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**IMPLEMENTATION OF LEARNER-CENTRED
EDUCATION BY GRADE 4 BETD IN-SERVICE
TEACHERS IN SELECTED NAMIBIAN SCHOOLS
A CASE STUDY**

A thesis submitted in partial fulfilment of the
requirements for the degree of

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ABSTRACT

Before independence Namibia's education system was predominantly teacher-centred. Soon after its independence Namibia embarked on education restructuring and transformation. A new education system, learner-centred education, was introduced to cater for the needs of all Namibian learners. It was seen as an effective antidote to the stifling teacher-centred practices of the previous education system. A new programme, the Basic Education Teacher Diploma (BETD) was introduced to prepare teachers to teach in a learner-centred approach. Research has, however, indicated that many Namibian teachers have a somewhat shallow or naïve understanding of learner-centred education.

This small-scale case study, conducted in Oshikoto region, focuses on two Grade 4 teachers. The study examined the two teachers' perceptions and experiences of learner-centred education and the teaching strategies they use to develop learners' understanding. The study uses a qualitative approach in its exploration of teachers' lived experiences of becoming learner-centred.

The data emerging from this case study identify a number of misconceptions and understandings of learner-centred education and its implementation. The findings suggest that teachers' misconceptions are caused by a lack of deep understanding about the epistemology and theory of learning which underpins Namibia's reform policies and principles.

TABLE OF CONTENTS

ABSTARCT	ii
TABLE OF CONTENTS	iii
ACRONYMS USED IN THIS STUDY	vii
ACKNOWLEDGEMENTS	viii

CHAPTER ONE

INTRODUCTORY OVERVIEW OF THE STUDY

1.1 Introduction	1
1.2 Education reform in Namibia	1
1.3 Research context	4
1.4 Research site	6
1.5 Research goals	7
1.6 Chapter outlines	8

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction	10
2.2 Origin of Namibia's commitment to learner-centred education	10
2.3 Constructivism as a basis for learner-centred education	13
2.3.1 What is constructivism?	13
2.3.2 Constructivism learning characteristics	16
2.4 Learner-centred education in the Namibian context	18
2.4.1 What is learner-centred education?	18
2.4.2 Implications for teaching and learning	19
2.5 Teacher preparation for a learner-centred approach	22
2.6 Challenges in implementing learner-centred education	23
2.7 Learner-centred education and assessment	27
2.8 Learner-centred education critique	29
2.9 Conclusion	30

CHAPTER THREE

RESEARCH METHODS

3.1 Introduction	31
3.2 Research design	31
3.3 Site and sample selection	32
3.4 Validity	34
3.5 Data collection	34
3.5.1 Interviews	35
3.5.2 Observation	37
3.5.3 Document analysis	37
3.6 Data analysis	38
3.7 Limitations	39
3.8 Conclusion	39

CHAPTER FOUR

PRESENTATION OF FINDINGS: TEACHERS' UNDERSTANDING AND IMPLEMENTATION OF LEARNER-CENTRED EDUCATION

4.1 Introduction	41
4.2 Teachers' background and school contexts	41
4.3 Teachers' perceptions and experiences of learner-centred education	42
4.4 Data collected through classroom observations	46
4.4.1 Overview of lessons	46
4.5 Learner-centred strategies used by the teachers	47
4.5.1 Teaching strategy 1: Involvement of learners	48
4.5.1.1 Use of learners' prior knowledge	48
4.5.1.2 Use of local examples	49
4.5.1.3 Asking questions	50
4.5.1.4 Group and pair work	51
4.5.1.5 Use of code switching	53
4.5.2 Teaching strategy 2: Use of visual aids	55

4.5.2.1 Use of the chalkboard	55
4.5.2.2 Use of textbooks	55
4.5.2.3 Use of flash cards and concrete objects	56
4.5.3 Teaching strategy 3: Content integration	57
4.5.4 Teaching strategy 4: Assessment	57
4.6 Data collected through documentary analysis	58
4.6.1 The syllabus	59
4.6.2 Lesson plans	60
4.6.3 Learners' work	61
4.7 Conclusion	61

CHAPTER FIVE

DISCUSSION AND ANALYSIS OF FINDINGS

5.1 Introduction	63
5.2 Perceptions of learner-centred education	64
5.3 Content knowledge	65
5.4 Development of learners conceptual understanding	67
5.5 Practical understanding of learner-centred strategies	68
5.5.1 Use of prior knowledge	68
5.5.2 Questioning strategies	70
5.5.3 Use of group work	73
5.5.4 Use of resources	75
5.5.5 Knowledge integration	76
5.5.6 Code switching	77
5.5.7 Assessment practices	78
5.6 Conclusion	81

CHAPTER SIX

SOME CONCLUSIONS

6.1 Introduction	83
6.2 Critical overview and reflection	83

6.2.1 What prompted the research and why was it worth doing?	84
6.2.2 Decisions regarding the research process	85
6.2.3 Overview of my findings	86
6.2.4 Lessons learned	87
6.3 Tentative suggestions for further investigations	87
6.4 The potential value of my study	89
6.5 Limitations of the study	89
LIST OF TABLES AND FIGURES	91
APPENDICES	
Appendix A: Letter of permission	92
Appendix B: Consent form	93
Appendix C: Interview schedule	94
Appendix D: Interview transcript	96
Appendix E: Observation schedule	107
Appendix F: Observation transcript	108
Appendix G: Observation transcript	112
Appendix H: Learners' work	119
Appendix I: Namalwa's lesson plan	128
Appendix J: Etuhole's lesson plan	130
REFERENCES	131

(Message to my readers: All additional materials are available on file in my CASE RECORD for more evidence of my research trail).

ACRONYMS USED IN THIS STUDY

BEd (Hons)	Bachelor of Education (Honours)
BETD	Basic Education Teacher Diploma
ETP	Education Theory and Practice
MBESC	Ministry of Basic Education, Sport and Culture
ME	Ministry of Education
MEC	Ministry of Education and Culture
MHETEC	Ministry of Higher Education, Training and Employment Creation
NIED	National Institute for Educational Development
UNAM	University of Namibia
PBI	Practise-Based Inquiry

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CHAPTER ONE

INTRODUCTORY OVERVIEW OF THE STUDY

1.1 Introduction

As in other parts of the world, the education system in Namibia has undergone major restructuring and transformation. There is now growing consensus that education has to be about more than the traditional goals of students' mastery of subject-centred scholastic knowledge (Seaton, 2001). This has led to a shift from a traditional teacher- and subject-centred, one-size-fits-all paradigm of pedagogy to one that is student-centred (Seaton, 2001).

In this chapter I give a brief description of some key aspects of educational reform in Namibia. I then describe the research context (including my own personal background) before briefly outlining details of my research site and research goals.

1.2 Education reform in Namibia

Education in Namibia has traditionally been teacher-centred. Attention and activities have been focused on the teacher with little attention paid to learners or their background and interests. With education reform, the Basic Education Teacher Diploma (BETD) for both pre-service and in-service teachers was introduced to strike a balance between theory and practice and to help teachers teach in more learner-centred ways. The BETD is based on:

... the philosophy and policies of the reform, which are themselves realised through the principle of learner-centred education and a democratic pedagogy; methods that promote learning with understanding and practice towards the autonomous mastery of living conditions

(Pomuti & Howard 1999:103).

In Namibia the concept of learner-centeredness has evolved as a counter to the traditional teacher-centred approach. According to Pulist (n.d.) learner-centredness reflects a desire to explore ways of making teaching responsive to learners' needs and interests and

allowing learners to play more active and participatory roles in the teaching and learning situation. Underpinning learner-centred education is the constructivist view of learning. According to Fosnot (1996 cited in Wilson & Peterson, 1997) the learner develops meaning through cooperative social activity and discussion. For example, Piaget's theory of cognitive development in children saw learning as adaptive (von Glasersfeld, 1996), and Vygotsky viewed learning as a dynamic process. Vygotsky argued that concepts do not come to the learner ready-made. They are formed as children develop their own understanding of adult models (Wilson & Peterson, 1997). Learner-centred education stresses combining knowledge with understanding. It requires teachers to work with "both surface learning (knowledge components or facts) and deep learning (connections and relationship, holistic understanding)" (Day, 1999:200-201).

As an in-service tutor it is my responsibility to induct my students into the tenets of learner-centred education so as to enable them to teach in a learner-centred way. Zeichner and Tabachnick (1999:211) state that "at the heart of the proposed Namibian school reform are teaching strategies that are learner-centred and interactive". This requires that teachers have a holistic view of the learner and use the learner's life experiences as a starting point. Teachers should also be able to select content and methods on the basis of the learners' needs, use local and natural resources as an alternative or supplement to ready-made learning materials, and so develop their own and their learners' creativity. A learner-centred approach demands "a high degree of learner participation, contribution and production" (Namibia. Ministry of Education and Culture [MEC], 1993:80-81).

The Namibian national educational policy document, *Toward Educational for All*, clearly expects teachers to be learner-centred in their approach to teaching and learning. This means that among others:

... the starting point is the learners' existing knowledge, skills, interest and understanding, derived from previous experience in and out of school, the natural curiosity and eagerness of all young people to learn to investigate and to make sense of a widening world must be nourished and encouraged by challenging and meaningful tasks, etc.

(Namibia. MEC, 1993:60).

Despite the explicit policy aimed at introducing learner-centred teaching, however, a study conducted by Karlsson (1999) with BETD pre-service teachers indicates that some teachers have a narrow or simplistic view of learner-centred education. Group work is for them the most important factor in learner-centred education. Van Graan (1999) too noted that the only method connected to learner-centred education was group work. She observed that “teachers’ questions do not progress beyond content and comprehension level” (1999:55). As my results will show, this is something I also observed. Clearly this is a concern for me as a tutor of teachers. I should note also that in my role as a teacher educator for both pre-service and in-service teacher education programmes I too have struggled to adapt to, and cope with, the new demands these changes placed upon me. (I expand on this further in my next section.)

Zeichner and Tabachnick (1999) underlined the challenge for Namibian teachers and teacher educators in the new approach. They concluded that:

... learner-centred and interactive teaching posed a difficult challenge to teachers and teacher educators, few of whom have experienced this kind of teaching themselves. At the same time that they are trying to enact learner-centred and interactive teaching and trying to teach it to prospective teachers, they are trying to understand what it means

(Zeichner & Tabachnick, 1999:211).

Their observations suggest that many of our teachers and teacher educators were ill prepared to implement a learner-centred approach.

For my own research I have chosen to focus, in depth, on this challenge as it has affected the professional lives of two Namibian Grade 4 teachers. The research question I have set for myself is:

How do Grade 4 BETD in-service teachers implement learner-centred education in their classroom practice?

In responding to this question, I explore the perceptions and strategies used by the two teachers in my sample as they attempt to enhance their learners’ learning in a learner-centred way.

1.3 Research context

I worked as a teacher educator for 14 years (1989 to 2003) at the then teacher-training centre (now a college of education). In effect I therefore inducted teachers both *before* and *after* independence. My responsibility was to prepare teachers to teach in the basic education grades 1-10. Prior to Namibian independence in 1990 few courses provided teachers with adequate preparation for the teaching task. In 1992 more than half of the teachers had not attained the credentials required to teach for their position (Namibia, MEC, 1993). In 1993 the Basic Education Teacher Diploma (BETD) for pre-service was introduced to prepare teachers to teach in a learner-centred education. This was followed in 1994 by the BETD in-service. At that stage I had only tutored for four years and was myself not adequately prepared to adopt the changes. In 1993 the old courses were phased out, and we were introduced to the new course through workshops conducted country-wide for all the teacher educators. During these workshops I struggled to understand what was going on. The key message was educational reform: we were to change from teacher-centred education to learner-centred education. Being a product of the old system I was uncertain about the change. I believed I was already teaching in a learner-centred way and tended therefore to be somewhat resistant.

In 1994 I had to teach my first group of BETD students. I did not know what to do because I felt I lacked the relevant skills and knowledge. When I consulted a colleague who was teaching the same subject he expressed a similar sense of insecurity. His advice was: "This education is good because students are the ones who are doing the work, you are ONLY there as a facilitator. You just put them in groups." I thus adopted my own interpretation of learner-centred education as meaning group work, because that was what other teachers were using.

When the BETD in-service was introduced in 1994, applications were called for teacher educators to join the programme. I was already teaching at the pre-service level where I felt confident - perhaps because of seniority - of my ability to initiate young teachers into

the tenets of learner-centred education. However I saw working with *peers* at the in-service level as much more intimidating. I therefore avoided getting involved.

It was only 5 years later, in 1999, when I enrolled for the Higher Diploma in Education for Practitioners that I came to better understand what learner-centred education entails. This diploma programme was offered by Umeå University and was facilitated by tutors from Sweden. It took place on the National Institute for Educational Development (NIED) campus in Okahandja. In 2001 I had the good fortune to join the BEd (Hons) programme offered by Rhodes University. I would say it was in this course that my professional eyes were truly opened to what I ought to be doing as a teacher educator. On completion of my BEd (Hons) course I felt sufficiently confident to join the BETD in-service programme. I now understood more deeply what learner-centred education is all about. I realised that through my past ignorance I had effectively ‘abandoned’ teaching in the name of learner-centred education.

As an in-service tutor I had the responsibility of tutoring lower primary teachers in their final year of study. Their last module focused on what we termed Practice-Based Inquiry (PBI). This involved a small-scale research project focussing on practice – most especially on how to move from teacher-centred to learner-centred approaches in the classroom. It was through the students’ reports and presentations I came to realise that some significant misconceptions and misunderstandings dogged the effective implementation of learner-centred education. It was only a small group of students that I tutored in any one year, but each year I noticed a similar pattern. As a result of these experiences I decided to undertake this study, choosing to explore how two Grade 4 teachers implemented learner-centred education.

It is essential for teachers to understand the new philosophy and to possess the necessary skills, knowledge and attitudes central to the implementation of a learner-centred approach. I hope through this investigation to gain some valuable professional insights that I can then feed back to my own students. I believe that, despite the modest scope and size of this (half-thesis) study, it has the potential to inform the Namibian Ministry of

Education on some of the perceptions currently held by a sample of in-service teachers regarding learner-centred education. It may also provide useful insights into the impact the BETD in-service programme has on this aspect of teacher development.

1.4 Research site

Namibia is on the Atlantic coast of southern Africa. It is divided into thirteen political and educational regions. The regions are Caprivi, Erongo, Hardap, Khomas, Kunene, Karas, Kavango, Oshana, Oshikoto, Ohangwena, Omusati, Omaheke and Otjozondjupa. My study was conducted in Oshikoto region (see Region 12 in the map, overleaf). Oshikoto has a population of 161007: 91% is rural, while 9% is urban (Namibia. National Planning Commission, 2004). The majority of its inhabitants live on subsistence farming. The main crop is mahangu, a millet-type of crop with small grains. The people also depend on communal farming, mainly cattle, goats and donkeys. It has an average rainfall. The average annually rainfall ranges between 400 and 500mm except areas around Tsumeb which received between 500 and 600mm (Stols, 1993). Its main tourist attraction is the Etosha National Park, one of the most interesting game reserves in the world because of its unusual terrain. Etosha is an Oshiwambo word meaning “place of dry water”. The reserve was named this because of the vast, shallow salt pan which shimmers a silvery bright-white from the salt across its entire surface.

Oshikoto region has a good transport infrastructure, especially since the recent completion of the railway from Tsumeb to Ondangwa. There are 177 schools, 1906 teachers and 55624 learners. Of the 177 schools, 9 are urban. Oshikoto has a literacy rate of 83%. The majority of the schools have benefited from the rural electrification project. The region has no college of education or teachers’ resource centre. Contact sessions are organised for in-service teachers during school holidays at either the Ongwediva College of Education or the University of Namibia (Unam) Northern Campus in Oshana region. Teachers from Oshikoto travel between 30 and 250 kilometres to attend contact sessions.

The two teachers I focussed on for this investigation did their in-service teacher education at Ongwediva College of Education and the Unam Northern Campus respectively. Both these two institutions run a BETD in-service programme. The classroom-based part of my study was conducted at two rural schools in Oshikoto region, both being located in Onathingie circuit.

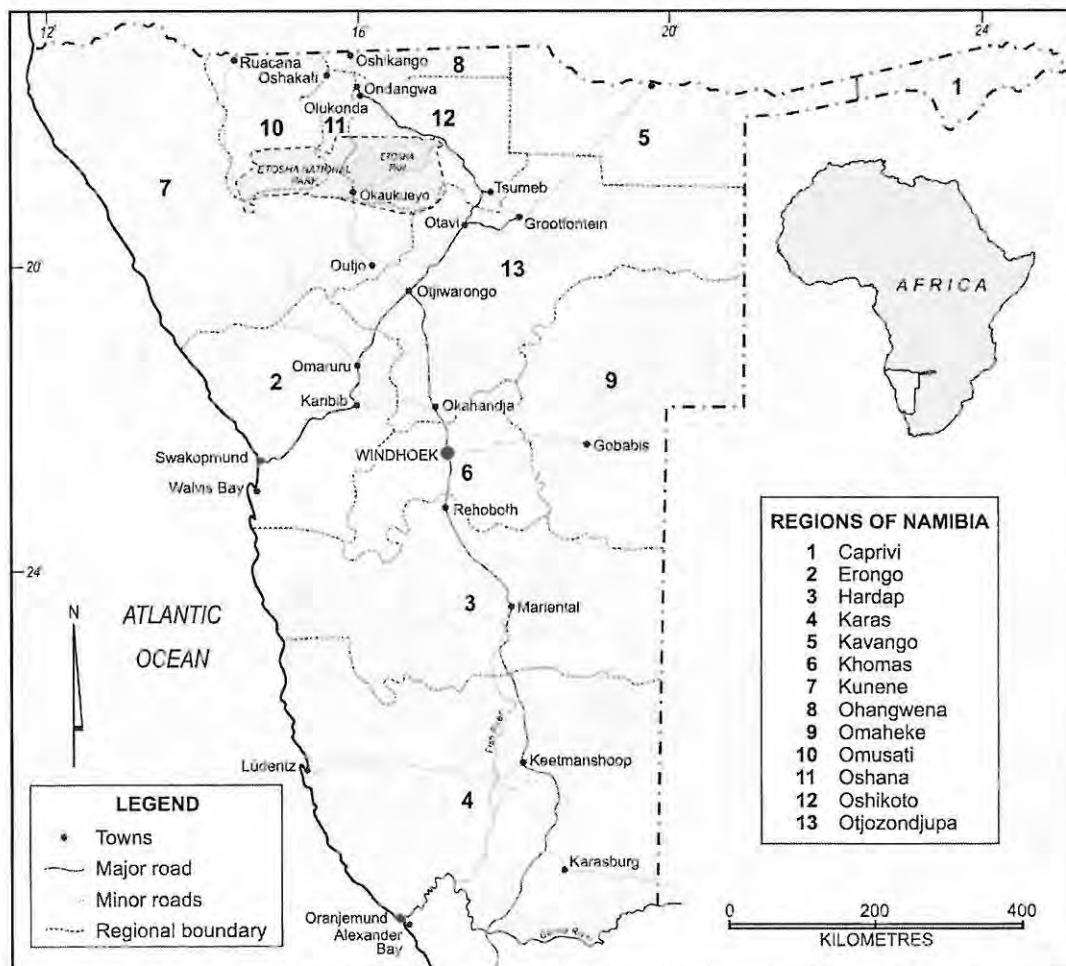


Figure 1: Regions of Namibia

(Source: Sue Abraham. (2006). Graphic Services Unit, Rhodes University, Grahamstown.)

1.5 Research goals

My research topic relates directly to my role as an in-service tutor. As a tutor responsible for a group of under-qualified teachers in the Ministry of Education, I ran sessions for

these teachers during school holidays. The purpose of the sessions was to help the teachers become more learner-centred in their practice.

The key goals of my research are firstly, to explore teachers' perceptions and experiences of the learner-centred approach; and secondly, to gain insight into the kinds of teaching strategies they use in their attempts to implement learner-centred learning. I have chosen to focus relatively narrowly on only two teachers clearly has implication for the generalizability of my findings. I believe nonetheless that it is a narrow focus that provides me with the best means of obtaining rich meaningful data relative to the scope and scale of my present investigation.

1.6 Chapter outlines

This study comprises six chapters, including this introductory chapter in which I have very briefly explained some elements of the reform process in Namibian education; and described my research context; my research goals; and my own professional motivations for the study.

Chapter Two is a literature review. Here I explore the origin of learner-centred education in the context of Namibia's education reform. I highlight some of the key issues and policy trends linked with this reform, both in Namibia and elsewhere.

Chapter Three describes the overall design of the study and the methods employed. I explain why I chose to work within an interpretive paradigm using a case study method. The chapter also describes how I applied my various research techniques such as observations, interviews and document analysis to explore my teachers' perceptions of learner-centred education and the teaching strategies they used in their efforts to implement learner-centred education.

In **Chapter Four** I present the data collected from the semi-structured interviews, observations and document analysis. In **Chapter Five** I analyse and discuss in more

depth the findings reported in Chapter Four. I consider the data in relation to the key objective of Namibia's education reform: to promote learner-centred education. I discuss the teachers' understanding of learner-centred education and look at the extent to which the strategies used by these teachers do or do not reflect learner-centred principles.

Chapter Six concludes the study. It provides some insights that may further guide and enhance teacher support and classroom practice. It also identifies some of the lessons learned during this study in terms of teachers' practice and my own professional development. Notwithstanding the fact that it is not the intention of this study to generalise, my findings are presented in such a way that they may be useful to both teachers and in-service tutors involved in the teaching and learning situation.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

As indicated in the previous chapter, my research goals are to explore teachers' perceptions and experiences of the learner-centred approach and to gain insight into the teaching strategies they use to enhance learner's learning in the Namibian context. I begin this chapter by presenting a brief overview of the history and rationales behind Namibia's educational reform. I focus on the ideas and policies that informed this process.

Next I look at both international and local interpretations of learner-centred education. I then consider how the ideas of the Namibian reform process impacted upon the design of our teacher preparation programmes. I also explore some of the challenges in implementing learner-centred education. In the final part of the review I examine some critiques of learner-centred approaches.

2.2 Origin of Namibia's commitment to learner-centred education

Education systems throughout the world have undergone major restructuring and transformation. Governments have intervened more directly in the curriculum and governance of schools and the conditions under which teachers work with a view to ensuring that work in schools is relevant to the needs of the nation. This has implications for the training and continuing professional development of teachers (Day, 1998).

The Namibian post-independence government placed educational reform at the top of its national priorities (Ebbut & Elliot, n. d.). This is spelled out in its development vision, *Toward Education for All*. This document is based upon the principles of the four major goals of reform: equity, access, quality and democracy. The document advocates that classrooms become places where democracy is not only taught, but also practised.

In *Toward Education for All* the past educational system was labelled as being mainly directed towards educating the elite. Schooling was the privilege of the few, and of those who did go to school, most did not go far (Namibia. MEC, 1993:2). The curriculum inherited from the previous administration was seen as very distant from the lives and experiences of most Namibians (*ibid*). Educational reform involved replacing the philosophy and practices of education suitable for educating 'elites' with a new philosophy and practices appropriate for providing education for all Namibia's citizens and for the learning needs of all its learners (*ibid*).

The pre-independence education relegated blacks, according to Ellis (1984:19 as cited in Swarts, 1999:29) to "hewers of wood and drawers of water". It largely negated and neglected the goals, content, method, and structures of indigenous African education, which, according to Diallo (1994:49 as cited in Swarts 1999:29) led "to the alienation of Africans from their cultural roots and local realities". The education system was more teacher-centred: classroom attention and activities were focused on the teacher. This means that little attention was paid to the backgrounds, interests and orientations of the students (Namibia. MEC, 1993).

The system outlined by *Toward Education for All* is built on learner-centred education, aimed at harnessing curiosity and excitement and promoting democracy and responsibility for life-long learning. Some key ideas from this system included "employing a holistic view of learning, valuing learners' life experiences, and assisting learners to integrate school with life outside school" (Kristensen, 1999:28). It can therefore be seen that the concept of learner-centred education has evolved as a counter to the traditional teacher-centred approach.

In Namibia learner-centred education is underpinned by the learning theory of social constructivism which "argues that learners can, with help from adults or peers who are more advanced, grasp concepts and ideas that they cannot understand on their own" (Epstein, 2002:5). This means that "the teacher may guide learners as they approach problems, may encourage them to work in groups to think about issues and questions, and

support them with encouragement and advice” (*ibid*:2002:5). Thus the intention of the reform was to have children become motivated learners, critical thinkers, and problem solvers able to take ownership of the learning process. This orientation places an onus on teachers to listen to their learners, interpret what learners do and say, and try to build up a model of the learners’ conceptual structures. It also requires that the roles of teachers change from that of ‘information distributor’, ‘the gatekeeper of knowledge’, or ‘instructor’, to become ‘facilitator of learning’, responsible for ensuring that learners are exposed to more practice-based inquiry (M/Cyclopedia, 2005:2).

Zeichner and Tabachnick (1999:211) on the reform process in Namibia, state that “at the heart of the proposed school reforms are learner-centred teaching strategies and interactive methods”. Hence a learner-centred approach demands a high degree of learners’ participation, contribution and production (Namibia. MEC, 1993). Learners are expected to solve problems, rather than to retrieve rote-learned answers.

As noted above, the reform process requires that teachers become skilful in working and guiding learners. They need to develop the ability and capacity to respond to learners’ perplexities and discoveries and to work in learner-centred environments. Zeichner and Tabachnick (1999) highlighted the challenge for Namibian teachers and teacher educators in the new approach: “...learner-centred and interactive teaching posed a difficult challenge to teachers and teacher educators, few of whom have experienced this kind of teaching themselves. At the same time they are trying to enact learner-centred and interactive teaching and trying to teach it to prospective teachers they are trying to understand what it means” (Zeichner & Tabachnick, 1999:211).

From the above discussion it can be seen that the policy document requires that the teaching methods be learner-centred and aim towards a method that promotes learning through understanding and practices directed towards the autonomous mastery of living conditions (Namibia. MEC, 1993:120). Part of my research therefore is to understand *how* teachers promote learning through understanding as it is outlined in the policy

documents. Clearly, this policy has wide-ranging implications for teacher education.

According to McLoughlin & Oberman:

The new classroom practices that reformers imagine, often described as a teaching and learning for understanding, assume fundamental change in the ways teachers interact with students ... At root, the problem of reform is a problem of teachers' learning.

(1996 ix-x as cited in Swarts 1999:36)

As an in-service tutor, teachers' learning is at the heart of my own teaching commitments.

2.3 Constructivism as a basis for learner-centred education

Learner-centred education recognises that the starting point at each stage is learners' existing knowledge. This is in line with constructivism, which emphasises the importance of the knowledge, beliefs and skills an individual brings to the experience of learning.

2.3.1 What is constructivism?

Resnick (1989 as cited in Richardson, 2003:1623-1624) defines constructivism as a "theory of learning or meaning making, ... individuals create their own new understanding on the basis of an interaction between what they already know and believe and ideas and knowledge with which they come into contact". Epstein (2002:1), too, indicated that "constructivism emphasises the importance of the knowledge, beliefs and skills an individual brings to the experience of learning". So constructivism as a philosophy of learning proposes that learners need to build their own understanding of new ideas. From these descriptions it is obvious that learning from a constructivist view is not the result of teaching; rather it is the result of what learners do with the new information with which they are presented. Learners actively construct their own knowledge; they are not passive recipients of new information. On this basis educators should therefore first consider the knowledge and experiences learners bring with them to the learning task. The school curriculum should then be built so that learners can expand and develop this prior knowledge and experience by connecting them to new learning (Huit, 2003).

The fact that the Namibian Education Reform Programme is based on the constructivist view of knowledge has profound implications for teaching and learning, as well as knowledge and knowing. According to the Education Theory and Practice (ETP) syllabus for the Basic Education Teacher Diploma (BETD) (Namibia. Ministry of Basic Education, Sport and Culture and Ministry of Higher Education, Training and Employment Creation. [MBESC & MHETEC], 2000) the four main guiding principles for teaching and learning are:

- **Learner-centred education:** based on the constructivist view that learning should begin with learners' own experience of the world.
- **Interactive method:** based on the constructivist view that learning should be an active rather than a passive process: involving the learner directly in the construction of their own knowledge through interactive or problem solving tasks which challenge their intellect and encourage them to see the relevance of what they are learning in their own lives.
- **Integration of knowledge:** based on the constructivist view that knowledge should not be viewed as compartmentalised into subject disciplines, but rather based on knowledge derived from real-world issues, problems and their solutions.
- **Increasingly challenging intellectual demands:** based on the constructivist view that learning should begin with the learner's own experience and knowledge, but is extended by accepting that this experience and knowledge is not static but itself develops with time and exposure to new situations
(slightly adapted, 2000:3-4).

These principles show that constructivism influences educational thinking about curriculum and instruction. It underlies the emphasis on the integrated curriculum in which learners study a topic from multiple perspectives. For example, in studying hot-air-balloons, learners might need to read about them, write about them, learn new vocabulary words, visit one (hands-on-experiences), study the scientific principles involved, make working models, draw pictures of them, and learn songs about them. The teacher should structure situations such that learners become actively involved with content through manipulation of materials and social interaction (Schunk, 2004). One important point to note here is that constructivism is a theory about learning, not a description of teaching

(Fosnot, 1996). Constructivism sees learning as a dynamic and social process in which learners actively construct meaning from their experiences in connection with prior understanding and the social setting (Driver, Asoko, Leach, Mortimer & Scott, 1994 as cited in Wing-Mui, 2002).

As can be seen in the preceding discussion, constructivism does not view “learners as passive recipients of knowledge supplied by teachers or teachers as mere purveyors of knowledge and classroom managers” (Fosnot, 1996 as cited in Wing-Mui, 2002).

Teachers should “have a clear idea of what learners already know and understand so that they can engage learners in activities that help them to construct new meanings” (von Glasersfeld, 1992 as cited in Wing-Mui, 2002:3).

Furthermore, the term ‘constructivism’ encompasses a variety of theoretical positions (Geelan, 1997 as cited in Wing-Mui, 2002) and has been applied mainly to learning theories, focussing on learning as a conceptual change (Driver & Oldham, 1986 as cited in Wing-Mui, 2002) and to curriculum development and teaching (Osborne & Wittrock, 1985 as cited in wing-Mui, 2002). It also provides clear pointers towards teaching strategies that might assist learners in conceptual reconstruction (Hodson & Hodson, 1998 as cited in Wing-Mui, 2002), *inter alia*:

- Identifying learners’ views and ideas
- Creating opportunities for learners to explore their ideas and test their robustness in explaining phenomena, accounting for events and making predictions
- Providing stimuli for learners to develop, modify and where necessary, change their ideas and views; and
- Supporting their attempts to re-think and reconstruct their ideas and views.
(Wing-Mui, 2002:2).

Thus constructivism is a complex concept. As a philosophy of education it illustrates how people learn or construct knowledge and meaning. Hence all constructivists believe that learners construct their own knowledge from experience, but social constructivism places

much more emphasis on language, culture and interaction between people. But despite the complexity of the concept, I still believe that constructivism as a learning theory helps to explain how learners construct their own meaning based on their previous experience and knowledge. Having looked at what constructivism is all about it is worth looking at some constructivist assumptions.

2.3.2 Constructivist learning characteristics

In line with the constructivist view of learning, Epstein identifies nine principles of learning as derived from constructivism. These are paraphrased below.

1. Learning is an active process in which learners use sensory input and construct meaning out of it.
2. People learn to learn as they learn. Learning consists both of constructing meaning and constructing systems of meaning.
3. Physical actions and 'hands on' experience may be necessary for learning, especially for children, but it is not sufficient. We need to provide activities which engage mind as well as hands.
4. Learning involves languages: the language we use influences our learning. Lev Vygotsky, a psychologist who contributed to the theory of constructivism, argued that language and learning are inextricably intertwined.
5. Learning is a social activity intimately associated with our connection with other human beings: our teachers, peers, family, as well as casual acquaintances. (Dewey pointed out the most traditional learning is directed toward isolating the teacher from social interaction, and towards seeing education as a one-on-one relationship between the learner and the objective material being learned.)
6. Learning is contextual. We learn in relationship to what else we know, what we believe, our prejudices and fears.
7. One needs knowledge to learn: it is not possible to absorb new knowledge without having some structure developed from previous knowledge to build on. The more we know, the more we learn.
8. Learning is not instantaneous: it takes time to learn. For significant learning we need to revisit ideas, ponder them, try them out, play with them, and use them.
9. The key component to learning is motivation.

(slightly adapted, 2002:3)

Based on these principles, "constructivism is seen as a psychological theory that construes learning as an interpretive, recursive, building process by active learners interacting with the physical world" (Fosnot, 1996:30 as cited in Epstein, 2002:4).

Therefore constructivism is an approach to teaching and learning which emphasises that

learning is both an individual and a social process. In this perspective the learners construct knowledge as a result of their own activities and interaction with others (cognitive psychology).

As education needed transformation, constructivist learning theories with origins in cognitive psychology, evolved as an alternative to behaviourist theories. It resulted from many psychologists who worked on the theory on constructivism. Among them was John Dewey, who was the first major contemporary to develop this theory. According to him, education depends on action (Epstein, 2002:5). He “stressed the importance of learners’ knowledge growing out of experience” (Epstein, 2002:5).

Jean Piaget was another psychologist who had a great influence on constructivism. Piaget’s interest was in the way children think and his view was based on the psychological development of children. He believed that “the fundamental basis of learning is discovery: to understand is to discover” (Epstein, 2002:5). According to Piaget, “to reach an understanding of basic phenomena, children have to go through stages in which they accept ideas they may later see as not entirely ‘truthful’” (Epstein, 2002:5). Hence, Piaget believed that “understanding is built up step-by-step through active involvement” (Building an Understanding of Constructivism, 1995 as cited in Epstein, 2002:5).

Lev Vygotsky developed a somewhat different view of constructivism. He argued that “learners learn through interacting with their peers, teachers, and by manipulating things in their contextual setting” (Jaramillo, 1996, as cited in Epstein, 2002:6). For Vygotsky, learners need to be guided by adults, but also to be influenced by their peers, in addition to discovering things on their own.

Jerome Bruner also influenced the theory of constructivism. His major ideas were that “learning is an active, social process in which learners construct new ideas based on their current knowledge” (Epstein, 2002: 6). He further stressed that “the instructor should try to encourage learners to discover principles by themselves” (Epstein, 2002:6).

It is therefore clear that the teacher has a vital part in this theory. My research seeks to explore teachers' perception of learner-centred education, especially structuring the learning environment that encourages and supports the construction of understanding.

2.4 Learner-centred education in the Namibian context

2.4.1 What is learner-centred education?

Learner-centred education is a way to help learners make meaning of what they are learning in relation to what they already know. Callewaert and Kallos describe it as:

... a pedagogy that regards the child as active and curious, striving to acquire knowledge and skills to master its surrounding world and able to do so under certain circumstances. The ensuing pedagogy is accordingly adapted to the experience of each learner and uses experiences and knowledge already acquired by the learner as a starting point for the teaching process.

(1992:17, as cited in Shinyemba, 1999:38)

Nyambe emphasised that it is:

... not a package which one can simply hand over to someone to receive passively. Learner-centred methods therefore entail that learners are given opportunity to identify a problem in guided manner to explore, investigate, analyse, extrapolate, share, debate, discover and experiment.

(1993:2, as cited in Shinyemba, 1999:38)

According to Tudor (1996 as cited in Shaalukeni, 2000), the concept 'learner-centred' is defined as a broadly-based endeavour designed to gear language teaching, in terms of both the content and the form of instruction, around the needs and characteristics of learners. On the other hand McCombs and Whisler describe it as:

[t]he perspective that couples a focus on individual learners (their heredity, experience, perspectives, talents, interests, capacities and needs) with a focus on learning (the best available knowledge about learning and how it occurs and about teaching practices that are most effective in promoting the highest level of motivation, learning and achievement for all learners).

(1997:9, as cited in Henson 2003:4)

Similarly, Walmsley (2003:3) states:

A learner-centred approach provides the opportunity for students to practice critical and creative thinking, problem solving and decision-making. These involve the use of knowledge, practices and dispositions such as recall,

application, analysis, synthesis, prediction and evaluation, all of which contribute to the development and enhancement of conceptual understanding. A learner-centred approach also encourages students to reflect on and monitor their thinking as they make decisions and take action.

From these perspectives, and in line with the Namibian approach to learner-centred education, teaching methods must allow for the active involvement and participation of learners in the learning process. Teachers should structure their classes to facilitate this active learners' role.

One can therefore say from these perspectives that learner-centred education is not simply about delivering the content of a curriculum where the teacher is the master and controller. It requires that learners take responsibility of their own learning. It also requires that learners construct their own understanding by linking new information to prior experience (Henson, 2003). The teachers' major role in teaching is enhancing learners' learning. Henson (2002 as cited in Henson 2003) further states that in learner-centred education learners are the main agent of learning and it incorporates strategies that are active, inquiry-based and promote collaboration. Thus the teacher acts as a "facilitator who helps learners access and process information" (E-learning at BATH, 2002 as cited in M/Cyclopedia, 2005:4).

2.4.2. Implications for teaching and learning

The policy document *Toward Education for All* states that "teachers must incorporate and help to develop the learner-centred approach throughout the education system" (Namibia. MEC, 1993:76). Thus learner-centred education in the Namibian context, as adapted from constructivist view, means that:

- The starting point is the learners' existing knowledge, skills, interest and understanding, derived from previous experiences in and out of school;
- The natural curiosity and eagerness of all young people to learn to investigate and to make sense of a widening world must be nourished and encouraged by challenging and meaningful task; and,

- Learners should be empowered to think and take responsibility not only for their own, but also for one another's learning and total development.

(Namibia. MEC, 1993:60)

A constructivist view of learning is that knowledge is both individually and socially constructed. This has formed the basis for contemporary education reform efforts (Chen, 2002). Constructivist teaching practices help learners in internalising, or transforming new information (Brooks & Brooks 1993 as cited in Holloway, 1999). According to Muller, Sokol & Overton (1998 as cited in Holloway, 1999), in the constructivist model, humans construct mental structures that in turn, organise experiences and make further understanding possible.

To enhance understanding, constructivist teaching involves four things: "(a) encouraging learners to arrive at an answer in different ways; (b) inviting learners to describe how they generated solutions to a learning problem; (c) having learners articulate, defend, refine, and adjust their own strategies to solve problems; and (d) establishing classroom social norms for guiding learners in listening to others' ideas and sharing their thinking and solutions with each other" (Ball, 1993, Carpenter et al., 1996; Fennema et al., 1991 as cited in Chen, 2002:256). Therefore in this perspective "teachers are active participants in learners' learning, through an effective dialogue, in helping to guide and support learning as learners endeavour to make sense of new material presented to them in lessons" (Kinchin, 2003:110). Black and William argue that this dialogue should be "... thoughtful, focused to evoke and explore understanding, and conducted so that all pupils have an opportunity to think and to express their ideas (1998, as cited in Kinchin, 2003:110).

Hence the purpose of teaching is to help students gain a deeper understanding of content and develop their problem-solving and cooperative skills (Prawat, 1992; Grennon-Brooks & Brooks, 1993; Wood et al., as cited in Chen, 2002). Teachers are also seen as helping learners make connections between what they already know and what they will learn.

Kinchin (2003) stresses that in constructivist classroom teachers need to demonstrate sufficient subject knowledge and an understanding of students' existing knowledge base. Teachers must also not abandon the authority which comes from their knowledge of subject matter and their responsibility for guiding learners (Wiske, 1994). Inegako and Hatano contend that "...our understanding of how children's minds work and grow can direct, or even specify, the content and methods of teaching" (2002, as cited in Kinchin 2003:111). Similarly, McGuigan and Russel (1997 as cited in Saunderson 2000:2) argued that "what children know or believe influences further learning, and this emphasises the different experiences and prior knowledge that each child brings to a lesson, and how important it is for a teacher not to assume anything".

Therefore teachers are challenged in engaging students in discovering, problem solving and cooperative learning activities (Prawat, 1992, Grennon-Brooks & Brooks, 1993 as cited in Chen, 2002:256). Teachers are expected to organise their curriculum around 'big ideas' (e.g. primary concepts and broad themes) in order to help learners understand concepts as wholes, and relations among concepts. This means that a teacher's own understanding of the subject matter affects learners' understanding of the subject. As can be seen, teaching in a constructivist manner requires teachers to have knowledge of the structure of a discipline as well as its epistemological framework. Such knowledge helps teachers in interpreting how learners understand the material. It enables them to develop activities that support learners in exploring concepts, hypotheses and beliefs, to guide a discussion toward a shared understanding, provide guidance on sources for additional formal knowledge, and at times, correct misconceptions (Richardson 2003:1631).

Vygotsky's idea that teaching is a particular form of interaction between a more knowledgeable other and a novice becomes important. Vygotsky recognised the differences of how the world is seen by children and adults. He labelled this difference in cognitive ability as the "zone of proximal development" (Forrester & Jantzie, n.d.). To Vygotsky the job of the educator is to identify this zone and to find out where the child is in this zone and build upon his or her specific level through a 'scaffolding' process (*ibid*). Scaffolding in this sense is "a form of assistance provided to learners by a more capable

teacher or peer that helps the learners perform a task that would normally not be possible to accomplish by working independently" (McLoughlin & Luca, 2002:577). In addition the implication of scaffolding is that "it is intended to motivate learners, reduce task complexity, provide structure, reduce learners' frustration, and engage learners actively at a current level of understanding until the point where the support is no longer required" (*ibid*:578). Piaget argued that teachers should not give directions and offer explanations, but should rather question learners, get them to use their imaginations to solve problems, and engage and involve them in lesson activities (Schifter, 1996).

2.5 Teacher preparation for a learner-centred approach

In order to support the implementation of a learner-centred approach, the new teacher education programme, the BETD, was introduced into Namibian colleges of education. This programme provides learning opportunities for student teachers and teacher educators to reflect on and challenge traditional conceptions of the teachers' role, the learners' role, subject matter and pedagogy (Tatto, 1999). According to Swarts (1999:39) the "BETD strives to instil an awareness of how to develop a reflective attitude and create analytical and critical thinking, understanding of teaching as an interactive, shared and productive process enabling the teacher to meet the needs and abilities of the individual learning". As the goal of my study is to explore teachers' perceptions and experiences of the learner-centred approach and to gain insight into the teaching strategies used to enhance learning it is worth looking at the teachers' preparation through this program.

The BETD in-service program was introduced to improve practising teachers' teaching skills enable them to upgrade their professional qualifications while still in the classroom (Pomuti & Howard, 1999). The programme uses practice-based inquiry. Teachers are actively engaged in practical activities of inquiry about their daily classroom practice as a means of constructing an understanding of the reform processes (*ibid*). At the same time it requires teachers to take responsibility for effecting change in their own classroom. Teachers are perceived as basing their practice on their professional and practical

knowledge and experience; they "... are cut off then both from the possibility of reflecting and building on their own know-how and from the confusions that could serve them as springboards to new ways of seeing things" (Schön, 1992:119 as cited in Day, 1998:421).

The BETD program aims to strike a balance between theory and practice. Professional studies are both separate components and integrated into different subject studies (Pomuti & Howard, 1999:103). The program is based on the philosophy and policies of the reform as realised through the four national goals of access, equity, quality and democracy, which are themselves realized through the educational principles of learner-centred education and democratic pedagogy.... (*ibid*, 103). Day emphasises that "to develop schools we must be able to develop teachers, and we must know what this involves" (1998:421). He further stresses that professional development opportunities must support classroom pedagogy that goes beyond the 'mechanics' of teaching. Darling-Hammond, states that successful teachers not only have adequate preparation in their subject matter, but have also studied the art and science of teaching (1998:7). Stein, Smith and Silver argued that teachers need assistance that focuses on their day-to-day efforts to teach in new and demanding ways (1999). Such assistance is best provided by support directly focussed on an individual teacher's practice, such as co-teaching, coaching, assistance with planning, and reflecting on actual lessons (Schifter & Fosnot, 1993 as cited in Stein, Smith & Silver, 1999). Ebbut & Elliot (n.d.) also argued that BETD Inset programmes should allow teachers to generate their own practical professional knowledge and construct their own meaning based upon evidence they have derived from reflecting on their own practice. This means that teachers are actively involved in the creation of their own meaning and reconstruction of understanding of the pedagogy through support and feedback from tutors.

2.6 Challenges in implementing learner-centred education

The central message as outlined in *Toward Education for All* (Namibia. MEC 1993:60) is that "teaching methods must allow for the active involvement and participation of

learners in the learning process". This means that teachers are responsible for having classrooms that promote learning for all, as well as being familiar with the instructional techniques that promote effective learning for all (Reilly, 2002 as cited in Henson, 2003). Henson further argues that the learner-centred approach requires that teachers:

- Create a classroom environment that is inviting and conducive to learning;
- Design activities that challenge learners to think and use their problem-solving skills;
- Offer to all learners the scaffolding necessary for academic success;
- Know their learners as individuals so that appropriate instructional decisions can be made.

(2003:23)

Significantly, teachers need to structure their classes to facilitate this active learners' role and keep learners at the centre of the entire teaching and learning process. Teachers acting as facilitators need to provide guidance and support to learners who seek to meet learning goals. This calls for teachers to be skilful in working and guiding students and the ability and capacity to respond appropriately to students' perplexities and discoveries. Teachers need also to know how to interpret students' comments and to reflect critically on their lessons so as to improve their teaching (Schifter, 1996).

Learner-centred education recognises that learning as an interactive process in which learners create rather than simply receive knowledge. This means that in teaching and learning learners need to be helped to think independently and critically so that they master strategies for identifying, analysing, and solving problems (Namibia. MEC, 1993). Thus learners are seen to create their own understanding through interaction and conversations with others, enabling articulation, negotiation and reflection on ideas (English & Yazdani, 1999; Abrami & Chambers 1991 as cited in McLoughlin & Luca, 2002:576). Wiske (1994) argues that in classrooms which emphasise teaching for understanding, a teacher must be a fellow learner and openly negotiate knowledge construction with his or her students. Van Harmelen (1999:32) emphasises that learners can only articulate their understanding if they are *engaged* [my emphasis] intellectually.

The underlying principle for a learner-centred approach is teaching for understanding (Perkins, 1993). The ideas of Peters on concepts become important here. He states that:

No one could be said to have come to understand a subject (learning area), to have learned it without some appreciation of general principles, some idea of what it is all about. But understanding general principles is not just a matter of being able to recite the relevant prepositions. Nothing is gained by this There is in the growth of understanding an intimate connection between principles and their application to instances.

(1967:26, as cited in Van Harmelen, 2004)

In other words, regurgitation of facts cannot be equated with learning. Facts themselves do not constitute knowledge as facts do not lead to understanding (Van Harmelen, 2004).

Peters further affirms that:

The notion of a concept and principle are interconnected. To have a concept of something is to know the principle in accordance with things which are said to be of the relevant kind.

(1967:37, as cited in Van Harmelen, 2004)

Teaching for understanding requires “open, explicit negotiation about what knowledge is, how it is developed and defended, whose knowledge counts, and how is assessed” (Wiske, 1994:19). Thus to achieve understanding, “a variety of techniques need to be used such as direct questioning, eliciting, demonstrating, challenging the learners’ ideas, checking for understanding, helping and supporting, providing for active practice and problem solving” (Namibia. Ministry of Basic Education, Sport and Culture [MBESC], 1996:23). Therefore, conceptual understanding of a particular learning area, as teachers, is not only essential to our knowing our disciplines but it is essential to the development of new knowledge (Van Harmelen, 2004). It is imperative to know that all conceptual understanding is based on knowing about, what if, how and how to. But as learners develop their conceptual understanding about particular concepts, each of the areas expands (*ibid*). If learning something means being able to say ‘I know’, this is what I want to pursue in this research to understand how teachers teach for understanding.

The Ministry of Education provides guidelines that can help teachers with strategies that promote learning through understanding (Namibia. MEC, 1993). The implication of this

notion is that full understanding requires the ability to give a formal account of the concept and the ability to recognise instances. This kind of approach makes a great demand from educators to reach a greater conceptual understanding about the discipline they teach. Although learner-centred education is well articulated in the Ministry guidelines, research conducted by Van Graan (1999:55) found that “most teachers’ questions do not progress beyond content and comprehensive level”. Van Graan (1999) further noted that there was a lack of learner questions beyond mere procedural questions like, ‘Miss, May I leave the room’ or ‘in which book must we write?’ She noted that only a few questions were asked by learners’ to clarify meaning and understanding.

Although there is evidence of teachers’ use of learner-centred approaches, some teachers seemed to lack understanding of the concept learner-centred education and what it entails. Van Graan (1999) in her research found that there is a lack of common understanding on all levels of the educational continuum. On the other hand, she noted that teachers use techniques during their teaching and learning process that promote a learner-centred approach to education such as determining learners’ prior knowledge and experiences at the start of the lesson, checking understanding and encouraging learners

This lack of recognising learner-centred approaches by teachers shows a gap between understanding of policy and their views on practice (*ibid*). Shaalukeni (2000) in her study found that teachers prefer the traditional style of instruction and resist innovations associated with a learner-centred approach. So despite the intentions of the Namibian education reform process, there is evidence that learner-centred education is not well understood by Namibian teachers and thus becomes difficult to implement. NIED (2002) in its publication, ‘Learner-centred education in Namibia context: A conceptual framework’, indicates that since learner-centred education was introduced in 1991, there have been very different understandings of what is meant by learner-centred education and how to put it into practice. The NIED document also indicates that part of the problem related to learner-centred misunderstanding is a lack of clarity about the underlying principles and theory of learner-centred education. The document further argues that a learner-centred approach can only be achieved and improve learning in the

classroom provided there is a better and shared understanding of the theory that underpins it and how to implement it in the classroom.

While a learner-centred focus forms the core of reform, Swarts, Zeichner and Dahlström, (1999:251), noted that “there was no *a priori* operational definition of learner-centred education presented at the beginning of the reform process beyond the general directives expressed in *Toward Education for All* and similar policy documents”. Therefore Namibian educators had to develop their own practical version of learner-centred education. They argue that as ‘group work’ was connected to learner-centred education in the official discourse, it was soon transformed into an effective solution to practitioners’ worries and became the sole answer to what learner-centred education was for some teachers. Van Graan’s research confirms that group work was regarded as learner-centred (1999).

2.7 Learner-centred education and assessment

To teach for understanding is to actively engage learners in activities and assessment tasks that press them to understand (Unger, 1994). Assessment therefore becomes one of the most important things that help learners learn. In learner-centred education assessment helps establish where individual learners are in their development of knowledge, skills and understanding and in their ability to apply this to meaningful problems. It also helps in the monitoring of individual progress through an area of learning so that decisions about the best way to facilitate further learning can be made (Masters, 2002:1).

Masters (2002) further argues that underlying learner-centred assessment is an assumption that learners are engaged in a process of ongoing development and have the potential for further growth. The emphasis is thus not so much on how one learner is performing in relation to another, but on where each individual is in their own development. If assessment is to be integral to learning, feedback to the learner must be at the heart of the process. Also important in assessment is giving feedback to help

learners understand not only where they have done well or badly, but also what they need to improve and/or develop further (Brown, 2004-05:85)

Prior to Namibia's education reform process, assessment was predominantly formal and examination oriented. However, with the introduction of a learner-centred approach to education, the role of examinations was de-emphasised and coupled with both formal and informal continuous assessment strategies, which are more criterion-based (Nangombe, 1999). In the lower primary phase, assessment is required by policy to be continuous and informal. What happens in practice, however, is that some teachers do predominantly administer formal tests and examinations at this level (*ibid*).

In learner-centred education all forms of assessment should provide evidence of students' learning. In this fashion teachers need to be constantly aware of any discrepancies between what they are asking learners and what they really want to know. This calls for assessment processes to be transparent from the outset, with criteria that are explicit and clear to all concerned, assessor and those being assessed. Thus assessment can become valid when the assessor uses evidence of achievement, clearly matched against the criteria (Brown & Glaser, 1999; Gibbs & Rowntree, 1999; Thorpe, 2000 as cited in Brown, 2004-05). In this regard, as part of its education reform process, the Ministry has introduced "new forms of criterion-based assessment at all levels" (Namibia. MEC, 1993:124). Therefore assessment will be used not only for promotion purposes, but also to inform learners and their parents on progress and achievements, and to alert teachers to problem areas and guide them towards appropriate compensatory teaching.

Assessment in learner-centred education ought also to emphasise knowledge, attitudes and skills in things such as taking responsibility for one's own learning; independence and cooperation; problem solving; and understanding and thinking for oneself.

As noted earlier, Namibia's commitment to education reform is to reorient teaching toward learner-centred instruction. Through assessment, learners should learn to analyse and synthesise, to imagine and to explore, to criticize and create, to understand and use. Dana and Davis emphasised that "assessment techniques must permit learners to express

their personal understanding of concepts in ways that are uniquely theirs” (1993 as cited in Holloway, 1999:85). Teachers should use other strategies to measure what students know (*ibid*). To learn for understanding, “learners need criteria, feedback, and opportunities for reflection from the beginning of, and throughout any sequence of instruction” (Perkins & Blythe, 1994:7).

2.8 Learner-centred education critique

Constructivism is not necessarily easy to pin down (Small, 2003:482). For example, from a radical constructivist point of view, producing knowledge is always only an ‘inventing’ and never a ‘discovering’. Mathews (n.d.:6) writes that “constructivism is correct in stressing the inventive, human, culturally and historically dependent aspects of creating the theoretical truth, but, he argues, it seldom extends the analysis”. He maintains that “their model of creation is a sort of personal, cottage industry model; a Robinson Crusoe model of knowledge construction that leaves aside the necessary social and communication dimension of cognition – the dimensions that inclined Freire, following Hegel, to say that it is the ‘we know’ that determined the ‘I think’ and not the other way around” (Mathews, n.d.:6). Mathews further stressed that individuals don’t create knowledge: such knowledge is dependent upon knowledge being available. An example he gives is that Marx said that people create history, but they do not create it as they choose; they create it in definite circumstances over which they have little control.

Terhart (2003) similarly maintains that even if one understands learning to be an independent, active constructing of structures, does not start from ground zero. Jonassen (1992:139 as cited in Terhart 2003:40) raises the question that “if learning outcomes are individually constructed, how we then evaluate them”. According to this viewpoint, constructivism does not have any genuinely new ideas to offer to the praxis of teaching, rather it recommends the well-known teaching methods and arrangements of self-directed learning, discovery learning and practical learning in groups.

Confrey (1995:205) too argues that “Vygotsky’s theory of instruction is difficult to reconcile with the question of invention, creativity and dissent as it leaves little room for the acknowledgement of what children teach adults”. In Confrey’s view a Vygotskian treatment of teaching may have the potential to be authoritarian. For example, experts’ knowledge in Vygotsky’s theory of learning appears to dominate the child’s viewpoint. Confrey argues that in mathematics teaching, for example, the end point of instruction is not open to negotiation and change, the expert is presumed to have achieved a more complete view of that knowledge. Thus an underlying authoritarianism based in expertise may be seen to be legitimated (1995).

Good and his colleagues believe that although the term construction is attractive to educators, the ideas of “knowledge construction” may actually be misleading (Good, Wandersee & St. Julien, 1993 as cited in Holloway 1993:85). They “urge educators to exercise caution before going down this road” (Holloway, 1999:85). Though Brooks and Brooks advocate a constructivist approach, they warn that deep understanding, not imitative behaviour, is the goal for constructivism (1993 as cited in Holloway, 1999).

2.9 Conclusion

In this chapter I have shown how Namibia’s educational reform opted for a constructivist approach as a way of redressing the imbalances of the past. I have tried to argue that in order to implement a constructivist approach teachers need to build learning experiences on their learners’ prior knowledge and emerging thinking. Teachers must acquire constructivist-based instructional skills. Learner-centred education can only be achieved if teachers have a good understanding of the theory that underpins it, and of how to implement it in their classrooms. This will provide opportunities for teachers and learners to become more fully engaged in the teaching and learning process. In the next chapter I discuss and justify the choice of my research design that informs my study.

CHAPTER THREE

RESEARCH METHODS

3.1 Introduction

In this chapter I describe and justify my choice of research methods. I explain the interpretive design of the research and discuss my use of the case study approach. I also describe my sampling of participants for the study and my data collection methods (primarily interviews, observation and document analysis), and explain how I sought to resolve issues of validity and how I set about analysing my data. I end the chapter with a brief discussion of some of the limitations of the study.

3.2. Research design

This study focuses on teachers' understanding and experiences of learner-centred education, and the strategies they use to make their classroom practices learner-centred. My aim is to obtain detailed accounts of my selected teachers' understandings and perceptions of learner-centred education. I needed first to see what they actually *do* to become more learner-centred in their teaching, and then try to *analyse* this in light of some of the principles of learner-centredness identified in the literature and promoted by Namibia's educational policy.

It became clear to me that the most appropriate orientation for this research would be an interpretive one (Merriam, 2001). This allows access to peoples' life experiences. It helps one make sense of the complex world of lived experience from the point of view of those who live it (Polit, Beck & Hungler, 2001). I am interested in contextual meaning. I observed two teachers in their natural classroom settings in an effort to capture their lived experiences of trying to teach according to learner-centred principles, and their perceptions arising from these lived experiences (Merriam, 2001).

As is consistent with the interpretive paradigm, my research follows a qualitative approach (Merriam, 2001). According to Maykut and Morehouse (1994) qualitative

research helps to understand people's words and actions. I have tried to develop 'thick' descriptions of events and provide direct quotations from my interviews (Patton, 1990:40). This enabled me to better represent and understand the phenomenon of learner-centred education from the perspectives of my respondents.

I chose the case study method. Case studies help to illuminate particular situations: a person's life, a group's life or a programme's life (Patton, 1990). It is 'the study of an instance in action' (Adelman et al., 1980, as cited in Cohen, Manion & Morrison, 2001). Bassey (1998:76) indicated that "a case study is a method of enquiry, which involves asking extensive data from the people being questioned or trying to extract some meaning or better understand more clearly". Through this case study I hope to provide a unique analysis of real people in real situations, thus enabling my readers to understand ideas about aspects of learner-centred education more clearly than simply by presenting a lot of abstract theory (Patton, 1990).

Cohen, et al. (2001) describe a case study as a specific instance that is designed to illustrate more general principles (Nisbet and Watt, 1984:72 as cited in Cohen, et al., 2001). It is not the intention of this research to generalise the case, however. Rather, I want to understand this particular case as a unique, holistic entity. I have tried to do so mainly through what my respondents reveal as their experience: the real-life events in the case (Patton, 1990).

3.3 Site and sample selection

I used convenience sampling (Cohen, et al, 2001; Polit et al., 2001) to select the two teachers who participated in my study. Convenience sampling entails the use of the most conveniently available people as study participants (Polit et al., 2001; Merriam, 2001). I have easy access to the particular schools and both teachers were also known to me. In fact I had worked with Namalwa when she was a student teacher. Both teachers hold BETDs.

I spent one week and three days respectively with each teacher during which time I observed a selection of their lessons as well as interviewed them. Prior to the interviews and observations, both teachers were assured that their participation in the study was voluntary and that they had the right to withdraw from the study at any time should they so wish. They were also assured of anonymity (both for the school and for themselves). They were then asked to sign consent forms confirming their willing participation in the study (see Appendix B). An agreement was also reached whereby I would only observe them in one subject Environmental Studies so as to minimise my intrusion upon their other teaching responsibilities.

In order to protect the identity of the participating Grade 4 teachers and their schools, I shall refer to the schools as Nangombe Combined School and Nekulilo Primary School respectively. The pseudonyms I shall use for the teachers are Eтуhole and Namalwa.

I visited Eтуhole's school (Nangombe Combined School) six times. My first visit was to meet with Eтуhole and her school principal in order to brief them on the purposes of my study and to make arrangements for the observations and interviews which were scheduled to take place on my second, third, fourth, fifth and the sixth visits (see Appendix A). Five lessons were observed using the open lesson observation guide (see Appendices F and G). After each observation I conducted a stimulated-recall interview with the teacher. All the lessons observed fell under the umbrella theme 'The social environment'. The actual topic was 'Infrastructure and communication', with a focus on 'Transport'. During the lessons I looked specifically for how Eтуhole applied learner-centred strategies in her practice.

I visited Nekulilo Primary School four times. As with Eтуhole's school, my first visit was simply to meet Namalwa and her principal and to make appropriate arrangements for my subsequent visits. My second, third and the fourth visits were for the observations and interviews. I observed three of Namalwa's lessons, again using open lesson observations guide, followed by stimulated-recall interviews. Namalwa's lessons fell under the theme 'Natural environment'. The topic here was 'The living world', with 'Living and non-

living things' as the sub-topic. As with Etuhole's lessons, I was interested in seeing what learner-centred strategies Namalwa used in her teaching.

Grade 4 is a transitional grade as regards language. For Namibian learners, Grade 4 is the first year in which English becomes the dominant language of teaching and learning. In other words, although the use of mother tongue (in this case Oshindonga) continues alongside English to ease the transition, English is the official medium of instruction from this grade onwards. (Oshindonga is the home language for both Etuhole and Namalwa. It is also mine.)

3.4 Validity

Validity is an important element in any research, be it qualitative or quantitative (Cohen et al., 2001). In order to increase validity I used multiple sources of information. According to Patton (1990:244) "... by using a combination of observations, interviewing and document analysis, the fieldworker is able to use different data sources to validate and cross-check findings". I used three methods (interviewing, document analysis and observations) in order to triangulate my data. By so doing I hoped to build on the strengths of each type of data collection while at the same time compensating for potential weaknesses in any single approach (Patton, 1990). I also tried to put my own assumptions aside as potential threats to validity. It was never my intention to 'prove' a particular perspective or manipulate the data to arrive at predisposed truths (Patton, 1990). What I did was try to "to understand the world as it is, to be true to complexities and multiple perspectives as they emerged, and to be balanced in reporting both confirming and disconfirming evidence" (Patton, 1990:55).

3.5 Data collection

I talk briefly about each of my three data-collecting tools in the sections that follow. As Patton (1990:245) states, and as noted above, "... a multi method triangulation approach ... increases both the validity and the reliability of evaluation data".

3.5.1 Interviews

Patton (1990:278) highlights the importance of interviews as data-gathering instruments saying “we cannot observe feelings, thoughts and intentions ... we have to ask people questions about these things”. Kvale (1996 as cited in Cohen et al., 2001:272) identified some key characteristics of interviews. Given the nature of my study this is what I hoped to achieve in my own interviews. Two especially useful points that Kvale made are:

- Life world: The topic of the qualitative research interviews is a lived world of the subjects and their relation to it.
- Meaning: The interview seeks to interpret the meaning of central themes in the life world of the subjects. The interviewer registers and interprets the meaning of what is said as well as how it is said.

In the interviews I focused on the individual perceptions (beliefs) and experiences of my participants regarding learner-centred education.’ I used open-ended questions for the interviews. Patton (1990:24) notes that “the purpose of gathering responses to open-ended questions is to enable the researcher to understand and capture the points of view of other people without predetermining those points of views through prior selection of questionnaire categories”. This approach seemed the most appropriate for this research as it is a flexible technique, suitable for gathering information and opinions, and for exploring people’s thinking and motivations and yielding rich data.

I began each interview by briefing the participants on the nature or purpose of my investigation – namely, to explore teachers’ understanding and experiences of learner-centred education and to gain insight into the teaching strategies they use to enhance the quality of learning in their classrooms. I tried to make my respondents feel at ease. I explained that I wished to use a tape recorder to record their responses. Both gave their consent.

I conducted two semi-structured interviews during March and April. I used an interview schedule to ensure that I kept a clear focus for each interview (see Appendix C and D). I also conducted stimulated-recall interviews after each lesson on various aspects of the

lessons that I had noted during my observations (Murray & Nhlapo, 2001). The stimulated-recall interviews were not tape recorded. I took notes instead.

Before the beginning of the interviews I asked the participants about their preferred language for the interview. Both preferred Oshindonga. Patton (1990:228-229) argued that it is “impossible to understand another people’s culture without understanding their language” because people have different words and phrases to describe different situations. I later transcribed and translated each interview transcript into English.

The fact that the interviews were conducted in mother tongue placed a transcoding challenge to me because some words in Oshindonga have similar meaning in English. This was resolved by code switching into English, especially those words which I cannot clearly explain in mother tongue. If there are grammatical errors in the translation these were not caused by the teachers but rather by my own lack of translation skills. I have tried to edit out grammatical errors.

A second challenge was the use of the tape recorder. At some points I stopped it to check that it was recording properly. This caused a bit of disruption as the teachers waited patiently for me to play back the cassette and listen to themselves, which - in retrospect - I think was not a good idea.

The venues posed a further challenge. All interviews were conducted in the teachers’ classrooms after school hours, but there was quite a lot of ‘noise pollution’ coming from some learners who were playing outside. Pausing for a little while, waiting for the learners to go home solved this to some extent.

The tape recorder was useful in transcribing the interviews. Although I took notes I was not able to note down all my feelings and reactions to what the teachers said, as well as what they expressed through body language. I took mainly notes on key ideas that I wanted to follow up.

3.5.2 Observation

There are limitations to how much can be learned from what people say. To understand fully the complexities of many situations, direct participation in and observation of the phenomenon of interest may be the best research method (Patton, 1990). Observational data represent a first-hand encounter with the phenomenon of interest rather than a second-hand account of the world obtained in an interview (Merriam, 2001:96). In qualitative research, there are two main types of observation: simple observation and participant observation (Babbie & Mouton, 2001). I acted as a non-participant observer, i.e. an 'outside observer' (Babbie & Mouton, 2001). The observation took place in the teachers' classrooms. I used an open-ended lesson observation schedule (see Appendix E).

My observation focused on the practical aspects of these teachers' classroom practice. It enabled me to examine, describe and understand aspects of learner-centred education used by these teachers. In my observations I tried to capture events and behaviours as they occurred in all eight lessons. In each lesson I observed a unit of work and – as noted – followed up with a stimulated-recall interview.

3.5.3 Document analysis

Documents were a further data collection strategy. Patton (1990:245) states that "document analysis ... provides a behind-the-scenes look at the program that may not be directly observable and about which the interviewer might not ask appropriate questions without the leads provided through documents." Merriam (2001:126) indicates "documents are good sources for qualitative case studies because they can ground an investigation in the context of the problem being investigated". The documents perused included the syllabi for the Curriculum for the Lower Primary Phase, the teachers' daily lesson plans and examples of learners' work with the teachers' permission. These documents provided further evidence of what happened in the classrooms and also provided further insight into the strategies the teachers used.

3.6 Data analysis

The teachers' transcribed interviews were read through and coded on the basis of the following broad framework of categories, based on the interview questions. Kerlinger defined coding "as the translation of question responses and respondent information to specific categories for the purpose of analysis" (1970 as cited in Cohen et al., 2001:283).

The broad categories from the interviews are as follows:

- Teachers' understanding and experiences of learner-centred education
- Teaching strategies used by the teachers

I also did a cross-case analysis (Patton, 1990) to draw out common threads and contrast. The cross-case analysis meant that the wide range of differences was observed in the practices of the individual teachers and was reported as such.

In analysing the lesson I used some key characteristics of learner-centred education. This includes:

- Fostering and developing conceptual understanding
- Ensuring learners' involvement in classroom activities
- Building on learners' prior knowledge and
- Using continuous assessment to gauge learners' progress and learning.

I translated these characteristics of learner-centred education into the following key questions which I then used to scrutinise and analyse the data:

- How do they promote learners' conceptual understanding?
- How are the learners involved in various activities?
- How do they build on learners' prior knowledge?
- How is the learners' progress and learning assessed?

As with my first level of data analysis based on the interviews, it was not easy to identify the categories. I had to read through the data several times to find the emerging themes. When looking at the lessons I also tried to identify the emerging themes. More detailed

analyses of the data, following this first layer of analysis, led to the identification of further themes or categories. I discuss these in Chapter 5.

3.7 Limitations

Although I believe the study has great potential value it suffers from my being an inexperience researcher. My overall research process might be criticised on several grounds. I shall mention a few of these.

Firstly, the number of participants might not represent a fair picture of the BETD in-service teachers and teachers in Oshikoto region in terms of perceptions, experiences and classroom practices. Secondly, my use of the convenience sampling is not necessarily favoured in qualitative research (Patton, 1990). This was done to save me time and negotiation and also because I had easy access to the teachers and schools concerned. The scale of the research - working with only two teachers – is a third area of potential criticism, as was the time frame. The fact that the study had to be completed in six months did not give me a great deal of time to devote to the investigation, especially as I had also to attend to my normal work responsibilities.

Use of Oshindonga during interviews also poses a challenge to the validity of my research. I had to translate it myself into English which may have had an effect on the data. I have to ask myself if I succeeded in fully representing the teachers' expression of their thoughts when I translated from mother tongue to English.

It is my hope, however, that despite these limitations the triangulation strategies I used will have minimised these.

3.8 Conclusion

In this chapter I have described and attempted to justify the various data collection tools I used and the decisions I made in order to answer my research questions. I discuss each of

the data collection methods used. I also explain how the data were analysed and the limitations to the study. In my next chapter I report my findings from the interviews, observations and documentary analysis.

CHAPTER FOUR

PRESENTATION OF FINDINGS: TEACHERS' UNDERSTANDING AND IMPLEMENTATION OF LEARNER-CENTRED EDUCATION

4.1. Introduction

In this chapter I report on the findings obtained from my analysis of the interviews, observations and documents pertaining to my investigation of teachers' perceptions, and implementation, of learner-centred education in the lower primary phase. The following categories are used to frame my analysis of the findings:

- Data collected through interviews:
- Teachers' perceptions and experiences of learner-centred education
- Data collected through classroom observations:
- Overview of the lessons
- Teaching strategies used by the teachers to promote learning with understanding
- Data collected through documentary analysis

Before discussing each of these categories it is necessary to briefly provide some background information about each teacher and their school context.

4.2. Teachers' backgrounds and school contexts

Etuhole's school (Nangombe Combined School) caters for grades 1-10, and is located in Onathing circuit. It is a rural school. It has electricity, a photocopying machine, a computer for the school secretary, a computer laboratory and a small library. Unlike quite a number of rural schools in Namibia, it has tap water and flush toilets for teachers. Etuhole has taught for 14 years. She obtained her BETD through an in-service training programme. On average, she has 25 learners in her class.

In Etuhole's classroom there are some displays on the wall, including days of the week (in English) and in the mother tongue (Oshindonga), letters of the alphabet in lower case, a clock, posters displaying the following: energy and protective food, the Namibian

anthem, shapes, months of the year (in English), domestic animals, sense organs, parts of the body, modes of transport and the Lord's prayer (in English), four main compass directions, colours and two calendars for 2006. There are also some examples of learners' work displayed on the wall.

The school at which Namalwa teaches - Nekulilo Primary School - is also located in Onathing circuit. It caters for grades 1-7. It is a rural school equipped with electricity and a small library, which serves also as the principal's office. It too has tap water, plus a pit latrine toilet for teachers. There are no toilets for learners. Namalwa has taught for 21 years. She obtained her BETD through in-service training. On average, she has 21 learners in her class.

In Namalwa's classroom there are some displays including the Lord's prayer (in English), posters with written test questions (English and Environment Studies), digestive system, days of the week, phonics, months of the year (in English), a picture of a dog with some written parts, a few pictures of other animals, a map of Namibia, weather charts, letters of the alphabet, flash cards with different animals (domestic and wild) and a few examples of learners' work.

Learners in both classes are seated in groups of four or five. Both teachers were observed while teaching Environmental Studies lessons. As indicated both teachers have obtained the Basic Teacher Education Diploma through an in-service teacher education programme after working as under-qualified teachers.

4.3 Teachers' perceptions and experiences of learner-centred education

In order to capture my participating teachers' perceptions on a learner-centred approach, they were asked the following questions:

- What do you understand by the concept learner-centred education?
- Can you describe activities that you use in your teaching which you consider to be learner-centred?

- Which of these activities do you consider to work most effectively in your teaching? Give your reasons.
- Why do you use a learner-centred approach?

Both teachers' responses to the interview questions reflected that they understood a learner-centred approach to be a cooperative and collaborative process. They indicated that a learner-centred approach enables the learners to help one another and to work together. They also described it as an approach where learners are empowered to take responsibility for their own learning. For example, Namalwa explained:

Learner-centred education is the method where learners play a role more active than the teacher. They play an active role in whatever activity they are given. What I mean is in this method learners help one another, or they work together ...they work, they learn, they socialise...

Etuhole shared similar sentiments:

I understand learner-centred education as the education where the child, the parents play a role, where learners work in groups, work in pairs and individually in giving their ideas. Learner-centred is the education where learners help one another, where the slow learners are assisted...

Their responses show that they recognised a learner-centred approach as an interactive and participatory one where learners are seen as active participants in the teaching and learning process.

In addition, Etuhole explained:

...the teacher only introduces the topic and then learners give their own ideas on how they understand the topic. The teacher helps the learners where they experience difficulties. Again parents in this education are playing a role; the teacher asks parents to help learners where he or she thinks it is needed.

Namalwa explained:

... I would say that learner-centred education is a new thing. It is not like how we were taught in the past. ... but in learner-centred education learners do things both in theory and practice Learners play a role in learning and teaching because they work on their own and the teacher is there only as a facilitator, checking how they are doing ... assisting them where they are experiencing difficulties...

Based on the responses above, one could conclude that in a learner-centred approach, both teachers and learners are seen to play a role in the teaching and learning process, whereby learners take a role as active participants in the learning process and the teachers take a role not simply as transmitters of information, but also as facilitators and co-learners.

Both teachers indicated during interviews that they use group work. For example Etuhole explained: *"I also put them in groups in order for them to share ideas"*. In the same light Namalwa explained: *"I like to put them in groups, to work in groups"*. The two teachers' responses showed that they regarded learner-centred education as a participatory and collaborative approach. Both teachers accepted that in a learner-centred approach, learners' prior knowledge is crucial. Etuhole explained:

... when I introduce the topic I first start with learners' previous knowledge in that particular thing ...it is the best way to start teaching. It is the best way to access learners' ideas....

Namalwa on the same point during the stimulated recall interview indicated:

I want to check their knowledge if they know anything about that topic. So I like to test their knowledge first before I supplement with what they already know. It is learner-centred 'mos'. In learner-centred education learners have to do something first on their own and then the teacher will add to their knowledge.

The two teachers recognised the importance of the use of resources in a learner-centred classroom in helping learners learn. Namalwa indicated during her interview: *"... I try to teach although not always with something that learners can touch, feel and see...."*

Similarly, Etuhole explained, *"if you are teaching learners, you need to have teaching aids...."*

Despite the value that the two teachers attached to resources, in all the lessons I observed only a few resources were used: the textbook, very occasionally real, concrete things, worksheets, cards, and – most commonly - the chalkboard.

In terms of assessment, the teachers indicated that they use assessment when they are teaching. Etuhole explained: *"... I used to assess them when they are giving feedback ...*

but when I assess them now I use to indicate whether this is either pair, individual or group work.” Namalwa commented: “... as you are marking them you also assess them at the same time. As they work in groups I also have the responsibility of assessing them”.

Both teachers also indicated that they use two types of assessment as required by the curriculum: these are less-structured and more-structured assessment. However both have indicated difficulties they experienced in assessing learners while working in groups. For example, Namalwa explained: “... but what I find problematic is assessing learners while working in groups because sometimes learners just get marks because of their groups....”

While Etuhole shared similar sentiments:

The kind of problems I have experienced is about teaching weak learners and gifted learners especially in awarding marks. For example when you award marks what the gifted learner gets is what the weak learner gets, especially in group work....

Both teachers showed that they associate assessment with diagnostic and performance purposes rather than monitoring learners’ progress and development. It also appeared that both teachers have recognised indigenous knowledge in their assessment: both said that they gave homework to their learners that required them to consult with their parents or guardians to complete their tasks. Learners’ communication and interpersonal skills, values and attitudes were developed through these tasks.

As one of my goals was to explore teachers’ perceptions and experiences, I asked for their opinions and feelings about learner-centred approaches. Although Etuhole’s responses reflected some mixed feelings, both teachers claimed that learner-centred education is a good approach. Etuhole expressed it in this way:

I used it because is the approach that is prescribed to be used in our education system. ... it is also a good approach. This is the approach we are told to use whenever we attend workshops. We are forced to use a learner-centred approach. ... The good thing about this method is that learners are free to give their ideas in whatever is being discussed in any subject... they are not forced to learn something by heart....

Namalwa explained:

I use learner-centred approach because that is the approach we should follow. It is a curriculum issue. That is the approach that we should follow in the education of our country. It is a good method. ...it is the learners themselves ... who play a role.

Based on the evidence above, it appears that Etuhole has mixed feelings about a learner-centred approach. Even though she finds a learner-centred approach appropriate, she is not necessarily convinced that it is a good method: they are 'forced' to use it. However, Namalwa believes that a learner-centred approach to teaching and learning is an appropriate policy for teaching and learning.

In my next section I analyse how these two teachers translate theory into practice. In presenting these teachers' lessons, I first give an overview of the unit of work of each lesson taught by them.

4.4 Data collected through classroom observations

4.4.1 Overview of lessons

The new lower primary curriculum states that the syllabus is not a fixed sequence for teaching the topics within a year (Namibia. Ministry of Education. [ME], 2005). The implication is that teachers are at liberty to choose any topic that suits the local context of their learners. It appeared to me that Namalwa had chosen the topic according to learners' context considering the climatic conditions at that time of the year. I observed Namalwa teaching the theme: 'The Natural Environment'. This is the fourth theme listed in the syllabus. On the other hand Etuhole had followed the syllabus sequentially. The theme she was teaching was 'social environment'. This theme coincides well with what was happening in the learners' context, namely, the construction of the railway linking Ondangwa with Tsumeb and other parts of the country. This fits well with her lesson on 'infrastructures and communication' (transport). I now look at the overview of each teacher's lessons in terms of what was expected of learners.

The learning objectives for the topic that Etuhole was teaching are, “learners will understand the functions of transport and transport links in the region” (Namibia. ME, 2005:109).

Namalwa’s topic ‘natural environment’ deals with ‘the living world’. The first lesson was on ‘living and non-living things’ and the second lesson was on ‘the needs of living and non-living things’. According to the learning objectives in the syllabus (Namibia. ME, 2005:113) “learners will distinguish between living and non-living things, understand animals’ specific requirements for life and understand the specific requirements for life for plants.”

According to the syllabus, assessment should be related to the learning objectives of each topic and may include individual, pair and group work. In these particular lessons Etuhole’s learners were expected to understand the ‘means of transport and links in our region’, while Namalwa’s learners were expected to understand ‘the difference between living and non-living things, and animals’ and plants’ specific requirements for life’. Therefore Etuhole’s learners were expected collect information on different forms of transport in their region, both past and present, and to draw transport links to other regions on a map of Namibia. Namalwa’s learners were expected to identify key characteristics of living things, sort living things from non-living things on the basis of these characteristics, identify basic needs of animals and compare them with the needs of people, identify basic needs of plants and compare with the needs of people. However, the two teachers although planned their lessons from the syllabus their lesson plans did not show explicitly how to achieve the learning objectives through lesson presentation and assessment tasks set. In the next section I analyse the degree of learner-centredness in these teachers’ lessons.

4.5 Learner-centred strategies used by the teachers

The aim of teaching and learning in a learner-centred classroom is to develop learning with understanding. The following strategies emerged from my analysis of the lessons,

documents (lesson plans) and the interviews. In presenting data on the various strategies used by Etuhole and Namalwa, I have used the following four main categories:

- Involvement of learners;
- Use of visual aids;
- Content integration; and,
- Assessment.

4.5.1 Teaching strategy 1: Involvement of learners

In *Toward Education for All* it is outlined that teaching methods must allow for the active involvement and participation of learners in the learning process. In the lessons I observed both teachers tried to involve their learners using a variety of methods. The five main ways they used are discussed below.

4.5.1.1 Use of learners' prior knowledge

Learners' prior knowledge is an essential part of effective teaching. Etuhole noted during the interview about learners' prior knowledge "*... is the best way to teach ... best way to access learners' ideas*".

Similarly, Namalwa explained during the stimulated recall interview: "*... I like to test their knowledge first before I supplement with what they already know (it is learner-centred 'mos'). In learner-centred education learners have to do something first on their own; then the teacher will add to their knowledge*".

The lessons observed, however, did not demonstrate really how the teachers used their learners' prior knowledge, although there were some instances in these lessons where these teachers drew on it knowledge. For example, Etuhole started her lessons with the following questions:

- Give the names of different transports you see in the picture? (Lesson 1)*
- What is transport? (Lesson 2)*
- What is transport? (Lesson 3) (a repeat from the previous lesson)*

Mention five kinds of transport we use these days. (Lesson 4)

Here are the results of yesterday's pair work. (Lesson 5)

Namalwa began her lessons with the following sorts of questions:

What do you understand by the word 'living things'? (Lesson 1)

What did we learn yesterday about living and non-living things? (Lesson 2)

What do people and animals need to live? (Lesson 3)

Evidence from these lessons showed firstly, that the concept of prior-knowledge is viewed as previous content taught; secondly, it is identified as textbook and thirdly as syllabus related.

My observations suggest that these teachers lack a clear idea of how to use their learners' prior knowledge, especially at the beginning of the lessons. The teachers only referred to what *they* had taught previously, rather than to anything that learners might have been able to draw on from their own lived experiences.

4.5.1.2 Use of local examples

Use of local examples was one of the strategies commonly used by both teachers when explaining and clarifying things to their learners. However these examples did not really spark off discussion in the lessons. For example, Etuhole explored the uses of the lorries by asking her learners: "*Can you give the names of the things that you have seen carried by the lorries?*" She also asked her learners to draw their favourite form of transport.

Namalwa too used local examples to clarify and explain things to her learners. In explaining reproduction, she used the example of the goat: "*Oshikombo oshina okakombwena (A goat has a kid). Living things that produce young. How did the goat get a kid?*" When she explained the needs for animals she asked:

Did you drink ontaku (ontaku is a non alcoholic Oshiwambo home brew drink made from a mix of mahangu and sorghum) today?

Omakunde niilya ohatu yi peni iikulya ta yi zi peni (Where do we get the manure from that we put on our bean and mahangu crops?)

Omwa lala peni? (Where did you sleep?)

These snapshots indicate that both teachers regard themselves as the providers and sources of information. Their learners were given no opportunities to provide their own examples on the topics under discussion. Both teachers need guidance on ways to link topics to learners' real life situations, and to get their learners involved in sharing their experiences from the local environment. Using learners' immediate environment makes meaningful learning more likely.

4.5.1.3 Asking questions

My findings reveal that questioning was the strategy most commonly used by both teachers. Questions were a main mode through which content was delivered to the learners. Here are examples of the questions asked by Eтуhole and Namalwa respectively.

Eтуhole: *Give the ten modern forms of transport you know.*
 Answer: *Bus, donkey cart, car, bicycle, helicopter, train (eshina), motorbike*
 Eтуhole: *How many of you have seen a train?*
 Whole class raised their hands.
 Eтуhole: *Eshina lyashike?*
 Answer: *Eshina lyokolutenda.*
 Eтуhole: *Do you know what a donkey cart in mother tongue is?*
 Whole class is quiet.
 Eтуhole: *What is a bicycle?*
 Answer: *Ombasikela*
 Eтуhole: *Helicopter?*
 Answer: *Edhagadhaga.*
 Eтуhole: *Aeroplane?*
 Answer: *Ondhila.*
 Eтуhole: *Ondhila, not the live bird, but the one you see in the sky.*

Namalwa: *What is spider?*
 Answer: *Ewiliwili(spider)*
 Namalwa: *What are bees*
 Answer: *Oonyushi(bees)*
 Namalwa: *What is a rock?*
 Answer: *Omamanya(rock)*
 Namalwa: *Where does a bird sleep? In a what ...?*
 Answer: *In a nest*
 Namalwa: *Where does a rabbit sleep?*
 Answer: *Okokwena (in a hole)*

If one looks at Etuhole and Namalwa's questioning techniques they are a kind of checking whether learners know the right answers. Neither teacher gave feedback on their learners' answers or provided further clarification or even probed. This indicates that these teachers see their roles as that of simply asking their learners' questions and receiving the answers. Their learners' thinking was left at the factual knowledge level. No opportunities were given to manipulate facts. None of the questions the teachers asked encouraged learners to really use language in a meaningful way.

However, most of these teachers' questions were closed questions, promoting factual recall. Many questions did not go beyond comprehension. The majority of the learners were able to answer the questions in their mother tongue only because of their low level of competence in English.

Another thing I observed was the waiting time both teachers gave to learners to think about the question and provide an answer. It was too short. Sometimes the teacher did not even probe, nor did learners also ask questions. The fact that learners did not ask question does not mean, however, that they were never given an opportunity to do so. Namalwa during the stimulated recall interview explained: *"I gave them an opportunity because there may be some learners who do not understand; but the problem with them, they do not ask...."*

The evidence from the above discussion reveals that both teachers see questioning as a way of checking whether their learners can give the 'right' answers. They do not seem to see it as necessary to further probe their learners' answers with a view to increasing understanding.

4.5.1.4 Group and pair work

My findings from the interviews and observations revealed that both Namalwa and Etuhole use group work. However, *although* learners were given activities to do in



groups, most of the activities only promoted factual recall rather than collaboration and cooperation between learners, notwithstanding what the two teachers may have claimed.

Etuhole during the interviews explained for example: *"as learners work in groups they help each other by sharing ideas, working together, learning together ... they socialise, they learn to socialise"*

Namalwa explained: *After the activities, I ask each group to give me feedback so that I can check what they have done. Then I give them different activities: this group I give them this task; that group I give them another task.*

As with their questioning techniques, the two teachers' group tasks only called for 'naming', 'mentioning' and 'giving'. Etuhole as part of her group work asked learners to *"... give the names of long ago transport"* (Lesson 1); *"choose two kinds of transport we use in our region"* (Lesson 3); *"write the kind of transport in the right place, for long ago and then for today's kind of transport"* (Lesson 4). Namalwa, as part of her group work, asked her learners to: *"Write about living and non-living things"* (Lesson 1)

During these group activities no materials were used to stimulate learners' minds. As I observed these activities the teacher would move around the groups to check that learners were on the correct page or that they were doing the activities according to the instructions. The focus was not really on whether all learners were involved in the activities. All the groups came up with the answers to the activities, but in most groups, there seemed to be one learner who happened to be strong who carried out the task. The teachers told me that their learners were grouped according to mixed ability. The fact that these teachers grouped their learners according to mixed ability makes it difficult for other learners to become involved in the lesson (despite the teachers' good intentions). Etuhole, for example, noted, *"I pair gifted learners with weak learners ...so the gifted learners assist those who don't know - the less-gifted learners...."* Namalwa also shared similar sentiments. She explained, *"When I pair them, I try to pair them with someone who is better than the other, with someone who is able to assist"*.

Both teachers also recognised their facilitator role while learners were working in groups. For example, Namalwa argued:

... the teacher is there only as a facilitator, checking how they are doing ...when learners are doing their activities, the teacher moves around monitoring learners' work, checking how they are doing that activity, and helping where learners experience difficulties.

Etuhole shared similar sentiments:

...the teacher will help them where they are experiencing difficulties. The teacher will not only leave them on their own by just giving them work or activities but will still help them.

It seems to me then that these teachers consider moving around as facilitating. Evidence from the group activities and from the teachers' interviews indicates that both teachers believe that as long as their learners are working in a group and the teacher goes around to check on and – where necessary – help learners, this is learner-centred learning.

4.5.1.5 Use of code switching

Although not mentioned during the interviews, I observed that code switching was one of the strategies most widely used by both teachers. As learner-centred education is about learners' conceptual understanding, code switching is a useful way of developing learners' *understanding*, but these teachers seemed to use it simply to develop their learners' *English vocabulary*, as illustrated by the following explanation from Etuhole: "... I use it when there are those learners who don't know a word in English or mother tongue, and also for them to learn new vocabulary....". During the stimulated recall interview Namalwa explained her use of code-switching as follows: "*It is because they do not know the meaning of some words in English...*". From what I observed, however, the learners' vocabulary was not increased because words or concepts were only *translated* from mother tongue to English or vice-versa without any subsequent deeper discussion.

Here is an example of Etuhole's use of code switching when discussing transport:

- Etuhole: *Okay. We are going to continue with water transport. Can you give the names of water transport?*
- Answer: *'okawato' in mother tongue (canoe in English)*
- Etuhole: *You are right but you have only given it in mother tongue.*
- Answer: *'sikepa' (in mother tongue)*
- Etuhole: *'sikepa' that is a ship.*
- Answer: *canoe*
- Etuhole: *Can you spell canoe?*
- Answer: *(spell out) c-a-n-o-e.*

This snapshot reveals that the learners knew the words, and the concepts for these, in their mother tongue, but their teacher did not explain it in English. For example, simple concepts from the transport lesson such as: "*bicycle="ombasikela"*", "*transport="iiyenditho"*", "*train="eshina lyokolutenda"*", "*helicopter="edhagadhaga"*", "*aeroplane="ondhila"*" were only translated into English, which is why I see this as an example of a lesson on vocabulary, rather than on conceptual development related to transport.

Some of Namalwa's examples of code switching were as follows:

- Namalwa: *Where does a rabbit sleep?*
- Answer: *Okokwena(in the hole)*
- Namalwa: *Bees? Where do you think they sleep? Ohadhi kala komututu. Ohadhi tungu enima lyafa ehila. Olye a mona mp dha valela. Enima ndjono ohatu li ithana kutya is a what?(They live in a hole. They make a thing called a hive. Who has seen where bees have their hive? That thing we call it a ...?)*
- Answer: *A hive*

It seems that code switching certainly increased interaction between teacher and learners as learners only really spoke with confidence when they were asked to give answers in the mother tongue. No actual pedagogical value was attached to it though. I suspect the teachers' own difficulty in expressing themselves in English may be one reason why they never actually provided their learners with explanations as such.

4.5.2 Teaching strategy 2: Use of visual aids

The use of resources and teaching aids was emphasised by both teachers as contributing to learners' learning. For example, during the interviews Etuhole noted, "*... if you are teaching learners, you need to have teaching aids ... if you are teaching without teaching aids, it is difficult to make learners understand a particular thing....*" Namalwa also explained: "*I try to teach although not always with something that learners can touch, feel and see....*" However in most of the lessons observed, these teachers did not use many teaching aids. The most commonly used visual aids and/or learning materials were the chalkboard, the textbook, flashcards, and – very occasionally – concrete objects.

4.5.2.1 Use of the chalkboard

The chalkboard was used to write the main content of the lesson. Every new word introduced was written on the chalkboard. Sometimes instructions were given verbally and then also written on the chalkboard. The homework and summary was also written on the chalkboard for learners to copy down. During Etuhole's lesson on living and non-living things, she asked her learners to come up and work on the chalkboard 'to match the animals with their houses'. Also during Namalwa's lesson on transport, learners worked on the chalkboard to 'sort out modern transport from the old forms of transport (as the teacher put it, the 'long ago transport')'. In other words, the chalkboard was used as a teaching aid only. No further links were made using the chalkboard. Where it was needed teachers could not even draw well to capture learners' attention. Although the chalkboard was used widely it did not really engage all learners. Sometimes learners were not even able, for example, to finish copying a summary from the chalkboard before it was erased.

4.5.2.2 Use of textbooks

Textbooks were another of the materials that both teachers used. In the lessons I observed the textbook was either used for the teacher to teach or for learners to complete tasks. As learners were working on a task, the teacher would help them, but never encouraged them

to use the text to find a solution to a problem. From what I observed, the teachers wanted to get a specific kind of answer out of their learners. They kept on reminding learners on what was done previously. The following example from the lesson on living and non-living things shows how Namalwa worked from the textbook with her learners:

- Namalwa: *Now you fill in the gaps, e.g., living organism need F... there is that F. what does it stand for?*
Answer: *Food*
Namalwa: *Shanga po oshitya shono pu F- food (write that word at F- food). So people and animals need food.*
Answer: *Juffrou ota tu shanga peni (Miss where are we writing?)*
Namalwa: *Elago enene owa tulilwa po nale kutya F oha yi shangwa ngiini (luckily it is already indicated how F is being written).*

This dialogue indicates that Namalwa was only interested in the answer that was in the textbook (*despite* the fact that there were not even enough textbooks for her learners to each have one of their own).

4.5.2.3 Use of flash cards and concrete objects

Although these teachers understood the importance of using teaching aids, neither used them optimally during their lessons. During Etuhole's lesson on 'infrastructure and communication', for example, she gave her learners cards to work through before she introduced the topic. Cards had the names of different kinds of transport and pictures of various sorts of transport. As learners were working with them, they were able to provide answers. When asked during the stimulated recall interview why she used them, Etuhole explained: *"I want them to think about today's topic. I use the cards as part of the introduction. It helps learners to think"*

During the lesson on living and living things Namalwa used actual grass and palm Fruits as part of her teaching aids. When I asked her reason for using them during the stimulated recall interview she explained: *"I want them to see and feel the grass for themselves and also for them to know that when we took the grass first it was alive and later it died."* On the use of palm fruit she said, *"The palm fruit, for example, I was*

supposed to explain to them like when they find it on the tree it is alive but when it is off the tree it is dead.” [sic.]

Although she was able to explain why she used concrete objects in her lesson, this did not really demonstrate any deep understanding of how to use resources to develop learners’ further learning. Resources were used as teaching rather than learning aids.

4.5.3 Teaching strategy 3: Content integration

Although it was not mentioned by either teacher as a strategy, it was clear that they do integrate subjects when they teach. For example in her lesson on transport Etuhole asked her learners to draw their *‘favourite transport’*; when they were not able to give the functions of the feet, she asked them to sing the song: *‘I am walking’*. In almost all her lessons she asked her learners to write on the chalkboard and to read.

Namalwa also integrated subjects. During the stimulated recall interview she explained that she used individual tasks, “... *because I want them to know how to write and spell words. You see the subjects are integrated. By asking them to do this the language side is integrated.*”

Both teachers appeared then to have an understanding of the value of integration, but they lacked the skill to integrate effectively. Most content integration seemed to happen almost unintentionally.

4.5.4 Teaching strategy 4: Assessment

It emerged from the interviews and my observation that both teachers recognise assessment as an important part of the teaching and learning process in a learner-centred classroom. Assessing of their learners’ was done in a variety of ways such as asking questions, class activities (group, pair and individual work), homework and feedback. Both teachers seemed, however, to have problems in understanding assessment. This was reflected both from the interviews and from their lesson plans. The fact, for example, that

these teachers prefer assessing learners individually, rather than including group work assessments is one example of their difficulties as regards understanding how to use assessment more broadly. Namalwa explained this as follows:

... what I find problematic is assessing learners while working in groups because sometimes learners just get marks because of their groups. This is the reason why I like to assess learners individually. I know I am giving learners their real marks

Etuhole shared similar feelings:

... the kind of problems I have experienced, is teaching weak learners and gifted learners, especially in awarding marks. For example, sometimes I could see that some weak learners didn't master the skills very well, but because they were working with gifted learners, they just got the same marks although their competencies are not at the same level.

This sort of difficulty in assessment could be linked to the way the teachers design activities. As noted, most of the activities promoted only factual recall rather than promoting independent learning, or encouraging individual learning responsibilities. It was encouraging nevertheless to observe that Namalwa seemed to know her learners' capacities individually. For example, when asked why during the lesson she had given a slow learner a chance, she responded:

... by giving the learner that opportunity I wanted to check if he was still with others. He is really improving. For example, today during the Oshindonga lesson I let him read and he was able to read the words correctly. He is one of my slow learners but I always like to make him do something to check if he is improving.

4.6 Data collected through documentary analysis

In order to further understand my participating teachers' perceptions of a learner-centred approach and the way they practise it, I looked at the following documents:

- The syllabus;
- Teachers' lesson plans; and,
- Learners' work.

4.6.1 The syllabus

In analysing the syllabus I tried to find out the extent to which it helps the teachers in implementing learner-centred approach and how they should develop learning with understanding, skills and attitudes. The tables below indicate how the learning objectives and the basic competencies are defined in the syllabus in terms of Etuhole's lessons on Theme 1: The social environment, and Namalwa's lessons on Theme 3: The natural environment.

Table 4.1 A sample of learning objectives and basic competencies as defined in the curriculum for the lower primary phase Grades 1-4: Environment studies Theme 1: The social environment; Theme 3: The natural environment

THEMES/TOPIC	LEARNING OBJECTIVES	APPROACHES	COMPETENCIES
THE SOCIAL ENVIRONMENT	Learners will:	Suggested activities that could lead to achieving the competencies:	By the end of Grade 4, learners will:
Infrastructure and communication Means of transport in our region	Understand the functions of transport and transport links in the region.	Collect and present information on different forms of transport before and today in their region; what different forms of transport are used today; draw transport links to other regions on a map of Namibia	Make a presentation on the use of different forms of transport in the region and links to the rest of the country
The natural environment The Living World Living and non-living? The needs of living things	Distinguish between living and non-living things Understand animals' specific requirements for life Understand the specific requirements for life for plants	Identify key characteristics of living things and sort living from non-living things on the basis of these characteristics Identify basic needs of animals and compare the needs of a domestic animal with the needs of people Identify basic needs of plants and compare with the needs of people	Describe the difference between living and non-living things Explain the basic needs of animals and plants

(Source: Namibia. ME, 2005:109-113)

As can be seen the syllabus provides a guideline on how teachers should teach in order to develop learners' understanding on the topic. The teaching approaches are indicated and it gives guidance to the teacher on how to plan and deliver the lesson. In terms of

assessment it also provides a range of different assessment procedures to be used and the types of assessment, namely continuous assessment (formal and informal assessment). The syllabus also indicates how assessment should be recorded.

4.6.2 Lesson plans

Planning is emphasised as one of the important strategies in implementing learner-centred education. The lesson plans showed that these teachers did plan their work but not to the extent suggested in the interview results (see Appendices I & J). The two teachers followed a standard form for lesson planning designed for each school which differs from one school to another.

In case of Namalwa's school learning objectives and basic competencies are indicated that it should be taken from the syllabus. It is doubtful that Namalwa understands what they mean. Did she just put them to complete her lesson format? Her lesson plans were very short, almost like rough notes. She then failed to actually follow her planned lesson. During the second lesson, for example, she indicated on her lesson plan that learners would go outside to look for examples of living and non-living things, but this did not happen.

Etuhole seemed to have problems interpreting the syllabus. She did not distinguish between lesson objectives and competencies. Both were written as 'learning objectives' on her lesson plans. As with Namalwa, her lesson plans were in short, note-like form.

Their lesson planning sheets show variations in terms of how they completed the spaces provided. Namalwa had some understanding of what to fill in, but Etuhole seemed to have difficulty in understanding some aspects of the lesson plan. For example, in the reflection section, even though it is an important aspect of learner-centred education, Etuhole just wrote: *"The topic is continued next day. The learners will come to give a report about their assignment on 28 March 2006"*. The assignment referred to was the homework given the previous day. Namalwa - when reflecting on one of her lessons -

wrote: *"The lesson went well because the learners show their understanding between living and non-living things"*. She included no elaboration on what went well in her lessons. Other concepts, such as assessment strategies, assessment criteria and assessment activities, seemed not to be well understood by either teacher. Etuhole, on her planned assessment strategy indicated: *"Teacher asks questions and learners answer them orally; divide them in groups to give long ago transport; give learners the chance to give feedback"*. (They were written in English by the teachers!)

These examples demonstrate the teachers' very shallow understanding of assessment strategies. This may be why both of them are experiencing problems with assessment. Both teachers' lesson plans showed how challenging they found it to work in a learner-centred way. The learning objectives are defined in terms of knowledge and understanding level and the textbooks are listed as the major sources for all of their learning and teaching activities.

4.6.3 Learners' work

The learners' work did not encourage them to think and to engage critically in the tasks. Most of the tasks given in class only promoted one word answer or factual recall knowledge. Where learners wrote the more-structured tasks, such as tests, that go beyond comprehension it showed how learners are struggling to operate at the comprehension level (see Appendix H).

4.7 Conclusion

In this chapter I have presented findings obtained from interviews, observation and document analysis. The data suggest that neither of the teachers included in this study fully understands the concept 'learner-centred education'. There were several instances of mismatch between what the teachers *said* was learner-centred education, and what they *did* in their actual practice. The data also indicate that these teachers experienced difficulty in the implementation of learner-centred strategies. In my next chapter I discuss

and analyse the data in greater depth in order to uncover some of the possible reasons behind this difficulty.

CHAPTER FIVE

DISCUSSION AND ANALYSIS OF FINDINGS

5.1 Introduction

Namibian education reform policy requires teachers - as curriculum implementers - to teach in learner-centred ways. From the data presented in the previous chapter it is evident that there is a significant disparity between what teachers perceive as learner-centred approach and their implementation in actual practice. The interviews and my own observations show that many aspects of the learner-centred approach are misunderstood by the two teachers investigated in this study. I believe this misunderstanding is caused by these teachers' poor understanding of social constructivist learning theory and of the epistemology underpinning learner-centred education.

My goals for this study were to explore two teachers' perceptions and experiences of learner-centred approach and to gain insights into the teaching strategies they use to enhance learners' learning. It is appropriate that I now assess the extent to which my study has addressed these goals and been able to provide plausible answers to my research questions, most especially in terms of how my findings either confirm or contradict what has previously appeared in related literature.

In my analysis of Etuhole and Namalwa's understanding and implementation of learner-centred education I have organised the discussion under the following four sub-headings:

- Perceptions of learner-centred education;
- Content knowledge;
- Development of learners' conceptual understanding; and finally,
- Practical understanding of a learner-centred strategies

5.2 Perceptions of learner-centred education

The interviews revealed that both teachers were able to articulate some of the key ideas underpinning social constructivist theory. When compared to the views of thinkers such as *inter alia* Forrester and Jantzie, (n.d.); Henson, (2003); McLoughlin and Luca, (2002), these teachers appear to accept the general principles of Namibia's transition to learner-centred education. The way in which these teachers spoke about learner-centred education reveals that they had been exposed through in-service professional development to the various theoretical positions within which the reform epistemology and pedagogy is situated. However the findings of my research do not corroborate their actual *implementation* claims. My observation of their teaching practice gave me a sense that these teachers have neither 'internalised' the theory in the Vygotskian nor 'accommodated' it in the Piagetian sense. Because of their lack of this deep sort of conceptual understanding, the meanings they ascribed to what they 'know' are clearly influenced by their prior experiences of traditional teacher-centred classroom practice. One example of this is the manner in which they treated their learners' answers. Their responses clearly showed that they regard knowledge as fixed, and themselves as the providers of this knowledge. Neither teacher demonstrated an understanding of learner-centred education as an interactive process in which learners *construct* rather than simply *receive* knowledge; where learners are encouraged to think independently and critically to identify, analyse and solve problems for themselves (Namibia. MEC, 1993); and where a teacher's role is to provide appropriate scaffolding to facilitate such processes.

Although both teachers claimed to be implementing learner-centred education, their actual implementation of its principles demonstrated a mismatch between what they said (theory) and what they actually did (their practice). Their pedagogy emphasises the learning of correct answers more than any exploration of questions, critical thinking and understanding. They seemed not to fully comprehend what it means to teach for understanding. They provided no opportunities for learners to articulate their ideas or to test those ideas through conversations or to consider connections between the phenomenon that they were examining and other aspects of their lives. In short my

findings reveal that these teachers lack knowledge of what Richardson (2003:1631) refers to as the “structure of a discipline as well as its epistemological framework”. They were unable to fully make sense of how their learners learn because of their way of asking questions of the learners. Neither teacher seemed to realise the Vygotskian role of the educator (Forrester & Jantzie, n.d.; McLoughlin & Luca, 2002 & Schifter, 1996). They displayed what Confrey (1994) referred to as an ‘expert’ attitude. They made no attempt to invite learners to engage in constructing their *own* understanding through interactions and articulations with others (English & Yazdani, 1999; Abrami & Chambers, 1991 as cited in McLoughlin & Luca, 2002).

Both Etuhole and Namalwa indicated that they found learner-centred education to be demanding in terms of time, lesson preparation and preparing teaching aids. My findings reveal, however, that both participants had a positive attitude towards learner-centred education (notwithstanding the fact that Etuhole said she had felt *compelled* to use it). Although Etuhole indicate that she preferred to use it, she was not convinced that learner-centred education is the *only* method. This suggests that she may not have fully internalised why the reform was necessary. Her failure to fully understand the epistemology underpinning learner-centred education perhaps explains why she struggled to see any need to change.

5.3 Content knowledge

Although both teachers indicated that they used learner-centred approaches, my findings could not corroborate this. It struck me that one reason for these teachers’ difficulty in implementing learner-centred education, especially teaching for understanding, is their lack of content knowledge. Research indicates that unless teachers have a deep conceptual understanding of a particular learning area (van Harmelen, 2004) they will not be able to teach that area effectively. Van Harmelen contends that this conceptual understanding has to be based on ‘knowing about’, ‘what if’, ‘how’, ‘how to’ and this helps in developing learners’ deep conceptual understanding. Kinchin (2003) is also of the opinion that in a constructivist classroom the teacher must demonstrate sufficient

subject knowledge and an understanding of student's existing knowledge. My findings reveal that both Etuhole and Namalwa's subject knowledge was lacking in some important respects. For example when Etuhole started her lesson on 'transport' she could not explain such key concepts such as 'social environment', 'infrastructure' and 'communication'. Although I expected her to link these concepts to the lesson she did not do this. Even when she explained the concept 'transport' she did so with the help of the textbook. She did not provide opportunities for her learners to relate their own experiences to what they saw in the activities done at the beginning of the lesson. During the lesson Etuhole did not appear comfortable with the concept being taught. For example when discussing 'water transport' a learner mentioned in mother tongue 'okawato' - a canoe in English - but when another learner mentioned it (canoe) straight in English the teacher did not know that 'okawato' is the same as canoe in English. She asked a learner to spell it.

Similarly, when Namalwa started her lesson on the 'natural environment' she did not try to explain the concepts 'natural environment' or 'the living world' and how they were linked. During her lesson she misled her learners by telling them that grass and palm fruits became 'non-living things' after they faded.

Given the fact that both teachers were 'qualified' in the learner-centred approach and both had specialised in lower primary, one could well question whether they were selected to teach Grade 4 according to their competency in the subjects or merely because they had specialised in lower primary teaching. It is difficult for a Grade 4 teacher to master all the subjects taught in the lower primary phase. I became concerned about the extent to which these teachers were prepared in these subjects during their pre-service and/or in-service training. I also wondered about the best kinds of support structures to help such teachers improve their skills and knowledge in these subjects.

I partly attributed these teachers' lack of subject knowledge to the way they understood and interpreted the syllabus. For example on her lesson plans Etuhole indicated learning objectives as both competencies and learning objectives from the syllabus. She made no

distinction between these. Both teachers' lessons were dominated by oral question and answer strategies and by the textbook. Chen (2002) emphasised the importance of both knowledge of the discipline and its epistemological framework. Neither teacher had the necessary "the authority which is legitimately delivered from their knowledge of subject matter and their responsibility for guiding learners" (Wiske, 1994:21).

5.4 Development of learners' conceptual understanding

Research from a social constructivist point of view indicates that children learn with the help of adults or peers who are more advanced. This helps them grasp concepts and ideas they cannot understand on their own (Epstein, 2002). A teacher should guide learners as they approach problems, encourage them to think about issues and questions. My findings revealed however that most of the concepts introduced by my participating teachers were not fully explored. Concepts were only discussed at a very basic level. The manner in which these teachers introduced the concepts did not demonstrate any mechanism whereby their learners' conceptual development could be strengthened. Concepts were taught in isolation and the relationships between concepts were not emphasised. It became obvious that these teachers only explained those concepts that they were confident about. For example Etuhole introduced concepts in the lesson on transport as if they were a simple vocabulary exercise. No further explanations or examples were given to help her learners develop a deeper understanding of the concepts. Namalwa explained the concepts in much the same manner although in some instances she did attempt to explain in greater detail. These teachers missed the kind of opportunity described by McGuigan and Russel; namely that what children know or believe influences further learning and this emphasises the different experiences and prior knowledge that each child brings to a lesson, and how important it is not to assume anything (1997, as cited in Saunderson, 2002:2). Both teachers seemed to believe that if their learners could give the meaning of a word in their mother tongue then this was a sign that they understood the concept. Concepts were presented as facts. This demonstrates a naïve understanding of conceptual development. Even where some learners knew some of the concepts in their mother tongue, many other learners clearly

struggled to comprehend. Although both teachers emphasised their concern for their learners' understanding, this did not constitute reassuring evidence that the teachers knew what conceptual development means or how to actually teach for understanding (Peters 1967:26, as cited in van Harmelen, 2004). As van Harmelen notes, facts of themselves do not constitute knowledge as facts do not lead to understanding (van Harmelen, 2004). My two teachers tended to simply equate regurgitation of facts with learning (van Harmelen, 2004).

5.5 Practical understanding of learner-centred strategies

While the interviews demonstrated that both teachers were able to articulate some key ideas underpinning social constructivist theory, and shared common views about the value of a learner-centred approach, their classroom practice did not live up to these claims. From the lessons I observed, neither participating teacher had adequately internalised what learner-centred education is and how to apply it appropriately in their own classroom.

In my analysis of the teachers' ostensibly learner-centred practices, I have used the following seven categories:

- Use of prior knowledge;
- Questioning strategies;
- Use of group work;
- Use of resources;
- Knowledge integration;
- Code switching; and,
- Assessment practices.

5.5.1 Use of prior knowledge

Research indicates that learners need to build their own understanding of new ideas from the experiences they bring to learning (Epstein, 2002). Hence teachers need to know their

students' background, needs, interests and academic experiences in order to provide an effective basis for instructional decisions (Henson, 2003). As noted above, Namibian policy similarly states that the starting point for teaching should be learners' existing knowledge, skills, interest and understanding, derived from the previous experiences in and out of the school (Namibia. MEC, 1993:76). Thus learning is seen as dependent on learners making links between existing knowledge and the new knowledge encountered. A teacher must therefore be aware of what kinds of knowledge her learners bring to their schools subjects. My findings revealed that the manner in which the two teachers used their learners' prior knowledge demonstrated a lack of understanding of the importance of prior knowledge. Neither teacher explicitly built on her learners' existing knowledge to encourage deeper understanding. Neither teacher appeared to be at all knowledgeable about ways of using her learners' existing knowledge as a means of facilitating the structuring and extension of their prior knowledge. The way they used and understood prior knowledge did not comply with how it is viewed in social constructivism. In a constructivist classroom, teachers must demonstrate sufficient subject knowledge and an understanding of students' existing knowledge base. In the lessons I observed none of the teachers started with learners' prior knowledge. Driver, Asoko, Leach, Martimar and Scott, (1994, as cited in Wing-Mui, 2002), promote the view that learning is a dynamic social process in which learners actively construct meaning from their experiences in connection with both the social setting and their prior understanding. I saw extremely few instances where new information was linked to concepts that learners already had.

During the interview, Etuhole noted that starting with learners' previous knowledge is the best way to start teaching, but this never happened in her actual teaching. Namalwa in her lessons never started with an exploration of her learners' prior knowledge. Despite such emphasis on learner's prior knowledge, however, I was in doubt as to whether these teachers meant 'previous *lesson* content' or '*learners*' prior knowledge'. In the lessons I observed it appeared that content taught previously was what counted as learners' prior knowledge. Both teachers tended to start each lesson with what they had taught previously. This does not suggest that these teachers actually understood what the concept of prior knowledge means. Learners were not given an opportunity to talk about

their own ideas on whatever concepts or issues were prominent in the particular lesson. In only a few instances did teachers draw upon their learners' previous knowledge. Prior knowledge was accessed mainly through homework. I therefore concluded that both teachers have a very limited understanding of prior knowledge. I attribute this to an inadequate understanding of how children learn. From what I observed during the lesson neither teacher had the requisite insight and understanding.

Von Glasersfeld (1992, as cited in Wing-Mui, 2002) held the view that teachers should have a clear idea of what learners already know and understand so that they can engage learners in activities that help them to construct new meaning. Looking at the manner in which the participating teachers used learners' prior knowledge demonstrated a clear lack of understanding of what prior knowledge means. These teachers failed to expand on what learners already knew or believed to influence further learning (McGuigan & Russel, 1997 as cited in Saunderson, 2002:2). My findings emphasise just how hard it was for these teachers to provide for their individual learners' needs and to engage their learners actively in the learning process.

5.5.2 Questioning strategies

Questioning was one of the most regularly employed teaching strategies I observed. Constructivist teaching emphasises that teaching practices should help learners internalise or transform new information (Brooks & Brooks, 1993 as cited in Holloway, 1999). According to the curriculum for lower primary phase, Grades 1-4 (Namibia. ME, 2005) a teacher should decide when it is best to convey the content directly in relation to the learning objectives and competencies to be achieved. It appeared that these teachers preferred to use questions to convey content. My observation did not show how these teachers used questions to facilitate learning to internalise and transform newly-assimilated knowledge. Most of their questions only promoted factual knowledge, allowing for one right answer only, an answer which could then be verified by the textbook. The lessons I observed operated mainly through whole class oral question-and-answer processes, with very little further explanation. Both teachers mainly used 'what'

questions. They appeared to be interested only in the answer, rather than the process of arriving at an answer. Learners were given no opportunity through questions to explore information for themselves. There were very few instances where the teacher probed for further and deeper understanding. In their questions it seems that these teachers only focusing on the content rather than the aims and assessment objectives when planning their questions.

The curriculum for lower primary phase provides clear guidelines on how to teach, but these teachers appeared to have problems in designing their questions. One wonders whether these teachers were aware of the desirability of asking questions to arouse learner's curiosity, stimulate learners, help learners to reflect, develop thinking skills or provoke discussion. One wonders also whether these teachers know that a link exists between high order questions and learners learning. Both teachers lack skills that Schifter (1996) described as allowing learners to use their imagination to solve problems, to engage and become involved in lesson activities. Neither Eтуhole nor Namalwa ever rephrased their questions; rather they translated into mother tongue. Sometimes they would ask a question and then provide an answer themselves. They do not provide for 'wait' time. This situation not only demonstrated their naïve understanding of the role of the questions but also its impact on learners through enquiring and discovering. None of the questions promoted learning with understanding.

My findings revealed that the language of teaching and learning (LoLT) posed a significant problem both to the teachers and for their learners. The majority of learners' English language proficiency did not meet the demands of learning through the LOLT. In the case of teachers, for example, where learners were having difficulty in comprehending the questions, it was not clear whether the teachers knew to rephrase the questions or whether they were afraid they would 'lead' the learners to answers by simplifying the questions. The curriculum for the lower primary phase, however, recognises the difficulty learners face in acquiring English as the language of teaching and learning and clearly both teachers found it hard to move learners step by step from

mother tongue to English. One wonders whether the language competency of teachers teaching Grade 4 is taken into account.

This study reveals that the view of knowledge and how it occurs as adopted by social constructivist theory of learning is in conflict with what these teachers see as a learner-centred approach. The way Etuhole and Namalwa asked questions reflected a process of 'withdrawing' information from learners. No further explanation or probing was expected from their learners. In cases where a learner gave an incorrect answer the opportunity was simply passed to another learner. Although asking questions was the most commonly-used way these teachers interacted with their learners, they missed the Vygotskian opportunity offered by the 'zone of proximal development' whereby a teacher identifies where a child is and then builds upon this through scaffolding (Forrester & Jantzie, n. d.). Both teachers also missed what Piaget advocated, namely that a teacher should not give direction and offer explanation but should rather question learners and allow *them* to use their own imaginations to engage with and solve problems (Schifter, 1996). In my view, these teachers' learners were seldom empowered to think (Namibia. MEC, 1993).

Evidence from learners' work shows that the teachers' questioning skills affected the way learners responded to more structured tasks where different levels of response were called for. The work showed that learners were confident in answering factual recall questions but not questions calling for comprehension, analysis, evaluation or synthesis. This confirms my claim that neither teacher's questions went much beyond content and comprehension. I also observed that there were few instances where learners themselves asked questions to clarify meaning although they asked procedural questions. Learning *must* be an active and social process. This is difficult to achieve without proper communication between teachers and learners. Although this is not the goal of my study, I became intrigued as to why these learners asked procedural questions like 'Miss, may I go outside', but seldom asked questions to clarify meaning.

5.5.3 Use of group work

Henson (2002, as cited in Henson, 2003) stated that in learner-centred education learners are the main agents of learning. Learner-centred education *must* [my emphasis] incorporate strategies that are active, inquiry-based and promote collaboration. Social constructivism emphasises that learners construct knowledge as a result of their own activities and interaction with others (Epstein, 2002). Schunk, (2004) indicated that the teachers should structure situations so that learners become actively involved. Vygotsky emphasised the value of interaction with peers and teachers (Jaramillo, 1996 as cited in Epstein, 2002). My findings reveal, however, that although both Etuhole and Namalwa *claimed* to have a high regard of group work because it helps novices to learn from the knowledgeable others, the group work strategies employed by them provided few opportunities for this kind of collaboration and cooperation between learners (Grennon-Brooks, 1993; Prawat, 1992 as cited in Chen, 2002:256). What mostly happened during group work was that most learners waited quietly for the most competent learner to complete the task virtually without any further consultation.

I also observed that the actual nature of the activities assigned to learners during group work hampered collaboration. Tasks emphasised 'naming', 'mentioning', 'matching' and 'giving' rather than interpretive, analytical and evaluative talk that might have encouraged discussion and collaborative problem-solving. It was difficult for the learners to see any reason for working jointly. There were no in-built information gaps which would have made it necessary to discuss anything. Etuhole for example, as part of her group work, only asked learners to mention 'long ago transport'; 'write transport in correct place'. Namalwa gave similar kinds of tasks: 'list living and non-living things' and 'match animals and their houses'. These sorts of activity did little to promote cooperation, collaboration and learning with understanding.

Learning is a "social activity and our learning is intimately associated with our connection with other human beings, our teachers, our peers and in learner-centred education, talk is necessary to make meaning and increase understanding of conceptual

knowledge” (Epstein, 2002). What happened in the lessons I observed was that only in very few tasks were learners ever asked to give their opinions or even to make evaluative decisions based on what they were discussing. Only a few learners – especially the more gifted or able learners – carried out the activities. As both Etuhole and Namalwa indicated, they grouped learners so that strong learners could assist the less gifted ones. Regrettably, however, the ‘more capable peer’ instead of helping ‘others’ ended up doing the tasks. I also observed during the lessons that when roles were rotated, the ‘capable peer’ would grab the pen from the others. This way of learning would contribute to what I call ‘the power of pen’: any learner who gets the opportunity to write benefits more from the learning process. My observations suggest that neither teacher had a clear idea of how to organise group tasks so that their learners were obliged to work, investigate and solve problems together, thereby enabling them to “create knowledge and understanding through interactions and conversations with others, enabling articulation, negotiation and reflection on ideas” (English & Yazdani, 1999; Abrami & Chambers, 1991 as cited in McLoughlin & Luca, 2002:576; Richardson, 2003).

Both Etuhole and Namalwa lacked the skills and knowledge to set up the kinds of activities described by Prawat (1992; Grennon-Brooks, 1993; Wood et al., as cited in Chen, 2002) that would promote deeper understanding, problem solving and cooperative skills. Both teachers tended to associate group work with busy work or assume that as long as learners are working in groups they are helping one another. Virtually no discussion happened in their classrooms. One could speculate whether these teachers really understand how to design and organise group activities. Their learners were not provided with opportunities that promoted autonomous learning and ownership of knowledge. Where feedback was provided, it was accepted without questions or further elaboration. The only role the teachers played from what I observed was checking to see that learners were on the correct page and doing the various activities according to instructions. In both classrooms learners were seated in permanent groups. Consequently some learners were not even facing the front of the class and the chalkboard; some even kept their backs to the teacher when she was explaining or writing on the chalkboard.

Based on the above evidence I question whether these teachers have any real understanding of the rationale for group work, and the role it can play in enhancing learners' learning, and in promoting valuable interpersonal skills.

5.5.4 Use of resources

Social constructivism calls for the teacher to create a classroom environment that is inviting and conducive to learning (Henson, 2003). Both teachers appeared to have a fairly good understanding of the value of teaching aids. The curriculum for the lower primary phase, Grade 1-4 (Namibia. ME, 2005:5) states that "the classroom should be a print-rich environment with annotated charts and posters and the learners work, and easy access to a wide range of readers and other reading material". My findings reveal that neither classroom really provided such an environment. Schunk (2004) indicated that teachers should structure situations so that learners become actively involved with content through manipulation of materials and social interaction. Both Etuhole and Namalwa appeared to find it difficult to select and design resources for their lessons. As noted in the previous chapter I observed only a few resources - mainly the chalkboard and the textbook - being used. Even though the chalkboard was widely used it was only used to write up summaries or new words, and very occasionally as an interactive resource to involve learners in writing new words or complete tasks.

Namalwa's only concrete teaching aids were grass and dry palm fruits although reference was made in her lesson plan to things that were found in the classroom or outside the classroom. Etuhole only used the textbook to explain transport, although there were cars available outside and the tarred road that was close to the school where cars were passing every minute. In Etuhole's case railway construction was going on in the area. She could have used this opportunity to take her learners to the site. All this suggests that these teachers only believe in book knowledge. Available resources such as learners' own environment was not used optimally to enhance learners' learning.

During some lessons I did observe different teaching aids such as flash cards and worksheets being used. Some reference was also made to real things that are found in the learners' classroom and surrounding to make some connections especially in Namalwa classroom when she explain the 'living' and 'the non-living things', but overall one may conclude that these teachers' view of knowledge and their lack of understanding the constructivist learning theory negatively influenced their selection of learning resources.

5.5.5 Knowledge integration

In terms of a constructivist view, knowledge should be integrated and should not be viewed as compartmentalised into subject disciplines. Schunk, (2004) underlined the importance of integration insofar as learners study a topic from multiple perspectives. The Educational Theory Practice (ETP) syllabus for the BETD (Namibia. MBESC & MHETEC, 2000:3) states, "... knowledge should not be viewed as compartmentalised into subject discipline, but rather based on the reality of the real world where knowledge derives from real world issues, problems and their solutions..." Learners would thus study topics from several perspectives. From the actual lessons that I observed, however; although these teachers showed some understanding of integration of subjects, this was not carefully managed. For example during the stimulated interview recall I asked Namalwa why she asked learners during individual work to write words such as, 'breathe' 'food', 'move' 'grow'. She responded, *"I gave it because I want them to know how to write and spell those words. You see the subjects are integrated, by doing that the language is integrated ... what you teach in Environment Studies is what you teach in languages, maths, arts, etc., that way the children remember very well because they find it in both subjects ...integration helps them to have understanding and knowledge"*. Although the new Curriculum for the Lower Primary Phase Grades 1-4 (Namibia. ME, 2005) is built on integration this did not come out strongly during the teaching and learning process. I did observe occasional integration of subjects such as arts (when learners were asked to draw their favourite transports), languages (where learners were asked to read, write and spell words), mathematics (counting and use of graphs) and music (where learners sing a song 'I am walking'). However, the teachers do not help

learners see these links by explicitly cross-referencing to what they did in the other subjects.

5.5.6 Code switching

Epstein (2002) emphasised the importance of language in learning: “learning involves language, and that the language we use influences our learning”. Van Harmelen, (1999:32) also emphasised that “learners can only articulate their understanding through the use of language and literacy if engaged intellectually”. This is well articulated in the Curriculum for the Lower Primary Phase (Namibia. ME, 2005). It states, “... in Grade 4 English gradually becomes the medium of instruction, supported by the mother tongue. Grade 4 is largely a consolidation year to ensure that all learners reach the outcomes of the Lower Primary Phase, and can continue learning through the medium of English” (Namibia. ME, 2005:5). Teachers need to move learners step by step from mother tongue to English. In the lessons I observed both teachers showed that they did understand the curriculum requirements to use two languages, but from what I saw happening during their lessons neither teacher really tried to support learners’ English. Code switching was only used when learners were unable to answer in English and no scaffolding as such was given in English. This inevitably contributed to a lack of dialogue between teachers and learners. In most cases learners only gave one word answers. In learner-centred education effective dialogue is needed to guide and support learning. Black and William (1998 as cited in Kinchin, 2003:110) argue that this dialogue should be “... thoughtful, focused to evoke and explore understanding, and conducted so that all pupils have an opportunity to think and express their ideas”. In the lessons I observed this kind of dialogue did not take place. Once the correct answer was given there was no further discussion. Learners were also discouraged from giving their answers in mother tongue. This, in my opinion, might have stimulated further discussion, but the code switching that was used did not help to develop learners learning. It operated only at the level of translating words from English into mother tongue and *vice versa*.

My observations showed that learners knew most of the words or concepts taught in mother tongue. They only lacked the English meanings. When learners gave answers in mother tongue this could have been a good opportunity for the teacher to encourage discussion.

Working in a learner-centred way requires a skilful teacher to be working and guiding learners. In the lessons I observed these teachers needed to use code switching to develop their learners' understanding and to gradually move from mother tongue to English without compromising learners' learning. Grade 4, being the transitional grade posed significant problems to both teachers and learners with regard to the use of English. During the stimulated recall interview both teachers indicated that mother tongue was used to teach new words and expand learners' vocabulary in English. For example, Etuhole stated that her use of mother tongue was, "... because when I ask them the uses of the horse they were just quiet. I ask them if they know it in mother tongue Also because some learners have not seen a horse... It sounds like a new word to them. Also the words that I think are new to them ... When they have more vocabulary they will be able to construct sentence in English". Namalwa explained, "It is because they don't know the meaning of some words in English. I want them to know the meaning of those words in their mother tongue. ... only the gifted learners know the answers or meaning of words in English". Although these teachers claimed to develop understanding of new words, their learners showed that they *already* knew the meaning but simply needed scaffolding in English. It became obvious from the lessons I observed that the English language proficiency of learners was not yet adequate for it to be used as the language of learning and teaching. An interesting area of future research could be to investigate how learners working in the second language cope with the learning demands in the transitional grade or stage.

5.5.7 Assessment practices

Research indicates that to teach for understanding is to actively engage learners in activities and assessment (Unger, 1994). My findings revealed that Etuhole and Namalwa

have difficulty in understanding assessment but they claim to use it while teaching. They did not understand assessment as described by Masters (2002:1) that assessment "is a process of establishing where individual learners are in their development of knowledge, skills and understanding and their ability to apply this to meaningful problems for the purpose of monitoring individual progress through areas of learning and for making decisions about the best way to facilitate learning". According to the curriculum for lower primary phase, Grade 1-4 (Namibia. ME, 2005) teachers are expected to use a variety of assessment strategies to assess the progress of the learners. However these teachers have indicated difficulty in assessing learners while working in groups. This has demonstrated a fundamental misconception of the concept, its purpose and the purpose of assessment tasks. One wonders to what extent assessment is made explicit to teachers during their training. What support mechanisms are in place to assist teachers on the use of assessment? These teachers' difficulties in assessing learners while working in groups, is clear testimony to the complexity of the process. They did not have an understanding of how to use assessment to allow learners to express their personal understanding of concepts (Dana & Davies, 1993 as cited in Holloway, 1999). It seems that these teachers did not know that they could change their own classroom practice to suit their learners, especially in assessment tasks. The two teachers did not only lack skills and knowledge on how to use assessment to monitor individual learners' progress but also how to set group tasks that would make all learners fully engage in the tasks. When learners gave answers or feedback neither teacher helped her learners understand where they had gone wrong or where they needed to improve. As noted, I observed that when a learner failed to give an answer, the questions was immediately put to another learner. No proper monitoring of an individual learner's progress was done. I observed during the lessons that sometimes a learner's answer would be ignored on the basis of not "*wanting to confuse learners*" or "*because the answer was not part of what learners were doing*". An example of this kind of incident was when a learner gave "*motorbike*" as an example of today's transport, Etuhole dismissed the answer. This indicated to me that she was only concerned with the 'right' answer, and in so doing limited her learners' thinking. This is not an example of what Wiske (1994) refers to as "negotiation knowledge". In this case a teacher would approve a learner's answer and explain why it matched what was expected.

My findings reveal that both teachers found it difficult to assess learners when using group work. This problem links to my suspicion that these teachers do not understand that underlying learner-centred assessment is the assumption that learners are engaged in a process of ongoing development and have the potential for further growth (Masters, 2002). The difficulties the two teachers experienced seemed to be linked to their lack of understanding assessment and how it can be used to develop learners' potential; namely that assessment ought to emphasise knowledge, attitudes and skills in areas such as responsibility for one's own learning; independence and cooperation; problem solving; understanding and thinking for oneself.

These teachers also seemed to have difficulties in understanding terminologies associated with assessment. They did not, for example, distinguish between assessment strategies and assessment criteria. Etuhole indicated in her lesson plan on the assessment strategies:

Teacher writes the topic on the chalkboard and tells learners to read altogether.

Teacher asked different questions and learners answered orally. Give the works in pairs", "I ask learners to give 5 today transport on the chalkboard. Tell learners to write the different form of transport in correct places. Divide them in pairs.

On the assessment criteria she indicated the grading scale: "5 – Excellent; 4 – very good; 3 – good work; 2 – better and 1 – weak – unable to do something".

On one of her assessment activities Namalwa indicated: *Teacher asks learners to draw the living and non-living things and teacher asks learners to complete the sentences of basic needs of plants with the help of pictures.*

These snapshots demonstrate that teachers' do not really understand criterion-based assessment. They also demonstrate a naïve understanding in designing activities that "promote practised based inquiry it did not demonstrate how learners through assessment would learn to analyse and synthesise, to imagine and explore, to criticize and create, to understand and use" (Dana & Davies, 1993 as cited in Holloway, 1999:85). Perkins and

Blythe (1994:7) indicate, “to learn for understanding, learners need criteria, feedback and opportunities for reflection from the beginning of, and throughout, any sequence of instruction”. Assessment is meant to inform learners and parents about their achievement and progress, but the criteria grading scale used did not indicate how these might help learners assess their own progress. Nevertheless these teachers seemed to be well aware of the importance of assessment in promoting learners to the next grade.

Both teachers show a superficial understanding on how to use assessment, especially continuous assessment as required at this phase (Nangombe, 1999). They tended to focus attention on formal tests which emphasised the awarding of marks rather than the developing of each learner’s understanding and progress. As Dana and Davies (1993 as cited in Holloway, 1999:85) emphasise: “teachers should use other techniques to measure what students know”. What seems to cause these teachers problems in assessing learners is the nature and type of questions. These teachers used the same strategies and gave similar activities throughout the observed lessons.

5.6 Conclusion

In this chapter I have discussed my findings related to my two teachers’ understanding of learner-centred education and the strategies they used to develop their *learners’* understanding. I considered this in relation to constructivism and the learner-centred principles as expressed in the Namibian education reform policy. The findings of this research are that both teachers have a shallow understanding of learner-centred education. This is caused by their lack of understanding of constructivist epistemology and the learning theory that underpins learner-centred education. My evidence also suggests that although these teachers claim to use learner-centred education principles, they do so in a superficial way only. Their classroom practices veered between teacher-centred and learner-centred strategies, but were predominantly teacher-centred. Even though they claimed to understand the idea of learners’ freedom to participate and express their understanding both teachers seemed anxious to control the learning process. I saw this in the nature of the tasks and activities that they gave their learners. Their classroom

discourse showed how difficult and challenging they found it to work in a learner-centred way. These teachers tended to see knowledge as something totally separate from the learners' own experiences, which is perhaps why these teachers preferred whole-class oral question-and-answer processes with little or no explanation.

My findings indicate that teachers need assistance to make the learner-centred policies of Namibia work. They need workshops which focus on their day-to-day efforts to teach in this new, demanding way (Stein et al., 1999). A learner-centred approach can only be successfully applied if the active contribution of the learner to the development of understanding is acknowledged. A teacher needs to see a learner as a social being and recognise that the experience the learner brings from home is crucial. As social beings, learners rely on interaction with others to produce meaning. The challenge – as this study shows – is how to develop in our teachers an understanding of the epistemological framework and learning theory which underpins learner-centredness.

CHAPTER SIX

SOME CONCLUSIONS

6.1 Introduction

This study set out to investigate two Grade 4 teachers' perceptions and experiences of learner-centred education and the strategies they used in their practice. The work has demonstrated that for teachers learner-centred education is a complex phenomenon. Its complexity lies in the way it needs to be understood and in order to be effectively implemented. The literature supports this assessment.

6.2 Critical overview and reflection

Namibia's educational reform endeavour is the core of this study. The fundamental reform objective was, and remains, a focus on *learning with understanding*. The conceptualisation of 'understanding' in the current education system differs from the previous education system. We now have greater awareness of what understanding actually requires. The literature studied for this research pointed out that understanding something is not a linear process. Understanding is interpretive, recursive, developmental and complex. It is unsafe to assume that everyone knows and accepts this more complex view of understanding. This modern view has significant implications. How do we describe, explain and apply what we have internalized and what we can make meaning of? Recent studies and educational surveys continuously point to teachers' lack of understanding, or shallow understanding, of what learner-centred education involves. Several national reports and surveys on education also pointed out that learners are struggling in some subjects due to poor understanding. How much of this poor understanding is a result of teachers' failure to effectively put learner-centredness into operation? The results of my own research show that not only do the Grade 4 teachers who participated in the study lack insight into how best to implement a learner-centred approach in their classrooms, but they also have little or no conceptual understanding of the theory underpinning it.

6.2.1 What prompted the research and why was it worth doing?

Having been for many years now a college lecturer for pre-service teachers, and a tutor on in-service programmes re-preparing under-qualified and unqualified practising teachers, my initial concern was whether I and my fellow educational theory and practice tutors are perhaps part of the problem. I may not myself have fully understood approaches to learner-centred education, and thereby contributed to those very reports and surveys mentioned in the previous section. My research was therefore prompted by a desire to explore some Namibian teachers' conceptualisations of learner-centred education, and to see for myself how they implement it in their practice. The research was prompted too by other recent research on Namibian teachers' poor understanding of learner-centred education. For example, in its publication, NIED (2002) indicated that since learner-centred education was introduced in 1991, there has been very different understanding of what is meant by learner-centred education and how to put it into practice. Finally, my personal experience in the field also drove me to carry out this study. I have taught many in-service teachers who continue to have misconceptions and misunderstandings of learner-centred education despite my best efforts. In looking at how these Grade 4 teachers implemented learner-centred education I was able therefore to ground my research in an area of personal and professional significance. By carrying out this study with its focus on a small sample using a case study approach I hoped to illuminate not just what these teachers could or could not do and what they thought and said, but also *why* they do and say what they do. My investigation enabled me to better understand the situation in the context of my case study. I was able not only to identify how bad the situation actually is (as reported in current research) but also to identify what some of the contributing factors might be. I have tried to understand the actual problems, rather than the indicators. Consequently my research questions were aimed at finding answers that might inform my own professional *milieu*.

6.2.2 Decisions regarding the research process

In exploring these teachers' understanding I used a qualitative approach as I saw this as the form of inquiry most likely to help me understand and then explain 'meaning' with minimal disruption to the natural classroom settings. I have learned that 'reality' can only be constructed by individuals interacting with their real social world(s). I was able to come closer to understanding my participants' interpretations of learner-centred education and how they made sense of what *they* regarded as learner-centred approaches in their classrooms. It became clear to me that this qualitative research experience is really a 'lived experience' because the two teachers I worked with implement what to them *was* learner-centred education. Another thing that I learned from this study is that in qualitative research one can never *prove* something. Rather one tries to understand a situation as it is.

I have also learned that convenience sampling is not necessarily a good technique to use. Because the participants were known to me, I may not have got as rich a set of data as I might have if I had used a different sample. Nevertheless in my research I was able to collect my data using all the tools I have indicated. I interviewed my participants at different times and observed them while teaching. Because I was a non-participant observer in this study, I went there to observe events as they emerged, and have managed remain such. I did not take part in any teachers' lessons even though they used to remark that they needed some help from me.

I have learned how it is important to abide to research ethics. I think it is through this that I was able to gain my participants' confidence.

As a novice researcher I also came to learn, although a bit later in the study, that the best time to do analysis is during and immediately after data collection. When I collected my data I waited for some time before analysing them. This caused me to become overwhelmed by the amount of material I had, but I solved this by reading through the

data over and over again to re-familiarise myself with it. This made it easier to then process it.

6.2.3. Overview of my findings

The results as presented in Chapter Four and the analysis of these results in light of the literature review reveal that the situation is more complex than previous studies have shown. I found that these teachers' conception of learner-centred education and of how to teach for understanding is linked not only to the way the teachers were actually prepared to teach, but also to their subject knowledge. Here are my key findings:

- The two Grade 4 teachers' conceptualisation of learner-centred education is related to the way they understand the key ideas that shape constructivist views of learning, knowledge and knowing.
- These teachers appear to adopt a 'surface approach' (memorising of information and following of instructions) rather than a 'deep approach' aimed at developing one's understanding and challenging ideas.
- My findings show that their teaching strategies favour that of being 'the sage on the stage' rather than 'the guide on the side'. Their classrooms are very teacher-centred despite their claims that they have changed towards a learner-centred approach.
- My findings also show that there is a lack of understanding of the importance of developing other learning such as various skills, attitudes and values. These are sacrificed to the emphasis on factual knowledge recall.
- My results point to a fundamental lack of knowledge about assessment. These Grade 4 teachers use assessment to measure performance rather than support their learners' developing understanding.
- Both teachers' understanding of group work led them towards group learners learning alongside expert or capable peers in a kind of 'apprenticeship' mode instead of soliciting learners' understanding and helping them acquire some of the other skills and values associated with group work.

- My findings show that there is a basic lack of understanding about how to use resources as *learning* aids rather than just teaching aids.
- The results point to these teachers' poor understanding of how to exploit learners' prior knowledge as a starting point for their lessons.

6.2.4 Lessons learned

In doing this research I came to learn how valuable a case study is for gaining in-depth understanding of a situation and 'meanings' given to this situation by those involved. Actually *making* meaning is very difficult however; because meaning is embedded in peoples' experiences and these are mediated through the researcher's own perceptions and experience. Triangulation of my data helped improve my insight into these teachers' perceptions and experiences of the learner-centred approach.

In terms of my findings, I have learned that educational reform is not an easy road to travel. It needs constant review. My research suggests that if Namibia is to achieve its reform goals we need to very closely monitor and deal with the gaps (identified in Chapter Four and Five) in teachers' theoretical and practical understanding and implementation of learner-centred education.

6.3 Tentative suggestions for further investigations

As indicated at the beginning of this research, my aim was not to make generalisations. There are, however, some issues which have emerged from this research that need to be addressed. Since this area is researched with focus only on two teachers' misconceptions and understandings of learner-centred education, I would suggest that a similar study be conducted on a much broader scale including many more teachers. The other area is how teachers actually translate policy into practice. One other possible area that occurs to me is that my study did not include any input from the learners themselves. I was therefore unable to determine what or even whether, learners really learned. This would be interesting to investigate.

My findings indicate that there is an urgent need to support Namibian teachers in the following areas:

- Improved understanding of what learner's prior knowledge is and how to effectively use it in the teaching and learning process;
- Opportunities to practically and critically reflect on their lessons so as to challenge traditional conceptions of teachers' roles, learners' roles, subject matter and pedagogy;
- Encouragement to experiment with teaching in new and demanding ways, *inter alia*, through co-teaching, coaching, assisting with planning, using co-operative learning strategies;
- Guidance on how to design activities that challenge learners to think, engage in problem-solving activities and work together to enhance their *own* learning;
- Guidance on ways to create opportunities for learners to explore their own ideas and test the robustness of these ideas through explanation and prediction;
- Guidance on using a wider variety of techniques to achieve understanding (such as direct questioning, eliciting, demonstrating, challenging the learners ideas, checking for understanding, helping and scaffolding, providing for active learning and problem-solving).
- Inducting teachers into a shared understanding of the theory that underpins learner-centred education and how best to implement it in practice;
- Some 'simplification' of the concepts underlying the reform policy as outlined in various policy documents so that they become more accessible to teachers;
- Further guidance on how to use the kinds of assessment techniques that require learners to analyse and synthesise, to imagine and to explore, to criticize and create and to understand, and to use their understanding more powerfully;
- Guidance on how assessment can be used to provide evidence for learners' learning beyond simply measuring learners' performance or achievement for promotional purposes.

It is my belief that learner-centred education can only be implemented successfully if its theoretical and practical position is well understood.

6.4 The potential value of my study

Despite the small scale of this study it has raised some pertinent questions. It has provided a picture of some worrying things that are going on in real classrooms. Through this study I was able to better understand these two Grade 4 teachers' interpretations of learner-centred education and the teaching strategies they used to implement it. What emerged is that they had major difficulties translating theory into practice, both in terms of policy and in terms of their grasp of the theoretical positions that underpin learner-centred education. Although learner-centred education is aimed at developing learners' understanding this was not achieved in these particular classrooms. The greatest value of this research is that it raises the issue of how these teachers' former experience of teacher-centred teaching has led to a perpetuation of the behavioural teacher-tell approach.

Having ventured into these teachers' classroom during this study I am forced to conclude that despite its having been around for the past thirteen years, learner-centred education remains a challenge to many educators in terms of genuine understanding and effective implementation. Its success depends on many stakeholders, including advisory teachers and classroom teachers as the main agents of change. I believe that learner-centred education can only be realised if its epistemological, theoretical and practical underpinnings are well understood by teachers and other stakeholders.

6.5 Limitations of the study

I would like to conclude by briefly reviewing some of this study's limitations. As noted, my findings cannot be generalised to any very large extent, nor was it the intention to do so. Working with the small numbers of teachers that I did, prevented me from getting an opportunity to obtain more views on the phenomenon. The time available to me, coupled with my work commitments, did not allow me to dig as deeply as I would have liked. The fact that I used convenience sampling may have limited the scope of my research question. It thus constitutes little more than a 'snapshot' of an extremely complex

situation. A longitudinal ethnographic study would reveal much richer and more significant data.

LIST OF FIGURES AND TABLES

Figure 1: Regions of Namibia	7
Table 1: A sample of how learning objectives, approaches and competencies are defined in the curriculum for the lower primary phase, Grades 1-4: Environmental Studies	59

APPENDIX A: LETTER OF PERMISSION



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2006-03-14

Enquiries: Mr A. Strüwig

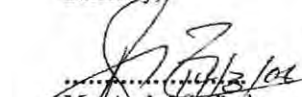
To: Mr. Amakali Amram
Omusati Educational Region
Private Bag 2020
Ondangwa

Re: Request to visit schools in the Oshikoto Region.

Your letter dated 13 March 2006 in which you request our office to allow you to carry out research at schools in our region has reference, therefore be informed that permission is duly granted to visit schools in the Oshikoto Educational Region under the following conditions:

1. You have to make an appointment in time with the principal of the proposed to be visited schools.
2. This research should be conducted in such a way that it does not interfere with the normal school programme.
3. Any interviews to be conducted will be on a voluntary base.

Sincerely,


Mr. Andre Strüwig
Acting Director



APPENDIX B: CONSENT FORM

CONSENT FORM

I hereby agree to participate in an interview and classroom observation with Amram Amakali. I understand that he will be enquiring about my perceptions and experiences towards learner-centred approach and gain insight into the teaching strategies I use to enhance learners' learning in Grade 4 classroom.

Signed _____ Date: _____

APPENDIX C: INTERVIEW SCHEDULE

DATE TIME.....

Topic: Implementation of learner-centred education by Grade 4 in-service teachers in selected Namibian schools. A case study.

Background information

All your answers will be utilized anonymously in the research report. However, provide me with some personal data that could help me with analysis.

Gender:.....

How long have you been teaching?

How many children are in your class?.....

What kinds of teacher training did you do?.....

1. What do you understand by the concept “learner-centred education”?

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2. Can you describe activities that you use in your teaching which you consider to be learner-centred?

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3. Which of these activities do you consider to work most effectively in your teaching situation? Give your reasons.

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4. Why do you use the learner-centred approach?

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5. What support have you had to implement learner-centred education?

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6. What challenges are you experiencing in teaching in a learner-centred education?

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APPENDIX D: INTERVIEW TRANSCRIPT

Teacher: Namalwa: Nekulilo Primary School

Gender: Female

How long have you been teaching? 21 years

How many children are in your class? 21 learners

What kind of teacher training did you do? ECP and BETD

Question 1

R: What do you understand by the concept learner-centred education?

T: Learner-centred education is the method or let me say is the method whereby learners are playing a role more than the teacher, they are playing a role in whatever activity given to them.

R: Ok. Maybe what else can you say, the way you see or experience it. When a person is talking about learner-centred education what are they really talking about? Okay, you say learners are playing a role...

T: What I mean is that in this method learners are helping one another, they work together, and they are learning together, they are sharing ideas together. For example here you do it like this, or do it this way. They work, they learn, they socialise, they learn to socialise and this make the activity that they are doing to be easy, because they are doing it together.

R: Earlier on you said learner-centred is the method where learners are playing a role. How do they play this role?

T: Learners are playing a role in learning and teaching, because they are the ones who are working on their own and the teacher is there only as facilitator, checking how they are doing, to check whether they are working according to instructions and to correct them. The teacher is moving around; assist them where they are experiencing difficulty. But in most cases learners are the ones doing the activity.

R: OK. If learners are the one that playing a role and the teacher is only moving and checking what they are doing, where do learners get their activity from?

T: when they work in that method?

R: hmm, you say learners are playing a role and the teacher is just there to assist and check where they have difficulty, the question is what is the teachers' responsibility, apart from assisting them?

T: The teacher's role...

R: Yes, what is the teachers' role in the learner-centred education?

T: The teacher is the one who have to explain the activity to the learners before it is given. The teacher have to explain what is to be done, the teacher tell them again that you will start here and end here, the teacher have to explain to what the activity is really about, the content of the activity.

R: Okay, again you say earlier on that in learner-centred, learners learn together, they learn to assist one another or to work together and to share, how do they really do it?

T: Laugh, when they work, this means as they are working for example, one learner is a struggling learner, the learner does not understand what the activity is all about, but as they are discussing with others in their group, they come to learn what activity is about and in that way they are teaching others, they are socialising, so that they learn to work together with others.

R: Why do you think it is important that learners learn to work together or why is it important in learner-centred education for children to work together?

T: Why is it really important?

R: Yes.

T: To socialise, learners need to socialise so that in future when they go somewhere, or find people they will learn that these are our fellows and we can work together or we can assist them in one thing if they have difficulties. This may even help them as they are moving from one grade to the other or just in life they learn to be with others.

R: Ok, is there something or let me say how would you really personally explain what learner-centred education?

T: Personally as a teacher, I would say that learner-centred is something that is needed, or you see learner-centred education is a new thing, it is not like how we were taught in the past but this new education is a good one. It is not like the old one that we went through because in this education learners are given things to learn, for example we never touch some of the things with our hands or we never saw things, but in this learner-centred, I see that it is a good, it is just that it is time consuming, it takes time and need thorough preparation, yes for you to assist each and every learner and to check if they are really doing the assign activity/task. It is really a good thing; it is not like the old education.

R: Okay, you say it needs time. Time in terms of what?

T: It needs time to teach because learners do not work very fast, sometimes you find that the minutes are not just enough for learners to do an activity and again it needs a teacher to prepare very well, to do a thorough preparation.

R: Okay, you said again it is a good method and it is new? In what sense is it new?

T: laugh... new, I compare it with the old education because our old education was different, we were only given, we were not allow to do things, for example in the examinations when we write examinations we were expected to learn word by word and it may happen that you are learning word by word but you don't know what you are learning, but now in learner-centred it may happen that a learner is writing an

examination and know what she is writing because that child will be able to remember those things because she touch it or did it practically.

R: Okay, you say people in the old education where given what to learn? How was this done?

T: I mean that we only did things in theory, we were only taught by theory. We never did things in practice as learners are doing today.

R: Are you saying that in this education learners are doing things both in theory and in practice, what are the advantages of doing things in both theory and practice?

T: I see that by doing things in practise it is easy rather than doing it in theory, they are seeing things with their own eyes. They are seeing real things but in theory you only learn it by heart.

R: In your own practice which one do you think help learners in learning?

T: What makes learners understand is when they see the real things, when they touch it with their hands, ya, in this method learners are touching things with their hands and see it with their eyes and that way learners will not forget it easily.

Question 2.

R: Let's move on to the second one. Can you describe activities/strategies that you use in your teaching which you consider to be learner-centred?

T: Strategies that I use that are learner-centred/

R: Yes

T: Strategies that are learner-centred? Long pause. I try to teach although not always, I try to when I am teaching I have something that learners can touch /feel and see. I also try to motivate, motivate them when they experience difficulties in whatever they are doing. I also give them activities that at their level of ability, something that they can do at their age level.

R: What else do you use apart from bringing real things, motivating them or give them activities that are at their level?

T: I also explain the topic; explain what the topic is all about, how things are done, what it means, to bring their ideas close to what we are doing or to understand the topic of the day.

R: Ok. When you give those activities how do you do it?

T: Ya, I like to give them in groups, to work in groups, in pairs or something that they can do individually.

R: Is there any other method that you use?

T: I also try to bring them closer to what we do in class, or if I find that a learner is having difficulties in seeing things on the chalkboard, I use to call them to come and sit in front for them to be able to see clearly.

R: Interesting thing, you said you use motivation how do you use it?

T: laugh... let me say learners did not understand something, I try to repeat it for them or do remedial teaching with something at their level, you see in class learners are in different categories, there are those that are gifted, those that understand things easily and those that don't understand things easily, so I try to give them remedial teaching by giving them activities that are at their level of ability. I also sometimes politely ask them to remain behind after school.

R: Ok, you mention something about remedial teaching. At what times do you give or do remedial teaching?

T: Sometimes I use to do it after school.

R: Earlier on you said that you give activities that are at the learners level of ability, why do you think it is important to give activity that are at the learners level of ability?

T: It is important because one cannot give activities that are beyond learners' level of ability, it may be difficulty for learners. You must try to check if this is at their level, for example, for the struggling learners you try to give them something that is really short, just to check if the learner will be able to do something.

R: Again you said you explain the topic, how do you do it or at what stage of the lesson do you do it and how?

T: I just do it the time I am teaching that topic, go in detail to explain for them to be clear.

R: You also say when you give activities you give them in groups, in pairs and individually...

T: I do it although not always, like in groups of four like the way they are seated or I also rotate them. Rotate them for example take two learners in one group and put them in the other group, and vice versa. Sometimes I just let them work in their groups as they are seated in their groups.

R: When in groups have you experienced some weaknesses in learners while working together?

T: Yes there are weaknesses because sometimes you need to check if there is a learner in every group that could lead others. One doesn't need only to have the struggling learners in one group, one need to mix learners according to their ability.

R: That means you consider ability when you divide them?

T: Yes

R: Ok, when they work in groups how do you assess their participation?

T: They like to participate, they like to work in groups, they like it very much.

R: When working in pairs?

T: When I pair them, I try to pair them with someone who is better then the other, with the one who is able to assist.

R: You also say you give them individual work. How do you do it?

T: Again we do that. I let them each one doing an activity, for example ask them individual work for me to assess how they are progressing.

R: Let me take you back to something you say earlier on about bringing real things to the class although not always, what is your really aims of doing that?

T: My main aim, I want them to know, to know those things and to remember them even in future they will be able to say I know it because I have touched it.

R: Ok you want them to know it and not to forget it.

Question 3.

R: The third questions, which of these activities do you consider working more effectively in you teaching situation? Give your reasons.

T: I notice that when I teach something the learners can see with their eyes and touch with their hands, I see that learners learn better when you teach with real things, although not always that you will have real things. I see that in that way it really helps them to know.

R: Okay you have mentioned other things like motivation, activities that are at the learners level, group work, remedial teaching which one do you think work most effectively for you?

T: Yes that way of remedial teaching because you don't just do a remedial teaching for one learner, sometimes you do it for the whole class and in that way I notice that they really learn something. About motivation I also noticed that learners need to be motivated. Learners feel good after being motivated. I use to see some changes or the learners put more effort in their work than before. I use to see that there are some changes.

R: Ok, bringing real things, remedial teaching and motivation work effectively for you in your teaching situation.

T: And group work. It also help them to work together.

R: They learn from each other, they really learn. Now let me say you bring things in the class for children to touch, now when they touch how do you know that they have really learned?

T: You see it when you ask questions about that topic or for example in this class learner write test that we call assessment. That way one will be able to tell when this one learns something or this one did not learn anything.

R: If you find that one learner has understand something and the other did not understand what do you do to those who did not understand well?

T: I try to assist those who did not understand?

R: In what way do you assist them?

T: Laugh, yes I do it through remedial teaching or to change the activity that I did with them. During remedial teaching I gave them different activities.

R: You also say remedial teaching is the strategy that helps learners learn and you also say that sometimes you do remedial teaching to the whole class.

T: Yes, I do it to the whole class.

R: When you give it, how do you know that your learners have learned something?

T: I use to give them again other activities after remedial teaching. I also use to give them some kind of activities, ya, I see that they have learned because in doing activities I can see how they perform, that this one did something, this one did not do anything. I also ask them questions after each topic or after revision.

R: I want to take you back to group work. How do you really organise your group work? Do you give your learners responsibilities?

T: hmm responsibilities, let me say activities?

R: Let me say when you give them activities, how do you know that your learners learn by doing those activities in groups?

T: What I do after the activities I use to ask groups to give feedback for me to check what they have done. In that way I can see that they have learned or not, ya, sometimes I give them different activities, this group I give them their work, this group I give them another. One can see through feedback or if they were writing, they read what they write to the class. You can see that this one has learnt something or not.

R: Ok in what ways do they feedback, you say they use to be four or five in a group, how do they feedback?

T: It may happen that one group member or a leader of the group, you see learners have leaders in their groups, so the group leaders use to give feedback in front of the class, sometimes they read what they write.

R: Okay, let me say a learner was giving feedback, reading in front of the class and in reading he got stuck but he or she was working in a group with others, how do they help one another?

T: If I see that the learner got stuck and they write on a piece of paper, if I know that he is not able to read I called the fellows to help that person. Sometimes I use to help them by reading from their paper what they wrote in their group.

R: You say there are leader of groups, for how long are they kept per group?

T: They rotate the leadership roles, for example, leaders are selected per week.

R: How do they like the leadership roles?

T: They like it very well. Although there are some that are shy, they also accept it, they like to lead.

R: Again I want to take you to motivation. You say motivation helps your learners learn, how do you know that learners learn after you motivate them?

T: It may happen that when I motivate a child I can also call the child's parent or write them a letter so that they can assist the child in certain issue.

R: Do you get any support from parents when you write to them and do you see any difference in a child performance?

T: Yes but not always because sometimes parents ignore our request to assist their children although not all of them, but the majority do assist or support.

Question 4.

R: The fourth one. Why do you use learner-centred approach?

T: Laugh... okay; I use the learner-centred approach because that is the approach that we should follow. It is a curriculum issue. That is the approach that we should follow in the education of our country, it is the good method and very easy.

R: It is the good method and easy. What do you mean?

T: Mhmm, it is new because now learners show interest in their education.

R: What do you mean learners are interested in their education?

T: I want to say that, what should I say, it is the learners themselves, it is not the teacher who plays a role in this education but its learners who plays' a role.

R: Okay it is the learners that play a role. What are the roles of the teacher in a learner-centred approach? Where does it end?

T: Laugh.., the teacher's role does not end although learners are playing a role in this education. This doesn't mean that the teacher do not do anything, but it means that the teacher is guiding and assisting learners where they are experiencing difficulties - long pause- also to lead them.

R: Also to lead them. Okay the teacher's role doesn't end but he teacher have to guide them. Now when it comes to guidance provision, does it have limit?

T: No, it does not have limit – laugh- it only have limit when the activity that learners are doing is complete, when learners finish or complete it at a given time.

R: Hmm again you say the teachers have the responsibility to assist, how much assistance do the teacher provide in learner-centred? Where does it end?

T: Laugh, no I don't see it coming to an end because the teacher has to play a role all the time.

R: How do the teachers really assist the learners?

T: As the teacher guide the learners you try to check which learners are having difficulties and which one do understand. So you try to assist those that are having difficulties or where they have difficulties.

R: Earlier on you say it is good thing because as a teacher you try o assess learners understanding?

T: Yes.

R: Now when they work in groups, how do you really make sure that learners understand while work in groups?

T: When they work in groups you can really see that Tomas do not understand what is to be done because he may be there but doing nothing or it is only others that are working. In such case you move around the groups asking them some questions about what is being done. If they don't understand what is to be done you try to assist them or show them what others are doing. You can even show them what is to be done.

Question 5

R: The fifth one, what support have you had to implement learner-centred approach?

T: Hmm, let me say like when we were train in the BETD, because the BETD really helped us on how to use learner-centred approach and also our colleagues, our colleagues continue to help us or support. Also the Ministry, they try to organise workshops for us on how to use the learner-centred approach.

R: How did the BETD training support you?

T: Ooh, it supported us?

R: Yes but how did it supports you?

T: Okay, it helps us very much like in the module, there are ways or many things those that help us. And also the tutors. The training did really help us in many ways.

R: Can you specify in what ways did the training supported you?

T: Like the learner-centred, like when we are discussing it now, previously I did not know how to apply it, but in reality in the BETD we came to understand what learner-centred is all about.

R: Okay you said your colleagues did help you with understanding learner-centred education, was this before or after you joined the BETD programme?

T: No, even before I joined the BETD and after.

R: How do your colleagues supported you?

T: The assistance or support is mostly given during the workshops. For example we use to have workshops conducted at the circuit level. In those workshops we use to share ideas on how to use learner-centred approach.

R: Which means by colleagues you are not referring to fellow teachers at your school?

T: I also refer to the one at school.

R: Ok at school how do you support one another?

T: At school we assist each other for example if you don't understand a particular thing, like the learner-centred which has just come as it was introduced we use to get assistance

from our colleagues for example through staff meetings by showing and correcting one another.

R: Who conduct the workshops conducted at the circuit level?

T: Workshops are conducted by facilitators, for example we at lower primary phase we have our own facilitators who organise workshops for us. Sometimes workshops are also conducted at cluster level.

Question 6. The last one.

R: What challenges are you experiencing in teaching in a learner-centred education?

T: Mhmm, one thing is that it takes time. It takes time and it has a lot of work. It is a good thing but it has a lot of work.

R: What do you mean by lo of work?

T: Laugh, it is like on the side of the learner, you see learners have to play a role, sometimes they get bored and tired sometimes.

R: Yes but you said it has a lot of work. Laugh

T: No, it is just those, it is not really too much, because we have to teach or work, it is just like that.

R: Laugh, but what do you really mean by lots of work?

T: Mhm, let say, just like marking learner's activities and also by moving around the whole class without resting. You see in a learner-centred you cannot be seated in the class, because learners maybe making noise. You see in learner-centred if you let the learners be on their own they might disturb other classes, so one have to monitor them all the time.

R: You said earlier on that learners get bored or tired easily, if you find yourself in such a situation, what do you do?

T: I use to make jokes with them or let them sing a song or recite a poem.

R: You said marking activities is one of the problems. Does this mean that all the activities given in the class have to be marked?

T: Yes you have to mark all the activities. You see sometimes you don't always give learners the same kind of activities, so in that way you have to mark all their work in order to check their answers, because learners will have different answers.

R: What do you do after marking their work?

T: After marking you have to assess them. I almost forgot the most important thing, as you are marking them you also assess them at the same time. As they are working in groups, I also have the responsibility of assessing them.

R: How do you assess them when they work in groups because I assume you have to assess every child?

T: For example, like me I like to assess learners individually but as they work I also assess them in their groups. But what I find problematic is assessing learners while working in groups because sometimes learners just get marks because of their groups. This is the reason why I like to assess learners individually, because when I am assessing the learners I know I am giving learners their real marks. Well it is recommended that we assess them in groups but in groups you find that learners only get high marks because there is someone in a group who is gifted, working with other learners.

R: You said it is not good to assess learners while working in groups?

T: Yes, it is not good.

R: Why is not good? Don't they work in their groups?

T: They do work but sometimes you could see that Matheus in the group is just quiet, he is not contributing anything. So when you assess their group you find that even Matheus who was just quiet, who did not do much or anything will get the same mark as the rest of the group, like Selma and Maria who were really working or contributing much in the group.

R: Okay earlier on you indicated that you assess learners while working in groups and by marking their activities, I hope for assessment purpose. Are there different ways of assessment?

T: Yes, but we only have two types of assessment, the one that is called less- and more-structured assessments. In a less-structured you do it while they work in groups or individually, while the more-structured is done through tests and quizzes.

R: How do you find the two types of assessment, are they easy to use?

T: Ooh, the less-structured because in the more-structured there is a possibility that learners may not score any mark. This one is giving us problems but in the less-structured you may give the learners another activity, like drawing any picture or ask the learner to make something. By doing those activities you can give that learner a mark for example two marks, for example by drawing a picture although the learner did not put any parts on the drawing. But in the more-structured they really write a test, so there you could really see that Cecilia in this test did not do well, it may happen that the learners will get a zero, one may get one, two or you find a learner getting everything correct.

R: If you find that a learner just get zero, what do you do?

T: Laugh, if you find that a learner get zero, but it is said that a learner should not get zero, if you find a learner who get zero, then you need to give the learner something, something that you think it is at the level of that learner. You won't let the child get a zero.

R: When you said a child can't get a zero what do you really mean?

T: Laugh, what I mean is that the learner can't get a zero because that learner might be able to do something at his/her level. Also because when learners are in the class they are not stupid, they may not be able to do one thing but they could do the other.

R: But in this case let me say a learner get a zero, what will you do?

T: If the learner gets a zero you just have to give him/her something else so that the learner could get one or two marks.

R: If you give a learner a test and get zero what do you do with the zero mark?

T: I don't record that zero. I will give the learner another activity, something that is at the level of that learner's ability.

R: So you don't record the zero, you try to give learners an activity in which the learner can get something.

T: Yes.

R: Okay, how do you find the assessment then?

T: It is ok.

R: OK, we have come to the end, thank you very much!

APPENDIX E: OBSERVATION SCHEDULE

Topic: Implementation of learner-centred education by Grade 4 in-service teachers in selected Namibian schools. A case study.

In doing the observation I used some of the key characteristics of learner-centred education.

1. How did the teacher build on learners' prior knowledge?

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2. What are the key concepts and how did the teacher introduce them to the learners?

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3. How did the teacher involve learners in the lesson?

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4. How did the teacher promote learning with understanding?

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5. What sorts of learning is the focus of the lesson?

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6. How did the teacher assess learners' learning and progress?

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APPENDIX F: OBSERVATION TRANSCRIPT

Teacher : Etuhole		School: Nangombe CS	Date: 27. 03. 06
Class: Grade 4			
Lesson topic: Transport		No. of learners: 20	Lesson length: 40
Time	Lesson descriptions	Learners responses	Stimulated recall interview with the teacher
12:21	Teacher asks learners to clean the chalkboard. Teacher distributed papers to learners. Teacher: everybody look here. Look at the picture (showing to the picture) 1. Give the names of different pictures you see in the picture. Teacher wrote the words on the chalkboard. How do we call these in one word? 2. Give the kind of transport you use when you come to school.	A learner cleans the chalkboard. Bicycle, car, donkey cart, foot Transport I use going to school with foot. I use donkey cart. I use a cart. I use a bus. Learners are quiet.	1. What was your reason for asking them to give the names of different pictures that they see in the picture? I want them to think about today's topic and what we are going to learn. I use the paper as part of introduction. It helps the learner to think. For example when I write all the words on the chalkboard they were able to give the correct answer. 2. Why did you ask them that question? To check their understanding/knowledge, for example most of our learners don't come to school with transport. Just wanted to assess their environment, what they see.
12:26	Look at the other paper again about Jackson's class. 3. How many learners in Jackson's class use donkey cart going to school? How many learners use foot as transport to school? How many learners use bus as transport to school?		3. Why did you ask them about the Jackson's class? Did it talk about transport? You see in Jackson class there is a graph showing the kind of transport learners uses to go to school. So I wanted to see if they are able to read the graph and give answers.
12:28	Your today's lesson is transport. 4. Who can explain transport in English? What does transport mean? 5. Who can explain transport in Oshiwambo? Teacher asks; Transport "oshike moshiwambo"? Teacher explains; that is	Transport is role play. Iiyenditho	4. You asked them to explain the word transport. Why did you do

	something we use. Teacher writes on the chalkboard: transport is carrying goods or people from one place to another place. 6. Teacher asks groups to read one by one. In one group in the corner only few learners read.	Learners read in chorus	that? I wanted to find out if they were able to say it in English. And also for them to learn how to speak English. 5. Why did you ask them to explain it in M-T? There are those learners who don't know it either in English or M-T or also for them to learn a new vocabulary.
12:34	Teacher: in Namibia we have different kinds of transport. We have the transport we use long ago and transport we use today. Teacher writes: Modern transport. Teacher asks; Give the ten modern transports you know. 7. Teacher asks: How many of them see a train? Teacher asks what a train in oshiwambo is. Teacher asks eshina lyashike. Teachers; do you know what a donkey cart in mother tongue is. What is a bicycle? Helicopter Aeroplane? Teacher ondhila what ondhila? Teacher aeroplane in M-T ondhila Teacher not the live bird but the one you see in the sky.	Learners mention: donkey cart, bus, foot, car, bicycle, helicopter, train, eshina=train, aeroplane, motorbike The whole class, eshina lyokolutenda Learners are quiet. Ombasikela in M-T Edhagadhaga in M-T Ondhila in M-T Learners are quiet.	6. Why did you ask them to read? I want them to know how to pronounce he word, to spell he words. In reading in groups I want to hear how they are reading. 7. When you talk about modern's transport you asked them if they have seen the train. Why did you ask them that question? It is something that is appearing in the region or in their environment. I want them to realise that what they are seeing at the rail way construction is the train we are talking about. I also want them to know it because in teaching we are expected to teach them a lot of vocabularies because this is the first time they are learning in English. First time because in the previous grade they were only taught it as a subject but all the subjects were in mother tongue. One reason why I ask them is for them to have understanding, for example differentiate between a donkey and cart.
12:41	8. Teacher put learners in groups of five. Teacher: we talk about modern and log ago transport. Teacher I need each group to give long ago transport. Teacher explains – long ago transport those were used by our forefathers. Give the names of five long ago	Learners get into their groups.	8. You put learners in group?

12:44	transport you know. Teacher gives a piece of paper to each group.	One learner in each group writes while others are quiet. Some learners are just looking at others. Some try to talk.	Why did you do that? I want to check if they are able to say something about it. Also I want to involve them in the lesson. Why should they get involve? It is the method that is used in today's education and not only the teacher who should talk. In this education children do something, they give ideas whether right or wrong and learners are also free and each and every learner try to think in order to say something. It helps weak learners when they are in groups. When others are talking the weak learners are learning from others.
12:49	10. Learners in one group all try to write but teacher told them only one learner should write. The teacher draws columns on the chalkboard and writes 1, 2, 3, and 4. Teacher tells learners to select a group leader to give feedback in front of the class. Teacher asks group one to give feedback. Teacher asks is all of them right. Teacher says car is what, Teacher says train. Teacher asks NO what? Teacher says car, train and bicycle are today's transport, foot, donkey cart are long ago transport. Teacher writes them on the chalkboard. Group two Teacher asks is bus a long go transport or modern? Group three Teacher asks, which one are long ago transport Group four	Group leader give feedback: donkey cart, foot, bicycle, car, train Some learners say YES while others NO It is today's transport. Learners say NO. Some learners NO, not long ago transport Donkey cart, car, bus and foot Learners are quiet. Donkey cart, bicycle, foot A learner try to give an answer but the teacher just give a chance to another learner Donkey cart, foot,	10. When learners in one group were writing you ask them to choose only one learner to write for others. Why did you do that? In fact each learner need to have a piece of paper, but because of time I decided that only one learner to write while others are contributing their ideas. Both ways are good but in today's lesson I could not use it because of time and we only had one lesson or period. 11. After all the group have reported you ask learners to comment? Why did you do that? You see learners give ideas some of them are not right. I want them to learn from their mistakes so that they will not repeat the same mistakes.

12:57	11. Teacher ask learners to comment Teacher now we are going to choose the correct one, in M-T, sho shili mondjila mpono, what is there is donkey cart and foot. 12. Teacher give homework: you are going to ask the older person to give you ten long ago transport Teacher says okay five Teacher writes on the chalkboard, long ago transport and gives the use of each of them. Teacher asks learners to copy it in their Environmental studies book. Teacher says again, if there is no elderly person, go to the neighbours.	helicopter, aeroplane, train A learner – helicopter not a long ago transport Learners say aaye. One learner whispers only five.	12. Home work. Why did you give them homework? I check their previous knowledge and find that they don't know the long ago transport. I also want parents to get involve in their learner's work by helping their children. I also want learners to continue learning even at home and to learn how to ask for information. Why is it important to involve the parents? It is for the parents to know the importance of education for them to be able to assist their children, to motivate them in their education and also for them to learn from their children. You told learner that if there is no elderly person they should ask help from neighbours. Why elderly only? Parents are there but I want them to ask those that are 60years and above because those are people with knowledge especially about the long ago transport. So I want them to know the old transport and its uses. How they were used.
13:01	The lesson end.		

APPENDIX G: OBSERVATION TRANSCRIPT

Teacher : Namalwa		School: Nekulilo PS	Date: 03. 04. 2006
Class: Grade 4			
Lesson topic: Living and non living things		No. of learners: 21	Lesson length: 40 minutes
Time	Lesson description	Learners' responses	Stimulated interview recall with the teacher
11:34	Teacher distributes posters to the learners. Tell learner: put the card aside. Teacher: 1. we are going to look at living and non living things. Teacher write: plants, animals on the chalkboard. Teacher: that is what we call the world. So when we talk about living things or living organism... Teacher: 2. what do you understand by the word living things? Teacher: things that is alive. Write the answer on the chalkboard. Teacher: 3. when we speak of the word alive, what is it? What does that word alive mean? Teacher in M-T: iinima mbyo yi na omwenyo. Teacher: alive means things that can breathe, grow, produce and reproduce. Teacher: things that can d what? Teacher: they can move, breathe, reproduce, produce and they can grow. (teacher write these words on the chalkboard) Teacher: 4. living things are things that can move, breathe, reproduce, produce and grow. They can move. These things can reproduce. In M-T,	Learner: living things is something... Learners are quiet Learners are quiet. Learners: move, walk, breathe Learners are just quiet.	1. You tell your learners what you are going to do. Why did you do that? I want to know what we are going to do. Why do you want then to know what you are going to do? always told them as part of the introduction. I also gave them card maybe some have looked at then and hey may know what the lesson is all about. 2. Why did you ask them the word living things? I ask them to assess their knowledge if they understand the word or they have seen it before or they know what living things are. Why do you want them to understand the word living things? want them to make a distinction between living and non-living things, for example by knowing that living things are things that can do what and vice-versa. 3. Again you asked them the meaning of the word alive? You know they are in grade 3 and they are coming across these new word in English, so I want them to know the meaning of these words. Why do you think is important for learners to know the meaning of words? For them to be able to speak English very well and to know how to use it in the future.

11:41	oshikombo oshina okakombwena= the goat got a kid. Things that can produce. Teacher asks: how did the goat get a kid? Teacher says: it meets with a male goat and produces a kid. Teacher says: Non-living things, those are what we call dead organism, things that cannot move. Teacher asks: what does that word dead mean? Teacher says: those are the things that are dead organism. Teacher asks: why are they dead organism? Teacher says: dead organisms are also called materials/objects. Things that are dead they can't do what? Teacher asks: 5. why do we put NOT, they cannot, why do we use NOT? Teacher explains in M-T: iinima oyo owala mbi=these are things, that are opposite of living things, 6. for example, (pointing at a pole outside the class), that pole, or stone will be there even after ten years. Teacher: those are the differences between living and non-living things, just like you as you are there you can move, you can breathe, but the desk, a pen, or ruler is, you put it there you find there, they are not	Learners are quiet Learners are quiet. Learners are quiet. A learner in M-T: okasa= it is dead, another learner: dead A learner in M-T: molwashoka oya sa=because they are dead A learner in M-T: iha yi fudha=they can't breathe A learner: cannot move, breathe, not produce Learners are quiet.	4. After the discussion you highlighted what living things are Why did you do it? Because among the learners there are those who don't learn quickly, that is the reason why I have to reinforce to make them understand. And also for them to understand the details of the topic. Why should worry about those who learn slowly? I want all my learners to be at the same level with others and also for them to get better understanding like others. 5. When you explain the dead organism you highlighted NOT Why did you do it? The main aim is for them to make a distinction between living and non-living things. 6. When teaching you like to give examples. What purpose do they serve? I want them to understand what we are discussing and in this case to make the difference between living and non-living things.
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11:58	Teacher tells learners: check in your book and tell me car, 10. Is a car a non-living thing, the car has life because it moves; learner the car is non-living thing because if you parked it there you will just find it. Teacher says: 11. We have a cup of tea with smoke, is it the smoke living. Teacher says: smoke is not living, it is only because the water boiled Teacher asks: 12. Is the TV living or non-living, who have seen a TV? Teacher asks: Lizard is it living or non-living. Teacher asks: why? Teacher asks: a child is it living or non-living? 13. Teacher distributes grass to learners and says the grass I gave you is green. How do we call that grass – is it living or non-living. Teacher says: we say the grass is a living thing because it is still ..., this grass we say is a living thing but if we leave it outside will we say is living or non-living. Teacher says: tomorrow we will call a non-living, why?	breathe Learners are just quiet. Learners are quiet. Learners raise hands. One learner says: the TV does not breathe Learners it is living. One learner in M-T: 'molwashoka oha li inyengete lya oha li fudha'= because it moves and it breathes. A learner it is a living thing A learner: they can produce A learner: non-living A learner in M-T: shaashi kaguna omwenyo=because it	columns. I want them to understand what non-living and living things are, especially the difference between the two. Why do you want to make that distinction? In order for them to know that for example at home we have living and non-living things or for example when they see things they should know what they are. 10. Why did you ask them about the car whether it is a non-living thing? It is because the car moves, so want them to know that when the car is moving it might not be because it is alive. So I want them to know that the car is not alive it is only because of other things that makes it move. 11. And the example of the cup of tea. You see in the cup of tea there is a smoke moving up, they might think the smoke that is coming out because it is alive. I want them to know that the smoke is only coming out because the water is boiling. It is only that I failed to explain it to them that the smoke is just a steam coming from boiled water. 12. And the TV? It is because there are people talking; they may think that the TV is a living thing. 13. Why did you bring the grass in the class? I want them to see and feel the grass themselves and also for them to know that when we took the grass first it was alive and later died. The palm fruit for example was supposed to explain to them like when they find it on the tree it is alive but when it is about it died.
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12:03	Teacher: but tomorrow we will say it is non-living because tomorrow it will dry or dead, today we call it living thing. Teacher pick a palm fruit and says: palm fruit is it living or non-living thing? Teacher told learners: take your post card and move to your original place. Teacher tells them: write the living and non-living thing. Teacher: you are writing them. Teacher moves to one pair and ask them, how many you are here. In your pairs write them down. Teacher says: 15. Don't just confuse by living organism, they are just living things. In M-T: omu uviteko=do you understand? Teacher says: I want all of you to take part, write your things. Write living things on one side and non-living things. Teacher move to groups. Teacher to one learner in M-T: Saima ku uviteko?= Saima do you understand? Teacher tells the learner: Move on to the other side and be three, write living and non-living things. Teacher: I just want the names but not the pictures. 12:08 The bell rings for break. Teacher: I want to see who is finishing first. Teacher move to the pairs and says finish those	is not alive A learner: it is non-living Learners move to their place. 14. Learners sit in their pairs. A learner asks: are we drawing them? Learners YES. A learner quiet. A learner is quiet. Learners write.	14. Why did you ask learners to work in pairs? I gave them work in pairs for them to work together and to assist one another, and to discuss among themselves, for example by looking at looking at the living and non living things. Why should they work together? You see there are those that are not free, by working together these learners may learn to be free. Why are they not free? I may be from home, you find that some learners don't even raise their hands. Some have lost their parents so by working with the teacher they may not be free but when they are working with their fellow learner they might be free. 15. Why did you alert them on the two concepts living things and living organism? You see there are two words, living things and living organism. I told them just to make them aware that living things is just the same as living organism but it is only that we are using a different word organism.
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	things are very simple; don't forget to write living and non-living things. Teacher in M-T asks: Saima omwa mana=Saima are you finished? Teacher: okay what you write is enough. Teacher: yes, living and non-living things.	Learners work in pairs but only one learner writes. A learner asks: are we also writing on the other side? Learners go to break.	
12:12	Lesson begins.		
12:15	Teacher marks learners work after the break. Teacher gives results. In one pair learners were not able to make a distinction between living and non-living things. Three pairs did not get all them correct.		
12:32	16. Teacher asks learners to ask where they don't understand. 17. Teacher move to one pair and asks: what did we learn today. Teacher: move on to next pair: what did you write on your paper Teacher to the learners: today you go home with a paper and write the living things and non-living things in your house, whether they are in the house or in the mahangu field. Teacher says: hey listen here, then you write for me all the living and non-living things; you must ask your elderly brothers and sisters.	Learners are quiet. A pair just quiet. A pair just quiet. A learner asks: are we going to write with pen?	16. Why did you ask them to ask where they don't understand? gave them an opportunity because they may be some learners who don't understand, but the problem with them is that they don't ask. also wanted to use it as part of evaluation to know whether they understand. It is only that even if they don't ask it doesn't mean that they understand. You find that these learners don't catch up. Yes there are also those who have difficulties. What kind of difficulties? You see it is a new thing that they are learning in English, previously they were only taught in M-T. 17. Why did you move from one pair to the other during the lesson? It is because they don't ask questions even when they don't understand. move from one pair to another to assess those who have difficulties.

12:41	Teacher: yes you are going to write with your pen at home, tomorrow we will look at them again, you are also going to draw. Lesson ends.		
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APPENDIX H: LEARNERS' WORK

- 3/15
- 27.06.06
Marks: 15
- Environmental Quiz
Name: Shigwedha, G
- Answer all Questions
- Choose the correct answer by circling a letter.
1. Something that carry people or things from one place to another.
- A. Water
 - B. Culture
 - ☒ C. Transport
 - D. Community
2. Early people's food is
- A. bread
 - ☒ B. berries
 - C. ball
 - D. baby
3. It is speaking, writing or showing body movement.
- A. Computer
 - B. Read a book
 - C. Write a letter
 - ☒ D. Communication

4. It is one of the four main directions

A. Pastor

B. East

C. Sun

D. sky

5. Gives information to many people at the same time...

A. Media

B. Car

C. Bows and arrows

D. Knives

[5]

2. Say whether the following statement is True or False

2.1 Speaking is a form of communication. True

2.2 Nangolo Mbumba is not a minister of Education. True

2.3 Gun was a tool for the early people. True

2.4 Small huts made from branches and grass. True

2.5 Anna Nghipondoka is a director of education in Oshikoto region. True

2.6 Bicycle is a water transport. False

[6]

Question 3

3.1 Mention 2 kinds of Long ago transports.
Donkeys, horses, foot

3.1 List 2 forms of Media.

Radio
TV

[2]

Medium of Instruction

Continuous Assessment More Structured

Example/Assessment

Total: 20

Read the comic strips and answer the questions on the opposite page.



1. Answer the questions in full sentences.

1.1 Describe the place where Patrick lived.

was big Patrick was fat (1)

1.2 Why did Patrick's cat sulk and moan?

He lived in a large house (1)

1.3 Who was cat's best friend?

pat had a pet a cat a striped cat (½)

1.4 Was the rat an acrobat? Why do you say so?

pat's cat had a friend (1)

1.5 Find two describing words that tells us more about Patrick.

shut 1.5 and sh. 2.0 (½)

sh. 1.5 and sh. 2.0 that's a dog name **Total:**

2. Fill in the missing words. Use the words in the box.

he,	she,	it,	they
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2.1 Jim is running.  he is running.

2.2 Mary is writing.  it is writing.

2.3 The chair is black.  sh is black.

2.4 The ball is red and white.  they is red and white.

2.5 Jim, Rudy and Tom are playing.  are playing.

2.6 The bottle is green.  it is green.

2.7 The mug is blue.  she is blue.

2.8 Rita is jumping.  he is jumping. $1\frac{1}{2}$

$8 \times \frac{1}{2} =$
Total = (4)

3. Fill in the missing words. Use the words in the block. Remember the Snacky S



eat, get, leave, wake, see, ask, get, wait

(7)

- 3.1 Agnes up and then she gets up.
 3.2 She dressed.
 3. She her breakfast.
 3.4 She the house.
 3.5 Agnes for her friend.
 3.6 Then she her friend coming.
 3.7 Okeri her questions.



4. Circle the answers on the map. Use the colours asked.



- 4.1 The capital of Namibia (red)
- 4.2 The biggest harbour in Namibia (blue)
- 4.3 Two places where you might find rhinoceros (black)
- 4.4 Two towns near the Angolan border (brown)
- 4.5 The town where you will find diamonds (orange)

(5)

SECTION C (Level 3)

Question 3

Look at the pictures and answer the questions



3.1 Describe the meaning of the word festival.

.....

 (1)

3.2 Which festival are the people in the picture celebrating.

..... (1)



3.3 What is the festival in the picture called?

..... (1)

3.4 Which culture group practices this festival every year

..... (1)

3.5 Describe what you see in this picture:



.....
 (1)

APPENDIX I: NAMALWA'S LESSON PLAN

LESSON PLAN FORMAT

GRADE: 4
SUBJECT: Environment

DATE: 04.04.06
DURATION: 40 min

TOPIC: The needs of living things

Learning objective (from syllabi)

LS will understand animals specific requirements for life.

Basic Competencies (from syllabi)

LS should be able to explain the basic needs of animals and plants.

Lesson objective (what the teacher will cover in 40 minutes)

LS learn the basic needs of plants and animals.

Teaching aids:

Flatchart with different needs, textbooks,

Introduction:

Teacher asks question about previous lesson.

Teacher's activities:

- T asks LS to go outside to look for living animals and plants and collect few examples and call out their names.
- Explain the basic needs of animals and plants and discuss with the LS how the basic needs of animals and people are very similar.

Learners' activities

- LS participate in activity by collecting few examples and call out their names.
- LS come up with questions and identify basic needs of animals and compare with the needs of plants.

Assessment activities

Teacher asks LS to complete the sentences of basic needs of plants with the help of pictures.

Reflection:

The lesson went well because many learners know the basic needs of plants and animals. Few LS need remedial teaching.

APPENDIX J: ETUHOLE'S LESSON PLAN

Lesson plan 1-4

Subject ENVIRONMENTAL STUDIES Date 27-03-2016
 Theme INFRASTRUCTURE AND COMMUNICATION Grade 4b
 Topic TRANSPORT Duration 40 min

Lesson objectives : By the end of the lesson learners will be able to :
 Make a presentation on the use of different form of transport in the region and link to the rest of the country.

12. Objective 12. understand the functions of transport and transport link in the regions.

Sources : Social studies Gr 4 Pg 102-103
Environmental studies Gr 4 Pg 13 And PICTURES of different transport.

Introduction : Teacher ask 12 to tell us which transport they use to go to school. She distribute pictures of different transport, then they answer questions to look the picture. Then introduce the lesson.

Learning activities

Teacher

Learners

T. asks learners to explain with their own words "What is transport?"
 Ask them to give the kinds of today transport they know
 Divide them in groups of 5 learners. Tell them to write 5 long and transport they remember and ask them to give a feedback. Give a homework to ask their parents the uses of some long and transport.
 Assessment strategies and report next day.
 T. ask questions and 12 answer them orally.
 Divide them in groups to give long and transport.
 Give the chance to the 12 to give a feedback.
 T. give an assignment to do at their home, to ask helps from their parents.

Assessment criteria

5 - Excellent works - gets all marks
 4 - Very good - Groups lost one mark
 3 - Good - Groups missing two marks
 2 - Better - Groups try to answer
 1 - Weak - Unable to answer

Reflection

The topic is continued next day. The learners will come to give a report about their assignment on 28 March 2016

Continues

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