizi, even during holidays, I didn't go because of these learners, and they really enjoyed it. If the learner struggles to do what I expect him to do, madam, I don't relax, I can't just relax. But now, there are only two left. Both of them are on treatment, which they get from hospital. But, soon we'll be there.

P – J: Seo ke ba rutang sona, ke nako ho bane ke ya ba ekelletsa le nako. Ha ke le ho bona ke buwa slow. Ke mofa di letters le di vowels tse kopaneng le di consonants. Ha a kgona ho di bala ke mofa buka ya grade 2, kapa grade 1 ho tswa hore level ya hae e tsamaya jwang.

Translated version:

What I teach learners, time because I give them extra time. When I am with them, I peak slowly. I give him mixed letters, vowels and consonants. If he can read them, I give him grade 2 books, or grade 1 depending on his level.

P – K: I, I, I, I would give them alphabets to study at the, at home; sometimesthey must tell me the letters. Even time, we extend it, yona, it is our daily bread.

Translated version:

I, I, I, I would give them alphabets to study at the, at home; sometimes they must tell me the letters. Even time, we extend it, time, it is our daily bread.

P – L: Nna ke nahana mme, ho ya ka teaching, nako, ho…presenta, ho fa bana mosebetsi o bimanyana for bao ke bonang ho re ba fast – o mongatanyana, and then bana ba bang ke ya slow down, ho ya ka pace ya bona.

Translated version:

What I think madam, according to teaching, time, to present, giving learners some difficult activities for those who are fast – and more, and then for some I slow down, according to their pace.

P – M: Content le di methods, language, appearance using nthwena, nthwena, nthwena man, mme maMzizi, gestures, and assessment jwale ka bana ba sa tsebeng ho ngola, jwalo ka Sephaka.

Translated version:

Content and methods, language, appearance using this, this, this man, madam Mzizi,

gestures, and assessment for example, those learners who cannot write, just like Sephaka.

P – N: Content, le di activities mme, e……. ho na mona ho di activities, o kgona ho ba bona ha re ba sebetsa jwang.

Translated version:

Content, and activities, madam, - yes…considering activites, you can see how they perform.

P – O: Pace, ipace yakho uma ufundisa izingane, content, just like uma senza u-"p", abanye benza amagama uma abanye benza iletter "p", bayakobha, bayatracer. Ne assessment nayo.Then you need to drill ukuze bazwisise.

Translated version:

Pace, your pace when you present, content, just like when doing "p", some dowords whilst others do a letter "p", they copy, and they trace. Even assessment too.Then you need to drill so that they can understand.

P – P: E. I think learners with learning impairments should be given a work; their work should not be too much because they have problems.

P – Q:Like bo, bo reading, reading for them and they answer verbally – by reading.

Translated version:

Like this, this reading, reading for them and they answer verbally – by reading.

P – R: Ho ekelletsa nako – visual –pictures with names or verbally answering the questions.Filling in the vowels and the missing words.

Translated version:

Adding more time – visual – pictures with names or verbally answering the questions. Filling in the vowels and the missing words.

P – S: Ke time, e be content and then ho na le ba bang ba tsebang ho buwa ba tseba ho ngola – re adapta assessment ho bane ba tseba ho ngola ha ba tsebe ho buwa. Le nna pace ya ka e tlameha ho tsamaya le pace ya bona.Le material re ka e adapta – material e simplified ho ya ka pace ya bana.

Translated version:

It's time, and then content and then there are those who cannot speak and cannot write – we adapt the assessment because they cannot speak but can write. Even my pace should be adapted to their pace. Even material, we can adapt it- material is simplified considering their pace.

P – T: Reading – dibuka tseo ke mo nehang tsona – nkareng na –buka ya hae e fapana le ya bana ba bang.Pace yona mme, ba bang ba nang le mathata ba ngola stadig, le pace ya titjhere e ye ka pace ya ngwana.Bana ba bang mme, ha ba tsebe ho ngola ba tseba ho buwa – re adapta assessment.

Translated version:

Reading – books that I have given to him – what can I say – his book is different from other learners' books. As for the pace madam, some experiencing barriers to learning, write slowly, even the teacher's pace should be informed by the learner's pace. Other learners madam, they can't write but can speak – we adapt assessment.

According to interview results, the following clusters were done:

5.2.4.1 Clustering of responses

Classroom management (nako, as of teaching and activity, giving them alphabets to study at home (not in the context of adaptation, but IE as of intervention strategy).

Content adaptations (umsebenzi ozobafundisa wona; seo ke se rutang; content; icontent ngoba abanye uma bebhala istory abanye babhala amagama; mosebetsi o rutwang bana o ke ke wa tshwana; seo ke ba rutang sona; ke mofa buka ya grade 2, kapa grade 1 ho tswa hore level ya hae e tsamaya jwang; material; di buka tseo ke mo nehang tsona)**.**

Process adaptation (ipace yakho uma ufundisa izinga;, le nna pace ya ka e tlameha ho tsamaya le pace ya bona; e, pace ya titjhere e ya ka pace ya ngwana; ke buwa stadig; ha ke le ho bona ke buwa slow; le ka moo o ba rutang ka teng ho ya ka di levels tsa bona).

Adapting instruction (the tone; ho presenta; di method; language, you need to drill ukuze bazwisise; reading for the; visual – pictures with names).

Adapting the product (umsebenzi abazowubhala; diactivities tsa bona; nako e ekelleditsweng; nako; they take long time to finish; mosebetsi o monyane; assessment; umsebenzi oyi 1 bawenza isikhathi eside esingafani nesabanye (time); differentiated tasks & time; mosebetsi wa bon; nako, ba bang ke bafa chance ya hore ba arabe ka molomo; nako ya bona ya ho qeta mosebetsi; ho ekelletsa nako ya ba slow; ke nako ho bane ke ya ba ekelletsa le nako; ba bang ke ya slow down ho ya ka pace ya bona; even time; we extend it pace ya bona; ba na ba nang le mathata ba ngola stadig; their work should not be too much; they answer verbally; ho ekelletsa nako; time; material; reading (material) di buka tseo ke mo nehang tsona).

Significant other responses

Filling in the vowels and missing words

Ho fa bana mosebetsi o boma nyana for bao ke bonang ho re ba fast – o mongatanyana, and then bana ba bang ke ya slow down.
Gestures

- **Interpretation by the researcher**

The majority of participants (18) mentioned that applying curriculum adaptations could be done through product adaptation; thus, time for: Activities (14); assessment (eight); reducing activities (seven)and material (three). Content adaptations were mentioned 15 times including material. Process adaptation namely pace (eight). Instruction adaptations; the tone, presentation, methods, language, drill, reading for learners and visual-pictures were all mentioned once. Time in the context of classroom management, thus, teaching and learning time was mentioned once. Two of the participants were not sure of what the correct answer was. One participant said “extra time, ke, ke, mofe mosebetsi o monyane daily, motivation, bo dinaledinyana, bo dipompongnyana”, and another participant said, “I would give them alphabets to study at home, sometimes they must show the letters.”

- **Interpretation by the “peer debriefer”**

The interviewees mentioned applying curriculum adaptations as adapting the product which enjoyed the highest frequency (18), followed by content adaptations with frequency of (15). Adapting instruction and adapting the process eight. Adapting classroom management was mentioned twice. One interviewee mentioned gestures as one other means of adapting instruction and another one mentioned that she gave the learner with learning impairments, letters, vowels and consonants and when the learner

could read them, he/she would then be given a grade 2 or grade 1 reading book depending on his/her level.

5.2.5 Data on teaching strategies used for adapting the curriculum for learners with learning impairments

The following was the research question:

What teaching strategies are used for adapting the curriculum for learners with impairment?

The interview question to answer this research question is:

Which teaching strategies do you use when you adapt curriculum for learners with learning impairments?

The responses:

P – A: Drill work, group work and individual work. Bathanda ukufihla.

Translated version:

Drill work, group work and individual work. They like hiding what they have written.

P – B: When doing reading, I group them in front of the class and after that they work in pairs. They struggle to work individually, but I try to motivate them so that ba ka e tshebelletsa ba le bang – ka nako enngwe, ba di fumana but sometimes ba ya fosa.

Translated version:

When doing reading, I group them in front of the class and after that they work in pair.

They struggle to work individually, but I try to motivate them so that they can work individually – sometimes, they get it correct but sometimes they get it wrong.

P – C: Ke itse – ke sebedisa role-play, practical work and then ba imitheitha seo ke se etsang. Before writing, I let them feel before they write – ba e file mo mokokotlong wa bona horee tsamaya jwang mading a bona. Ke be ke ba kenyelletsa di groupung. Do individual task.

Translated version:

I said – I use role-play; practical work and then they imitate what I have done.Before writing, I let them feel before they write – they feel it at their backs so as to feel it in their blood. I even put them in other groups. Do individual task.

P – D: Whole class, group work.

P – E: Ngiyabafundisa kuyi class lonke, uma ngiqeda ngibathathe beyi group, after that ngithathe bebabili kuyi peers then eyedwa individually.

Translated version:

I teach the whole class, after that I take them as a group, after that I take two of the being peers then one individually.

P – F: Group, peer and pairs. In the morning we were doing maths, I was using peers. I used individualization ha ke batla ho mo assessor, but, like hona jwale ka ha ke ina le di group leaders, ho ba betere. Nna ke bona group teaching e ntshebelletsa ha ke etsa reading, I use class teaching, nna tjhe e ntshebelletsa ha holo.

Translated version:

Group; peer and pairs. In the morning we were doing maths, I was using peers. I used individualization if I want to assess, but just like now as I am having group leaders, it is better. I personally see group teaching being a success when doing reading, I use class teaching, and it really works for me.

P – G: Group teaching, ke na le group tse four ka mona, le individual ke ya e etsa.O a tseba bana bana ba e tsang, ha o ba file mosebetsi ba le ba ngata, ha ba etse mosebetsi oo, feela ha a le mong o kgona ho o etsa.

Translated version:

Group teaching, I've got four groups in my class, and I also do individual. You know what are these learners doing, if you've given all of them activities to do they don't do it, but if it's individual, he can do those activities.

P – H: Whole class, group work, le individual.

Translated version:

Whole class, group work and individual.

P – I: Groups, individual le class kaofela, ha na e bitswang mme maMzizi eo whole class.

Translated version:

Groups, individual and the entire class by the way, what do we call it madam Mzizi, that one, the whole class.

P – J: Groups tsa bona, ha ke bona ho nale ba hlolehang, ke ya ba ntsha ke ba beha groupung ya bona ke ba rute moo – ka morao ho ba ke etse ntho eno ba kgutlela groupung tseo e leng tsa bona hantle. Ba bang ba bona ba otlwisisa ha holo ha ba rutwa ke ba bang.

Translated version:

Their groups, if I see that there are those who struggle, I take them out and group them together then teach them – after I have taught what I wanted, they return to their home groups. Some of them understand a lot when taught by others.

P – K: Different acvtivities in groups, and in pairs sometimes, individuals too.

P – L: Group work le individual e ntse e le teng, but most of the time re sebedisa group work ho re bana ba fast ba tleba thuse bana ba bang ba slow. Ka mantswe a mang, ke sebedisa peer education.

Translated version:

Group work and individual is still there, but most of the time I use group work so that learners who are fast can assist those who are slow. In other words I use peer education.

P – M: Ha holoholo ke qala ka group work, from there, pair and then individuals.

Translated version:

I normally start with group work, from there, pair and then individuals.

P – N:Wa tseba ha ngata ke sebedisa individual ho bane ha ke etsa group, ba bang ha ba contribuithi.

Translated version:

You know what, normally I use individual because when I use groups, others don't contribute.

P – O: Igroup work ngiyayithanda, kanti futhi ne individual ngiyayisebenzisa ngoba ngibona ingisebenzela.

Translated version:

I like group work, and I also use individual because it works for me.

P – P: Learning through play mme, especially for directionality problems, when he/she writes, he/she writes from right to left.I can put a dog and bone and put a bone in front of the dog.

P – Q: Yes, sometimes is a group work and e, e, e, e – ke ya ba phera in twos because sometimes learners understand better than when he is explained by the fellow student.

Translated version

Yes, sometimes is a group work and e, e, e, e – I pair them in twos because sometimes learners understand better than when he is explained by the fellow student.

P – R: First they work in groups, hhhhhhhhhhh, they works in groups. Secondly, in pairs.Thirdly, individually.

P – S: Ke na le whole class ha ke introducer lesson, ke na le group, ha ke batla ho thusa ba bang ba fokolang, ke na le di pairs, di qala ho bana ba sokolang

.

Translated version:

I've got whole class when I introduce the lesson, I've got group, if I want to assist those who struggle, I've got pairs, they start with those who are struggling.

P – T: Groups – bo holo ba nako ke sebedisa di groups.

Translated version:

Groups – most of the time I use groups.

According to the interview results the following clusters were done:

5.2.5.1 Clustering responses

Demonstrative (whole class; ngibafundisa kuyiclass lonke; class teaching; class kaofela).

Small groups (group work; group them in front of the class ngibathathe beyi group; group; group teaching; ke na le grou; groups bo holo ba nako).

Peer Assisted Learning Strategy (ba bang bona ba utlwisisa ha holo ha ba rutwa ke ba ban; peers; ke sebedisa peer education; ngithathe ababili; pairs, ke ba phera in twos; in pairs; ke na le di pairs ha ke batla ho thusa ba fokolang).

One – on-one (individual work; do individual task; then eyedwa individual; le individual ke ya e etsa; individual entse e le teng; hore bana ba fast battle ba thuse bana ba bang ba slow; individually).

Multi-level instruction –provide a variety of method for learner practice (using individualization ha ke ba tla ho mo assessor).

Drill work (drill work).

Role-play (ke sebedisa role-play).

Interactive teaching strategy (learning through **play**; there is also an example of problems with directionality).

Self-discovery (practical work).

Significanct other response

Games

Groups tsa bona; ha ke bona ho nale ba hlolehang; ke ya bantsha ke ba beha groupung ya bona ke ba rute moo.

- **Interpretation by the researcher**

Most of the participants (12) mentioned that they used small group as a teaching strategy. Nine of them usedpeer assisted learning strategy. Eight used one – on – one. Six used demonstrative teaching strategy. Multilevel instruction, drill work, role-play, interactive teaching strategies and self-discovery were only mentioned once.

Three of the participants confused curriculum adaptations with inclusive education that is why some of their answers were proven to be correct, but when one analyzed them from question one, it became evident that they were not sure of what curriculum adaptations were. One participant mentioned games but in the context of intervention not as a teaching strategy.

- **Interpretation by the "peer debriefer"**

According to the interviewees' responses, (12) said the teaching strategy they normally used was small groups. Nine of the interviewees said they used peer assisted learning strategy. Six used whole group. Seven said one – on - one. Two said self - discovery. Providing a variety of methods for learner practice, drill work, role-play and learning through play were mentioned once.

Some interviewees were not sure about their answers as these responses were mentioned once, as in an intervention strategy, "Ha ho lo ke qala ka group work, from there, pair and then individual"; "Wa tseba ha ngata ke sebedisa individual ho bane ha ke etsa group, ba bang ha ba contributhi"; and "igroup work ngiyayithanda, kanti futhi ne individual ngiyayisebenzisa ngoba ngibona ingisebenzela."

5.2.6 Data on learning strategies used bylearners once the curriculum has been adapted

The following was the research question:

What learning strategies are used for adapting the curriculum for learning with learning impairments?

The interview question to answer the research question is:

After you have adapted the curriculum, which learning strategies do learners with learning impairments use?

The responses:

P – A: Visual, netactile, bathanda ukwenza.

Translated version:

Visual and tactile, they like doing.

P – B: Auditory and visually – ho bane ha ba ngola feela ha ba nahane. They like answering verbally.

Translated version:

Auditory and visually – because if they write they don't think. They like answering verbally.

P – C: Some verbal, some of they try writing.

P – D: Visual and auditory, not ho ngola dikarabo.

Translated version:

Visual and auditory, not writing answers.

P – E: Bathanda ukubuka nokwenza noma-ke kungasi yibo bonke, ababili babo bathanda ukulalela.

Translated version:

They like seeing things and doing, even if it's not all of them, two of them like listening.

P – F: O mong o ithatela ho ngola – a sebedisa matshoho a hae, le ho buwa.

Translated version:

One of them likes writing – using his hands, even speaking.

P – G: Tactile – ba rata ho etsa. Oral – ba bang, they enjoy ho qoqa.

Translated version:

Tactile – they like doing. Oral – some of them enjoy speaking.

P – H: Ho mamela, they are so good, listen skills, ba na le yona.

Translated version:

To listen, they are so good, listen skills, and they've got it.

P – I: Visual, ba rata le ho mamela ba be ba etse.

Translated version:

Visual, they like listening and doing.

P – J: Ho etsa ho bane ha ba batle ho mamela nako e telele, e kare ba ya kgathala.

Translated version:

To do because they don't want to listen for a long time, as they become tired.

P – K: They use visual, auditory and tactile.

P – L: Auditory – ba ya mamela then ba kgona ha ho araba and ba kgona ho followa di instructions.

Translated version:

Auditory – they listen then they are able to answer questions and follow instructions.

P – M: Visual because ba a di bona, auditory, ba utlwa, ba di bona then ba a etsa.

Translated version:

Visual because they see them, auditory, they hear, they see and then they do.

P – N:Wa tseba mme, ke bona ba thabela ho qoqa, ka mantswe a mang, ba rataho mamela. Ho etsa, ba rata ho a etsa ntho tseo ba di etsang ka matshoho. Ba hloile ho ngola.

Translated version:

You know what madam, I see they like speaking, in other words, they like listening. When doing, they like doing things with their hands. They hate writing.

P – O: Baya visualiser – balalele, benze. Kakhulu siletha okusekhaya eklasini.

Translated version:

They visualize – listen, do. Mostly we bring what is in the home to the class.

P – P: The learners are given activities according to their ability and intelligence, there, they work in groups.

P – Q: Those with visual problems, I,I let them sit in front so that they can see clearly. I also use bright chalk so that they can see big letters, “sh”, not big letters, but, mmela e me tenya hore ba kgone ho bona. Those with hearing problems – I use gestures hore ba kgone ho utlwisisa seo ke se buang.

Translated version:

Those with visual problems, I, I let them sit in front so that they can see clearly. I also use bright chalk so that they can see big letters, “sh” not big letters, but big lines so that they can be able to see. Those with hearing problems – I use gestures so that they can understand what I am saying.

P – R: They are the doers and verbally.

P – S: Doers, ba ya etsa, ba ya mamela pele, then, ba etse.

Translated version:

Doers, they do, they listen first, and then, they do.

P – T: Ha holo ba rata ho mamela le ho etsa.E bile ha holo ba rata ho etsa, ho e ketsetsa.

Translated version:

They like listening and doing mostly. In fact they like doing, doing by themselves.

5.2.6.1 Clustering of responses

Cognitive training (none)
Content enhancement (none)

Peer tutoring (none)
Direct instruction (none)
Cooperative learning (none)

- **Interpretation by the researcher**

From the participants' responses, it was evident that the participants confused learning strategies and learning styles (18). For them there was no difference between a learning strategy and a learning style. One participant mentioned that learners were given activities according to their abilities and intelligence where they work in groups; the answer given by the participant was a clear indication of uncertainty and one participant mentioned the intervention she/he did for learners with visual problems. All participants did not know what learning strategies entail.The researcher was not aware that the participants could confuse the learning strategies and learning styles as when realizing that the first three participants mentioned learning styles, the researcher brainstormed what learning strategies were through a series of questions on learning strategies. Such as: How can learners with empairments relate what is happening without writing down?

- **Interpretation by the "peer debriefer"**

Teachers answered mostly by mentioning the preferred methods of learning instead of learning strategies, the kind of answers they gave, suggest that learning strategies might not necessarily be taught. This was evident by the fact that most of them mentioned that learners with learning impairments were auditory, visual and tactile learners. One interviewee mentioned that for those with visual problems she/he sat them in front so that they could see clearly, and also used bright chalk so that they could see big letters. The answer indicated the uncertainty, as the bright chalk would make it possible that the learners could see big letters.

5.2.7 Data on the benefits of curriculum adaptation for learners withlearning impairments

The following was the research question:

How do curriculum adaptations benefit learners with learning impairment?

The interview question to answer the research question is:

In which ways do curriculum adaptations benefit learners with learning impairments?

The responses:

P – A: It improves progress ngoba bayajabula uma bethole amaticks.

Translated version;

It improves progress because they get excited when they've ticks.

P – B: It improves progress and socializing.

P – C: E- e ba encourager ho etsa mosebetsi. Encourage them to do work and make them feel that they are like other children –except those severly handicapped.

Translated version:

It…it encourages the learners to do work. Encourage them to do work and make them feel that they are like other children – except those severely handicapped.

P – D: Some show progress and others don't.

P – E: Bayajabula uma bebona ngimakile right.

Translated version:

They become excited when they see I've marked them correct.

P – F: They complete the task, they become motivated – it enhances the self-esteem.

P – G: Though ba bang ba sa di nepe, feela ba ba involved, others improve because ba thaba ha holo ha ba bona maka ya right. They will tell others.

Translated version:

Though some are not getting them correct, but they become involved, others improve because they become very much excited if the see the correct mark. They will tell others.

P – H:Ha ngata bana bana ba ya nepa mme maMzizi, ba bile ba ya kguthala mme maMzizi.

Translated version:

In most of the time these learners get them correct madam Mzizi, they even become motivated madam Mzizi.

P – I: Baya nyakalla mme maMzizi, ba bonahala ba le confident ha ba nepile.

Translated version:

They become excited madam Mzizi; one can see them being confident if they got the correct answers.

P – J: Ba ya nepa – ke hore ke tla reng – ba ya improva ha holo, ba be ba kgotlele di grupung tsa bona. E bile ba ya thaba ha holo.E, e, e busta
Self-esteem.

Translated version:

They get work correct – what can I say – they improve a lot, they even go back to their home groups. They even get very much excited. It, it, it boosts their self-esteem.

P – K: Others are improving mam, showing that they can manage.

P – L: Le yane ya sa kgoneng ho buwa, a sa batleng ho buwa, a thutse feela, o kgona ho buwa ha a na le peer ya hae. Ke bona ha ke mo file mosebetsi o sa tshwaneng le wa ba bang, o kgona ho fumana correct.

Translated version:

Even that one who struggles to speak, refusing to speak, always being quiet, is able to speak when he is with his peers. I see it when I've given him different activities; he is able to get it correct.

P – M: Progress ya bona e ba bitere, ba kgona ho improva, ba kgona ho thola di activities right.

Translated version:

Their progress becomes better, they are able to improve, and they are able to get activities correct.

P – N: Ngwana o a thaba ha a nepile.

Translated version:

The learner becomes excited when he has got activities correct.

P – O: Uma bethole correct, bayajabula, kanti futhi naloya ongasebenzi kahle, uyajabula ngoba nami ngiyamhalalisela.

Translated version:

If they got correct, they become excited, even that other one who does not do well, get excited because I also congratulate him.

P – P: These adaptations give learners opportunities to get work because they are referred to Maluti. He/she feels accepted because he/she can achieve something.

P – Q: Because – ha, ha, ha – e ba, sometimes o tla thola hore e mong o ka kgona ho bona hore ke ngwana a ka kgona bo drawing – he can be sent to the technical where he can be helped. Parents can also take them to specialist – those with hearing problems so that they can get hearing aids.

Translated version:

Because…if, if, if - becomes , sometimes you can find that one learner you can

see that he is the learner who can do such things like drawing – he can be sent to the technical where he can be helped. Parents can also take them to specialist – those with hearing problems so that they can get hearing aids.

P – R: E, e, e, - by the end of the day or year, that learner has been given an opportunity to improve his or herself.

P – S: Ke bona e ka le yane e ke mofileng o monyanyananyana, o a kgona ho bane ka nako e nngwe ba ya nepa, ka nako e nngwe ha ba nepe, feela ha ba nepa, ba ya thaba ha holo.

Translated version:

I see that even the one whom I've given lesser activities, is managing because sometimes he gets them correct, and other times he don't, but if they get them correct they become so excited.

P – T: Nakong e nngwe ba ya nepa, ho ya ka hore o ne o bafileng. Ha ba nepile, ba ya thaba le bona ba ba confidence. Ho ba, ha a ntse a fosa, le mahlong o a tjhentjha, o a solafallwa.

Translated version:

Sometimes they get activities correct, depending on what you have given them. When they've got activites correct, they become excited and confident. If he keeps on getting them wrong, one can see a change in his face, he becomes disappointed.

5.2.7.1 Clustering of responses

Progress (improves progress; show progress; others improve; ba ya improva; ba ya nepa; ha ngata ba ya nepa; others are improving; ha ke mo file o sa tshwaneng le wa ba bang o kgona ho fumana correct; progress eba betere; ba kgona ho improva; bakgona ho thola di activities right; ka nako enngwe ba ya nepa).

Socialization (improves socialization; le yane a sa kgoneng ho buwa a sa ba tleng ho buwa; a thutse feela;o kgona le ho buwa ha a na le di peers tsa hae).

Motivation (e ba encourager ho etsa mosebetsi; ba bile baya kguthala;

bayajabula uma bethole amaticks; bayajabula uma bebona ngimakile right; ba thaba ha holo ha bona maka ya right; baya nyakalla; ba ya thaba; thaba; ngwana o a thaba ha a nepile; uma bethole correct bayajabula; they become motivated; they complete the task).

Involvement (though bana ba bang ba sa dinepe; feela ba ba involved).,

Self-esteem (it enhances self-esteem; ba bonahala ba nale confident ha ba nepile, showing that they can mange; make them feel that they are like other people, in other words; it boost self-esteem).

Significant other response

Sometimes o tla thola hore e mong o ke kgona ho bona hore ke ngwana a ka
kgona bo drawing – he can be sent to the technical.
These adaptations give learners opportunities to get work because they are referred to Maluti. He/she feels accepted because he/she can achieve something.

- **Interpretation by the researcher**

Whether or not the adaptations of the curriculum benefit foundation phase learners with learning impairments could be linked to whether the teachers are applying it or not. Most of the teachers mentioned that curriculum adaptations benefited learners with learning impairments because they showed progress (13). They became motivated (eleven). It boosted the learners' self - esteem (five). They were able to socialize (two) and they became involved (one). One participant was showing uncertainty and confusion, this was evident as the participant said "because - ha, ha, ha – e ba, sometimes o tla thola hore e mong o ka kgona ho bona hore ke ngwana ya kgonang bo drawing – he can be sent to the technical where he can be helped. Parents can also take them to the specialist – those with hearing problems so that they can get hearing aids."

- **Interpretation by the “peer debriefer”**

The majority of interviewees said that curriculum adaptations could benefit learners with learning impairments in a way that they showed progress (13). They became motivated (12). It boosted their confidence (five) and it improved socialization (3). One interviewee did not really understand what the question entailed as she/he mentioned that one learner could be able to draw and thus, that learner could be sent to the technical where he could be helped and also parents could also take them to specialist – those with hearing problems so that they could get hearing aids.

5.3 FIELD NOTES

All 20 classrooms were clean but most of them were not conducive for learning as the number of learners in a class ranged from 35 - 75, which definitely made it impossible for the teachers to have identified and assisted learners with learning impairments. In one class, learners were seated in three groups of 22 learners in each group. In the second class,learners who were identified as having learning impairments were placed in one group which consisted of 16 learners. In all the other classrooms, learners with learning impairments were grouped together and the groups were between four and six in numbers. All the classrooms were print rich, meaning that there were teaching aids on the walls.

From what was observed in all twenty sessions, all teachers (20) useddemonstrative teaching strategy, thus, narrating or lecture method when lessons were presented. Twelve of the teachers moved to the groups of learners where they explained the content after the whole class was taught. The rest of the time was spent with learners with learning impairments, individually. That according to the researcher was time consuming as the periods were only 40 minutes. The periods lasted for one hour and one hour 20minutes respectively.

In one class there was an assistant teacher whom, according to the researcher, was not aware of her duties, as during the presentation time, four learners with learning impairments who were in one group seemed not to be part of the class. The only time they were taken care of, was the time when others were given the activities to do. They were given totally differentactivitiesby the teacher.The Grade 2 learners were given grade R work. Some ofthe learners with learning impairments (eight) were not engaged in the lesson activities, as they did not even raise their hands; neither showed any interest nor shared their interest with others.

5.4 OBSERVATIONS

Teachers in all classrooms (20) used the demonstrative teaching strategy, small groups and individual teaching. Some teachers used visual aids and concrete objects to demonstrate concepts, and also repeated certain information. Twelve out of 17 teachers who mentioned that they first gave all learners the same activities first, also stated that if the learner could not do the same activities as others, the learner was given the same activities but with adapted expectations. This was observed in twelve classes where 14 learners were given the same activities but differed in numbers. During activity time, teachers were facilitating and helping those with learning impairments.In eight classes, learners were all given the same activities and for those with learning impairments, it was said that they would be given different activities during expanded opportunity time, where the teachers would give them full attention.

It was difficult for the researcher to clearly identify learning strategies used, as learners with learning impairments often approached tasks passively especially when learning strategies were not explicitly taught.

When evaluating the end product, all the learners with learning impairments (22) completed the activities as no time was scheduled for the activities, though (eight) of the completed activities did not meet the objective of curriculum adaptations. Out of the eight learners whose activities did not meet the objective of curriculum adaptations, two

of them could explain what they learned, whereas, six could not explain what they learned when questioned.

5.5 DISCUSSION OF COMBINED RESULTS

The data collected from the 20 teachers, 22 learners and field notes, confirmed the findings reported in this chapter.

5.5.1 Curriculum adaptations

Curriculum adaptations refers to modifications that relate specifically to instruction or content of a curriculum and any adjustments to learning, teaching and assessment environment; learning, teaching and assessment techniques; learning, teaching and assessment support material that enhances a learner's performance or allows at least partial participation in learning activity; structure and learning programmes and assessment (DoE2005: 9).Miller (2009: 466) says that adaptations involve changes to the curricular content, changes to the conceptual difficulty level of the curriculum or changes to the instructional objectives and methodology. Hewitt (2006:270) on the other hand believes that curriculum adaptations imply actions at the classroom, school and teacher level.It is to take curriculum and adjust it to fit the need or to modify and use existing materials for insertion in a regular curriculum for very specialized reasons (cf. 3.4.1).

From the interviews, it was evident that most teachers did say that they understand what curriculum adaptations were. They mentioned that curriculum adaptations were adaptations of time, content, assessment, activities, material, the teacher's pace, tone presentation, methods, the language, and the teacher should do drill work with learners and read for them and finally use visuals such as pictures.

- **Interpretation by the researcher**

The researcher's opinion is that though teachers felt that it was about adapting the content, the process and the product, some of them knew the theoretical part of it but they were unable to practice it in their classrooms. The content, which was presented to learners, was the same for all learners in classrooms**.**Some of the teachers decreased the pace of instruction showing that they were accommodating even those learners with learning impairments. They repeated information.When coming to the end product, some teachers gave learners differentiated tasks and others did not. The assessment was all the same, there was no alternative assessment applied, for example a scribe. There was no time specified for written work, neither for those termed 'normal' nor for those with learning impairments. The teachers had to wait for everyone to finish writing. According to the researcher, this was not curriculum adaptations. The researcher thinks that the time for writing activities needs to be specified so that one could know what exactly the adapted time for learners with learning impairments was as it differed from learner to learner.

5.5.2 Factors that influencecurriculum adaptations for learners with learning impairments

The interviews conducted with teachers revealed the following factors:

- Academic deficits.
- Language deficits.
- Social-emotional problems
- Attention Deficit Hyperactivity
- Memory deficits
- Cognitive deficits
- Metacognitive deficits
- Perceptual differences
- Motor skills and co-ordination problems (cf. 3.2.5 and 3.4.1.1)

The majority of teachers could mention factors that inform curriculum adaptations for learners with learning impairments. The major factors mentioned by the teachers were perceptual differences, memory deficits, language and academic deficits.

- **Interpretation by the researcher**

Out of 22 learners who were observed, all learnerscompleted their activities asno timewas specified to complete the activities. It was difficult for the researcher to really conclude that learners had memory problems as they were all given enough time to complete their tasks; but instead, the researcher could say most of those learners experienced the short attention span problem.What also transpired from activities given to 14 learners was that their activities were the same but differed in numbers, more time and less work benefited them.The activities of eight learners with learning impairments did not meet the objective of curriculum adaptations. Two out of eight learners could explain what they have learned when asked**.**The problems identified by the researcher was that they could not write on lines as the teachers did not draw any lines on the chalkboard but expected learners to write on lines. Presentations as well as the activities were too longwithout any breaks in between.That, according to the researcher,was a teaching problem rather than a learning problem.

5.5.3 The processes which are followed in adapting the curriculum for learnerswith learning impairments

On the other hand, the Department of Basic Education (DBE 2010: 68) suggests thefollowing process as “the curriculum ladder as a strategy for adaptation:”

- Can the learner do the same activity as peers?
- If the learner cannot do the same activity as peers, he is given the same activity but with adapted expectations
- If the learner cannot do the same activity with adapted expectations, he is given the same activity but with adapted expectations and materials

- If the learner cannot do the same activity with adapted expectations and materials, he is given a similar activity but with adapted expectations
- If the learner cannot do a similar activity with adapted expectations, he is given a similar activity but with adapted materials
- If the learner cannot do a similar activity with adapted materials, he is givena different, parallel activity
- If the learner cannot do a different and parallel activity, he is givena parallel and functional activity with assistance

Hewitt (2006: 270) believes that adaptations as a process is not tied to a particular pattern or model (cf. 3.4.1.2).The majority of teachers said they gave learners the same activities first and after that they differentiated the activities, and gave fewer amount of activities to those learners with learning impairments.

Interpretation by the researcher

The majority of teachers (12)gave learners with learning impairmentsthe same activities but with adapted expectations, as they were already aware of learners who neededadapted activities.Activities were not prepared well in advance, as they hadto be written on the chalkboard. Eight teachers waited for the expanded opportunity time so that they can adapt the activites for learners with learning imparments. According to the researcher thatwas time consuming.

5.5.4 The ways in which teachers apply curriculum adaptations for learners with learning impairments

White Paper 6 (DoE2001b:19) argues that one of the most significant barriers to learning arise from different aspects of the curriculum such as the content, the language or language of learning and teaching, how the classroom or lecture is organized and managed, the methods and processes used in teaching, the pace of teaching and the

time available to complete the curriculum, the learning materials and equipment that is used and how learning is assessed.

Prater (2007: 232); Smith *et al*. (2008:168); Dettmer *et al*. (2009:245) and Miller (2009: 457) support the idea that curriculum adaptations refer to the adaptations in content, process and product (cf. 3.4.1.3).

The majority of teachers mentioned that their roles in adapting the curriculum were adapting the product, adapting the content and adapting the process. Teachers seemed to be aware of their roles in curriculum adaptations.

- **Interpretation by the researcher**

Though, most of the teachers (18) mentioned that they indeed adapted the product for learners with learning impairments, thus, time for completing the activities, the activities and assessment. According to the researcher, whattranspired in most classrooms was the adaptation of activities and time, which was prolonged for everyone not only for learners with learning impairments. The management of the classrooms was poor in all classrooms as grouping of learners was not heterogeneous but learners were grouped according to their abilities. During the time for activities, learners made noise.Teachers seemed to be aware of their roles in adaptatingthe curriculum, but practically it is still a problem to be addressed.

5.5.5 Teaching strategies that are used to adapt the curriculum for learners with learning impairments

Vaughn *et al*. (2007: 72) believe that no one approach or technique is appropriate for all learners with learning impairments, because learners with learning impairments are so diverse. Elbaum, Vaughn, Hughes, and Moody (1999) in Vaughn *et al*. (2007: 72) state that in the last five years, researchers have analyzed data that provided them with good indication of the best practices for learners with learning impairments. For example:

Whole class, large groups, small groups, pairs and one-on-one teaching were identified as best practices.

The majority of teachers (12) mentioned that they used small groups as a teaching strategy, followed by nine teachers who said they used peer assisted learning strategy, eight of the teachers mentioned one – on-one teaching and only six said they used direct instruction.

- **Interpretation by the researcher**

All teachers (20) observed, made use of a demonstrative teaching strategy, where the narrative or lecture method was used as it was teacher-centred. Some of them (12),used small group teaching while othersused one – on-one teaching strategies (6). Few teachers used visual aids and concrete objects to demonstrate concepts, and also repeated certain information.

5.5.6 Learning strategies which are used once the curriculum has been adapted

A learning strategy can be defined as “an individual’s approach to a learning task. A strategy includes how a person thinks, and acts when planning, executing and evaluating performance on the task and its outcomes” (Deshler and Lenz 1989: 205 in Heward 2009: 203). Eggen and Kauchak (2007: 155) argue that a learning strategy is a plan that a learner uses to accomplish a learning objective (cf. 3.4.1.4).All teachers instead of mentioning the learning strategies mentioned the learning styles.

- **Interpretation by the researcher**

According to the researcher’s observations, learners with learning impairments do not have a repertoire of learning strategies. They do not know how to control and direct their thinking to learn, how to gain more knowledge or how to remember what they learn. Learners with learning impairments often approached tasks passively. It was even

difficult for the researcher to identify the learning strategies used by learners with learningimpairments.

5.5.7 The benefits of curriculum adaptations

Deshler, Schumacher, Harris, and Graham 1999; Kame'enui and Simmons 1999; Lenz, Deshler and Kissam 2003; Scruggs and Mastropiere 2000 in Lee*et al.* (2006: 200-201) mention that curriculum adaptations are fundamental in efforts to promote progress in general curriculum for learners with other disabilities, particularly with learning impairments.

Cooperative learning strategies according to Mastropiere and Scruggs (2004: 235) and Woolfolk (2004: 494) could be effective in addressing the academic, personal, social, racial and ethnic relation development in the inclusive classroom while costs are reduced. Eggen and Kauchak (2007: 433) mention that as learners work together, they do indeed find that they are much more alike than different (cf. 3.5).

The majority of teachers (13) mentioned that curriculum adaptations improved the progress of learners with learning impairments. Eleven teachers mentioned that it motivated learners with learning impairments; five teachers mentioned that it boosted the learners' self-esteem and only one teacher mentioned that learners became involved.

- **Interpretation by the researcher**

The researcher's observations were that learners with learning impairmentswere motivated as they all completed the activities, progressed as there were correct ticks for the activities they have done. This boosted their self-esteem as the teachers praised them. Learners were also involved in doing the activities. Learners who did not get the activities correct, through written work were not given the opportunity to answer verbally.

5.6 CONCLUSION

In this chapter the researcher focused on the knowledge and skills of foundation phase teachers on the implementation of curriculum adaptations for learners with learning impairments. Those were: Curriculum adaptations; individual factors that inform curriculum adaptations; the processes followed when adaping the curriculum; the teacher's role in curriculum adaptations;the teaching strategies used when adapting the curriculum; the learning strategies used once the curriculum has been adapted and whether the implementation of curriculum adaptations benefit learners with learning impairments.

The verbatim responses were written down and interpreted by both the researcher and the "peer debriefer". Clustering of responses was also done in accordance with the frequency of similar responses. Furthermore, field notes and observations were interpreted and results were combined.

The findings indicated that, what was actually observed in the classroom was not necessarily curriculum adaptations as only time and activities were adapted and nothing else, though teachers understood what curriculum adaptations were. Most of the teachers felt that curriculum adaptations benefited foundation phase learners with learning impairments.

From the interviews, the observations and field notes, it was evident that teachers need to be trained in the implementation of curriculum adaptations. This should be done because the findings of the study showed that some foundation phase learners with learning impairments benefited from it. Learning strategies need to be taught explicitly to learners. Teachers' modeling and explanation, together with opportunities for practice and feedback are essential. In the following chapter, the researcher will focus on the summary, recommendations and conclusion.

CHAPTER 6

SUMMARY, RECOMMENDATIONS AND CONCLUSION

6.1 INTRODUCTION

Academic inclusion may sometimes involve modified curriculum, but wherever possible it should involve the same curriculum, presented and assessed in different and creative ways (Green & Engelbrecht 2007: 7).

This research was conducted with the aim of investigating the level of knowledge and skills of foundation phase teachersoncurriculum adaptations for learners with learning impairments in the Thabo Mofutsanyana district of the Free State Province. The following section presents the summary of chapters.

6.2 SUMMARY OF LITERATURE CHAPTERS

Chapter 1 presented the background to the study (cf. 1.2) and the problem statement, which was to investigate the level of knowledge and skills of foundation phase teachers with regard to curriculum adaptations for learners with learning impairments(cf. 1.5). Chapter 1 also clarified the objectives and concepts (cf. 1.7.2, 1.8), and briefly discussed the research design and methodology (cf. 1.11). The chapter also outlined the possible limitations of the study (cf. 1.12) and the division of chapters (cf. 1.14).The implication of the literature reviewed in this chapter was that inclusivity had to become the central part of the organisationprocess when lessons were planned and presented at school, and that teachers should use various curriculum differentiation strategies (cf. 1.10).

Chapter 2 contained a review of the literature pertaining to the inclusion of learners with learning impairmentsin an international context (cf. 2.3); inclusive education in South Africa was also discussed (cf. 2.4). A discussion on the different policies that

contributed to the establishment of an education system was outlined (cf. 2.4.1; 2.4.2; 2.4.3; 2.4.4; 2.4.5; 2.4.6; 2.4.7; 2.4.8).After 1994, when South Africa became a democratic country, different documents emerged which emphasized the redress of educational inequalitiesthrough a cost-effective,non-discriminatory education systemof high standard. Since learners should not be discriminated against in any form, the education system was expected toput learners first by recognising and building on their knowledge and responding to their needs, which was only to be achieved through curriculum adaptation.

Although various authors explained inclusion in different ways, the concept was ultimately about including everyone, regardless of ability or disability and gender or language. In the past, learners were assessed in order to determine placement and not the level of support required. Prior to the introduction of inclusive education in South Africa, there were policies in place that advocated inclusive education, for example, the ANC's NEPI Report (ANC1992), which related specifically to a unitary system aimed at protecting human rights, values and social justice by ensuring non-discriminatory, non-racist and non-sexist practices (cf. 2.4.1).This implied that inclusion could be the cornerstone for including learners in mainstream schools.

The Salamanca Statement (UNESCO 1994) promoted the principle of inclusive education which emphasized that all learners must have access to mainstream schools (cf. 2.4.2). Furthermore,White Paper 1 (1995) highlighted its key initiative asto respond to diverse learners' needs (cf. 2.4.3). The South African School's Act 84 of 1996stated that a public school must admit learners and their educational requirements served without unfairly discriminating in any way (cf. 2.4.4). The principles and values contained in the Constitution (Act 108 of 1996) and White Paper1 of 1995 and White Paper 6 of 2001on Education and TrainingSystem provided the framework for the transformation process needed to bring about an inclusive education system (cf. 2.4.5).The implication of this is that in order to respond to the needs of diverse learners, the curriculum would have to be adapted.

Chapter 2 also emphasized the Integrated National Disability Strategy (1997a)for access to the curriculum for learners with learning impairments (cf. 2.4.6).The Report of the NCSNET/NCESS (1997b) which recommended an education and training system that would promote education for all, and foster the development of inclusive and supportive schools that would enablelearners to participate actively in the education process (cf. 2.4.7). Building an inclusive education and training system in South Africa was based on the fact that every learner had unique characteristics, interests, abilities and learning needs, and therefore education systems and programmestook into account the broad diversity of these characteristics and needs (cf. 2.4.8).For all learners to have equal access to education, the education system must be designed in a way that cateres forthe needs of different learners – which includedcurriculum adaptations.

Inclusion involved the consideration of various factors (cf. 2.5), such as meeting learners' individual or special needs (cf. 2.5.1), opportunities for learners and the community to work and learn together in a cooperative environmentfacilitated (cf. 2.5.2), enabled the professional development of staff through the identification of needs and the provision of training (cf. 2.5.3), and allowed teachers to reflect on proposals for change that touched on their values and beliefs and also affectedtheir day – to-day professional practices (cf. 2.5.4). The provision of support was the key to progress, starting with the teachers in the classroom (cf. 2.5.5) and school resources distributed fairly to support inclusion (cf. 2.5.6). Inclusion also involvedcollaborative learningwith peer tutoringwhich playeda significant role in the outcomes-based curriculum (cf. 2.5.7). In order for curriculum adaptations to be successful, teachers need to be capacitated and access theschool resources in support of inclusion.

Chapter 3addressedlearning impairmentsfrom a national and international perspective (cf. 3.2). The Individuals with Disabilities Act (IDEA) defined learning impairmentsas a disorder in one or more of the basic psychological processes involved in understanding or using language in the spoken or written form, which might manifest itself in an imperfect ability to listen, think, speak, write, spell, or do mathematical calculations (cf. 3.2.1). According to the definition given by the National Joint Committeeon Learning

Disabilities (NJCLD), learning impairmentsare basic psychological processes that can occur at any age (cf. 3.2.2).

Chapter 3 also outlined the various causes of learning impairments, including poverty, overcrowded classrooms, inadequate teaching and learning materials (cf.3.2.3), genetics (cf. 3.2.3.1), teratogenics (cf. 3.2.3.2), medical conditions (cf.3.2.3.3), biochemical imbalances (cf. 3.2.3.4), environmental factors (cf. 3.2.3.5)and lack of time management and planning skills (cf. 3.2.3.6).Learning impairments might be caused by a variety of intrinsic and extrinsic factors, which could be addressed by means of curriculum adaptations.

Chapter 3 further discussed the general characteristics of learners with learning impairments, i.e. deficits in academic achievement (reading, writing and mathematics) and/or language (listening or speaking). Learners with learning impairments experiencedsignificant problems in other areas, such as poor social interaction, emotional immaturity;short attention span; hyperactivity etc. (cf. 3.2.4). In terms of curriculum adaptations (cf. 3.3), there were various aspects considered when accommodating learners with learning impairments in the foundation phase (cf. 3.4).

Chapter 4contained an in-depth discussion of the research process, which included the research methodology. Leedy and Ormrod (2010:12) stated that research methodology was the general approach taken by the researcher to carry out the research project. To some extent, this approach dictated the particular tools selected by the researcher (cf. 4.2). This study followed a qualitative research design, as the researcher was concerned with understanding the process, as well as the social and cultural context underlying the various behavioural patterns, with the participants being observed in their natural environment with the focus on their meaning and interpretation (cf. 4.3, 4.3.1).

Chapter 4 also discussedthe characteristics of qualitative research, for example the purpose (to gain a better understanding of complex situations), the process (holistic and “emergent”, with a specific focus on the design and measuring instrument), data

collection (the number of participants interviewed and observed by the researcher), data analysis (based on an interpretative philosophy aimed at examining the meaningful and symbolic content of the qualitative data) etc. (cf. 4.3.1.1).

Through a process of purposeful sampling (cf. 4.4), the researcher selected 20 foundation phase teachers to participate in the study, based on their knowledge of curriculum adaptationsand their location in the Thabo Mofutsanyana education district (cf. 4.4.1).

According to Creswell (1998 cited in Leedy & Ormrod2010:142) the central task during data analysis is to identify common themes in people's descriptions of their experiences, through a series of steps (cf. 4.5). The researcher followed seven steps when datawas analyzed:Semantic units and phases relevant to the questionsnoted, a number of segments which represented topics were schematically delineated, data consolidated and coded, etc. (cf. 4.5). The research process was also outlined in this chapter (cf. 4.6).

Chapter 5 presented the raw data, translated into English where necessary (respondents were free to answer questions in the language of their choice).This chapter also reflected the analysis of the data and the findings of the study, with results based on interviews, observations and field notes.

Chapter 6 provided a summary of the study, as well as the recommendations and conclusion.

6.3 SUMMARY OF FINDINGS

6.3.1 Problem statement

In terms of the problem statement of the study, the researcher investigatedthe level of knowledge and skills of foundationphase teachers on curriculum adaptations for learners with learning impairments (cf.1.5). From the study, it became evident that curriculum adaptations benefitedmost learners with learning impairments, although to a limited extent (cf. 5.4.7). The main objectives of the research were as follows:

- To explore different teachers' views on the meaning of curriculum adaptations
- To identify and describe the factors influencing curriculum adaptation for individual learners with learning impairments
- To explore the processes followed when adapting the curriculum for learners with learning impairments
- To analyse the ways in which teachers apply curriculum adaptations for learners with learning impairments
- To analyse the teaching strategiesused when adapting the curriculum for learners with learning impairments
- To analysethe learning strategies used once the curriculum adaptations have taken place
- To explore the benefits of curriculum adaptations for learners with learning impairments and
- To develop curriculum adaptations models suitable for learners with learning impairments

6.3.2 Objectives

The objectives pursued in the course of the investigation are specified below, along with the recommendations pertaining to each:

- **To explore different teachers' views on the meaning of curriculum adaptation**

Curriculum adaptations according to the Department of education (2005: 9) refer to modifications that relate specifically to instruction or content of the curriculum and any adjustments to learning, teaching and aassessment environment and assessment techniques. Miller (2009: 466) adds by saying that adaptations involve changes to the curricular content, changes to the conceptual difficulty level of the curriculum or changes to the instructional objectives and methodology.

From the interviews conducted with 20 foundationphase teachers, it was evident that the majority of teachers (17) understoodthe concept of curriculum adaptations, as well as someaspects of the curriculum that could be adapted. The participants believed that the curriculum could be adapted through lowering content, reducing activities, assessment, methods of presentation, pace and by giving learners additional time (cf. 5.2.1.1). However, from what was observed,all the teachers adapted time, as no time was allocated for the completion of the activities. Moreover, 12 teachers alsoadapted activities,but notother aspects of the curriculum, namely assessment, learning strategies and pace.

RECOMMENDATIONS

In order to improve theteachers' knowledge and skills oncurriculum adaptations, it is recommended that they be asked leading questions, such as what they would normally do in the case of a learner being unable to read at a certain level.It should be kept in mind that many teachers may be unfamiliar with the term "curriculum adaptations". In-service training, involving the adaptation of different aspects of the curriculum, could also be beneficial.

White Paper 6 (DoE, 2001b: 49) states that district-based support teams (DBSTs) and the site-based support teams (SBSTs) will be required to provide curriculum, assessment and instructional support in the form of illustrative learning programmes, learner support materials and equipment, assessment instruments for learners and professional support for teachers (cf. 2.5.5).

It is recommended that learning support advisors (LSAs) and subjectadvisors (SAs) should be jointly responsible for training teachers on curriculum adaptation, with SAs focusing on the lesson plan, and LSAs giving practical examples of the adapted activities. The SAs in turn would show teachers how to add the adapted activities to their lesson plans, thus making it clear that inclusive education isintegral to the curriculum and not merely an add-on.The Department of Education would benefit in terms of foundationphase teachers having the ability to adapt the curriculum for learners with learning impairments (cf. 1.14), whilst the learners themselves would see an improvement in their progress, motivation and self-esteem (cf. 3.5; 5.5.7).

- **To identify and describe the factors influencing curriculum adaptation for learners with learning impairments**

According to the research conducted by different researcherssuch as Lerner (1993); Rosner (1993: 15 – 17); Smith (1998: 139); Westhood (1997: 12; Smith et al. (2001: 97 - -101; Landsberg et al. (2005: 366); Eggen and Kauchak (2007: 141); Vaughn et al. (2007: 70); Smith 2008: 138 – 139); Turnbull et al. (2007: 106 – 108); Rosenberg et al. (2008: 145 – 148) and Haward (2009: 178 – 186), factors influencing curriculum adaptations could be: Academic deficits; language deficits; socio – economic problems; attention deficit hyperactivity; memory deficits; cognitive deficits; meta – cognitive deficits; perceptual differences and motor skills and coordination problems (cf.3.2.5 and 3.4.1.1).

The majority of participants (13) identified and describedthe factors influencing curriculum adaptations for learners with learning impairments. The common factors identified were perceptual differences, memory deficits, language deficits, and academic deficits. As no time limit was set for the completion of the activities, the researcher found it difficult to conclude that learners didexperience memory problems as when the product was evaluated all 22 learners completed the specified activities; 14 learners completed the activity and met the objective of curriculum adaptationsand two of the

eight learners who were unable to meet the objective of curriculum adaptations through their completed workwere able to explain what they learned when asked to do so. This could mean that some learners experienced a short attention span problem. Based on observation and written responses as teachers prolonged the period, it became difficult for learners with learning impairments to listen and be involved for such a long time without a break (cf. 5.2.2).

RECOMMENDATIONS

The majority of teachersidentified and describedsome common factors which contributed to curriculum adaptations for learners with learning impairments, but it was essential that teachers be exposed to a much wider variety of factors. Hargreaves and Fullen (1998, cited in Swart & Pettipher 2007: 116) stated that expecting individuals to change without offering institutional support is politically manipulative and dishonest (cf. 2.5.5).

It is recommended that LSAs hold a workshop for teachers and that they be asked to bring along the books of selected learners, to be used to identify factors that could inform curriculum adaptations. Any factors not identified in the learners' books could then be discussed during the training session, along with the applicable intervention strategies and curriculum adaptations.Such a workshop would benefit not only the teachers, but also the Department and the learners themselves.

It should also be mentioned that not all learners with learning impairmentsdisplay all manifestations thereof; such impairments can vary widely in terms of combination and intensity, differing from learner to learner (cf. 3.2.5).

- **To explore the processes followed when adapting the curriculum for learners with learning impairments**

The Department of Basic Education (DoE 2010: 68) suggests the curriculum ladder as the strategy for the processes of adaptatios, which entails: Can the learner do the same activity as peers? If the learner cannot do the same activity as his peers, he is given the same activity with adapted expectations; If the learner cannot do the same activity with adapted expectations, he is given the same activity with adapted expectations and materials; If the learner cannot do the same activity with adapted expectations and materials, he is given a similar activity with adapted expectations; If the learner cannot do a similar activity with adapted expectations, he is given a similar activity with adapted material; if a learner cannot do a similar activity with adapted material, he is given a parallel activity; If a learner cannot do a parallel activity, he is given a parallel and functional activity with assistance (3.4.1.2).

Herwitt (2006: 270) believes that adaptations as a process is not tied to a particular pattern or model (cf. 3.4.1.2; 5.5.3).

From the observations done,most of the teachers concentrated on two steps instead of the seven steps as suggested by the Department of Basic Education (2010: 68). That was: Can the learner do the same activity as his peers? If the learner cannot do the same activity as his peers, he is given the same activity but with adapted expectations.

The majority of teachers (17) mentioned that before they adapted the curriculum for learners with learning impairmentstheygave all learners the same amount of work on a number of occasions. Where no progress was observed, fewer activitieswere assigned(cf. 5.2.3).

During observation time,some teachers mentioned that they had already passed the stage of assigning all learners the same activities and moved on to assigning some learners fewer activities (12). However, a number of teachers still assigned all learners the same activities, with the intention of reducing the number of activities only during the expanded opportunity time (cf. 5.2.3). The researcher did not consider this to be

adaptation as such, but rather a time-consuming form of support given to learners with learning impairments.

RECOMMENDATIONS

The curriculum adaptationsprocess suggested by the Department of Basic Education (DBE, 2010: 68) was extremely time consuming (cf. 3.4.1.2), and the researcher concurred with Hewitt (cf. 3.4.2, 5.5.3) in the belief that adaptions were not tied to a particular pattern or model, and that teachers be capacitated in terms of the curriculum adaptations processes for them to chose which steps to follow as long as they benefit learners with learning impairments.

As an example: Teachers are expected to conduct a baseline assessment for all learners in all grades at the beginning of each year. It would be imperative for SAs to assist teachers in setting the baseline assessment tasks.According to the Department of Education (DoE2003c: 9) baseline assessment took place at the beginning of a phase, grade or learning experience in order to establish what learners already knew, what they could do, or what they valued. Moreover, for those learners with learning impairments, baseline assessment couldtake place in consultation with the SBST, whilst diagnostic assessment could be appropriate for those learners who have not shown any progress in the baseline assessment.

Diagnostic assessment is aspecific type of formative assessment that might lead to some form of intervention, remedial/support action, or revision programme. Ithelps to identify the strengths and weaknesses of a learner or a teaching methodology, or any barriers to learning. The results of diagnostic assessment assist in the planning of individual support for learners with learning impairments, and allow for curriculum adaptations in terms of allowing learners to respond verbally during tests and exams or to receive written work in an enlarged format (DoE 2002c: 9).Where schools do not have school assessment teams (SATs), the LSAs or members of the SBSTs would conduct the diagnostic assessment.The LSAs should be responsible for the training

ofthe SBST members in the administration of the diagnostic assessment and the interpretation and recording of the results, as well as the planningof support and adaptations if necessary.

It is recommended that each SBST coordinatorshould be responsible for conducting assessments and recommending adaptations at the school where he or she is employed as a teacher.Once a learner has been identified for curriculum adaptations, an application form (cf. 6.6) should be completed by theSBST and then forwarded to the LSA. The LSA or the member of the DSBT should visit the school in question to observe the learner. The application formshould then be presented to the DBST. The composition of the DBST depend on the nature of the case, butthe membership must include School Management and Governance Development (SMGD), the SA, LSA, Psychologist, Examination Officer, and Deputy Chief Education Specialist (Inclusive Educion).The DBST's decision in this regard should be included in the learner's profile, which remains on record throughout his or her school career, even in the case of temporary adaptations.

- **To analyse the ways in which teachers apply curriculum adaptation for learners with learning impairments**

Researchers such as Emmer and Stough (2001) and Jones (2005) in Eggen and Kauchack (2007: 371) cite that one of the teachers' roles in adapting the curriculum is to adapt the classroom management, which includes allocated time; instructional time; engaged time and academic learning time. Prater (2007: 238) and Dettmer et al. (2009: 244) suggest that the physical environment and the process of presenting the content also need to be adapted. Content also need to be adapted, this is suggested by Dettmer et al. (2009: 244); DoE (2005: 34); Smith (2007: 182); Smith et al. (2008: 168) and Miller (209: 457, c.f. 3.4.1.3).

Prater (2007: 238); Dettmer et al. (2009:244); Smith et al. (2008: 168) and Miller (2009: 457) mention that instruction needs to be adapted. The reseach conducted by Prater

(2007: 232); Nieman and Monyai (2006: 70); Dettmer et al. (2009: 244); Miller (2009: 457); Smith et al. (2008: 168) and the Department of Education (2002b: 16) reveals that the product also need to be adapted. According to Prater (2007: 245); Dettmer et al. (2009: 244) and Munk and Bursuck (2001b) in Prater (2007: 245) grades can be adapted (cf. 3.4.1.3).

According to the interviews conducted, teachers felt that their roles in adapting the curriculum were: Adapting the content; adapting the instruction and adapting the product (5.2.4.1).

The majority of teachers (17)were aware of their rolesin curriculum adaptations as they mentioned that they adapted the curriculum through: Lowering content, reducing content, assessment, methods of presentation, pace and by giving learners additional time, but were not carrying out some of those roles in practice (cf. 5.2.4). Twelve teachers adapted the activities and all 20 teachers gave learners extended time until they all finished writing. In terms of classroom management, teachers and learners did not adhere to the allocated timeslots for instruction andengagement. Learners were not grouped together in a heterogeneousmanner but they were group according to their specific abilities. Learners with learning impairments were being grouped together, which resulted in groups of average and outstanding learners.Due to overcrowding in certain classrooms, the environment was not conducive forlearning, thus, created a systemic barrier.

RECOMMENDATIONS

White Paper 6 (DoE2001b: 18) states that in mainstream education, differentiated teaching strategies should be prioritised so that learners can access the curriculum (cf. 3.4.1.3).

According to Oswald (2007: 256), effective classroom management and planning, as well as flexible grouping strategies, allow generous amounts of time for teaching and learningthus giving all learners access to the curriculum.

It is recommended that chief education specialists (CESs) should provide training in curriculum adaptations to LSAs and SAs, who would in turn train foundationphase teachers in this regard. Teachers would likely value such training as part of the curriculum in an inclusive setting. The training should include practical demonstrations to make teachers aware of the possibilities in terms of classroom management and the adaptations of content, process, instruction, product and grading (cf. 3.4.1.3).

Learners would also benefit from classroom management, such as the structuring of seating arrangements to suit theirindividual needs, and a slower pace of instruction through the use of visual aids. Some learners could be given fewer or different activities, whilst others would be given more time in a grade.

- **To analyse the teaching strategies used when adapting the curriculum for learners with learning impairments**

Vaughn et al. provides five best practices for learners with learning impairments:Whole class, large groups, small groups, pairs and one – on – one. The Department of Education (2005a: 32); Miller (2009: 468); Vaughn et al. (2007: 78); Friend and Bursuck (2006: 322 – 323) and Hallahan et al. (2009: 213) mention that multilevel instruction is one of the teaching strategies teachers can use in adapting the curriculum for learners with learning impairments. Whereas, Hallahan and Kauffman (2006: 19) and Hallahan et al. (2009: 203) mention four major instructional approaches, these are: Cognitive training, content enhancement, direct instruction and peer tutoring. Peer Assisted Learning Strategy is advocated by Fuchs and Fuchs (1998b) in Hallahan and Kauffman (2006: 196). Eggen and Kauchack (2007: 431); Putnam (2009: 82) and Woolfolk (2004: 494) suggest cooperative learning as a teaching strategy which teachers can use (cf. 3.4.1.4).

All 20 teachers interviewed mentioned that they made use of the demonstrative teaching strategy – i.e. they spoke and the learners sat and listened. They also made use of small groups and individual teachingmethods (cf. 5.2.5). Most teachers observed used similar teaching strategies, namely demonstrative instruction, small group teaching, peer assisted strategy and individual instruction. Although no mention was made of the modality of instruction, some teachers used visual aids and concrete objects to demonstrate concepts, and also repeated certain information. The product was differentiated through various activities in some classes, as well as additional time given to all learners, as no specific time limit was set.

RECOMMENDATIONS

Oswald (2007: 256) stated that pre-and in-service education programmes must validate a teacher's ability to reach all learners and to build a learner's strength when adapting and modifying the curriculum and the teaching strategies used in order to accommodate diverse learning needs. Therefore, teachers should be trained in the use of different teaching strategies.

Such training should be conducted by LSAs as well as SAs, since teaching strategies should cater not only to learners with impairments, but to all learners in the classroom. It is recommended thatin the provision of such training, the LSAs and SAs should also make use of various teaching strategies in the form of a practical demonstration to teachers. The same would apply when certain activities have to be carried out by teachers. After each presentation and each activity, the presenter would be expected to inform teachers about the type of teaching strategy used.

(a) Multilevelinstruction

Miller (2009: 468) mentioned that multilevel instruction is an approach to teaching that engages all learners in the class in the same curricular areas, but with differing

outcomes and varying levels of difficulty. This implies that the content is presented to the whole class using different teaching methods (cf. 3.4.1.4).

(b) Cognitive training

Hallahan and Kauffman (2006: 192) stated that cognitive training has four types, namely:

- **Self-instruction**

Self-instructionis the teaching of steps applied in problem-solving,which entailsthe questions the learner asks him/her before starting the activity, namely defining the problem, planning the strategy to be used, self-evaluation, and self-reinforcement.

- **Self-monitoring**

In self-monitoring the learner is taught how to monitorhis/her own progress, which is recorded on a graph.

- **Scaffolded instruction**

Hallahan and Kauffman (2006: 192) and Hallahan *et al*. (2009: 204) mentioned that scaffolded instruction is the support given by the teacher to the learner. This support ends when the learner is able to carry the task on his/ her own. The teacher models a three-step strategy for writing, saying the steps aloud: Think who will read this; plan what to say; and write and say more while modelling the strategy (cf. 3.4.1.4).

- **Reciprocal teaching**

In reciprocal teaching the teacher models the teaching strategies for the learners to use, namely: Predicting, questioning, summarisingand clarifying (3.4.1.4).

(c) Content enhancement

Hoch *et al.* (1999) and Lenz and Bulgren (1995) in Heward (2009: 195) maintained that content enhancement is a range of techniques used to enhance the delivery of the content. Content enhancement has four typyes of teaching strategies:

- **Graphic organisers**

Meyen, Verganson and Whelan (1996)in Lee, Shogren, Theoharis & Wehmeyer (2006: 200) stated that graphic organisers are visual displays used by the teacher to organise information in a manner that makes it easier to understand and to learn (cf. 3.4.1.4).

- **Mnemonics**

Belleza (1991);Hallahan and Kauffman (2006: 187); Lombardi and Butera (1998) in Lee *et al*. (2006: 202) and Test and Ellis (2005) in Cole and Wesburn -Moses (2010: 18) suggested that mnemonics are any memory-enhancing strategies such as word, sentence or picture devices used by the teacher (cf. 3.4.1.4).

Hallahan and Kauffman (2006: 186); Heward (2007: 203) and Prater (2007: 237) mentioned that in mnemonics the teacher transforms abstract information into concrete pictures that depict the material in a more meaningful way (cf. 3.4.1.4).

- **Peer assisted learning strategy**

Smith (2007: 184) maintained that a peerassisted learning strategy is when learners in a class help one anotherand the teacher is expected to teach learners how to assist one another and also to monitor learners (cf. 3.4.1.4).

- **Direct instruction**

Algozzine, Yssldyke and Campbell (1994); Englert, Levin and Long (1981) and Lloyd (1994) in Raymond (2008: 77) mentioned that in direct instruction the teacher is expected to plan an activity and have a direct role in the instruction process, and also provide relevant practice and verify that learning has occurred before moving on(cf. 3.4.1.4). This implies that direct instruction is learner-paced.

(d) Peer tutoring

Hallahan *et al*. (2009: 206) and Smith (2007: 183) state that in peer tutoring the teacher is expected to train and supervise learners who would be tutoring their peers (cf. 3.4.1.4).

(e) Cooperative learning

Cooperative learning as a teaching strategy refers to a family of instructional practices characterised by the use of groups to support academic learning (Johnson *et al.* 1994) in Raymond (2008: 77). According to Johnson & Johnson (1996) in Raymond (2008: 77) in cooperative teaching strategy,the teacher teaches and coaches the group in work skills (cf. 3.4.1.4). Eggen and Kauchak (2007: 431) stated that in cooperative learning, learners work in mixed-ability groups to reach a certain goal (cf. 3.4.1.4).

- **To analyse the learning strategies used once the curriculum has been adapted**

From the research conducted by different researchers such as Hallahan and Kauffman (2006: 192 and 196); Hallahan et al. (2009: 203 - 205); Heward (2009: 195); Test and Ellis (2005) in Cole and Wasburn (2010: 18); Fuchs and Fuchs (1998) in Hallahan and Kauffman (2006: 196); Johnson et al (2004) and Johnson and Johnson (1996) in Raymond (2008: 77; Eggen and Kauchack (2007: 431); Putnam (2009: 82) and

Woolfolk (2004: 494) thay all believe that examples of learning strategies are: Cognitive training; content enhancement; direct instruction; peer tutoring and cooperative learning (c.f. 3.4.1.4).

No teacher was aware of any learning strategy, as they all mentioned learningstyles when asked. One participant mentioned that learners were given activities according to their abilities and intelligence where they work in groups. Some of the participants instead, mentioned the learning styles, the problems and the intervention procedures therof. For example one participant said: 'Those with visual problems, I, I, let them sit in front so that they can see clearly. I also use bright chalk so that they can see big letters, sh…, not big letter, but big lines so that they can be able to see. Those with hearing problems - -I use gestures so that they can understand what I am saying (cf. 5.2.6). It was difficult to say learners had a learning strategy, as learners with learning impairments approached tasks passively.

RECOMMENDATIONS

As learners with learning impairments often approach tasks passively or use the same strategy for all objectives, it is important to train teachers in different learning strategies (cf. 3.4.1.4). This would be carried out through in-service training, as teacher modelling and explanation, together with opportunities for practice and feedback, are essential. Demonstrative lessons should be presented to teachers, which should be the responsibility of the LSAs and the SAs. The learning strategies to be taught to learners are:

(a) Cognitive training

- **Self-instruction**

Hallahan and Kauffman (2006: 192) and Hallahan *et al*. (2009: 203) maintained that

in cognitive training,learners should solve the problem by saying the problem aloud, looking forimportant words and cycling them, drawing pictures to explain what is happening, and writing out problems and answers (cf. 3.4.1.4)

- **Self-monitoring**

Hallahan and Kauffman (2006: 192) and Hallahan *et al*. (2009: 203)maintained that learners should monitor their own progress by checking their answers and recording on their graphs (cf.3.4.1.4).

- **Scaffolded instruction**

Hallahan and Kauffman (2006: 192) and Hallahan *et al*. (2009: 204) mentioned that in scaffolded instruction, learners should gradually memorise the strategy ofthinking, planning and writing, saying more and implementing it on their own (cf. 3.4.1.4).

- **Reciprocal teaching**

Meese (2001: 318)in Hallahan *et al. (*2009: 205) suggested that in reciprocal teaching, the learner should be the co- instructor for a brief period. The learner is expected to use four strategies, namely: Predicting, questioning, summarising and clarifying. Learners have to look for a topic or sentence, or give a name to a list of items as ways to identify the main idea. Learners point to information that is unclear or unknown as they clarify new vocabulary (cf. 3.4.1.4).

(a) Content enhancement

Heward (2009: 195) mentioned that content enhancement can be used as a general term for a wide range of techniques for foundation phase learners with learning simpairments.These techniques are: Graphic organisers, mnemonics and peerassisted learning (cf. 3.4.1.4).

- **Graphic organisers**

Hallahan *et al.* (2009: 205) suggested that when using graphic organisers, learners should arrange information containing words or concepts connected graphically so that they cansee meaningful hierarchical, comparative and sequential relationships (cf. 3.4.1.4).

- **Mnemonics**

Test and Ellis (2005) in Cole & Wasburn-Moses (2010: 18) maintained that with mnemonics, learners should choose words that sound like the word or words to be remembered and create a visual representation, using words that are associated with specific numbers in order to recall facts and creating a single word or phrase that starts with the same letter (cf. 3.4.1.4).

- **Peerassisted learning strategy**

Fuchs and Fuchs (1998) in Hallahan &Kauffman(2006:196) mentioned that classmates should be tutors who exchange roles of coaches and players (cf. 3.4.1.4).

(b) Direct instruction

Eggen and Kauchak (2004: 423) believe that in direct instruction the learner should practice the skill or identify additional examples of the concept and practice on their own (cf. 3.4.1.4).

(c) Peer tutoring

Lemmer, Meier and Van Wyk (2006: 104) suggested that in peer tutoring learners should teach other learners of similar age (cf. 3.4.1.4).

(d) Cooperative learning

Johnson *et al.* (1994) and Johnson and Johnson (1996) in Raymond (2008: 77); Eggen and Kauchak (2007: 431); Putnam (2009: 82) and Woolfolk (2004: 494) stated that learners with learning impairments should interact directly with one another when carrying out collaborative activities. Learners should have a chance of contributing to the success of the group. All learners with learning impairments should be held individually accountable for learning and they should participate fully or partially ingroup activities. Learners should also develop specific questions on the lesson material using the generic question and stems. Learners with learning impairments should also compare their answers with those of team members (cf. 3.4.1.4).

It is imperative to conduct workshops for teachers so as to enlighten them on different teaching and learning strategies. This will enable them to differentiate between learning strategies and learning styles, both of which should be taken into consideration.

- **To examine how curriculum adaptation benefits learnerswithlearning impairments in the foundation phase**

Researchers such as Mastropiere and Scruggs (1998) in Hallahan and Kauffman (2006: 188); Hallahan et al. (2009: 206); Prater (2009: 237); Smith (2007: 185) and Herward (2009: 199) mention that adapting the curriculum for learners with learning impairments can assist learners in recalling information. Hallahan et al. (2009: 206) also believe that information can be retained when the curriculum have been adapted for learners with learning impairments.

Increased motivation, efficacy and willingness to learn is what Mastropiere and Scruggs (1998) in Hallahan and Kauffman (2006: 2006: 188) believe in.On the one hand, Lee et al. (2006: 200) suggest that the usage of graphic organizers help learners to assimilate new information. Whereas on the other hand Friend and Bursuck (2006: 132) cite that

graphic organizers help learners with learning impairments to remember several main ideas and they keep learners on task. Smith (2007: 184) argues that Peer Assisted Learning Strategis multiplies opportunities for individual instruction

Peer tutoring is frequently an effective way to increase the amount of individualized instructional attention, whereby, improvement in learner learning is attributed to the increased opportunity for academic responding time, coupled with immediate feedback. Peer tutoring provide the opportunity to support the development of social skills and social relationships among learners with and without impairments (Villa and Thousand 1998) in Raymond (2008: 79).

Using peer tutoring frees the teacher to provide more intensive support to learners who need them most. Peer tutoring has consistently proved effective, boosting gains in learning (Smith 2007: 184). Cooperative learning strategies could be effective in addressing the academic, personal, social, racial and ethic relation development (Mastropiere and Scruggs 2004: 235 and Woolfolk 2004: 494, cf. 3.5).

Most teachers were aware of the benefits of curriculum adaptations for learnerswith learning impairments, as they mentioned that learners showed progress; they became motivated; it boosted the learners' self-esteem, etc. (cf. 5.2.7). This was also evident when learners were given extended time (as no time was specified) to finish their activities and got some of the activities correct.

RECOMMENDATIONS

As learners were observed, it became evident that curriculum adaptations does benefit learners with learning impairments, because they all completed their activities, and they had correct ticks for the some activities done. The correct ticks boosted their self-esteem, as teachers also praised them (cf. 3.5).Those learners who did not do the activities correctly should be given a chance to answer orally.

For teachers to be able to implement curriculum adaptations, it is necessary that they be workshopped. Both the LSAs and the SAs must conduct workshops so that teachers could be presented with a clear understanding that clarifies the relationship between CAPS and the curriculum and inclusive education, as teachers see the three entities as separate.Although one could notguarantee that conducting a workshop for teachers on these concepts would work, until it is tested in the classroom, chances of success will be greater if the LSAs and the SAs and all role players are involved.

Gibson and Blandford (2005: 135) believe that the training of staff is critical to the development of a school's approach to inclusion and teaching learners with learning impairments (cf.2.5.3).

The achievements of these objectives were sought through a literature study and interviews. The empirical investigation indicated that there is a need for in-service training for further teacher development at different schools with foundation phase within the Thabo Mofutsanyana District in the Free State. The model for in-service training for teachers was envisaged (cf. 6.3.2).

6.4 MODEL FOR IN-SERVICE TRAINING

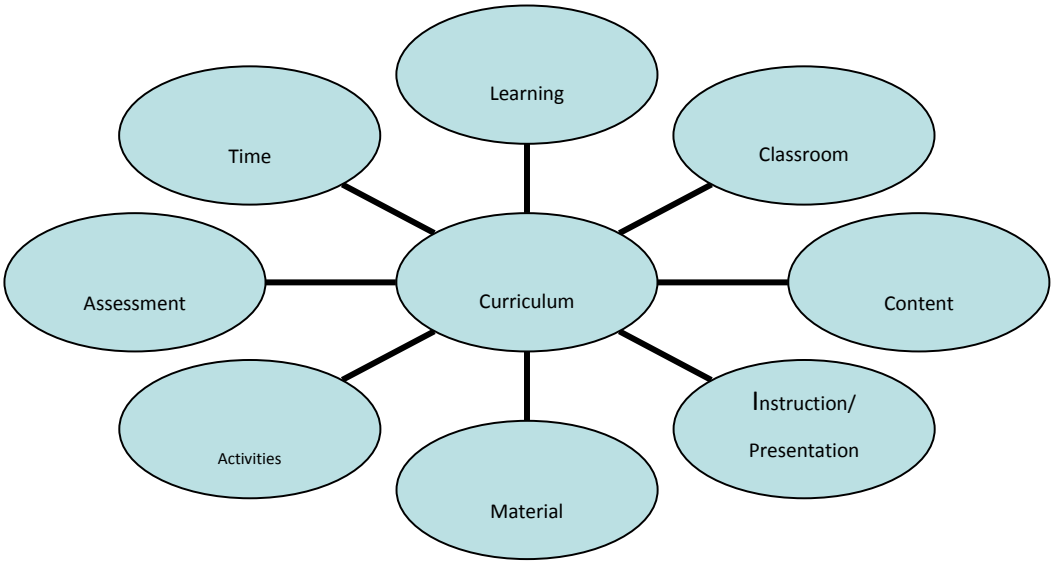
The following is the in-service training model suggested for teachers when adapting the curriculum for learners with learning impairments.

TOPIC	**DURATION**
1. Learners with learning impairments	
Introduction	5 minutes
2. Identification of learners with learning impairments	
Introduction	3 minutes
Academic Deficits	10 minutes
Language Deficits	5 Minutes
Socio-Emotional problems	10 minutes

Attention Deficits and Hyperactivity	10 minutes
Memory Deficits	10 minutes
Cognitive Deficits	10 minutes
Metacognition Deficits	10 minutes
Perceptual Differences	10 minutes
Motor Skills and Coordination	10 minutes
3. Curriculum Adaptations	
Introduction	3 minutes
Learning Environment	20 minutes
Classroom Management	20 minutes
Content	20 minutes
Instruction/ Presentation	40 minutes
Materials	30 minutes
Activities	10 minutes
Assessment	10 minutes
Time	10 minutes

The following is the curriculum adaptations models as designed by the researcher.

6.5 CURRICULUM ADAPTATIONS MODEL



The researcher proposed this kind of curriculum adaptations through the realisation that curriculum is not only about what is taught in the classroom. It also includes the learning environment, which is the kind of environment that is most preferred when learning, thus, the researcher will only concentrate on the learning environment, which is the classroom climate, and classroom management, which is a means by which effectiveness of teaching and learning is increased. Before the teacher can start teaching learners, the learning environment and classroom management should be considered, as they are general in all subjects. In other words, the learning environment needs to be conducive foreffective teaching and learning.The following table illustrates how the learning environment can be adapted for learners with learning impairments.

6.5.1 Implementation of the Curriculum Adaptation Model

6.5.1.1 Learning Environment

According to the researcher, the learning environment is an important factor in promoting positive learning and development for learners with learning impairments.

Factors inside the classroom that can influence teaching and learning	**Strategy**
Seating arrangement	- Consider the type of learning activities in which learners will be involved (whole-class, group, individual, etc.). - Combine group work with whole-class presentation, so that it is easier for learners to move from small groups to whole-class activities. - If most of the instruction is conducted in a whole-group, let learners sit facing the chalkboard with the

	teacher standing in front. - Use the seating arrangement that works best for each teacher.
▪ Environmental factors	-The volume of the sound must accommodate all learners. - Lighting must not be too bright or too dim.
▪ Teaching process	- Effective teaching is found to occur frequently when flexibility is demonstrated. - Learners' learning styles must be considered. - Presentation of the lesson uses different teaching strategies/methods. - Clear expectations from the teacher.
▪ Learners are motivated when:	- Rewards are used to improve work Habits– reward could be stickers/stamps. -Learners with learning impairments areallowed more time on a task, take breaks at regular intervals. - The teacher gives directions for those learners with a short attention span. - Written instructions are verbalised so that they can all understand the instructions. -The learners' experience is considered. - The teacher considers the learners' interests and values. - The learning material is relevant to

	them.
▪ Learners learn more effectively if they have the necessary skills to participate in the topic	-Tasks must be properly sequenced. -A problem/information must be broken into parts. - Clear instructions must be given to learners - Support must be given to learners with learning impairments. - Materials must be readily available for learners with learning impairments.
▪ Learners learn more readily when they are actively involved	- Provide activities in which the learner with learning impairments can participate - Ensure that a learner with learning impairment who lacks some skills is provided with support such as peer assistants. - Use a one – on-one instruction.

The following table highlights how learners can experience success when a classroom is well managed.

6.5.1.2 Classroom management

Classroom management enables the teacher to carry out certain management activities. Classroom managements aimed at the establishment and maintenance of certain conditions in the classroom and in which effective teaching and learning takes place.

▪ Classroom management must	- Room for interaction

promote:	- Supportiveness - Acceptance - Cooperativeness - An atmosphere where learners with impairments are treated with dignity
▪ Teachers should manage the classroom in such a way that it promotes success through various behaviours and attitudes (educative teaching)	-Show belief in learners' potential. -Display acceptance of the differences of learners' learning styles. -Use a variety of ways to accommodate the learners' learning styles. -Encourage learners to offer honest praise. -Set goals which are not too high or unachievable -Demonstrate acceptance and appreciation of learners by taking time to get to know them. -Involve all learners in classroom decisions. - Manage his/her personal life and thus would be able to manage his/her learners'.
▪ Learning	- Allow extra time to complete the task - Team a weaker learner with a stronger learner - The workload must be reasonable - Allow learners to work in pairs or groups - Use taped stories or information so that learners develop comprehension

	and listening skills - Use rewards to improve work habits. - - These rewards could be stickers or Stamps
▪ Classroom organization	-Keep classroom organization consistent. -Organize the tables so that the learners face the direct lighting -Allow the learner to choose the most suitable location to see charts, boards and other visual displays -Seat learners with learning impairments next to the teacher. - Place reminders on the table. - Paste the timetable on the table.

As the researcher has alluded to both the learning environment and the classroom management, the following paragraphs discuss and illustrate how a topic in Mathematics, Grade 3 can be adapted for learners with learning impairments.

6.5.1.3 Content

An example of how Mathematics content could be taught -

The researcher used the following topic as an example of how this can be done.

TOPIC: Numbers, Operations and Relations

The content of the curriculum should take into consideration the following:

- The learning style of the learner. These learning styles are: (1) *Visual* – visual learners remember best through things they see or read, these learners benefit from the teacher's demonstration, modelling, picture, diagrams and chalkboard work. (2) *Auditory* – auditory learners remember what they hear well. (3) *Tactile –kinaesthetic* – tactile-kinesthetic learners prefer to write or use their hands in a manipulative way in order to remember
- The level of the content should match the level of the learner e.g. in Mathematics Gr 3, during the second term, when doing repeated addition leading to multiplication, a learner is expected to multiply 2, 3, 4, 5 & 10 to a total of 50
- The interests of the learner
- The prior learning experiences of the learner
- The abilities of the learner
- The language of the learner and the Language of Learning and Teaching (LoLT)

6.5.1.4 Instruction/Presentation

- Vary the method of instruction

- Vary the format of the lesson

- The presentation must take into account the learner's strengths and needs

- The level of abstraction could be changed to suite the learners' abilities i.e., concrete material, visual aids, videos, practical activities**,** etc.

- The first fifteen minutes at the start of each Mathematics lesson should be used for whole class activities. Focus mainly on Mental Maths, e.g.
  1. The teacher points to a number on the chart and asks the learners to count in 5s from that number.

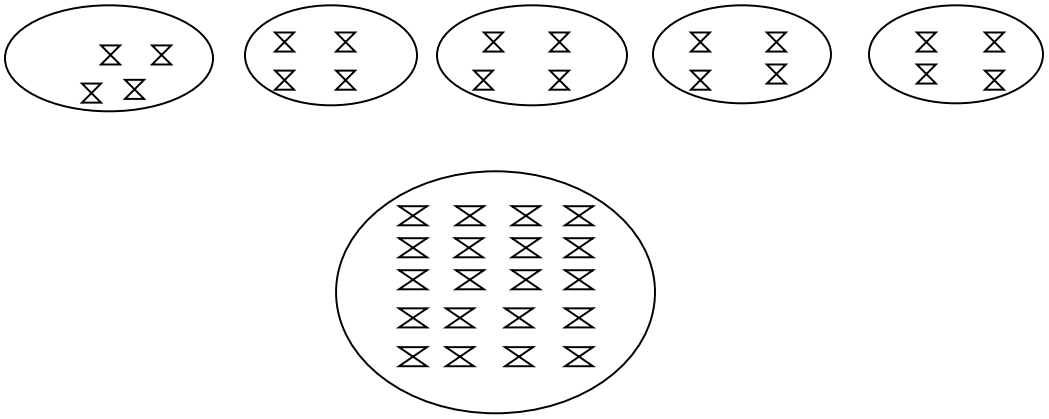
2. The teacher points to an even number and asks learners to count in 2s from that number. By pointing and asking the learners to count from a certain number, the teacher has already accommodated visual and auditory learners.
3. For kinesthetic learners, when counting, body movements would be involved as in rapping.

Whole-class presentation

- Learners are asked questions such as: How many legs do five chairs have? Questions such as: How many legs do five cows have? (auditory) Draw the problem on the chalkboard (visual)

4 + 4 + 4 + 4 + 4 = 20

- Write 4 + 4 + 4 +4 + 4 = (auditory and visual)
- Introduce learners to the number sentence 4 x 5 = 20 (auditory and visual)
- Let learners do five groups of four and then add to get the total (kinesthetic)

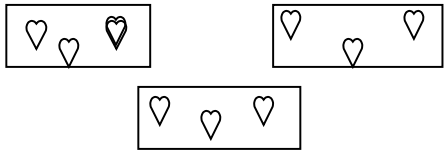


- Repeat using groups of 2, 3, 5 or 6

The lesson could also be presented in groups of four to six learners, for example:

- Learners could be put in groups with counters

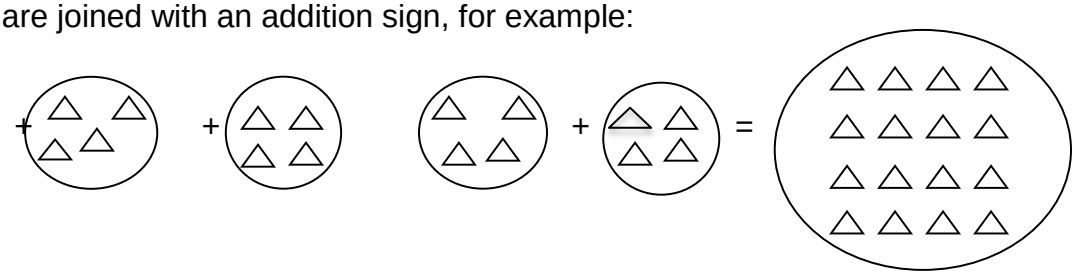
- Ask them to show you groups of 3, 5, or 6 and write the repeated addition and multiplication number sentence (auditory, visual and kinesthetic)

Picture	Repeated addition	Multiplication
	3+3+3=9	3X3=9

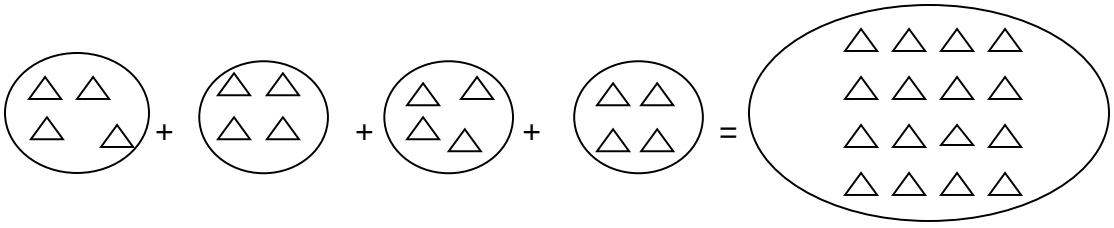
- Repeat with different groups of 2 or 10

- Individual presentation for learners with learning impairments, for example: Learners are instructed to put counters in a group, thus, 4 groups of 4, and groups are joined with an addition sign, for example:

-



- The corresponding number is written under each group and added together to find an answer, for example



4 + 4 + 4 + 4 = 16

6.5.1.5 Material

- The teacher's teaching material should cater to all learning styles

- Concrete objects should be used together with practical activities for a longer time

- When some learners use worksheets or workbooks to do the activities, others with learning impairments use drawing books or pages written by the teacher so that it is not possible for them to page through and only focus on the given activities

6.5.1.6 Activities

For all learners who do not need any adaptations.
Instruction:

- Make up and complete 5 activities of your own, using any numbers. Remember: Don't write any of those we have done

Adaptations

- Some learners with learning impairments, because they have a short attention span, they are allowed to do one activity at a time, bring it to the teacher for marking and continue with the following one until all the activities are done or have a short interval in between the activities

- Reduce the number of activities to be done by learners with learning impairments without compromising the concept and skills that are addressed

- Concrete objects together with practical activities should be used for alongertime

- Provide reference charts such as maths tables, etc.

- Use computers for mathematics instruction, for example: A computer can be used with a drill – and-practice software packages that provide additional review. Computer practice for multiplication is more effective when coupled with direct teacher instruction. The computer is also excellent for practice in problem-solving as many mathematics software programs offer concise, clear directions, moving from concrete directions to longer and more complex directions

6.5.1.7 Assessment

- Verbal response using amanuensis as the learner reverses the numbers or cannot write the correct number but can say it correctly. Amanuensis is whereby a teacher (not teaching at the same institution) or someone (a departmental official) is assigned to read the task to the learners and writes the verbatim responses of the learner
- The learner can also be given an opportunity to demonstrate the answer using hands on material

- Have different groups and then one group together

- Learners can be allowed to use calculators in maths computations

6.1.5.8 Time

- Instruction time should be adapted according to the learners' level of performance, it should either beincreased or decreased but as for the learners with learning impairments, the researcher suggests that more time be given for presenting one topic and for learning. Drill work is also suggested as learners with learning impairments could benefit from drilling

- Time to complete the task should also be increased for learners with learning impairments.

Learners with learning impairments should also be granted more time for acquiring skills or their own learning strategies.The following is the researcher's model of the application form which could be used by the SBST to apply for adaptation(s):

6.6 MODEL OF AN APPLICATION FOR ADAPTATION(S)

Seeing that adaptations in most of the schools are only done without anything written down, the researcher decided to come up with a model of an application form which could be filled in by the SBST (as schools do not have the School Assessment Teams yet) after the teacher has discussed the learner's case.

The formis to be sent to the relevant Learning Support Advisor. Either the LSA or a member of the DBST, depending on the impairment (s), will visit the school in order to observe the learner and complete the very same form. The completed form together with evidence will then be discussed with the District Based Support Team who would then give approval on curriculum adaptations that should be done by the teacher.The approval should reach the school within five working days. After the school has received the approval, the researcher recommends that teachers should use the model of a record sheet for adaptations implemented.This form is filled at the end of each year in which the learner received adaptations.

It is expected of every teacher to place all applicationforms and recommendations for adaptations in each learner's profile.

APPLICATION FOR ADAPTATION (S) ON BEHALF OF FOUNDATION-PHASE LEARNERS WITH LEARNING IMPAIRMENTS

GENERAL INSTRUCTIONS

1. Section A, B1 and B2: To be completed by the teacher
2. Section C: To be completed by the SBST
3. Section D: To be completed by the DBST Official
4. Section E: To be completed by the DBST

SECTION A: IDENTIFICATION PARTICULARS								
Surname of the learner								
First names								
Date of birth	**D**	**D**	**M**	**M**	**Y**	**Y**	**Y**	**Y**
Name of school								
District								

SECTION B: INFORMATION ON THE LEARNER'S LEARNING IMPAIRMENT (S)	
B.1. IMPAIRMENT/S(The learner may have more than one impairment mentioned below – make a cross in the space provided to indicate the impairment/s	
1. Impairment related to reading	
2. Impairment related to spelling	
3. Impairment related to writing	
4. Impairment related to expressive language (speaking)	
5. Impairment related to receptive language (receiving spoken language/ hearing impaired)	
6. Impairment related to attention	
7. Impairment related to vision	
8. Impairment related to epilepsy	
9. Impairment related to cerebral palsy	
10. Impairment related to other health problems.	
11. Any other impairment (Please specify)	
Supporting documents attached? YES/NO	

B.2 HISTORY/BACKGROUND RELEVANT TO THE IMPAIRMENT(S)

1. Brief description of learning impairment(s):

_____

In what way would the above learning impairment(s) influence the learner's opportunity to be fairly assessed? An additional page may be attached if more space is required.

1.1_____

_____

_____

_____

2 Scholastic information:

2.1 Grades repeated from grade 1

Grade	**Year Repeated**	**Subject(s) in which requirements were not met**			
		Home Language	First Additional Language	Maths	Life Skills

2.2 Attach latest assessment results

2.3 When was the impairment first identified/recorded and by whom?

_____

_____

2.4 Did the learner receive any specific support/intervention? _____

If **YES**, state by whom, the frequency, type, duration of support

By whom (e.g. class teacher, support teacher, therapist, etc.	**Frequency** (e.g. once per week,2 periods per week, etc.	**Type** (e.g. reading, etc.	**Duration** (e.g. 3 months, etc.)	**Improvement** YES/NO

3.Any other appropriate information

_____

_____

_____

_____

_____

1. On what date (s) was the learner seen by the medical practitioner, in the case of injury or illness?

_____

_____

SECTION C:ADAPTATION (S) TO BE APPLIED AND/OR EQUIPMENTNEEDED					
	X	**Indicate the Subject(s) in this column**			
		Home Language	**First Additional Language**	**Maths**	**Life Skills**
Tape-aid/CD					
Enlarged print					
Dictaphone					
Video					
Computer					
Additional time:					
5 minutes					
10 minutes					
15 minutes					
Period of rest:					
5 minutes					
10 minutes					
15 minutes					
Amanuensis (Reader and scribe)					
Scribe (Oral to the teacher)					
Other (Specify)					

NB: Attach all information relevant to this application.

_____ _____ _____

Name of SBST Coordinator **Signature** **Date**

_____ _____ _____

Name of principal **Signature** **Date**

SECTION D: TO BE COMPLETED BY THE DISTRICT BASED SUPPORT (DBST) MEMBER
Name of District Based Support Member:_____ Designation:_____
Does the learner qualify for adaptation(s)_____
If **YES,** give recommendations as to the particular adaptation(s), you should also give reason(s): _____ _____ _____ _____ _____ _____
If **NO,** specify _____ _____ _____ _____ _____ _____
NB: Attach own report (observation)and any further information obtained

_____	_____	_____
Name	**Signature**	**Date**

SECTION E: APPROVED ADAPTATION(S) FOR THE LEARNER WITH LEARNING IMPAIRMENT

Surname of learner								
First name(s)								
Date of birth	**D**	**D**	**M**	**M**	**Y**	**Y**	**Y**	**Y**
Name of school								
District								

THE FOLLOWING ADAPTATIONS WERE APPROVED BY THE DBST					
	X	**Indicate Subject(s) in these columns**			
		HL	**FAL**	**MATHS**	**L SKILLS**
Tape-aid					
Enlarged print					
Dictaphone					
Video					
Computer					
Additional time:					
5 minutes					
10 minutes					
15 minutes					
Period of rest:					
5 minutes					
10 minutes					
15 minutes					
Amanuensis(Reader and scribe)					
Scribe (Oral to the teacher)					
Other (Specify)					

_____ _____ _____

Name (DBST Chairperson) **Signature** **Date**

6.7 MODEL OF A RECORD SHEET FOR ADAPTATION(S) APPLIED

Please complete the information as requested below. This should be kept safely in the Learner's Profile in order to record the history of adaptation(s) granted to the learner. Please complete at the end of every year in which the learner received adaptations as a proof of history when applying for adaptation(s) in Grade 9 and/or grade 12 (Attach a copy of this form).

CODES FOR IMPAIRMENTS (CfI):

1 – Mathematics; **2** – Hard of Hearing; **3** – Spelling; **4** – Reading problem; **5** – Writing problem; **6** - Attention Deficit; **7** – Cerebral Palsy; **8** – Epilepsy; **9** – Autism; **10** – Intellectual impairment; **11** – Speaking;
12 – Other impairments _____

CODES FOR ADAPTATIONS GRANTED (CfAG):

A – Period of rest: 5mins/10mins/15mins B – Computer C - Scribe
D – Additional time: 5mins/10mins/15mins E – Separate Venue
F - Rephrasing G – Enlarged print
H – Amanuensis I – Dictaphone
J – Tape-aid K – Limitations of work tempo
L – Reading to the learner M – Other _____

Name of the learner: _____ **Date of birth**: _____

Year	20__	20__	20__	20__	20__	20__	20__	20__	20__
Grade									
CfI									
CfAG									
Teacher									
Principal									

6.8 FUTURE RESEARCH

The researcher recommends the following areas of research, which are related to this study and, which are areas that are relevant to this study and whch any researcher can research:

- Cooperative learning for learners with learning impairments in the Foundation Phase
- Multilevel instruction for learners with learning impairments in the Foundation Phase
- Adaptation of classroom management as a strategy to enhance learning for learners with learning impairments in the Foundation Phase
- Identification and support of learners with learning impairments in the Foundation Phase
- Using the buddy system/peer education to enhance learning for learners with learning impairments
- Alternative ways of assessment in inclusive classrooms
- Individual support plans for learners with learning impairments
- Referral procedures for learners with learning impairments
- How assessment informs the teaching and learning process.

6.9 CONCLUSION

In order for the Thabo Mofutsanyana Education District to cater for all their learners with learning impairments in the foundation phase, it is of outmost importance to implement curriculum adaptations for those learners whilst still in their lower grades so that they could improve and not end up in resource centres or in special schools. Teachers' skills should be improved so that they could find it easier to reach a wide range of learners in their classrooms.

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ADDENDA

ADDENDUM A

125 Mlangeni Street
Reitz
9810
07 March 2011

For Attention: The Director:
Mr FR Sello
Strategic Planning, Policy & Research

The Head
Free State Department of Education
Private Bag X 20565
Bloemfontein
9300

Dear Sir

RE: <u>REQUEST TO CONDUCT RESEARCH</u>

I hereby apply for permission to conduct research in your Foundation Phase classes. Particulars of information required are contained in the research proposal, interview schedule.

In addition to that, observations and field notes will take place during school hours for the duration of 40 minutes (which is one period), and, as for teachers, interviews will be conducted after school hours, for 30 minutes.

The research is scheduled to take place during May 2011.

I hope my application will be considered.

Yours faithfully
_____
Nompsssumelelo Alzinah Mzizi

education

Department of
Education
FREE STATE PROVINCE

ADDENDUM B

Enquiries: MC Khatite
Reference no. : 16/4/1/04-2011

Tel: 051 404 9275
Fax: 051 404 9274

2011 - 03 - 30

Mr WRM Mokuena
Director: Thabo Mofutsanyana Education District
Private Bag X817
WITSIESHOEK
9870

Dear Mr Mokuena

NOTIFICATION OF A RESEARCH PROJECT IN YOUR DISTRICT

Please find attached copy of the letter giving **Ms. N. A. Mzizi** permission to conduct research in sampled schools in the Thabo Mofutsanyana Education District. Ms Mzizi is a Senior Education Specialist in Inclusive Education and is studying for PhD with the Central University of Technology.

Yours sincerely

FR SELLO
DIRECTOR: STRATEGIC PLANNING, POLICY AND RESEARCH

ADDENDUMC

125 Mlangeni Street
Reitz
9810
12 May 2011

The Principal

Dear Sir/Madam

RE: <u>REQUEST TO CONDUCT RESEARCH</u>

I hereby request for permission to conduct research in your school on the 07th June 2011. The research will be conducted using two methods, namely, observation that will be done during teaching time for 40 minutes, and an interview where I will be interviewing Foundation Phase teachers. The interview with the teacher (s) will last for 30 minutes. My research topic is: Curriculum adaptations for learners with learning impairments in the Foundation Phase in Thabo Mofutsanyana Education District, Free State Province.

I have been given permission by the Free State Department of Education to conduct research at your school, but, only if you give me permission.

I hope my request will be considered.

Yours faithfully

_____

Nompumelelo Alzinah Mzizi
(073 138 4176)

ADDENDUM D

INTERVIEW SCHEDULE

1 In your opinion, what are curriculum adaptations?

1 What factors inform curriculum adaptations for individual learners with learning impairments?

2 How do you adapt the curriculum for learners with learning impairment?

3 Which different curriculum aspects need to be adapted for learners with learning impairments?

4 Which teaching strategies do you use when you adapt curriculum for learners with learning impairments?

5 Which learning strategies are used one the curriculum has been adapted?

6 In which ways do curriculum adaptations benefit learners with learning impairments?

ADDENDUM E

OBSERVATION SHEET

Progress with curriculum

	Yes	No
Is a learner learning what was taught?		
Is a learner practicing and performing as expected?		
Is a learner applying skills being learned?		

Interest

	Yes	No
Is a learner engaged in the lesson activities?		
Is a learner showing interest?		
Is a learner sharing his/her interest with others?		

Characteristics

What is a learner's learning strategy?	
What is a learner's response to material?	
What is a learner's response to the pacing of the instructions?	

Product

	Yes	No
Did a learner complete the activity?		
Does it appear that the work completed meet the objective of curriculum adaptations?		
When questioned, can a learner with learning impairment explain what he/she has learnt?		