RHODES UNIVERSITY

DEPARTMENT OF EDUCATION

GRADE 5 TEACHERS' UNDERSTANDING AND DEVELOPMENT OF CONCEPTS IN SOCIAL STUDIES IN SELECTED SCHOOLS IN NAMIBIA.

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by

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ABSTRACT

After the introduction of Learner Centred Education in Namibia, a number of studies were conducted on how teachers either perceived learner centred education or implemented it. However, very few studies investigated the teachers' understanding of both subject matter knowledge and pedagogical content knowledge; primarily, how they understand and develop key concepts. The purpose of this study was to investigate how Grade 5 teachers' understand and develop key concepts in Social Studies in selected schools in Namibia. The study focused on three teachers in three primary schools in the Caprivi educational region of Namibia. These teachers were purposefully selected as graduates of the teacher education programme instituted at the time of the Namibian education reform process. As a teacher educator, my main motive of conducting this study was to gain a better understanding of some of the issues that have been raised about these graduates' lack of content knowledge.

The study adopts a qualitative approach and seeks to investigate (a) how the three teachers in this study understand key concepts and (b) the strategies they use to develop such concepts. Three data collection instruments were employed: interviews, document analysis and class observations. The findings indicate that despite the training that all three teachers in this study received, their understanding of the concepts they taught is problematic. Furthermore, some of the strategies that the teachers used did not bring about learning with understanding.

The results of the study revealed how these teachers' problems with concepts and the development of conceptual understanding are related to specific issues and can be attributed to a number of factors. Because of this, the study has provided valuable insights into aspects of teacher education that need to be addressed both in terms of in-service and pre-service programmes to support teachers in teaching for understanding, a key idea underpinning the reform process.

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I owe a special appreciation to my husband George, my three children Mutumba, Sichombe and Nansunga for their understanding, patience and moral support. I also want to acknowledge all those who have supported me in one way or another. Above all, I thank God the Almighty for giving me courage and wisdom, may His name be glorified.

DECLARATION

I, Beatrice Sinyama Sichombe, hereby declare that the work contained in this thesis is my own work, and that it has not been submitted for any degree or examination at any other university.

Signed: _____ Date: 30/03/2007

ACRONYMS USED IN THIS STUDY

BETD	Basic Education Teachers' Diploma
INSET	In Service Training
LCE	Learner Centred Education
MBE	Ministry of Basic Education
MBEC	Ministry of Basic Education and Culture
MBESC	Ministry of Basic Education, Sports and Culture
ME	Ministry of Education
MEC	Ministry of Education and Culture
MET	Ministry of Environment and Tourism
MHETEC	Ministry of Higher Education, Training and Employment Creation
NEC	National Education Certificate
SBS	School Based Studies
TWA	Teaching With Analogies

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CHAPTER 1

AN OVERVIEW OF THE STUDY

> Students who do not understand the important essential concepts of a unit often 'miss the point' of the unit and develop superficial or erroneous understanding about the unit ... the central most important essential ideas of a unit are often the most complex and challenging to teach, and are in turn the most difficult for students to master (Ellis, 2004: 2-3).

1.1 INTRODUCTION

The 17th century philosopher Emmanuel Kant pointed out the importance of conceptual understanding in the context of education. Richard Peters in the 20th century saw it fit once again to remind us of the importance of conceptual development as an integral dimension of being an 'educated person'. The Namibian educational reform focused on learning with understanding and in 1990 emphasized conceptual learning as leading to learning with understanding. This study interrogates selected teachers' perceptions and understanding of concepts and their views about conceptual development in 2006. The question, then, is why this concern when it would seem to be self-evident after the passage of three centuries that concepts are important and that their development is central to learning. In this small-scale study I investigate just how well concepts in social studies are understood and how they are taught and learned.

This chapter provides an overview of the study. It begins by giving an overview of the research sites in the Caprivi region in relation to Namibia; this is followed by the theoretical framework that informs this study as well as the perceived significance of the study. Furthermore, it provides the research questions that frame this study. Finally, it gives the structure of the whole thesis.

1.2 RESEARCH SITES

This study was conducted in three schools in the Caprivi region. As can be seen in Figure 1, Caprivi region is one of the 13 political regions of Namibia and its main town is Katima Mulilo. It shares borders with Angola, Zambia, Zimbabwe and Botswana (Stols, 1993).

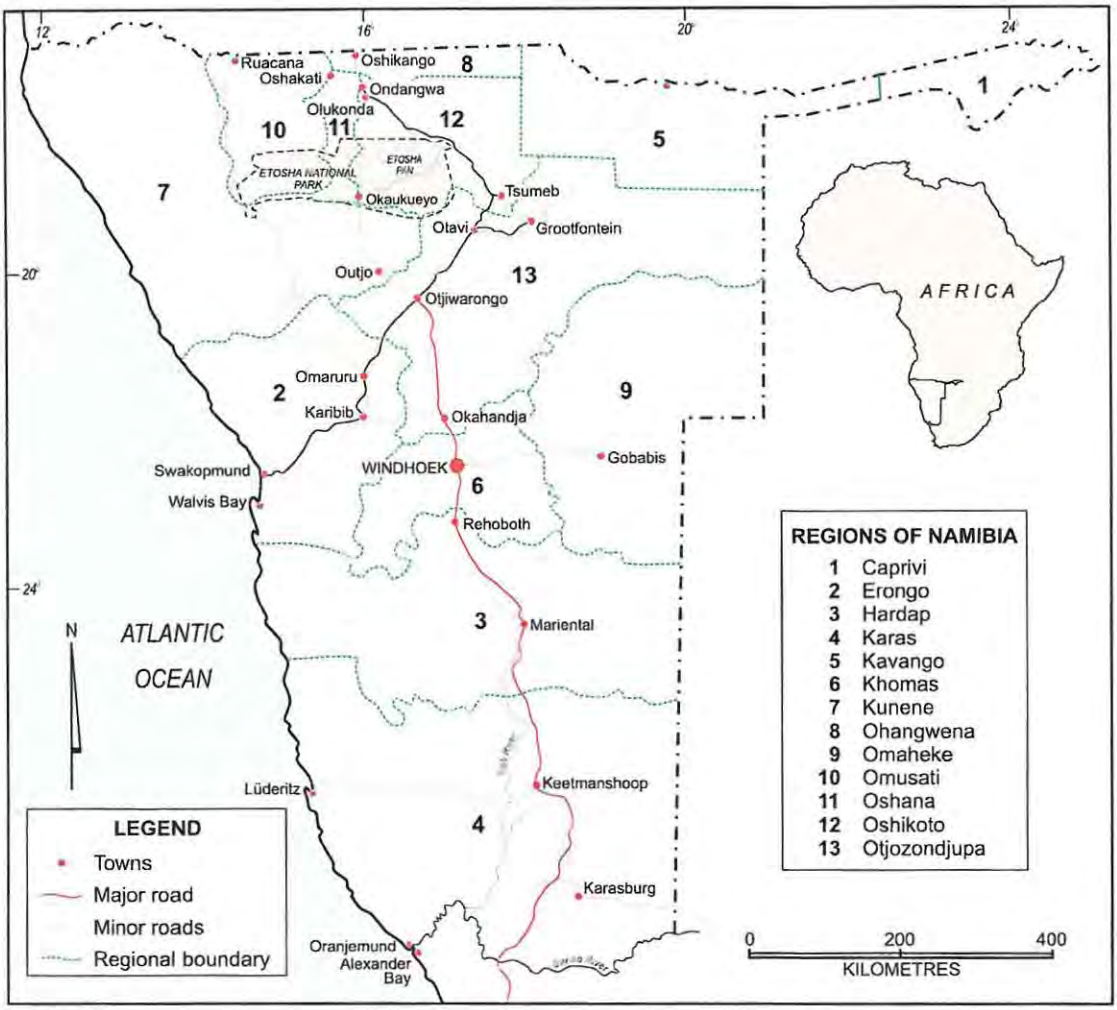

Figure 1. Map of the regions of Namibia. (Sue Abrahams (2006). Graphics Unit, Rhodes University, Grahamstown.)

It lies to the north east of the capital city Windhoek. The Caprivi encompasses 20 000 square kilometres (Namibia. Ministry of Environment & Tourism [MET], 1997), comprising six major land types: flood plains; riverine woodlands; mopane woodlands; Kalahari woodlands; Impalila woodlands (Namibia. MET, 1997). It has a population of

about 79826 people (Namibia. National Planning Commission, 2003). Among this number, 40749 are females and 39077 are males (*ibid.*). During the colonial times when Namibia was under the governance of South Africa, it was one of the 10 homelands. Caprivi was named after Graf Von Georg Leo Caprivi (1831-1899), a German born in Berlin. He was chosen by Emperor William II to replace Otto von Bismarck, as imperial chancellor in 1890 (Microsoft Encarta Encyclopedia, 2004).

The following ethnic groups occupy this region: Masubia; Mafwe; Mayeyi; Mambukushu, Matotela and the San. The farmers in this region mostly practise subsistence farming. The eastern part of this region suffers from floods during autumn, that is from February to April. This usually has tremendous impact on the people and livestock. The region is well known for its good rains during summer from mid-October to February. Due to its good rains, this region is renowned for the harvest of maize, sorghum, ground nuts, and other crops.

The Caprivi is also an education region with 96 schools, one teacher training college and one vocational training centre. Among the 96 schools, 9 are senior secondary schools (accommodating grades 11 and 12); 3 junior secondary (accommodating grades 8 to 10); 43 combined schools (accommodating grades 1 to 10); and 41 primary schools (accommodating grades 1 to 7) (Namibia. Ministry of Education [ME], 2006).

This study was conducted in three primary schools, one semi-urban school and two urban schools. The semi-urban school is Boma Primary School (pseudonym). Boma Primary School is about five kilometres from town. It was once a mission school and later on it became a state-owned school, but the mission retained some of its powers. The class that I observed at this school has 43 learners.

The two urban schools selected are both in the town Katima Mulilo. One of the two schools is Lewis Primary School (pseudonym). Lewis Primary School is a newly built school that uses the platoon system. The school has a more extended management team than is usual because of this: four heads of department monitor the morning activities, while two are responsible for the afternoon session. I observed a class of 44 learners at this school. The

second school selected in Katima Mulilo is New Look Primary School (pseudonym). It is one of the older schools in the town. The class observed has 35 learners.

1.3 CONTEXT OF THE STUDY

Fifteen years ago, Namibia adopted learner centred education (LCE) as an approach to teaching and learning. LCE comes directly from the national goals of equity and democracy (Namibia. Ministry of Basic Education and Culture [MEC], 1993). This approach aims to develop learning through understanding (Namibia. Ministry of Basic Education [MBE], 1999; Namibia. MEC, 1993). The emphasis on learning is iterated in every policy document as well as in the preambles to all the syllabuses used in the Namibian formal education system.

Pluckrose, (1991); Bruner in Nichol and Dean, (1997); and Salia-Bao, (1990) argue that concepts are central to knowledge and understanding. Kant in Pluckrose argues that "experiences without concepts are blind and concepts without experiences are empty" (1991: 13). According to Moll, Gultig, Bradbury and Winkler (2001: 120), "good teaching and learning is about developing understanding". This requires teaching that focuses on the subject's key concepts *(ibid).* The most influential contributor to the notion of concept development in the early sixties was Jerome Bruner, who argued that instruction should be focused on developing key concepts (Gunning, Gunning & Wilson, 1981). Researchers who emphasize the importance of conceptual development further argue that each subject has "certain characteristic concepts, keys to the further understanding of the discipline" (Gunning et al, 198l: 19). Darmofal, Soderholm and Brodeur (2002) consider concepts as big ideas that reside at the heart of the discipline. The role of concepts in the primary school phase has also been emphasized by Salia-Bao (1990: 177) who claims that "concepts should be developed and understood by learners, as they form the basis of all the work they do during primary school".

As good teaching and learning is about understanding, which in turn is dependent on concepts (Moll et al, 2001), Cerbin and La Crosse (2000) provide a useful working

definition of learning with understanding as a meaning-making and knowledge-building activity. Understanding develops as a person uses what s/he already knows to construct meaning out of new information. LCE in the Namibian context views learning as an active process where learners construct meaning and thus knowing, expressed by Bodner as that which is "constructed in the mind of the learner" (1986: 874). Teaching in this context should be accompanied by the development of meaningful and challenging tasks that will enhance conceptual understanding (Namibia. MBE, 1999; Capel, Leask and Turner, 1995). Teachers can only do this if they have sufficient knowledge and skills to enable them to interpret syllabus and subject content (Namibia. MEC, 1993).

To do this, teachers need both content knowledge and pedagogical knowledge (Shulman, 1986; Fishman, 2002). This first area of knowledge encompasses what Bruner as cited in Shulman (1986) called the structure of knowledge and includes theories, principles, and concepts of a particular discipline, whereas pedagogical knowledge deals with the most useful forms of representing and communicating content and how students best learn the specific concepts and topics of the subject. Van Harmelen (2004a: 3) argues that teachers need to have a "deep conceptual understanding of the ideas, key concepts...embedded in particular disciplines". She further supports Kant, Vygotsky and Peters that "no subject can be said to be known unless the learner understands the organizing principles, those key concepts that form the basic structures of that subject" (Van Harmelen, 2004a: 5).

Naish (cited in Balderstone, 1997: 34) sees the teacher's role as more of a "provider of appropriate experiences for conceptual learning than as a source of factual information". Nichol and Dean (1997: 101) argue that "teaching for conceptual understanding has to actively engage the pupils' minds with the concept, forcing them to explore its meaning and to build up their own understanding of it". They further argue that the teaching strategy that the teacher adopts will directly influence the conceptual understanding of children.

Social Studies as an integrated subject draws its content from Geography, History, Economics and Civics (Namibia. MBEC, 1996: 2). However, its emphasis is on Geographical and Historical themes, topics, concepts and methods (*ibid.*). Therefore, Social

Studies primarily draws on the conceptual framework of the relationship between space, time and place in the context of the social, the economic, the political and biophysical world (Van Harmelen,1999b). The organization of content in the Namibian curriculum centres on Bruner's idea of a spiral curriculum. This means that at every level, learners add to their pre-existing structures (Piaget 1978; Ausbel, Novak, and Hanesian, 1978; White and Gunstone, 1992).

The proposed study intends to gain an understanding of how Grade 5 Social Studies teachers understand and develop key concepts. This grade has been selected as it is the beginning of the upper primary level, at which stage the learners have been inducted into Social Studies which was introduced in Grade 4. Piaget, in Atherton (2005) claims learners at this stage are able to logically and systematically work with language and ideas. Piaget further argues that they can classify objects according to several features and can order them in series along a single dimension such as size *(ibid).*

In the context of the learner-centred approach espoused by Namibia, teachers should adopt a conceptual framework that enables learners to describe, explain and to apply phenomena (Van Harmelen, 1999b:88). Conceptual frameworks are the foundation that allows learners to develop conceptually by creating deeper and more complex meaning. Learners internalize the concepts and make them their own, as Bakhtin (cited in Van Harmelen, 2004c: 2) put it: "the word does not exist in a neutral and impersonal language, but rather it exists in other people's mouths, in other people's concrete contexts, serving other people's intentions: it is from there that one must take the word, and make it one's own".

My interest in this topic was triggered by a recommendation from the 2004 Basic Education Teachers' Diploma [BETD] moderation report on the teaching of concepts. In this report, student teachers in the Social Science specialization were criticized for the strategies they used to help learners understand concepts. One such strategy was that of student teachers defining the concepts hurriedly instead of designing activities that would facilitate the discovery of the meaning of such concepts (Namibia. MEC, 2004). As a teacher educator involved with Social Science Education, I wanted to find out through this study how the

development of concepts could be made more effective. I believed that by viewing concept development in the classroom situation through the eyes of the teachers I would better understand the issues raised by the report referred to. I was particularly interested in the strategies that teachers used, as well as their level of understanding of the concepts they teach.

Further to this Van Harmelen's desktop analysis of the BETD curricula (1999a & 2004b) stressed the importance of a conceptual framework. Over the years, I have also noticed that my students all too often demonstrate a superficial understanding of concepts during School Based Studies and find it difficult to unpack the concepts meaningfully for the learners. Salia-Bao (1990: 177) finds concepts to be useful in the primary level of school because they provide 'a map of knowledge'. Therefore, if not clearly understood, learning will be impeded. This bothered me until I was exposed to two courses, one which unpacked the theoretical dimensions of concepts, particularly the work of Peters, Vygotsky, Van Harmelen, Stuart and others; and another one on Teaching to Standards with New Technology which centred on teaching for understanding as a framework. Stuart's idea of 'Teaching a concept-based course' (cited in Moll et al, 2001: 121) fascinated me most. I liked her approach of teaching a concept beginning with what learners already know up to a level when a learner can make "high-level generalizations" (Moll et al, 2001: 126). I was also motivated by her argument that teachers need to possess a "high level of conceptual understanding" for them to help learners understand.

As I reviewed literature on this topic, and if my investigation is correct, it seems no study has been conducted on concept development in Social Studies in Namibia. Most of the work I reviewed on conceptual development was in the fields of Science and Mathematics. There was a gap that needed to be filled. In the light of this, this study has filled the gap for me and helped me to find ways of improving my students' conceptual understanding and how to improve their ability to teach concepts. Further to this, I hope that this study will inform the BETD curriculum revision process, of which I am a part, and help curriculum developers to see a need for a conceptual based framework to teaching and learning.

1.4 RESEARCH QUESTIONS

The goals of this research were to investigate how Grade 5 teachers understood the key concepts in Social Studies and how they developed their learners' understanding of these concepts. In order to achieve this, my focus was on the following two questions:

- How do teachers understand the key concepts in Social Studies?
- How do teachers develop key concepts in Social Studies?

1.5 STRUCTURE OF THE THESIS

This thesis is structured as follows:

Chapter One introduces the study. It gives the reader an insight on the background of my research sites. It also describes the context of the research, the research questions as well as reasons why I was prompted to do this research. I end this chapter my providing a brief overview of each chapter.

Chapter Two provides background to the educational reform of Namibia. It gives an overview of how learner centered education fits in within the constructivist paradigm. In particular, it critically analyzes and reviews literature that shaped and informed this research and that provided an important foundation and framework for the study.

In **Chapter Three** I present my research design and the methodology employed. It describes how I used different data collection tools such as semi- structured interviews, observations and document analysis to investigate a case of how teachers understand and teach key concepts in Social Studies.

Chapter Four analyzes the data collected from the different data collection tools into patterns and categories. This chapter aims at responding to my two research questions.

Chapter Five discusses the research findings reported in Chapter Four. It provides an in-depth analysis of the data and yields to a number of issues, such as:

- Identification of concepts

- Experience in the subject
- Teaching concepts for understanding
- Nature of activities.
- Synthesis of my findings

In **Chapter Six** I present a conclusion to the study. It provides a critical overview and reflection of what prompted the research and why it was considered worthwhile. It also gives an overview of the key findings. Furthermore, it outlines lessons learnt as well as providing tentative suggestions about some of the issues that need to be addressed in the light of the research. It ends with suggestions for further research in the area.

CHAPTER 2

LITERATURE REVIEW

> Research may be done alone – but it is never done in isolation. The production of new knowledge is fundamentally dependent on past knowledge. Knowledge builds and it is virtually impossible for researchers to add to a body of literature if they are not conversant with it (O'Leary, 2004: 66).

2.1 INTRODUCTION

This chapter critically analyzes and reviews literature that shaped and informed this research and that provided an important foundation and framework for the study. My argument in this research is that, if teachers are to develop learners' conceptual understanding in particular disciplines, they themselves should have a thorough understanding of key concepts and the pedagogy of concepts, an argument supported by Stuart (cited in Moll et al, 2001). Hence, my interest in this study is to investigate how teachers understand key concepts in Social Studies Grade 5 and how they develop such concepts.

As this study is located within the educational reform of Namibia, I begin by giving a brief overview of Namibia's education reform policy, I explain why Namibia opted for learner centred education and how it fits in within the constructivist paradigm, the epistemology underpinning learner centred education. This is followed by a discussion of concepts and learning. Under this section, I give the meaning of the term 'concept' and review the role that concepts play in learning; a section that explains why we need to bother ourselves with concept teaching. I then move on to concept development, in which I discuss the principles of concept development, the theories of concept formation as well as strategies that teachers can use to bring about conceptual development.

This is followed by an analysis of key concepts in Social Studies with a particular focus of how the key concepts have been located in the Namibian Grade 5 Social Studies syllabus.

This in turn is followed by a discussion of the different perspectives on teacher knowledge. Views of what teachers need to know form part of this section, which also includes perspectives of teacher's understanding of key concepts. An analysis of what it means to understand a concept completes this section.

The discussion of key concepts in Social Studies is followed by an overview of related research that has been conducted in Namibia; this is linked to similar research conducted globally.

2.2 THE EDUCATION REFORM POLICY

At independence in 1990, Namibia inherited an education system that was characterized by teacher centred instruction. This approach was inefficient, as it fostered memorization focusing on rote learning at the expense of other cognitive skills and conceptual understanding (Namibia. MEC, 1993). For this reason, there was a need for a better approach that would help learners think independently and critically through mastering strategies for identifying, analysing, and solving problems (*ibid.*). As a way of bringing change, Namibia opted for a new approach to teaching and learning, the learner centred approach. This approach puts learners at the centre of learning, meaning that the role of the teacher changes from the way it was seen in the past, as that of an "expert in what is known, and then to pass information along to their students", to that of a facilitator, whose task is "to design experiences that give an opportunity to learners to develop their own understanding" (Hinchey, 1998: 47).

Learner centred education is informed by constructivism as opposed to behaviourism, which was essentially interpreted as a reductionist approach to teaching and learning. Constructivism is a theory about knowledge and learning; it describes both what "knowing" is and how one "comes to know". It has its origin in the field of cognitive science, particularly the later works of Jean Piaget, the socio-historical work of Lev Vygotsky, and the work of Jerome Bruner, Howard Gardner, and Nelson Goodman (Fosnot, 1998). This theory places emphasis on learners as constructors of knowledge (Bodner, 1986). It operates

on the premise that "children learn best when they are actively involved in the learning process" (Namibia. Ministry of Basic Education, Sport and Culture [MBESC], 1996).They should not be seen as empty vessels in which knowledge can be deposited. Rather, as Van Harmelen (1999b) noted, learners need to make meaning of existing constructs through the process of construction, deconstruction and reconstruction.

McCombs and Whisler (in Henson, 2003: 4), define learner centred education as

> ... the perspective that couples a focus on individual learners (their heredity, experiences, perspectives, backgrounds, 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 levels of motivation, learning, and achievement for all learners).

This definition focuses on the knowledge of learners, how learning best occurs as well as teaching practices that bring about effective learning. However, I feel that it excludes one aspect which I find very important, the knowledge of the content to be taught. Teachers, to bring about effective learning, should understand what they teach. I will elaborate more on this issue under the heading of 'what teachers need to know'.

The Pilot Curriculum guide for formal basic education (Namibia. MBESC, 1996), states that learners' existing knowledge, skills, interests and understanding should be the starting point at each stage of a learning process. Henson (2003) who writes on the long history of development of learner centred education as well as how to bring about effective learning, takes this point further by arguing that if we really want our learners to become actively involved in the learning process and become independent thinkers, their frames of references should be attended to and respected. What he means is that what they learn should be connected to their prior knowledge and experience. This, he argues, makes learning relevant and meaningful to the learner, thus bringing about effective learning. I find his usage of the concept of effective learning to mean understanding, as one cannot talk of effective learning if no understanding has occurred.

Understanding, according to Perrone (in Stone Wiske, 1998: 13) is the view that what learners learn should be "internalized and able to be used in many different circumstances in and out of classrooms". One who understands should be able to describe, explain and apply concepts (Perkins, 1993). Therefore, if we really want our learners to understand, we should teach for understanding. Perkins (1993: 8) has provided priorities for teaching for understanding. Among the six priorities he suggested, I review two that I find particularly relevant to my study. He suggests that if we really want to teach for understanding, we should "induct students into the discipline". This, according to Perkins (1998), and Perkins and Simmons (1988) means that the analysis of understanding emphasizes that concepts and principles of a discipline cannot be understood in isolation from the discipline. What they mean here is that, if we want to understand a concept or principle, we should recognize how it "functions within a discipline" (Perkins, 1993: 8). By inference this means that each subject has concepts that are unique, concepts that can only be understood within the context of the subject. The next priority is what Perkins (1993: 9) calls "teach for transfer". He argues that if we really want to teach for understanding, we should help learners see connections between what they learn in one context with another, they should see the connections and use for example the mathematics they learned in a Mathematics class at the supermarket. Perkins and Blythe (1994: 6) argue that if we really want to teach for understanding, there is a need to engage learners in activities that ask them to "generalize, find new examples, carry out applications".

2.3 CONCEPTS AND LEARNING

2.3.1 The notion of concepts

According to Merriam-Webster's 11th Collegiate Dictionary (2003), the term 'concept' is from a Latin word *conceptum* (as in original) that means to conceive, synonymous to understand, comprehend, visualize, etc. Therefore, by inference it means that, to have a concept, means that you understand a phenomenon, you have internalized that which is to be studied, it becomes yours, and you own it (Bakhtin, 1981 cited in Van Harmelen, 2004c). Blyth (in Salia-Bao, 1990) defines a concept as "a general idea usually expressed by words,

which represents a class or group of people, things, actions, and relationships having certain defined characteristics in common". A concept according to Ellis (2004: 6) should reflect an essential idea from the unit that is central to the entire unit of study. He suggests that such essential ideas are "usually in some form of an action, practice or process, event, idea, state of being, or period of time".

2.3.2 The role of concepts in learning

Concepts play a significant role in learning. Aristotle claimed: "the intelligent person is a master of concepts" (Aristotle in Chaffee, 2000: 271). I argue like Pluckrose (1991) that knowledge is concept dependent. What is meant here is that things we come to know such as facts, processes, events, practices, skills, values and attitudes are in the form of concepts. I argue that if the concept, for example 'government', is not understood by learners, then other subsidiary concepts like 'democracy', 'legislature', and 'judiciary' will not be understood as well. Generally, in any syllabus there are key concepts that should be taught and understood at primary level in order to lay a solid foundation. Such a foundation helps learners as they proceed to the next level. Therefore, if such concepts are not sufficiently understood, then the foundation is weak, as these concepts form the basis of all the work they do during primary school (Salia-Bao, 1990).

Chaffee (2000: 271) shares the same viewpoint as Salia-Bao (1990) that each discipline is composed of many different concepts that are "used to organize experience, give explanations and solve problems". Therefore, he argues, "to make sense of how a discipline functions, you need to understand what the concepts of that discipline mean, how to apply them and the way they relate to other concepts" (*ibid.*). This view is further supported by Ellis who argues that "students who do not understand the important essential concepts of a unit often 'miss the point' and develop superficial or erroneous understanding about the topic" (2004: 2). Moll et al (2001: 121), consider concepts as "tools for thinking about the world".

Pritchard (2000) lists fives purposes that concepts serve. The first purpose is for classification. Concepts allow us to classify phenomena as either part of a category or not. The second purpose is for understanding and explanation. The third purpose, prediction, means that once you have a concept, you can make future predictions about it. The fourth one is reasoning. Pritchard (2000: 1) argues that "with concepts we can reason out new situations". He illustrates this through an example of the concept that 'all animals breathe'. He argues that once people understand a concept, they can reason for example that ducks, because they are animals, must breathe, without being told that they breathe. The last purpose that concepts serve is that of communication. Concepts allow us to communicate and share information. He further elaborates this by saying that we get information about some situations through communication without necessarily having experienced the situation, meaning we come to know such situations through concepts.

2.4 CONCEPT DEVELOPMENT

Harmon and Hedrick (2000: 156), writing in the field of Social Studies have noted that in the "intermediate grades, students are expected to handle the demands of increasingly sophisticated reading of informational texts, and teachers are expected to teach students about concepts in these texts". They go on to highlight the many unfamiliar special and technical terms that are unique to that phase in social studies textbooks, emphasizing the need to focus on conceptual development and understanding.

Bringing about such conceptual development is not an easy task. Tolstoy, as early as 1903 (in Vygotsky, 1987: 152) noted that: "the path from the first encounter with a new concept to the point where the concept and the corresponding word are fully appropriated by the child is long and complex". This statement by Tolstoy remains relevant and useful to the business of teaching and learning. Ellis (2004: 3) shares the same sentiment that "the central, most important essential ideas of a unit are often the most complex and challenging to teach and are in turn the most difficult for students to master". Although the path is long and complex, I believe that the process can be simplified by employing appropriate concept development strategies, informed by relevant principles and theories of concept

development. Research has shown that if we really want to bring about conceptual understanding, there are principles and theories to bear in mind as well as strategies that should be used.

2.4.1 Principles of concept development

Ausbel (cited in Bodner, 1986: 877) said: "If I had to reduce all of educational psychology to just one principle, I would say this: The most important single factor influencing learning is what the learner already knows."

From a constructivist view, learners are not seen as empty vessels as was the case before; they bring a vast experience to the learning situation, what Vygotsky called spontaneous knowledge. Duit, Roth, Komorek and Wilbers (2001) argue that teachers should therefore, if they want learners to reach conceptual understanding, assess learners' understanding of a specific concept in order to establish learners' existing conceptions about the concept. If misconceptions exist, a restructuring process should be embarked upon to achieve conceptual change. This conceptual change, as Roth (1996: 176) argues, is about helping students change and grow in their understanding of core concepts. He further argues that "a given student's growth will depend on the experiences and knowledge that he or she brings to the concept". This view is also shared by Harlen and Jelly (1989). They suggest that we should provide opportunities for learners to tell us what they really think about things, analyze what they are likely to mean by those things and help them develop a better understanding where there is little understanding or lack of understanding. Moll et al (2001) also acknowledge the role of prior knowledge. They argue that if we really want learners to "gain real understanding as quickly and accurately as possible", we should build on the experiences of the learners (*ibid.* 121). They further noted that if the concept "is very far from the experience, the teacher must bridge the gap in some way so as to lead them to it" (*ibid.* 122).

This view is also shared by Van Harmelen (1999b), who claims that the degree of sophistication of particular constructs depends on the learners' prior knowledge. This

according to her implies that "conceptual understanding is dependent on our ability to make links within and between our existing frames of reference" (*ibid.* 81). Posner et al in Roth (1996: 141-151) proposed the following conceptual change model to promote this view: assessing prior knowledge of the learners; engaging and eliciting students' ideas and experiences; contrasting and evaluating the ideas; and using ideas in multiple contexts. Darmofal et al (2002) argue that, if the new concept is in conflict with what learners already know about the concept, assimilating it will be difficult. Zirbel (n.d:7) has claimed that "students are not open to new ideas" and therefore would still stick to their existing conceptions. Therefore, Darmofal et al (2002) suggest that a constructivist teacher must encourage learners to confront knowledge that conflicts with the concepts being taught. This view is well supported by Posner, Strike, Hewson and Gertzog, (1982), whose conceptual change theory places learners and concepts in a central position. Posner et al (in Zirbel, n.d) argue that for conceptual change to occur, there are four essential conditions that learners should meet and these are dissatisfaction, intelligibility, plausibility and fruitfulness. These are explained as follows:

- dissatisfaction, learners should first realize that there are some inconsistencies and that their way of thinking does not solve the problem at hand;
- intelligibility , learners should be able to explain the concept to other learners;
- plausibility, the new concept must make more sense than the old concept; and
- fruitfulness, the new concept should not only solve the problem at hand but open new areas of inquiry (Zirbel, n.d: 7).

Explaining a concept to other learners, what Posner et al (1982) called intelligibility, as well as what Van Harmelen (1999b: 80) refers to as the process of construction, deconstruction and reconstruction cannot be achieved if learners are mere listeners. As Mazur (1997) and Smith (1999) in Darmofal et al (2002) noted, learners should actively construct their knowledge. This means that they should be actively involved. They should be engaged in activities. Brophy and Alleman (1991: 9) define activities as "anything that students are expected to do, beyond getting input through reading or listening, in order to learn, practice, apply, evaluate, or in any other way respond to content". They further say that activities "may call for speech (answer questions or participate in discussion, debate, or role play),

writing (short answers, longer compositions, research reports), or goal-directed action (conduct inquiry, solve problems, construct models or displays)" (*ibid.*).

The other thing influencing concept development is what Shulman (1986) calls "the wisdom of practice". According to Shulman and Wilson (1987), having knowledge of a concept is not enough; teachers need to understand ways of representing the concept to learners. As I already indicated in my introduction if teachers are to help learners to develop concepts, they themselves should have a thorough understanding of key concepts and the pedagogy of concepts. This view has been supported by Shulman and Wilson (1987) who argue that teachers need both subject matter knowledge and pedagogical content knowledge. They need to have information about the concept (White and Gunstone, 1992). Van Harmelen (1999a: 6) in her desktop analysis of the BETD syllabuses, recommended that teacher education programmes must "provide teachers with a clear and critical understanding of the essential concepts on which their areas of specialization are based". She further suggests that teachers should have a clear understanding of how conceptual development is achieved as well as understanding of how various strategies and resources contribute to the acquisition of conceptual understanding.

Wiggins and McTighe in Darmofal et al (2002: 1), argue that conceptual understanding is considered lasting "if the concept represents a big idea having lasting value beyond the classroom". Perkins (1993: 8) offers the same argument, suggesting that if we really want to teach for understanding, there is a need to "induct students into the discipline". This by inference means, teachers should know what key concepts to select as well as selecting concepts which are meaningful to learners in their daily lives. This is a view shared by Ellis (2004: 7), who suggests that students should see how the presence of a certain concept either "improves or diminishes the quality of our world". Although this may sound viable, it might be a bit problematic if such criteria are used exclusively, because there might be other concepts significant to the study but not necessarily of value to them beyond the classroom. A cautionary note here is that we need to be careful when selecting concepts; we should not only select those concepts that are seen to be of immediate value to learners.

2.4.2 Theories of concept formation

Earl (2005: 1) lists five primary theories of concept formation. These are important in this review because the theory one might hold influences how one teaches. These are: "the classical theory; the prototype or exemplar theory; the theory-theories; and the neoclassical theory". For the purpose of this study, I will review the first three views. The first one, the classical view, is also known as a "definitional view of concepts" (Earl, 2005: 1). This theory presupposes that "concepts can be defined with respect to the necessary and sufficient features for an item to qualify as a representative of the concept" (Pressley & McCormick, 1995: 43). This means that something has to have some features and satisfy conditions sufficiently to be a member of a category. From these conditions, a definition can be given (Pritchard, 2000; Earl, 2005; Margolis & Laurence, 2005; Blurton, 1989). Therefore, a C has "individually necessary conditions" that makes it a C. (Margolis and Laurence, 2005: 8). In other words, one can define a C.

The opponents of this view present a number of counter-arguments. Although it is not really necessary to review all of them, I find it useful to at least mention one or two such arguments as a way of indicating a need for another view. Blurton (1989) argued that it is impossible to reach an agreement by listing the necessary and sufficient features for a concept, even for a concept as broad as 'life'. This is so because people may have different definitions for it. The second one is that the claim by this view that all instances or examples of a concept are equal was also contested. Blurton (*ibid.*) further argues that some instances are more typical than others. Therefore, classifying them as instances of a certain concept might not be easy for both, as some instances might be typical of a category, while others might not.

The classical view of concept formation was replaced by the probabilistic view. Smith and Medin (in Blurton, 1989), describe two divisions within this view. The first one is the prototype view. Margolis and Laurence (2005: 6) who dispute the notion of the definitional structure of concepts support the idea that something belongs to a category if it "satisfies a number of properties" making up such a category .They share what Wittgenstein calls a

"family resemblance" (Pritchard, 2000: 1). This notion of 'family resemblance' was introduced by Wittgenstein and suggests that "category members tend to share some characteristic properties or attributes or features, but there are no defining features" similar to the classical view (*ibid.*). In other words, no definition, but just features. The classification is based on "resemblance rather than with respect to necessary and defining features" (Pressley and McCormick, 1995: 43).

This view too was criticized on grounds that individual differences are not represented (Pritchard, (2000: 1). What this means is that this view does not consider things that differentiate or separate things that seem to belong to the same category. It simply focuses on features of "best examples or prototypes". The other division within this probabilistic view is the exemplar view of concept formation. This view suggests that concepts are learned by "storing exemplars of that concept" (*ibid.*: 3). In other words, it focuses on examples of a category. Therefore, when one comes across an experience, one either classifies it as an example of a category or not (*ibid.*). The proponents argue that this category can give information that the prototype cannot, such as variations and "correlations between the attributes of category members" (*ibid.*: 3). In other words, it acknowledges individual differences, but at the same time acknowledges the similarities.

Although the classical and prototype views are problematic, I find them useful in classification. Therefore, for this study I will adopt the view of Blurton (1989) that a combination of views is appropriate. When helping learners to form concepts, I find it helpful if we consider all three views: the classical, the prototype and exemplar view. I say so because, although most people find definitions insufficient, I think they have a role to play, because if a learner understands what the definition means, for instance, he/she understands all concepts involved in such a definition. Such a learner is in a better position to move towards an understanding of a concept. However, that should not be the end in itself; it should be coupled with the prototype as well as exemplar views for attributes and examples of such a concept.

2.4.3 Strategies for concept development

The principles and theories of concept development that I reviewed earlier on can, to a large extent, influence the strategies that a teacher can use to bring about a sophisticated understanding of concepts. If the teacher understands the role that prior knowledge plays in concept development, in one way or another, consideration of what learners know will feature and influence the whole strategy he or she adopts. Similarly, the theory of concept formation that a teacher holds influences the strategy. For example, if a teacher holds a classical view, then a definition is sufficient. For that reason, in this section, I review some of the strategies that are recommended to bring about conceptual understanding.

'Building-up'is a term that Moll et al (2001) use to refer to Stuart's model of teaching a concept for understanding. This model helps learners understand a concept from a more concrete level to an abstract level of understanding a concept. It comprises the following steps. The first step is what learners know already about the concept. This is followed by learning activities intended to take the learners to the concept. The third step is to give factual content about the concept as a way of helping learners reach a stage of generalizing at a concrete level. The next step takes the learners' understanding to an abstract level of understanding whereby learners should reach a high level of generalizing.

Fisher (1995: 59) argues that to understand a concept well, "it is not sufficient to be given a dictionary or textbook definition" only. He suggests that the definition should be explained further. Fisher lists different levels of explanation: labeling, enumerating, making a link, identifying common characteristics, identifying concepts as belonging to a pattern of concepts relating to other concepts, and identifying similarities and differences. By labeling he meant giving the name of something without an explanation; enumerating meant giving odd facts about a concept; making a link meant pairing contiguous ideas and the remaining levels are self-explanatory.

He further argues that another key aspect to understanding a concept is to be able to see what is and what is not an example of it (*ibid.*). He advises that these two processes of

giving an explanation and examples should be combined with the third process, that of helping the learner come to a communicative understanding of a concept. What Fisher means by communicative understanding is that the learner should be given an opportunity to share with someone his/her understanding of the concept, a view supported by Posner et al (1982) through their concept 'intelligibility' discussed under principles of concept development. I argue here that this third process mainly depends on language. Sharing in this context means telling someone what you know; and people mainly find it easier to tell someone using language. Vygotsky, one of the leading learning theorists, also argues that language plays an important role in bringing about conceptual understanding (Cooper, 1992), as does Fisher (1995), who also postulates that concepts cannot be learnt through ready-made definitions, but through careful use of language. One way of doing that is by allowing learners to discuss; for example, they could discuss the characteristics of a phenomenon or ask a series of questions about a phenomenon (*ibid.*). Ellis (2004: 5) also contributed to this debate. He argues that meaningful understanding of key concepts cannot be achieved through memorization of others' definitions of the concept. Rather, "they construct their own understanding based on integrating new information provided with their background knowledge and experiences". Perkins (1993) shares the same sentiment. He believes that teaching for understanding cannot be achieved through dictionary definitions only, but be supported with representations such as diagrams, analogies or what Mayer in Perkins (1993: 7) calls "conceptual models".

The use of questions as mentioned above is another strategy recommended for concept development. Research has shown that both concrete and abstract concepts can be best learned through the use of questions (Cooper, 1992). There are many ways of using this strategy. Doyle and Mallet (1994) have demonstrated one such way. Doyle and Mallet (1994) conducted a study with four-year-olds on whales. The four-year-olds asked a series of questions on whales for which they needed answers. Another way is demonstrated by Fisher (1995) who cites a teacher in a class of younger children. A snail was brought in and the teacher probed the learners' knowledge and understanding of snails. Thereafter, learners were given an opportunity to ask questions. A number of questions were asked. An interesting one was: "Do snails love each other?" (*ibid.* 24). Fisher (1995: 24) argues that "if

we want our learners to be active and adventurous thinkers we need to encourage them to ask questions". He further on argues that "if children, themselves, identify what they want to know by asking a question, then they are much more likely to value and remember the answer" (*ibid.*).

Fisher (1995) again demonstrates another way of using this strategy. He cites a teacher who had a lesson in Science on gravity. The teacher began by finding out what learners knew about the concept gravity by asking learners some questions. Thereafter learners were put into small groups to discuss and come up with answers to the questions. Differing explanations were given and the "teacher was amazed by the range of ideas that the pupils came up with" (*ibid.*: 20). Darmofal et al (2002: 2) used an approach known as "peer instruction approach". In this approach, concept questions are given to students, allowing them "time for individual thought and reflection". After the students have understood the question, small groups work on the question. Thereafter, misconceptions if any are clarified and this, according to Darmofal et al, "leads to further exploration of the concept" (*ibid.*). Research has also shown that "learning a particular way of formulating and answering questions may be an essential step towards understanding conceptual ideas" (Cooper, 1992: 20). This suggests that there are ways of formulating and answering questions. White and Gunstone (1991) suggested that learners should be asked to begin questions in a particular way such as: 'What if...', 'Why does...', "How would...', or 'Why are...'. Fisher (1995: 19) adds to this and lists examples of open-ended questions: "What do you think?; How do you know?; Why do you think that?; What if not?". He argues that "a good question makes the mind buzz. It offers a challenge to thinking; a search for understanding" *(ibid.)* He believes that "Questions such as these are troublesome, rarely rooted in certainty, and invite an open-ended, thoughtful response" (1995: 19). He goes on to say that a good question avoids a yes or no answer because such questions make "low levels of cognitive demand that do not encourage children to persist in their thinking and learning" (*ibid.*: 16).

Fisher further cautions teachers not to ask too many questions because research that was conducted by the Oxford Pre-School Research Group found that "adults who asked more questions were less likely to receive questions from children; less likely to receive

elaborated answers from children" (*ibid.*:16). The same study revealed that most of the questions asked were closed-ended. Therefore, Fisher cautions teachers to "ask fewer, but better questions" (*ibid.*:18).

Bruner (in Baumann, Bloomfield, Roughton, 1997; Cooper, 1992) postulated three modes of representation in understanding a body of knowledge, stages by which we represent the environment to ourselves when we are learning. I find the three modes relevant because in each mode, one can clearly see a strategy for developing concepts. The first mode, the enactive representation, depends on physical experience or sensation. Cooper (1992) lists 'a visit to a site, using a tool or other artifacts' as examples of this mode. Baumann et al (1997) explain this as "learning through doing". He cites an example of how one learns how to teach through teaching. As examples given show, these are learning through doing or taking learners to reality. For example, if learners are learning about the concept 'escarpment', if they see how it looks in reality, that form of representation will have a lasting effect.

The next was iconic representation. Kristinsdóttir (2001: 1) describe it as a "model that deals with the internal imagery, where knowledge is characterized by a set of images that stand for a concept". This is when experience is represented by pictures such as paintings, maps, diagrams and models. Bruner refers to this as a "match by direct correspondence" (cited in Baumann et al, 1997: 71). We use such icons to remember what the concept means. For example, if a teacher uses pictures to show what an escarpment looks like, whenever a learner is confronted with the term, she will have a direct match between the pictures she saw to the concept 'escarpment'. Bruner therefore argues that such iconic representation helps us remember things we have learnt (*ibid.*). Schunk (1996) views it as a way of recognizing objects even when they are changed in minor ways. The Namibian policy recognizes the use of iconic representation, as I found these learning and instructional materials referred to on page 27 of the Pilot Curriculum guide for Formal Basic Education. Learning materials are considered as "vehicles to deliver a specific message, to get learners to reflect over things, and promote understanding" (Namibia. MBEC, 1996: 27). Such materials can help learners understand information, a concept, a skill or change an attitude

(*ibid.*). Perkins (1993) also supported this view. He recommended that definitions be supported with "more imagistic, intuitive and evocative representations" (Perkins, 1993: 8).

The last 'symbolic representation' is when concepts are organized in symbols or language. This according to Baumann et al (1997) is the most sophisticated level, because the connection between object and representation is arbitrary but accepted by those with whom we are communicating. He uses an example of a table and argues that the word 'table' does not look like a table but merely stands for it. The aspect of language plays a major role here. We need to have language to use this strategy. For example one can represent a concept by describing it, giving an explanation or examples of it. Bruner (in Baumann et al, 1997) considered these three kinds of representation as complementary and not successive.

What I also find worth considering regarding concept development is Ellis's (2004) specialized graphic organizer technique, a 'relate think sheet'. A relate sheet is a kind of instructional strategy he claims brings about a more sophisticated understanding of essential concepts. This technique is appropriate to all levels; intermediate, middle and high school content area classes. He argues that when the relate think sheet is used, students continuously relate the concept to background knowledge and experience as well as to current, real world situations. The relate think sheet develops understanding through: (a) paraphrasing the main idea of the concept and specifying its critical features, (b) evaluating the concept relative to its value in today's society, (c) reflecting on what current society has done to either promote or inhibit this concept in today's world, (d) identifying an example of the concept from the subject-matter lesson as well as an example from real-life, (e) creating a metaphor or simile for the concept, and (f) identifying specific connections to individual students' background knowledge or experience (Ellis, 2004: 6). According to Ellis (2004), all sections of the relate think sheet could be used, or, if time is limited, only some sections of it. However, Ellis encouraged teachers to use all of the components of relate think sheet to ensure a more thorough understanding of the concept.

Ellis's relate think sheet shares a lot in common with Mora's planning inventory for teaching a concept. Like Ellis, Mora (2002) has several steps that he recommends teachers

use in order to bring conceptual understanding. These steps are at different levels of understanding a concept, beginning from the lowest up to the most sophisticated one. The steps are as follow: giving the name of the concept; defining it; giving characteristics or critical attributes of the concept; giving non-critical attributes typically associated with the concepts; giving interesting and learner-relevant examples or cases of the concept; giving contrasting non-examples of the concept that will help clarify or illustrate the concept; coming up with cues, questions or directions that can be employed to call attention to critical and non-critical attributes in the concept examples and finally using the most efficient, interesting and thought provoking medium or media by which to present examples and non-examples (Mora, 2002:1).

Clark, 1999 (cited in Teaching A Concept) too devised a particular strategy for concept development. Some of the steps in his strategy form part of the strategies proposed by Ellis, (2004); Mora, (2002) and Fisher, (1995). He recommends that conceptual development should be structured around four elements: definition, example, non-example, and analogy. As I indicated, the four elements were clarified already under the above-mentioned authors. However, to explain the idea of an analogy further, Orgill and Bodner (2003: 15) consider it as a "comparison between two domains of knowledge - one that is familiar and one that is not" (Orgill & Bodner, 2003: 15). Gentner (in Orgill and Bodner, 2003) refer to an analogy as a "mapping of knowledge between two domains such that the system of relationship that holds among the objects in the analog domain also holds among the objects in the target domain" (*ibid.*). Many researchers see some potential in analogies. Gentner and Markham (in Orgill and Bodner, 2003: 16) argue that analogies "give structure to information being learned by drawing attention to significant features of the target domain or to particular differences between the analog and target domains". Glynn, Duit, and Thiele (in Rule and Rust, 2001: 26) suggested a Teaching with Analogies (TWA) model. According to this model, there are six operations: Introduce the target concept; review the analog concept; identify relevant features of target and analog; map similarities; indicate where the analog breaks down; and draw conclusions.

Another strategy worth reviewing is code-switching. According to Crystal, code-switching occurs "when an individual who is bilingual alternates between two languages during his/her speech with another bilingual person" (cited in Skiba, 1997: 1). Berthold, Mangubhai and Bartorowicz further supplement the definition as occurring "when speakers change from one language to another in the midst of their conversations" (*ibid.*). Probyn (2004) brings it close to the context in which it is included in this chapter. She explains it as a tendency by teachers who share the same home language with the learners of switching to the learners' home language.

The study that Probyn conducted has revealed that code-switching helps learners whose mother language is not English to learn science concepts. In that observed class, 98 per cent of the teacher's talk was in English and 2 per cent in the home language. This 2 per cent was used sparingly to either explain a new concept or to emphasize a point. This was in contrast to another teacher in the same study whose talk was 85 per cent in the home language. This teacher used different concept development strategies such as: whole-class question and answer; code-switching at times; repetition of new words; practical work; demonstration; analogy; role-play; use of examples from learners' own experiences and environment; use of the chalkboard for diagrams, for summary notes to consolidate new concepts and interactive resources. This teacher translated consciously. This means that, in this instance he would translate the new concept to Xhosa and then explain it in English. Once that stage was over, he would repeat the new concept several times in English for emphasis.

I end this section by reviewing some of the factors that are detrimental to concept formation. Ellis argues that there are two teacher factors that impair the learning of concepts. The first one he refers to as the "spray and pray approach to teaching". This is the dilemma that some teachers face, as they are required to cover the syllabus by a certain period, they tend to cover too much information, as a result learners fail to" develop deep knowledge structures about important ideas of the curriculum" (Ellis, 2004: 3). They tend to rush and 'spray' and pray or hope that some of the information will be internalized. The second, a view supported by Wiggins and Mc Tighe in Darmofal et al (2002), is that of focusing on "esoteric trivia and specialized knowledge" at the expense of focusing on major concepts and essential

ideas of the syllabus. What this means is that teachers should ensure that learners fully understand the major concepts of the curriculum that help them understand the world and solving real-world problems, than to waste time on isolated and trivial ideas.

2.5 KEY CONCEPTS IN SOCIAL STUDIES, GRADE 5

2.5.1 The Social Studies curriculum

As my study is on teachers' understanding and development of key concepts in Social Studies (Grade 5), I chose to include a section of the subject Social Studies in the Namibian context, its rationale and how it is organized. In this same section, I include an explanation of the concept 'key concept' as well as what such concepts are.

Social Studies is a subject on its own from Grades 4 - 7 in Namibia. It is an integrated subject and draws its content from various sciences such as Geography, History, Economics, Civics, Cultural Studies, Sociology and Psychology (Namibia. MBEC, 1996: 2). However, Geography, History, Economics and Civics have a central place. These sciences are similar due to their focus on human relationships, their concepts and their methods of inquiry (*ibid.*).

Each of the various sciences has a specific focus or demand on the subject Social Studies. History focuses on human actions in the past; Geography centres on the relationship between people and their environment; Civics centres on areas such as human rights and responsibilities, and government; whereas Economics focuses on economic activities. Content from Cultural Studies, Sociology and Psychology focuses on areas such as current affairs, special events, gender equality, health education, multicultural education, law related education, global education, environmental, population and human rights education (*ibid.*).

As an integrated subject, Social Studies primarily draws on the conceptual framework of the relationship between space, time and place in the context of the social, the economic, the

political and biophysical world (Van Harmelen,1999b). It deals with interactions within the social, civic, political, economic, cultural and natural environment. Such a framework determines the key concepts in this syllabus and they are explicitly given at the end of each unit in Grade 5, and serve as main ideas underlying the topics. They represent the learning content, help the teacher see the main content of a theme at a glance, and should be understood in the context of the theme (Namibia. MBEC, 1996: 7).

Social Studies in the Namibian context helps learners understand the relationships between people and their environment. It helps them become better and responsible citizens through the development of essential knowledge, understanding, skills and attitudes (*ibid.*). Byrnes (1996) sees its goal as that of helping learners make appropriate and informed decisions about public-policy issues as well as exploring certain values such as love of the country, respect for others, etc.

The way this subject is organized is, as indicated earlier, based on Bruner's notion of a spiral curriculum. This means that at every level, learners add to their pre-existing structures (White and Gunstone, 1992; Piaget 1978; Ausbel, Novak and Hanesian, 1978). In this case, each grade follows a series of themes. The theme for Grade 5 is "Our region", followed by "Our neighbours and Our Continent" in Grade 6, and "Africa and the world" in Grade 7. The notion of a spiral curriculum comes as a result of dealing with similar topics in all grades, but at a different breadth and depth. Each theme in each grade consists of key concepts, which are developed from one grade to another in their varying contexts.

2.5.2 Key concepts in Social Studies

Marsh (1997: 12) argues, "every field of study contains a number of key concepts and lesser concepts which relate to substantive and methodological issues unique to that discipline of study". This is true of the Social Sciences as well. Coupled with this is that the field of the Social Sciences are similar due to their focus on human relationships and their methods of inquiry. My next section therefore, focuses on what such key concepts are. But before I discuss such concepts, I begin by explaining what I mean by a key concept. People like

Fisher (1995: 59) explain a key concept as "an organizing idea, it is an abstraction that pulls together a lot of facts", attempting to make sense of them by organizing them into categories or classes. Ellis (2004) sees key concepts as those concepts central to the understanding of a unit or discipline. Gunning et al (1981) explain key concepts as "keys to the further understanding of a discipline. Darmofal et al (2002) considers them as "big ideas that resides at the heart of the discipline".

Social Studies at Grade 5 level has eight themes linked to the main organizing theme of 'our region' drawn from the various sciences already discussed. I use table 1 below to indicate the themes and their concepts as outlined in the syllabus.

Table 1: Social Studies Grade 5, themes and concepts

Themes	**Key Concepts**
Orientating ourselves in space	Map, symbol, 8-point direction pointer, border, capital and continent.
The geography of our country	Political features, average yearly rainfall, vegetation, rainfall graph, population distribution, tourism, tourist attraction, tour, protection, conservation, similarity and difference, cause and effect.
Finding out about time and History	Time, measurement of time, past, present, future, event, B.C, A.D, date, day plan, calendar, history, oral sources, written sources, timeline, chronological order, display.
Our History - How our communities developed	Archaeological evidence, migration, Khoisan languages, Bantu Languages, rule, explorer, trader, missionary, Oorlam, Baster, alliance, power, conflict, peace treaty, peace-maker, continuity and change, conflict and consensus.
Foreign rule and how our country became free	Foreign rule, colony, mandate, injustice, resistance, apartheid, human rights, independence, United nations, elections, UNTAG, rainbow world, multicultural world, diversity, prejudice, empathy, conflict and consensus, similarity and difference.
We are citizens of our country	Citizen, children' rights and responsibilities, national election, political party, election results, parliament, law, budget, President, nation, Prime Minister, Minister, ministry, government, court, court case, crime, conflict and consensus.
Our resources and economic activities	Resources, economic activities, population growth, census, communal and private ownership, of land, environmental damage, stock farming, export, crop farming, renewable resources, interrelationship, and interdependence, cause and effect.
Communication and technology	Communication, technology, long distance communication, invention of telephone, technological developments, satellite, Telecom Namibia, National telephone service, employment, technical profession, telephone directory, continuity and change.

These concepts will be easily identified by teachers because the textbook for Social Studies Grade 5 (Namibia. Centre for Applied Social Sciences, 1996) lists concepts related to the topic and this happens consistently right through the textbook. However, one thing worth mentioning here is that the authors of the syllabus did not distinguish between what Marsh calls key concepts and lesser concepts. In any case, I am aware that some of the concepts listed in table 1 are key concepts while others are lesser concepts, and should therefore be given differing attention by teachers.

The understanding of these concepts becomes a challenge to teachers. If teachers do not have a deeper conceptual understanding, as I argue throughout this chapter, it will be impossible for them to teach such concepts. Therefore, a review of what the teacher needs to know cannot be over-emphasized.

2.6 PERSPECTIVES ON TEACHER KNOWLEDGE

2.6.1 What teachers need to know

The debate of what teachers should know has been of interest as early as 1875 (Shulman, 1986). An examination of tests from Massachusetts, Michigan, Nebraska, Colorado, and California was carried out by Shulman. The results from the California teachers' examination in 1875 were used as a representative sample . The outcome was that 90 to 95 percent was on content, and the remaining percent assessed the pedagogical practice. By inference this means that the focus was more on subject matter knowledge than on pedagogical knowledge (Shulman, 1986). This emphasis on subject matter, according to Shulman was in sharp contrast to the emerging policies of the 1980s, as the focus was now heavily on pedagogical knowledge, at the expense of the subject matter.

This led to what Shulman calls the "missing paradigm". He refers to the "blind spot with respect to content" (*ibid.*: 1986). His aim was to address the imbalance that existed in teacher education. He came up with three categories of content knowledge: subject matter

content knowledge, pedagogical content knowledge and curricular knowledge. In 1997, Feldman contributed to this debate of what teachers need to know. He started by reviewing the different perspectives of teacher wisdom. The first one was the teacher knowledge perspective that focuses on what teachers need to know in order to teach, mainly Shulman's wisdom of practice including both subject matter knowledge and pedagogical content knowledge. The second one is teacher reasoning, one that focuses on the ways that teachers make decisions about their practice through reflection. Thirdly, he reviewed a perspective by Tobin and McRobbie (cited in Feldman, 1997) - the socio-cultural perspective on teaching. This focuses on the influence of teachers' beliefs on their actions. They argue that "teachers' actions are related to their beliefs and goals shaped by the socio-cultural aspects of the professional contexts in which they teach" (Tobin and McRobbie in Feldman, 1997). Prawat (1992: 356) puts across the same argument that "teachers' views of teaching and learning influence their practice". As indicated earlier, if teachers hold a classical view of concepts, for example, then such a teacher will focus only on the defining feature of a concept under study. Such a teacher will not give examples or distinguishing features of such a concept.

What does all this mean in my study? In the context of my argument, Shulman's perspective of "wisdom of practice" resonates with the view that teachers should first have an understanding of what they teach and then how to teach. This does not mean that the other perspectives are not important, but for the purpose of this study, I will isolate this perspective from other perspectives; viz. that teachers need both subject matter knowledge and pedagogical content knowledge. This view is strongly supported by Clark (1995: 11) saying that "...one cannot teach well what one does not understand". By inference this means that teachers should understand the concepts thoroughly in order to help learners reach conceptual understanding. Of course the teacher's beliefs about learning also become important, for example, if the teacher holds a positivist view, learners should simply reproduce the textbook definition and nothing else, whereas if the teacher is a constructivist teacher, many of his/her activities will centre on the construction of meaning, rather than the rote memorization of definitions.

2.6.2 Teachers' understanding of concepts

A good teacher becomes a lifelong learner of subject matter and ways to represent it (Clark, 1995). Part of this is a commitment to developing deep conceptual understanding of the ideas, the key concepts and the organizing structures "that are embedded in particular disciplines, in theories and practice" (Van Harmelen 2004a: 3). Van Harmelen (1999b: 82) further claims that "in developing conceptual sophistication... we move initially from 'what is' and 'why 'to 'what if'.

Following the argument presented earlier, conceptual understanding means that one can apply the concept in a different situation when requested to do so, one has a coherent understanding. According to Corpuz (2003), one can only claim that one has a coherent understanding of concepts if one knows not only how to use it in particular situation that calls for the application of such a concept, i.e, one can transfer one's knowledge to other contexts. Moll et al (2001) further argue that one can only claim to understand a concept if one has a clear picture of what the concept involves in reality. To them a concept like 'industry' means little until it is connected to real objects, people, or situations, thereafter, they argue one can make generalizations. Making sensible general statements to them is a higher level of understanding, which they argue can only be achieved after one has achieved the previous stage discussed.

White and Gunstone (1992: 6) claim that "...a valid measure of understanding of concepts involves eliciting the full set of elements the person has in memory about it". Gagne and White in White and Gunstone (1992) describe such a set of information or types of knowledge about the concept as comprising images; episodes; intellectual skills; propositions; strings, and motor skills as well as cognitive skills. This implies that the teacher should have a full set of such elements in order to enable learners to reach conceptual understanding. This model means the teacher should understand how to create opportunities that allow such networks to exist. Learners should see how, for example, propositional knowledge links with strings, episodes, etc. (*ibid.*).

Ellis's (2004) relate think sheet, a strategy already reviewed under the heading of concept development, has a series of actions to be performed to better understand concepts. However, some of such actions within it could be used as a good measure of the teacher's understanding. The best of such actions is that of creating a metaphor or simile for the concept. What this means is that the teacher analogizes by comparing the concept to something familiar to learners, using this phrase: "This idea is like...". I argue here that only one who really understands a concept will see such relationships and make appropriate analogies, an argument also made by Perkins (1993).

From this discussion, one can extrapolate that the teacher needs to understand concepts up to a certain level of sophistication in order to teach such concepts; we should understand what we teach, in the case of my argument, we need to give a formal account of the concept as well as have the ability to recognize instances that make it such a concept (Hamlyn, in Peters, 1967). We should be able to explain such concepts to learners beyond textbook definitions. Such explanations should be accompanied by appropriate examples and analogies related to the concepts. A teacher who does this, I argue, understands the concept because he/she can see instances and relationships that make it a concept.

2.7 RESEARCH ON CONCEPT DEVELOPMENT

2.7.1 Research in Namibia

After Namibia adopted a learner centered approach (LCE) to teaching, there was a need to find out how teachers perceived it and implemented it. Studies carried out centred on the perceptions of teacher and how they implement LCE: very few studies investigated the teachers' understanding of both subject matter knowledge and pedagogical content knowledge. I am aware of studies conducted on the concept of learner centered education, and I decided to review the following selection given their nature and relevance to my study.

The first one is that of Chaka in 1997. His study determined the perceptions and practices of the lecturers and student teachers regarding learner centered education at one Namibian

college of education. He found out that perceptions of what learner centered education meant varied among the participants; however, most seemed optimistic regarding its implementation. The participants' classroom practice matched their perceptions of learner centered education, which was limited to group and pair activities. The strategy of using group work caused problems, as participants needed to be aware of the dynamics and interaction for successful group work.

The second one is of Sibuku in 1997 who conducted a study to find out whether the first graduates of the BETD program would successfully implement a learner centered approach. The study revealed that participants had a good theoretical knowledge of a learner centered approach, but their practice proved that some of them were using both a learner centered and teacher centered approach, which is an indication of the degree of confusion that exists even among those involved in research in this area.

The third one by Shinyemba in 1999 was an investigations into the perceptions of Namibian teachers of the concept of learner centered education; the translation of the concept of learner centered education into action in Namibian schools, the provision of effective learning environments by teachers' studies and identification of forms of learner centered education appropriate for the Namibian context. The study revealed that some of the BETD Inset (In service training) teachers through various teacher development programmes received, enabled them to implement learner centered education in their classrooms.

The fourth one of Van Graan in 1998 was a study dealing with learner centered education as portrayed in some Namibian classrooms. The focus was on looking for positive indicators of learner centeredness. This influenced the sample, because teachers who were selected were those identified by regions as teachers considered to teach in a learner centered way. This study revealed that many teachers seemed to be positive about learner centered education but lacked knowledge and a deeper understanding of what this approach constitutes, or the skills and techniques to apply it in a classroom situation.

The last one by Hoabes in 2003 investigated the teaching strategies used by teachers to foster environmental learning in the Life Science curriculum at two successful Senior Secondary schools in Namibia. This study revealed the way teachers view learner centered education as well as how strategies teachers use reflect learner centered education principles. It also illuminated tensions emerging in fostering environmental learning in a learner centered way as well as further support required by teachers to further enhance the strategies they use to foster environmental learning as well as to enhance learner centered teaching in Life Science.

From the few studies reviewed above, four of them (Sibuku; Chaka; Shinyemba; and Van Graan) were mostly concerned with how teachers perceived learner centred education as well as how they translated the approach into practice. The fifth study by Hoabes focused on teaching strategies that teachers used to teach Life Science and to what extent such strategies yielded understanding.

2.7.2 International views

Although this area of concept development seems to be under-researched in Namibia, the situation is different in other places like South Africa, Australia, the United States of America, Taiwan, Turkey, Germany and Venezuela. Concept teaching and development especially on the promotion of conceptual understanding, is a well-researched area. Most of the studies I reviewed focus on promoting the conceptual understanding of learners through the employment of different strategies such as concept mapping, using pictures, and analogies (Chang, Tsai and Chen, Internet 2006; Zirbel, Internet 2005; Niaz, 2005; Siseho, 2004; Addam, 2004; Ellis, 2004; Corpuz, 2003; Mora, 2002; Duit et al, 2001; Davis, 2001; Hunter, 2001; Chaffee, 2000; Anderson-Greco, 1999; Balderstone, 1997; Farris and Fuhler, 1994; Doyle and Mallet, 1994, Hewson, 1992; White and Gunstone, 1992). If I am correct, very few others than those by Kajander (n.d); Chou (2001) and Rowan (2001) focused on the teachers' understanding of concepts. The majority of such studies on either promotion of conceptual understanding or teachers' understanding of concepts are mainly done in Mathematics and Science. Very few such studies are done in Social Studies.

2.8 CONCLUSION

The knowledge and pedagogy of concepts should be one of the priorities of research in Namibia, as in other countries. Literature reviewed has shown that concept knowledge, teaching and development is not yet a priority in Namibia in comparison to other countries like South Africa, Australia, United States of America, Taiwan, Turkey, Germany and Venezuela. With this study I would like to investigate how Grade 5 Social Studies teachers understand and teach key concepts in Social Studies. Relevant literature has been analyzed and reviewed to inform this research and to provide an important foundation and framework for the study.

My argument in this research is that if teachers are to develop learners' conceptual understanding in particular disciplines they themselves should have a thorough understanding of key concepts and the pedagogy of concepts. Hence, my interest in this study is to investigate how teachers understand key concepts in Social Studies Grade 5 and how they teach such concepts. In the next chapter I discuss the research methodology and methods that I used to investigate the teachers' understanding of key concepts and how they teach such concepts.

CHAPTER 3

RESEARCH METHODOLOGY

3. 1 INTRODUCTION

In this chapter, I present my research design. The design is constituted by the approaches, methods and tools that I used to collect data, as well as procedures that I followed in order to analyze such data. It provides the reader with an answer to the question O'Leary suggests needs to be asked by all researchers, that is: "What is the best way to design my study?" (2004: 85). My answer to this question gives rise to the following framework:

- The research design
- Sampling procedures
- The research process
- Data collection methods
- Validity in my study
- Ethical protocol
- Managing data
- Data analysis procedures
- Limitations to the study

3.2 RESEARCH DESIGN

> To the interpretive researcher the purpose of the research is to advance knowledge by describing and interpreting the phenomenon of the world in attempts to get shared meanings with others. Interpretation is a search for deep perspectives on particular events and for theoretical insights. It may offer possibilities, but no certainties, as to the outcome of future events. (Bassey, 1999: 44)

Research design is a plan for conducting a study that includes the orientation, the approach, the methods and tools that a researcher chooses. Philliber, Schwab and Samsloss (cited in Yin, 2003: 21) refer to such a plan as a "blueprint of research, dealing with four problems:

what questions to study, what data are relevant, what data to collect and how to analyze the results". Considering the purpose and nature of my study, I adopted an interpretive orientation. I decided to locate my research in this orientation because of what it is and what it allows one to do and not to do. Cantrell (1993: 101) contends that "interpretive research emphasizes an understanding and interpretation of complex interrelations between social structures and the meanings people give to phenomena". Connole (1998: 14) expands the Cantrell view by the claim that in this orientation, the task of a researcher becomes that of understanding what is going on and places primary emphasis on the process of understanding. Bassey (1999: 44) extends the purpose of an interpretive researcher to that of "advancing knowledge by describing and interpreting the phenomenon... in attempts to get shared meanings". The researcher identifies emerging patterns (*ibid.*). Such patterns, themes and categories come from data, they are not imposed (Patton, 1990). The key dimension of this form of research is on meaning making and understanding. I selected this approach so that I can make meaning of how teachers understand and develop the conceptual understanding of learners in Social Studies. Another key dimension of this orientation that I found pertinent to my study is in Janse van Rensburg's claim that "interpretive researchers are often not that interested in taking action through or even after their research; their focus is on unravelling the complexities of social life as they and the research participants experience it" (2001: 17). This is exactly what this study focuses on. I do not take action. I am mainly interested in making sense of what the research participants do and in learning from the experience, and doing so informs my own professional context.

Because I am using this orientation, a qualitative approach is appropriate. Lincoln and Denzin (cited in Anderson and Arsenault, 1998: 95) view this approach as "multi-method in focus, involving an interpretive, naturalistic approach to its subject matter". These writers further describe qualitative research as "a form of inquiry that explores phenomena in their natural settings and use multi-methods to interpret, understand, explain and bring meaning to them". They refer to it as an "inductive form of inquiry". The key dimension that led to this choice is that "a profound understanding of the world can be gained through conversation and observation in natural settings rather than through experimental manipulation under artificial conditions" (*ibid.*). This approach helped me understand the

three teachers' perceptions and actions with very little interruption of their natural settings. It enabled me to conduct my study, especially class observations, in the learners' usual venues and according to the timetable. However, it is important to mention here that the natural setting was no longer that authentic, because despite being a non-participant observer, my presence might have influenced the normal activities of the class.

This approach, as Patton contends, has some limitations. The most pertinent one to my study is that it reduces generalizability. There are a number of reasons for this, but I concern myself with the ones I found crucial to my study. In a qualitative approach there is an element of conducting an in-depth study of the phenomenon (Patton, 1990) and because of this, it is common sense that one cannot have a large sample. And because one works with a much smaller sample, it is obvious that such a sample is not representative and therefore, the findings simply help the researcher to understand the case under study and are thus not to be generalized.

As stated in the previous paragraph, as part of the research design I elected to adopt a case study methodology. Merriam (2001: 19) views a case study as an "intensive description and analysis of a single unit or bounded system such as individuals, program, event, group, intervention or community". Anderson and Arsenault (1998: 93) further define it as "an investigation defined by an interest in a specific phenomenon within its real-life context". This research method allowed me to have an in-depth understanding of how such teachers understand concepts and developed the conceptual understanding of learners; and as indicated it was conducted in its natural setting. As Merriam (2001) and Bell (1994) maintain, it enabled me to give an intensive description and analysis of my three participants within a limited time scale. I managed to reveal what was going on in each teacher's class in terms of my two research questions.

However, Guba and Lincoln (in Merriam, 2001: 42) contend that a case study "can oversimplify or exaggerate a situation leading the reader to erroneous conclusions about the actual state of affairs". This can be true and therefore, I sought to ensure as much as was possible that this did not happen by carefully interpreting and analyzing my data. I also gave

the reader an opportunity to make his/her own interpretations by including raw data or direct quotes. I was also aware of how much my bias could affect my findings and therefore, I reported instances as I observed, read and heard them as accurately as possible. My aim is to give the reader what Cohen, Manion and Morrison (2000: 78) refer to as "sense of being there".

3.3 SAMPLING

My sample consisted of three BETD teachers from three different schools in the Caprivi region. Bless and Higson-Smith (1995: 85) define sampling as a "technical accounting device to rationalize the collection of information, to choose in an appropriate way the restricted set of objects, persons, events ...from which the actual information will be drawn". I used purposive sampling to choose my participants. My choice was mainly influenced by the fact that teachers who did the BETD diploma should be fully inducted into the role of concepts in learning. I did this in order to build up a sample that was satisfactory to my specific need (*ibid.*), a sample that, according to Patton (1990: 61) was "information-rich". In addition to this, I also selected my participants through convenience sampling. Although my initial plan was to work with one teacher from the urban school, one from a semi-urban school and the third one from a rural school, due to the proximity of some rural schools and the condition under which I carried out this research, I worked with two teachers from urban schools and one from a semi-urban school. Cohen, Manion and Morrison (2000) refer to this sampling procedure as "convenience sampling". This often involves choosing the nearest individuals to serve as respondents; in other words, I selected the schools because I had "easy access" to them (Cohen, Manion and Morrison, 2000; McMillan and Schumacher, 2001).

As part of ethical protocols, each teacher and school was given a pseudonym. Teacher 1 is Jane from Boma Primary School, a semi-urban school in the outskirts of the town Katima Mulilo. Teacher 2 is Chrispin from New Look Primary school, an urban school. Teacher 3 is Irene from Lewis Primary school, also an urban school. As names show, there were two

female teachers and one male teacher and as I indicated, these were selected for convenience and gender did not have any influence.

3.4 RESEARCH PROCESS

Before I set out to collect data, I thoroughly planned the kind of data I needed through each method. Firstly, I worked out and prepared an interview guide containing several specific questions that I wanted to ask all participants (Appendix 1). Secondly, I worked out an observation schedule that gave me an opportunity to observe and record all lesson activities (Appendix 2). Lastly, I worked out some guiding questions (Patton, 1980) to help me work through the documents. To test these tools, I piloted them. After the pilot study, some of the questions were rephrased, left out or added. I struck through the changes for easy recognition and I indicated 'replaced, added or left out' next to the question (Appendix 1 and 4).

Once I was convinced that my tools were ready, I went through all the necessary steps of obtaining permission from both the principals and teachers (appendices 5-7). The first thing I did was to identify the research site. This was followed by my visits to schools, where I set up an appointment with the principals. I discussed my purpose and intentions in the school with the principals and I negotiated with the teachers teaching Social Studies in Grade 5. Once that step was over, I took the permission letters to the principals and I was granted permission. I then finalized my negotiations with the teachers and they signed the consent form as well as setting up the interview dates. This process began on 15 February and was finalized on 22 March, when I finally collected permission letters from all schools. Interviews were conducted at different times. Jane was the first one to be interviewed, followed by Chrispin and Irene was the last one. By 26 March, I had interviewed all three teachers. I observed each teacher's lessons for one week, and by 31 March, I had observed each teacher. I concurrently collected data from the teachers' lesson plan files as well as from learners' summary/work books.

3.5 DATA COLLECTION METHODS

As I indicated, I adopted a qualitative approach to my study, which dictated my data collection methods, because according to Merriam (2001) this requires data conveyed in words rather than in number form. Patton (1990) further describes data as consisting of direct quotations from people about their experiences, opinions, feelings, knowledge obtained through interviews; as well as detailed description of people's activities, actions and behavior recorded in observations; also excerpts, quotations, or entire passages extracted from various types of documents. I used multiple methods to collect data such as interviews, class observations and document analysis. Cohen, Manion and Morrison (2000) refer to this multi-method approach as "triangulation". I did this in order to add credibility to my study in terms of validity.

3.5.1 Interviews

Interviews are usually taken to involve some form of "conversation with a purpose" (Burgess cited in May, 2002: 225). May (2002: 205) refers to interviews as being "conversational, flexible and fluid". He further goes on to say that the purpose is achieved through active engagement by the interviewer and interviewee around relevant issues or experiences. I selected semi-structured interviews. Merriam (2001) views semi-structured interviews as a half-way between structured and unstructured interviews. According to O'Leary (2004: 164), these interviews are "neither fully fixed nor fully free" - they are flexible as May (1994) also noted. Semi-structured interviews start with a "few defined questions" but allow an interviewer to pursue any interesting issue that may evolve (O'Leary, 2004: 164). This was crucial to me because it gave me an opportunity to get clarity on issues as they emerged, as well as to follow up on other issues already discussed without being limited by the order of questions (Appendix 8). As a result, the responses to the questions were not in the same place for all three interviews.

As I indicated earlier on, I had a list of questions to explore and to guide me. The wording and order of such questions were not predetermined (Merriam, 2001). This is one of the

advantages of this type of interview, because it "allows the researcher to respond to the situation at hand, to the emerging worldview of the respondent, and to new ideas on the topic" (*ibid.*: 74). Some of the questions in my interview were open-ended, allowing in-depth probing (Cohen and Manion, 1996). According to Bell (1994: 91), "a skillful interviewer can follow up ideas, probe responses and investigate motives and feelings...and enables one to develop and clarify responses". My main reason for using this method was to investigate the teachers' perceptions about the teaching of Social Studies and also to find out how much teachers were aware of the conceptual frameworks in Social Studies. I did this because I was aware that such information cannot be directly observed, but needed me to "enter into the other person's perspective" (Patton, cited in Merriam, 2000: 72). From such interviews, I collected information on biographical issues; the teachers' knowledge about the subject; their notion and role of concepts; concept development strategies; teachers' understanding of concepts and other issues arising such as remedial teaching, and lack of support.

Although this method seems to work perfectly and yielded information I needed, there were some limitations to it. Firstly, the teachers were not very comfortable with the idea of tape recording the interviews. Secondly, the times and sites selected by the teachers were sometimes inconvenient for me. What I mean here is that some sites were very noisy and disturbing; in one case, interviews were conducted on Sunday, the time I go to church; and lastly, one interviewee was not available as agreed upon. I had to schedule another appointment.

3.5.2 Class observation

After the interviews were over, I observed a selection of lessons. I did this because as Cohen, Manion and Morrison (2000: 305) have noted, it allowed me an opportunity "to gather live data from live situations". Indeed, it allowed me to look at what was taking place in those classes "in situ rather than at second hand" Patton (cited in Cohen, Manion and Morrison, 2000: 305). Cohen, Manion & Morrison (2000: 305) further noted that it allows us "to move beyond perception based data". This is true because through this method, I

substantiated and corroborated teachers' perceptions and claims. It also enabled me to have a "direct, eyewitness" view of how teachers understood and developed concepts (McMillan and Schumacher, 2001: 41). This method further helped me to validate my study by providing raw data in the form of snapshots from the classes (Appendix 3).

3.5.3 Document analysis

My third method was document analysis. Merriam (2001) views 'documents' as an umbrella term to refer to written, visual and physical material that are relevant to the study. My documents included the Grade 5 Social Studies syllabus, the teachers' lesson plan files and the learners' books. I decided on such documents because they contributed to answering the two research questions. I knew exactly what data to collect from each document; for the teachers' lesson plans, I focused on the topic and the objectives of the lesson taught; evidence of teaching concepts and strategies used to teach concepts; for the learners' work/summary books, I mainly focused on evidence of teaching concepts and concept development strategies. The syllabus was analyzed for its correlation with the textbook in terms of key concepts to be taught.

This study required face-to-face interactive data collection and reciprocity with participants; therefore ethical principles such as informed consent, confidentiality, anonymity, privacy, and voluntary participation were carefully considered throughout all the phases of planning and data collection (Manion, Cohen and Morrison, 2000; Bless and Higson-Smith, 1995). I ensured that all documents and data collected were handled with a high level of confidentiality.

3.6 VALIDITY IN MY CASE STUDY RESEARCH

Cohen, Manion and Morrison (2000: 105) argue: "If a piece of research is invalid then it is worthless". Given this dire warning, I did all I could to ensure that my research is valid and worthy. Its validity and worthiness lies in the challenge of ensuring that my findings match

reality, as Merriam (2001) put it. Therefore in this study I have enhanced validity by employing the following strategies:

- **Triangulation** by using multiple sources such as interviews, observations and document analysis whereby I interviewed, visited classes and reviewed the teachers' lesson plans and learners' work/summary books. (Cohen, Manion and Morrison, 2000).
- **Member checks,** by taking back the interview transcripts to participants for verification and validation. I did this to give the respondents the opportunity to verify and to add further information (Cohen, Manion and Morrison, 2000; Merriam, 2001).
- **Stimulated recall interviews** to clarify issues that arose during observations (Murray and Nhlapo, 2001).
- In order to address the **researcher's bias,** I clarified my assumptions and theoretical orientation at the outset of my study (Merriam, 2001: 105).
- I included the **primary data** in my report through direct quotes and snapshots from classes.
- I **recorded accurately** by writing detailed notes and using electronic recordings.
- I have compiled a **case record** to provide "an adequate audit trail" (Bassey, 1999: 77). It indicates to the reader that the findings are based on collected data. It also serves as evidence of how I systematically carried out my research (*ibid.*).

3.7 MANAGING DATA

Managing data is not an easy task, especially when one has used different sources as I did. My case data for each participant was from the following data collection sources: interviews; class observations; learners' work/notebooks; teacher's lesson plan and the prescribed textbook as well as the syllabus. According to Patton (1990) "case data consist of all the information one has about each case". This is what I had at the end of the data collection process, case data for each participant.

To help me work better with my data, I went through what Patton refers to "the process of constructing case studies (*ibid".*: 388).

Step 1 *Assemble the raw case data*

These data consist of all the information collected about the person or programme for which a case study is to be written.

Step 2 *Construct a case record*

This is a condensation of the raw case data organizing, classifying, and editing the raw case data into a manageable and accessible package.

Step 3 *Write a case study narrative*

The case study is a readable, descriptive picture of a person or programme making accessible to the reader all the information necessary to understand that person or programme.

Once Step 1 was done, I moved on to the construction of a case record. The case record for each participant consisted of a booklet containing an interview transcript and class observations; field notes from the teacher's lesson plan and the learners' work/notebooks and comments based on the syllabus and the textbook. Once my case record for each participant was sorted into a comprehensible package, I began the data analysis process.

3.8 DATA ANALYSIS

According to Merriam (2001: 178), data analysis is a complex process that involves "moving back and forth between concrete bits of data and abstract concepts, between deductive and inductive reasoning, between description and interpretation". I have construed that data analysis is an important step towards findings. This is so because it is a process of meaning making out of data through "consolidating, reducing and interpreting what people have said and what the researcher has seen and read" (*ibid.*). Wolcott (1994: 24) uses the phrase "transforming data" to mean the same process. One has to transform raw data into meaning, and the meaning one makes constitutes the findings.

As this is a process, I went through a series of processes. My first task was to come up with what Patton terms "source questions" to guide my analysis of each source. Such questions

are outlined under data collection tools. I found that stage crucial because it directed and guided my initial analysis of each source. I found such questions to be 'limiters' because they set the boundaries very clearly. I am using the term 'limiter' in a positive sense, because such questions allowed me to remain focused on what kind of things to look for in each source. The second stage was to do as Merriam (2001) suggested, to read my interview transcripts, my class observations schedules and my documents. As I read through each source, I employed some form of coding. For example, as I read through the interviews, I employed two strategies of coding, using colours, and noting key areas such as teacher's understanding, and strategies teachers claim to use in the margins. Merriam (2001) believes, such notations are commonly made next to bits of data that strike the researcher as interesting, potential and important to the study. This stage was followed by a stage of trying to find some patterns and categories in my data. I found it very easy to identify them because through the colours, I could easily put things together, and the notes helped me with the category names. I used the same coding to all three sets of interviews, and finally I was able to come up with recurring patterns, regularities and anomalies among the three teachers. The fourth stage was to do what Patton refers to as a case analysis of each teacher. What he means by case analysis is when one first writes the case study of each participant. I begun this process by grouping the responses under the guiding questions, and at this stage, I was able to summarize what each teacher said under themes. The fifth stage was to make a table presenting mainly the strategies that teachers used to develop concepts Table 2). This was now at a stage of making what Patton refers to as "cross case analysis", meaning grouping together the responses from all three teachers. By that stage, I was now in a position to give findings from the interviews.

The analysis of class observation was done a bit differently from the interviews. After reading through my class observation schedules, I worked out a form, data analysis level 1 (Appendix 9). This form enabled me to pick out the concepts identified or which have been taught; the evidence of the teacher's understanding; strategies used by the teacher to help learners understand concepts; and finally evidence of learners' understanding of concepts. This form also helped me to see at a glance what was going on in each lesson regarding my research questions. However, it is important to note here that this form had one limitation: it

did not show the topic, nor the objectives, and it did not illuminate how much learners were involved in the lesson. The next step was to come up with indicators that would help me come up with themes for my next chapter. Because I was unable to find some indicators in literature, I relied on my literature review chapter for indicators. I finally managed to come up with indicators (Appendix 10). Such indicators helped me to come up with themes, especially for my discussion chapter.

While the process was complex with the first two sources, the process for the last two sources was less complicated. Using the source questions, I was able to identify what I was looking for easily. Now that I was at the end of the whole process, the next question was now what to do with the information. I then went on to the next stage of analyzing, and at this stage again, each source was analyzed separately. For example, the information from interviews was presented under the heading 'Data from interviews'. I did the same with the other sources. This was almost a chapter on its own, and finally, I used such analysis to pick and identify categories, patterns and themes for my study and I was ready to write my data presentation and analysis chapter.

3.9 LIMITATIONS

My study had some limitations, such as:

- **Size of sample and sampling procedures**: Considering how I purposively and conveniently sampled my participants, I cannot generalize the findings.
- **Choice of language during interviews**: As part of the ethical protocols, I gave my participants an option to use the language they were comfortable in and all three teachers opted to do it in English. This affected my study, as there are times when teachers, instead of expressing a point sufficiently, gave only a one-word response. In one instance, a teacher had to ask me to assist her in what she was trying to say.
- **Recording the interviews:** Although my wish to do this was made very clear in my communications to them, one of the three teachers was not comfortable with the idea of recording the interview.

- **Stimulated recall interviews**: As a way of increasing the validity of my findings, issues arising from my observations were clarified; however, this was not convenient to some of the respondents because some of them were either too busy or not willing, and so such sessions were postponed, rushed or not done.

3.10 CONCLUSION

In this chapter, I presented my research design that comprised the methods and tools that I used to collect data, as well as the different levels that I followed in order to analyze data. I also discussed strategies that enhanced my findings as well as how I observed the ethical protocols. I ended this chapter by highlighting limitations that my study suffered.

In the next chapter, I report on my findings from the semi-structured interviews, observations and document analysis. I do this by identifying patterns from all my data sources and collapsing them into themes.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

In this chapter, I report on my findings from the semi-structured interviews, observations and document analysis. I do this by identifying patterns from all my data sources and collapsing them into categories. This process is primarily inductive, because "most categories and patterns emerge from data, rather than being imposed on the data prior to data collection" (McMillan & Schumacher, 2001: 461). Therefore, my categories were decided upon after my data collection process, but mainly influenced by my two research questions: How do teachers understand the key concepts in Social Studies? How do teachers develop key concepts in Social Studies? My framework is thus as follows:

- The profile of the schools and the teachers.
- The notion of concepts and their role in learning.
- The description of the teachers' lessons;
- The evidence of the teachers' understanding of concepts developed;
- Strategies that teachers use to develop concepts;

4.2 THE PROFILE OF THE SCHOOLS AND THE TEACHERS

This section provides a contextual analysis of the three schools and the three teachers I worked with in my study. As I indicated in Chapter 3, for the sake of confidentiality, anonymity and privacy, each school and each teacher is given a pseudonym. The first teacher is Jane, a teacher at Boma Primary school. This is one of the oldest schools in Caprivi region. It is a semi-urban school in the outskirts of the town Katima Mulilo. It has no library. Jane has been teaching at this school for 20 years and has taught Social Studies Grade 5 since 1998, that is, she has eight years' experience in the subject. However, it is interesting to note that, despite having taught the subject for so many years, Jane does not know the subject advisor for Social Studies. Boma Primary School has one Grade 5 class of

43 learners at the school. Social Studies is taught five times a week and each period is 40 minutes long. Jane was a qualified Education Certificate Primary (ECP) teacher until last year when she graduated with a BETD (in-service), specializing in Social Science Education, 5-7.

The second teacher is Chrispin, a teacher at New Look Primary school. This is an urban school, situated in the town of Katima Mulilo. It has a library but as there are very few books, it is almost empty. Chrispin has been teaching at this school for 10 years. While he has less than one year's current experience in the subject he has, taught Social Studies grade seven for two years at an earlier stage in his teaching career. There are two Grade 5 classes at this school; I chose to observe one class of 35 learners only. Social Studies is taught five times a week and each period is 35 minutes long. Chrispin completed a BETD diploma specializing in Lower Primary Education two years ago. It is significant that despite not having specialized in Social Science Education, he is teaching it.

The third teacher is Irene at Lewis Primary School. This is also an urban school, situated in the town of Katima Mulilo. It has an enrolment of 1044 learners. Irene has been teaching at this school for less than two years now, and has two years and some months experience in the subject Social Studies, Grade 5. She obtained a National Education Certificate (NEC) in 1994 and completed her BETD (in-service) last year, specializing in Social Science Education 5-7. There are four Grade 5 classes at this school and I only observed one class of 44 learners. Social Studies is also taught five times a week and each lesson is 35 minutes long. It is noteworthy that there are no maps at this school. I was also concerned to discover that Irene has not attended a single workshop.

4.3 THE NOTION OF CONCEPTS AND THEIR ROLE IN LEARNING

Establishing the teachers' notion of concepts and the role they play in learning is pertinent to this study, because if teachers consider concepts to be important in learning it is more likely that they will ensure that such concepts are well developed and understood by the

learners. Therefore, under this section, I present findings of how the teachers in this study understand what is meant by a concept and the role that concepts play in learning.

4.3.1 What is a concept?

All three teachers have almost the same understanding of what a concept is. Jane finds concepts to mean *"very important words"* in a chapter, *"words that are involved in the topic and the lesson you are going to teach"*. According to Chrispin, a concept is a *"key word that a learner must know and understand in the context on the theme"*. He refers to 'concepts' as *"valuable and difficult words"*. To him the example of key concepts are understanding, knowledge, values, attitudes and skills. The third teacher, Irene, understands 'a concept' as *"a word or key word of a lesson"*. It is interesting to note that no one was able to give a comprehensive meaning of the term 'concept'; they all limit it to simply 'a word'. However, it is worth mentioning here that despite this apparently shallow understanding, each teacher was able to identify concepts in their lessons and cited some examples of concepts during the interviews.

4.3.2 The role of concepts in learning

All teachers consider concepts to be important. Below is what they said about the role of concepts in learning.

Jane

> *It helps to know what to expect in the lesson.*
> *Without them, the lesson won't be good', they won't have interest, it will be boring.*
> *Every chapter has its, or every page has its own concepts. When we are talking of maps, a map is a concept in that theme. When we are learning about directions, the eight point directions is a concept, when we are learning of physical features, same applies to the physical features, rainfall, vegetation, tourism.*

Chrsipin

> *They must understand concepts in order to understand what they learn.*
> *Without them, they cannot understand what they are taught because they form the basis of basic competencies.*

If they are not explained properly, they may not understand the outcome of the lesson.

Irene

They help them to understand the whole content of the subject. If not made clear, they will not understand the whole lesson".
They are also important to learners because they form the thinking of learners. Say I give a concept to a learner, he/she will think of the meaning of it. He/she can think it for himself, or if he does not know, he can ask for the meaning of it from others.

From the responses, it is clear that Chrispin and Irene share almost the same understanding of why concepts are important in learning. They both believe that, if the concept is not understood by the learners, they might not understand the whole lesson. Jane sees the role of concepts differently. She considers them important because they help learners know what to expect in the lesson and feels that if not made clear, learners will not be interested and the lesson will be boring. It is interesting to note here that the role that she attaches to concepts does not really prove their significance.

Following the three teachers to class also revealed the significance that teachers attach to concepts. This was evident in their practices and class routines. All three teachers tended to write down the concepts for the day on the chalkboard either at the beginning of the lesson or as the lesson progressed. Once the concept was written down, they tended to ask learners to read them out while the teacher listened and helped them with the pronunciation of the concept. For example, Irene helped learners pronounce concepts such as 'evidence', 'hunting' and 'gathering'. This practice was usually followed by some attempts to make the learners understand the concept by employing various strategies.

The significance that teachers in my study attach to concepts was also evident in the learners' summary books and the teachers' lesson plans. Two teachers, Jane and Irene, gave summaries to their learners and such summaries included concepts and different ways of helping learners understand such concepts (Appendix 11). As I indicated in Chapter 3, I collected four books from each school, but I will analyze the work of only one learner from each school. The learners are referred by the school's pseudonym. Therefore Jane's learner is referred as 'the Boma learner', the learner from Chrispin's class as 'the New Look

learner' and Irene's learner as 'the Lewis learner'. Chrispin does not give summaries at all, only some class work and tests. He indicated to me during an informal dialogue I had with him that he does not give summaries; however, he thinks summaries are very important and therefore, as from next year, he will give summaries to learners.

Lesson plans too gave a clear testimony that all the three teachers in my study consider concept development to be very important. I say so because all three teachers either indicated concepts as part of the general information or as part of activities to be done in class (Appendix 12). For example, in Irene's first lesson, she firstly indicated concepts such as hunting and gathering as part of the general information of the lesson plan. Secondly, she indicated as part of the activities that she will write the concepts on the chalkboard and then ask learners to read the concepts and finally explain them. Listening to what they said during interviews; studying the summaries given to learners as well as reviewing their lesson plans, one can see that the teachers in my study attach importance to helping learners develop concepts.

4.4 DESCRIPTION OF THE TEACHERS' LESSONS

This section provides an overview of the lessons taught but mainly it indicates the concepts identified and developed.

4.4.1 Jane's lessons at Boma Primary School

According to the syllabus, Jane was teaching about the theme "Our history – How are communities developed?". In the syllabus, as I indicated in Chapter 2, at the end of each theme, there are concepts that show the main ideas underlying the topics. It is a requirement that learners know and understand the meaning of those concepts in the context of the theme (Namibia. MBEC, 1996). Therefore, for the theme mentioned above, the following concepts are listed: archaeological evidence; migration; Khoisan languages; Bantu languages. For the same theme, the textbook also gives some concepts for each topic, as follows: gathering; hunting; evidence; rock paintings; archaeologist; remains; ancestor; herder; migrate; camp;

crop; ceremony; council; contact; trade; and trader (Namibia. Centre for Applied Social Sciences, 1996: 41-54).

For the five lessons observed, Jane developed the following concepts: archaeological evidence; migration; Bantu languages; Bantu group; Khoisan group; Khoisan languages; economic activities; herders; camp; crop farmers; cultural activities; leadership; ceremony; contact; and trade. This information shows that Jane uses the syllabus as well as the textbook to plan and teach. It is noteworthy that Jane taught all concepts as outlined in the syllabus and not all as outlined in the textbook. This would seem to indicate that Jane considers the syllabus first before the textbook. In addition, Jane teaches other concepts not listed either in the syllabus or in the textbook, i.e it seems that she understands that even those not listed as concepts to be taught can also pose problems to learners.

4.4.2 Chrispin's lessons at New Look Primary School

Chrispin taught topics from two themes: 'The Geography of our country' and 'Finding out about Time and History'. Topics covered under the themes are: The distribution of our population; Tourism and conservation, as well as Time. As I indicated already, the trend in this syllabus is to indicate concepts at the end of each theme. For the two themes, the following concepts are listed: population distribution; tourism; tourist attraction; tour; protection; conservation; time; measurement of time; past; present; future and event (Namibia. MBEC, 1996). The textbook indicates the following: distribution; population; settle; tourist; travel office; tourist attraction; future; past; present and time period ((Namibia. Centre for Applied Social Sciences, 1996: 22-31). For the five lessons observed, Chrispin developed the following concepts: population distribution; tourism; tourist attraction; tourist office; tour; protection; measurement of time; measuring time with a shadow stick; past; present; future; phases of the moon; seasons; autumn and spring.

Chrispin uses the syllabus as well as the textbook to plan and teach because he taught the majority of concepts outlined in the syllabus except 'time'; 'event' and 'conservation'. He also did the same for those outlined in the textbook except for 'time period' and 'settle';

however, 'settle' was somehow covered when explaining why people are found where they are now, although he did not mention the concept. In addition, Chrispin taught other concepts not listed either in the syllabus or in the textbook, such as phases of the moon; seasons; autumn and winter.

4.4.3 Irene's lessons at Lewis Primary School

Irene was teaching about the theme our history' - How are communities developed'. She was teaching the same theme as Jane. The following concepts are listed for the topics she covered: archaeological evidence; migration; Bantu language sand Khoisan languages Namibia. MBEC, 1996). For the same theme, the textbook also gives some concepts for each topic, as follows: gathering; hunting; evidence; rock paintings; archaeologist; remains; ancestor; herder and migrate ((Namibia. Centre for Applied Social Sciences, 1996: 41-44). For the five lessons observed, Irene developed the following concepts: first people; hunting; gathering; tools; food; evidence; rock paintings; ancestor; herders; communities and migrate. It would appear that Irene does not use the syllabus to plan. I say so because Irene did not develop a single concept listed in the syllabus. Instead, she developed almost all concepts listed in the textbook except for 'archaeologist' and 'remains'. In addition, Irene, just like the other two teachers, developed other concepts not listed either in the syllabus or in the textbook, such as first people; tools; food and communities.

4.5 EVIDENCE OF THE TEACHERS' UNDERSTANDING OF CONCEPTS

White and Gunstone (1992:6) claim that "a valid measure of understanding of concepts involves eliciting the full set of elements the person has in memory about it". Gagne and White in White and Gunstone (1992) described such a set of information or types of knowledge about the concept as comprising images; episodes; intellectual skills; propositions; strings, motor skills as well as cognitive skills. Although it was not easy to find out the teachers' understanding of concepts, there are indicators which one can capitalize on. The first indicator is in the opening quotation by White and Gunstone. The second one is in the argument that Clark (1995:11) makes that "one cannot teach well what

one does not understand". The third one is in Moll et al (2001) who claim that to understand a concept one has to have a clear picture what the concept involves in reality. And the last indicator is in Hamlyn's argument (in Peters 1967) that one understands a concept if one can give a formal account of the concept as well as have the ability to recognize instances that make it such a concept. I have to admit here that using interviews to investigate the teachers' understanding of concepts was not that easy; however, I included a question that required the teacher to list some of the concepts he/she had problems understanding. Their responses to this question serve as a basis to report on this aspect.

4.5.1 Jane's understanding of concepts

As a response to the question relating to concepts in the curriculum, Jane said:

> *Like in Grade 5, I have been teaching this subject for a very long time, I am used to the concepts now. Only in grade six and seven that I started teaching last year, I am still learning the concepts.*"

From this response, one would conclude that this teacher does not have problems with all concepts in Grade 5. Following this teacher to class revealed that Jane understood the concepts she was teaching because she was able to give instances that make them such concepts; give images and episodes; relate to reality. For example, when she was teaching the concept Bantu group, she explained it in a number of ways. Firstly she told learners that they were"*blacks like us*". Secondly, she told the learners that they come from Africa. Thirdly, she gave examples of tribes that make up such a group. Fourthly and lastly, she talked about the language they spoke as well as the origin of the word 'Bantu'. Although she was able to give more information about the concept, it was evident that the teacher did not regard such Bantu groups as ancestors of the learners in her class, because the only relationship she cited was that of being black.

The other example was when she was teaching the concept cultural activities. Similarly, she had information about the concept, as she first translated the word to Silozi as *'sizo'*, and thereafter used local examples to explain it, and finally during the lesson review during lesson 3 she explained it in English: "*When we talk of cultural activity, we mean things*

which elderly people did, sizo....Yes, today I will explain this in English. This means preparing young people to be adults."

Preparing young people to become adults does not explain cultural activity, but instead it is an example of it, and neither was the explanation" *things elderly people did"* that helpful. This explanation proved her shallow understanding, but because of the examples given, one cannot completely discredit her. But there was a need for the teacher to explain the concept to learners in English or ask learners to explain it. However, the translation seemed to help, but is that sufficient to learners whose medium of instruction is English?

The last example I cite here is about the concept 'leader'. Seemingly, Jane has a tendency to just give examples and at times characteristics without explaining the concept. She started by relating 'a leader' to a class captain, a principal, chiefs, governors etc. She then gave characteristics of a leader as someone who is brave and responsible and finally translated what is meant by 'brave and responsible' into Silozi. As was the case with the concept cultural activity, she did not explain it in English. The fact that Jane did not explain the concepts but relied on examples, leads me to conclude that Jane, despite teaching this subject for a long time and believing that she understands all concepts fairly well, has proven to have a somewhat superficial understanding of some of the concepts she developed.

4.5.2 Chrispin's understanding of concepts taught

The interview held with Chrispin revealed that he does not make claims that Jane makes. His understanding is that *"You cannot be a master of a subject. You need help from colleagues"*. This statement that he made shows that this teacher recognizes the support from colleagues and I witnessed an occasion when he was asking a grade seven teacher about the phases of the moon. One other indicator of his understanding was on the concept 'escarpment'. He cited this as an example of a concept that if not well explained, learners might not understand it.

It is interesting to note here that the teacher had a superficial understanding of the concept because he compared it to a hill.

> *"Say like the word escarpment, you can take them outside to a hill. There is one side which is steep and the other side that is not so steepy. So they see that this side is slightly going down and the other side is steepy that you cannot climb."*

It is good that the teacher used an analogy of a hill but considering what an escarpment is, a hill is not that appropriate.

My next set of data further revealed Chrispin's understanding of concepts. For example, when he was teaching about the concept 'population distribution', firstly he explained it as the way people are distributed. Secondly, he referred to it as the number of people in the North, South, Central and East of Namibia. Thirdly, he talked of the part with more people and that with less people and some pull factors that attract people such as rivers in case of the Northern regions and work opportunities for central places such as Windhoek. From all this information, one can conclude that Chrispin understands the concept. However, he should have replaced the term 'distributed' with a familiar term.

The other concept is tourism. It was very clear here that the teacher had difficulties presenting this concept to learners. Firstly he referred to it as "an industry name". Secondly he compares it to a local market. This is how he put it:

> *Actually tourism is an industry name. We have a market there where people sell vegetables; you buy food stuffs and materials. They form a name. Also tourism, every country has tourism. It is an industry name that can attract people all over the world. If they know there is tourism in this country; they come to see what is there.*

This explanation can apply to an industry or phenomenon. It does not show a deeper understanding of this concept; there is more to this concept than just that. However, he related it to the concept 'tourist', and this seemed to help, because learners seemed to understand the concept 'tourist' much better and they might understand the concept 'tourism' through the concept 'tourist'.

Chrispin's understanding was also revealed on the concept 'measuring time with a shadow stick'. After explaining to learners how a shadow stick can measure time, he instructed learners to go outside of the classroom. While outside the classroom, he put a stick in the ground and explained to learners how a shadow stick can measure time. I was concerned about the way Chrispin visualized the whole process. He seemed to interpret this process as being like that of a watch. His final sketch looked like figure 2 below, and next to each arrow, he marked time in hours beginning with 7 and ending up with 7.

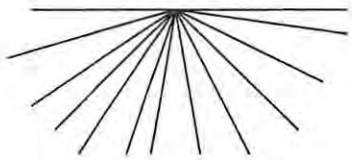

Figure 2. Using a shadow stick to find time.

The last concept I cite is 'tourist attraction'. Of this concept, the teacher did demonstrate understanding. He referred to it as *"interesting places, attractive places, beautiful scenery"* and cited Kalizo lodge as one of such places. Kalizo is indeed an attractive place in Caprivi that tourists visit for fishing, and other water sporting activities, but I do not think all learners know what attracts tourists to such a place, there was therefore a need to talk about why such a place is an attractive site. From the three examples cited above, I conclude that, just like Jane, Chrispin showed understanding of some concepts and lacked understanding of some.

4.5.3 Irene's understanding of concepts taught

Irene, too, was not as confident as Jane. She confessed that concepts like 'central plateau', 'escarpment' and 'coastline' are not only difficult to learners but to her as well. She finds such concepts very difficult because "they are not in our region". What this teacher said raises a very important issue of helping learners to understand reality. I will pick up on this issue in my discussion chapter. As the interview went on, her level of understanding of the concepts 'escarpment' and 'central plateau' was confirmed. She used an appropriate analogy to explain the concept 'escarpment', but confessed that central plateau was a problem. This demonstrates that the teacher did not in fact have an understanding of the concept

'escarpment' due to the relation between the two concepts. I contend that to have a solid understanding of the concept 'escarpment', one also needs to understand the concept 'plateau'.

Irene also demonstrated superficial understanding about the concept 'population'. I say so because she does not consider people living in one town as a population, instead she refers to population as people living in the whole region. While she seemed to struggle with certain of the concepts, Irene had an understanding of some of the concepts such as border. I could see this in the example she used. She referred to things separating their school from the nearest compound. Although that example could help learners understand, I find it rather more appropriate to the concept boundary than border.

Following Irene to class further revealed the level of understanding of some of the concepts. The first example I cite here is the concept of first people. In the context of the lesson, first people meant the San community. Although she gave some characteristics of the concept such as *"lived by hunting and gathering; used bows and arrows; moved from place to place"* etc, the phrase "*we were having people thousands and thousands of years ago even before Jesus was born"* is misleading. Conversely, Irene showed understanding of the concept evidence. She gave appropriate and good local examples to explain it, and she also used a much simpler and familiar term *"remains"* to further explain it in the context used.

It is interesting to note here that as Chrispin commented "*You cannot be a master of a subject"*, all three teachers including Jane who confidently said she did not have a problem, showed lack of understanding of some of the concepts but demonstrated a deeper understanding of other concepts.

4.6 STRATEGIES TEACHERS USE TO DEVELOP CONCEPTS

This section of my chapter is predominately based on how teachers in my study enhance the development of concepts through the pedagogy of teaching concepts. For a quick comparison and presentation, such strategies are presented in a table (table 2). The first column indicates the strategies collected from interviews, class observations and documents

that teachers used, whereas columns 2-4 indicate strategies each teacher used. I use bullets to show such strategies.

Table 2: Strategies teachers use to develop concepts

Strategy	Chris	Jane	Irene
1. Using questions	➢	➢	➢
2. Giving characteristics	➢	➢	➢
3. Learning support materials(Pictures/drawings, maps, etc)	➢	➢	➢
4. Giving examples/ using local examples	➢	➢	➢
5. Translating	➢	➢	➢
6. Acting out/ role play	➢	➢	
7. Using familiar vocabulary	➢		
8. Explaining	➢	➢	➢
9. Using a story			➢
10. Using definitions	➢	➢	➢
11. Taking learners to reality or bringing reality to class (fieldwork)	➢	➢	➢
12. Demonstrating		➢	➢
13. Interviewing			➢
14. Giving summaries		➢	➢
15. Planning	➢	➢	➢

The table shows that some of the strategies cut across all teachers, while others are exclusive to one or two teachers. A description of how each strategy was used by the teachers now follows.

Strategy 1: Questioning

Although this strategy did not feature significantly during interviews, it appeared as the most commonly used strategy for all three teachers. This strategy was mainly used to involve learners in the lesson through asking questions as the lesson progressed and mainly when relating the concept to what learners already know, or when making a comparison between what learners know and the new concept. For example, when Jane was helping learners understand the concept 'leader', she compared it to a class captain, a principal, a head of department, and a head of the family mainly by asking learners questions.

In one such instance this is what she did (quoted as is).

> *Who is a leader in this class?*
> *Others are pointing at Inoke and others at Kabuku?*
> *Do you know who the leader is?*
> *Who is the captain in this class?*
> *When we talk of a leader, we are talking of the captain of the class. What is his work?*
> *So you know the duties of the captain?*
> *So a captain is one of the leaders. When we talk of a leader, we talk of somebody like a captain.*

Another way of using the questioning strategy which was common to Chrispin and Irene's lessons was asking learners what they knew about the concept. For example, when Chrispin was helping learners understand the concept 'tourism', he asked learners to explain it. It was interesting to note that the learners' answers showed some misconceptions about this concept. This was evident in the answers they gave: *"people who take care of animals"; "people who can come to our country"*, but when the teacher explained it, he did not aim at rectifying the misconception the learner had about the concept, instead, he explained it without any consideration of the learner's misconception. I observed a similar pattern in Irene's lessons. She too did not target the misconception.

Irene was the only one among the three teachers who invited learners to ask questions. This took place at the end of lesson two, three and five. She allowed them to ask any question on the topic, and these are some of them *"If they eat a snake, do they take out the poison?; Are these people died already?"* What I found worth noting is how the teacher handled the learners' questions. She first invited learners to give their views before she answered the question. What is also worth revealing is the teachers' tendency to ask too many questions of low order thinking. I analyzed lesson 1 of each teacher, Jane asked 33 questions and only three were open-ended questions (Appendix 14). Similarly, Chrispin asked 34 questions and only nine were open-ended; Irene asked 31 questions and only four were open-ended. All in all, the majority of questions were closed-ended. And if teachers ask so many questions, it makes one wonder if the teachers in my study planned such questions.

Strategy 2: Giving characteristics

Although this strategy did not feature during interviews, it is interesting to note that it was quite prominent in the classes of the three teachers, although its popularity varied. For example, it was very common in Jane's classes. She used it to explain the following concepts: Bantu languages; Khoisan group; herder; crop farmers; and leader. For example, for the concept Khoisan group, she gave the following characteristics: *"they all spoke Khoi Khoigowab; they were the first to be in Namibia; they brought with them..."*

Chrispin too gave characteristics of the concepts to further help learners understand. He used this strategy to explain the concepts of: tourist office; seasons; autumn and winter. For example when he was teaching about the concept 'winter', he gave the following characteristics: *"it comes once a year; the time when we put on jackets"*. For Irene, this strategy was not that popular in her classes, she only used it once to explain the concept 'first people'. It is interesting to note that this strategy was used in conjunction with other strategies such as giving examples, and using learning support materials. In some instances, it was used as the sole strategy, for example; Jane used it to explain the concept 'herder' and Chrispin used it to explain the concepts 'autumn' and 'winter'. It is also worth mentioning here that two teachers, Jane and Irene, used the same strategy when giving summaries to learners. For example, Jane gave characteristics of the concepts of crop farmers, and San group (Appendix 12).

Strategy 3: Using learning support materials

Using pictures was one of the learning support materials that teachers claimed to use as a strategy to teach concepts. However, it is interesting to note that two teachers, Jane and Irene find pictures too limiting in terms of helping learners understand concepts, especially concepts that are not familiar to learners. Their wish is to take learners out and see reality for themselves. Irene cited 'escarpment' and 'central plateau' as some of the concepts not easily understood by learners - *"better for me and them to see the reality"*. While the two find them limiting, Chrispin finds pictures very useful. He believes that there are concepts such as coastline, coastal plain, escarpment, and central plateau that learners will not understand unless they can see how such landforms look rather than just explaining them. It

is his most favoured strategy. The use of support materials such as pictures, maps, and concrete objects appeared very common, as was indicated in the interviews.

A number of different learning support materials were used to help learners understand concepts. It is interesting to note that Chrispin truly believes that learners need to have a visual representation in order to understand concepts in Social Studies. This was affirmed through his use of learning support materials. He usually brought in a teaching aid, for example, when he was teaching the concept 'tourist', he brought in some baskets and wood carved curios to show learners some of the things that attract tourists, especially to the local market in Katima Mulilo. He did the same when he was teaching about measuring time with a shadow-stick; he brought in a stick and a watch. This strategy was also used when he was teaching about the population distribution of Namibia; he used the population map of Namibia to show the learners the settlement patterns. When teaching about the concepts of past, present, future and protection, he used textbook pictures. Chrispin did not work on those pictures from the textbook; he made copies of such pictures and distributed them to learners. He also used rough drawings on the chalkboard to teach about the phases of the moon. And finally, he used the map of Namibia to teach about the concept 'tourist attraction'. It was also interesting to note that learners really seemed to enjoy such sessions very much as they were given the opportunity to talk, see, hear and touch.

Although not very common in her lessons, Jane used the textbook, pictures and maps to teach some concepts. For example, when she was teaching about Bantu groups, she used a map to show the route that each Bantu group took as it migrated, as well as showing them where each group settled in Namibia. The other learning support material was pictures, which she used to further explain the concept trade. It is important to note here that these were textbook pictures. Still on the textbook, she also asked learners to read out the statement about the concept 'contact' from the textbook and she explained it. Apart from the map she once brought to class and the textbook, Jane did not bring any other learning support material to class.

Irene also used learning support materials. For example, for concepts like food and tools, the teacher reproduced the drawings in the textbook on a poster and used it to explain what is meant by tools and food. The poster contained the types of food the early communities ate, as well as the kinds of tools they used. For the concept 'communities', the teacher used a map of Africa to show where such communities came from; the route they took, and where they settled in Namibia. However, it is worth mentioning that despite showing the route and where they settled, Irene did not explain the concept 'community'.

Learners' summary books too showed some evidence of using this strategy. For example, for the concept 'landforms' and 'physical features of Namibia', a sketch of a map was drawn. It is interesting to note that both Irene and Jane used the same strategy to develop the concept landforms. Other examples are of concepts such as direction, neighbouring countries, borders of Namibia, map, tools, and phases of the moon.

Strategy 4: Using local examples

Of the three teachers, Irene is the only one who indicated this strategy as one she used during the preliminary interview. It became very clear that she uses it very often, especially when teaching abstract concepts such as 'democracy'. She also indicated that she uses this strategy to teach concrete concepts such as 'border'. For example she once used the following local example to explain it:

> *I asked them to tell me what separates the school and the nearest compound, Lyambai location. Others say this fence separates our school and Lyambai, others say this road separates our school and Lyambai. So I have to give them examples before we come to the real borders, the main borders of our country, like rivers and others.*

It is interesting to note that, although Jane and Chrispin did not mention it as one of the strategies they use, it appeared common to all teachers. Although most often Chrispin used a combination of strategies to teach some concepts, for this strategy, there are times when there was no need to use another one because the learners seemed to understand straight away. For example, for the concept 'population', it was the sole strategy, of course in combination with the question and answer method, which I indicated as cutting across all

the strategies used. Learners, through the local examples given, seemed to understand the concept 'population', although Chrispin did not really relate the local examples to the concept 'population', one could see the concept clearly in the local examples given. This strategy was also used to teach concepts such as 'tourism', 'tourist attraction', 'past', 'present' and 'future'. However, for the concept 'tourism', the local example given did not really relate very well to the concept.

Using examples to explain concepts was Jane's most common strategy. As I indicated earlier, Jane identified and taught 12 concepts. For 11 concepts, except for the concept 'contact', she used examples to help learners understand. Some of the examples she used were from the content of the lesson and some were drawn from the local environment of the learners. What I mean here is demonstrated below. For example the concept 'Bantu language', she used examples of languages as given in the content of the lesson or as given in the textbook. For the concept 'trade', she used the local example of ladies from Zimbabwe who come to Caprivi to sell their goods from Zimbabwe, a very common trend in the Caprivi region.

As she indicated during the interview, Irene too used local examples to explain concepts. She used local examples for concepts like 'first people'; 'herder' and 'evidence'. Below is an example from one of her lessons:

> *When I was asking you to tell me what tells you that this place was a place where people lived, others have said that old buckets, old dishes, old bones and so on. In your reports you said rock paintings, old bones and grinding stones. Those are what we call evidence.*
>
> *Yes, the remains which our first people were leaving to the places where they were living. Every human being, where ever you are living, when you move from that place, you have to leave things on that place.*
>
> *Now the people who were living at this place are people who moved to Cowboy, Butterfly, and other places. If we dig here, we are going to find those remains.*

The two teachers, Irene and Jane, incorporated this strategy in the summaries given to learners. It is the most commonly used strategy for simplifying the content to the learners. Examples of borders, examples of neighbouring countries, examples of landforms, examples

of tourist attractions, etc., were given as part of summaries. However, it is interesting to note that none of the teachers used local examples to further simplify the content; they simply used examples given in the textbook in this instance. Some of the examples given in the textbook do not come from the immediate environment of the learners.

Strategy 5: Translating into mother tongue

Translating into mother tongue also came out strongly in these interviews. Teachers view the idea of translating differently from one another. It is very interesting to note that this strategy emerged particularly strongly during the interview with Jane. She feels that translating is very helpful, especially to the ones she called "*slow learners*" and this is how she put it: *"So if you use the mother tongue to explain it, they enjoy it and you will see that they have understood. So you won't leave them behind"*. This also featured clearly during the stimulated recall interviews; she did it to help learners understand:

> *Interviewer: Why were you translating?*
> *Interviewee: For them to understand better.*
> *Interviewer: You think if you don't they won't understand?*
> *Interviewee: Some, but many of them cannot unless you translate.*

It was interesting to note that Jane does not translate and leave it there. Instead, she consciously does that because once learners get the meaning well in Silozi, she again takes them back to the concept in English: *"this word in your mother tongue is what we call as this in English"*.

This strategy appeared to be commonly used in her classes. It is interesting to note that Jane did not only use this strategy as a single strategy to explain the concepts, but juxtaposed it with other strategies such as giving characteristics; giving examples and making comparisons. For example, when explaining the concept 'ancestors', she translated it into Silozi as '*balimu*' as well as giving some of the attributes such as *'those who have died'; 'you pray to them'*; and she also compared 'ancestor' to 'God'. In her classes, she tended to translate the concepts to Silozi, and then further explain in English.

While Jane finds translating into mother tongue useful, Chripsin does not find it as good an idea. He argues: *"As you know, in the upper primary, English is the medium of instruction; everything must be explained into English, into simpler terms that learners can*

understand". He thinks translating should be the last resort; he believes that learners should make an effort to understand rather than relying on the translations. This was not just a claim, for the entire week that I observed his class; he did not translate a single concept into mother tongue.

Irene too translates, but only during term 1. She does so because she believes that some learners still can't cope up with English because in Grade 4, code switching is practiced therefore; some learners have problems understanding English straightaway in term 1. Hence she gives a grace period of one term. As from term 2, she does not think translating is necessary:

> *because if we train our learners to explain things in their mother tongue, when we test them, we test them in English. So they find it very difficult unless to read the whole question paper and translate each question to learners at a time. So we have to train them to understand the concepts in English.*

Like Jane, Irene too consciously translates. She takes them back to the concept in English and tells them *"that word, which I was telling you in your mother language, is this and this in English. I tell them, tomorrow when you come, don't tell me the word in your mother language"*. However, it is worth noting that although Irene was observed during term 1, she did not translate, only once when she referred to *"mumaka"*, a common wild fruit in the region. One interesting observation is that Jane was teaching in a semi-urban school while Irene and Chrispin were in urban schools.

Strategy 6: Acting out/ role play

Acting out appeared to be unpopular with the teachers, as only one mentioned it during the interviews. However, I observed Jane and Chrispin using it in their classes. Although not that common in her lesson, Jane used it to teach two concepts: trade and contact. This is what she did.

> *So what we are going to do, I want three people.*
> *You will be the San group.*
>
> *The other three people, you will be the Damaras.*
> *Three again, two boys and one girl. You will be the Namas.*
>
> *Now, the last three people. These will be the Bantu group.*

Each group should take a desk and sit.
What we will do is to find out how they contacted one another, how they get into contact. Remember that there were four groups of people; the San, Damaras, the Namas and the Bantus.

In this enactment, both concepts were made very clear to learners. It is interesting to note here that I observed when this strategy was used, learners were interested and engaged. Chrispin, like Jane used this strategy when he was teaching the concepts tourist and tourist office. He asked for some volunteers. There was a tourist, and an officer in the tourist office. Learners really showed interest and performed very well. This is how it went.

Good morning lady. What can I do for you? Take a seat.
I came to see the animals.
You want to see the animals?
Yes.
You must go to Mudumo Park
I don't know the place. Can you show me?
Here is the map of Namibia. When you go there you will find the park. You will see animals like elephants and lions. (Learners happily applaud.)

Thereafter, the teacher supplemented as follows:

"Yes, what the officer was trying to do is to show the tourist the nice places in Caprivi region. Which place did the officer talk about?"

It is also interesting to note that, as was the case in Jane's class, learners in his class also showed interest and when the teacher asked for volunteers, many of them wanted to participate.

Strategy 7: Using familiar vocabulary

This strategy was exclusive to Chrispin. As he indicated in the interview, Chrispin used familiar vocabulary to help learners understand some of the concepts. He used this strategy when he was teaching about tourism; tourist attraction and tour. For example, when he was teaching about tourist attraction, he explained it as *"nice places"; "attractive places"; "special places"*.

Strategy 8: Using explanations

Using explanations emerged as a strategy that all teachers claimed to use. To explain means *"to tell someone something in a way that helps them understand it better"* (Macmillan English Dictionary, 2002: 484). Although each teacher had a way of expressing it, all meant explaining concepts to learners beyond the definition. To begin with, Jane usually explained concepts that are not concrete. She supported her explanations with examples too. She also explains in the mother tongue, Silozi. Chrispin too explains concepts to learners by using familiar vocabulary, even though he feels that such a strategy is not that helpful. As I have already indicated, he prefers pictures. Apart from pictures, he also finds concrete objects and drawings also more helpful than explaining. Irene has an established way of explaining concepts. First of all, she writes the concept on the chalkboard. She then asks one learner to read it. After reading it, she asks learners to define it and if they fail, she then explains it to them. Finally, she asks them to look them up under the glossary. Once that is done, she finally explains it again. *"I try to simplify."*

Following the teachers to class has shown that all three teachers as claimed use explanations to teach some concepts. Using explanations seemed indispensable in all classes. For example, Chrispin used it to help learners understand two concepts: tourism and tourist. .
First, the concept 'tourism': *"It is an industry name that can attract people all over the world. If they know there is tourism in this country, they come to see what is there."*

Second, the concept 'tourist': *"People who travel from one country to another to see beautiful attractive places."*

As I indicated under the heading 'Evidence of the teachers understanding of concepts', the teacher's explanation of the concept tourism was vague. The explanation given could apply to any industry or phenomenon; there is not much in this explanation that could help learners understand.

Explaining concepts was also part of Irene's lessons. She used this strategy to teach concepts like rock paintings, ancestor, and communities. Below are the explanations she gave for each.

The concept 'rock paintings':

> *These are things which our first people were doing with their hands. On rocks, they draw a person who is shooting an animal. They draw an animal on the rock, they were not using marker pens, they were carving with other rocks. They take a sharp rock or sharp stone and they carve those small things. After carving, these were found by people who were making their research. They found these small pictures which our first people were making on rocks. These pictures are known as rock paintings.*

The concept 'ancestor':

> *Now, when we talk of ancestors, we said we were having our first people in the past, the first people who were there in the past; we call them "our first people". But now, you can also call them ancestors. Ancestors are people who lived longer than you, who were there in the past. Our great-grand fathers and mothers are what we call ancestors.*

The concept 'communities':

> *Communities are groups of people who came and lived here in Namibia. Who were those communities?*
> *Look here, those people who moved into Namibia, were they hunters; gatherers or what?*
> *Yes, they were herders. Not hunters or gatherers.*
> *They were herders and they were coming from another country. Who can tell us the country where they were coming from?*
> *Namibia? We said our communities moved into Namibia, meaning that they were coming from different places coming to Namibia.*

For Jane, explaining meant translating into mother tongue. Most often, her explanations, as I indicated under Strategy 5, were mostly done in Silozi.

Strategy 9: Using a story

Although this did not feature during interviews with the three teachers, it was witnessed in Irene's classes. She used a story to help learners understand concepts such hunting and gathering. This topic, how our first people lived, is presented in the form of a story in the textbook, therefore the teacher related the story to learners. Before she did that she wrote the two concepts of hunting and gathering on the chalkboard and thereafter, warned learners to

pay attention because she would ask questions at the end of the topic. She asked the following questions:

> *What was Nisa doing?*
> *What type of food was Nisa looking for?*
> *Were they just looking? What were they were doing?*
> *Where?*
> *What were they doing? What did she say? They were gathering fruits, everybody.*
> *What other word can we use for gathering?*
> *Can you hunt a fruit?*
> *Berries is a fruit.*
> *They were collecting fruits in the forest.*
> *Now, we said Tasa was a hunter because he was hunting birds and rabbits. What about a person who collects or gathers fruits?*
> *Yes, a gatherer or collector.*
> *Yes, that is the life of our first people. They lived on hunting and gathering, everybody.*

Through this story, the concept 'first people' was clarified in relation to their lifestyle, because the learners were told that such first people lived by hunting and gathering and that they had no permanent homes and therefore moved from place to place. What is worth mentioning here is that the story that she narrated was from the textbook and simply reproduced as is.

Strategy 10: Using a definition

The issue of using definitions to explain concepts also emerged from the interviews. Jane believes that a definition alone will not help learners understand unless the definition is explained. She cited an example of the definition for continent which is "a large piece of land which is divided into countries". She argues that learners will not understand what is meant by a piece of land unless it is explained to them as well as using a map to show the continent.

Chrispin views the issue of concepts differently from Jane. He believes that definitions can serve as an indicator of what the learner knows. According to him, if a learner gives the definition correctly, then such a learner has an idea of that concept. This by inference means that he does not require the learner to explain it as long as he/she can reproduce the definition correctly.

Irene feels a definition alone cannot measure the learner's understanding. This is what she said:

> *By defining a word, does not mean a learner understood the concept; unless he or she demonstrates it, because he/she will just depend in the textbook by saying this word means this and even if I will ask him next time, he will just scratch his head; he wants to look it up in the book. But if he demonstrates it, he will not easily forget.*

It is clear that Irene will not be satisfied by a definition only; she wants learners to show their understanding beyond the textbook definition. It is interesting to note that only Jane used this strategy on the concept 'camp'. However, Irene too indicated that she sometimes asks learners to define a concept, but ends there.

Although this strategy was not that popular during lessons, Irene and Jane used it as a strategy in giving summaries, for example, definitions of the following concepts were given: map, rainfall, vegetation, tourist, and tourist attraction. However, it is interesting to note here that such definitions were supplemented with other strategies such as sketches, characteristics and examples to further help learners develop concepts.

Strategy 11: Field work

The role that prior knowledge plays in learning came out quite strongly. All three teachers feel that teaching learners what they are not familiar with is problematic. Jane and Irene's wish is to have learners experience certain concepts in Social Studies in 'the real world' rather than using pictures only, while Chrispin feels that the use of concrete objects can help alleviate the problem. Below are some of the reasons they advanced:

Jane:

> *If you talk about mountains, you can tell them that a mountain is like a hill, they won't understand, because if you ask them what a mountain is, they will tell you that a mountain is a hill. So they need to go and see the real mountain. Even the rocks, they really do not know what types of rocks, unless you take them out.*

Irene:

> *"If there was transport to take our learners where these places are, it could be better for me and them to see the reality. I want my learners to go out and see such places".*

Analyzing their views, one can see that all teachers believe that bringing learners to reality or bringing reality to class is more helpful than just drawing or showing pictures. However, it is interesting to note that Irene has a solution to this problem. She usually uses analogies. She cited an example of an escarpment. To help learners understand it better, this is what she does.

> *I always use our school because our school in on a high, high what, (pause) Can you help me?*
> *Interviewer: A slope maybe?*
> *Interviewee: Yes, we go out and when you look down, you find that that place is lower than our school.*
> *Interviewer: What do you relate that to?*
> *Interviewee: I relate it to 'escarpment'.*

Chrispin brings reality to class. For example:

> *... when using a compass. The mere drawing of compass, learners cannot see how a compass really moves. But when you bring an actual compass, they see the movement that when you turn East, that northern pointer will point to the North, it will move. So those are good examples of concrete objects.*

He prefers using concrete objects and pictures because learners can see and even touch the objects.

Jane, like Chrispin, has a solution to this. She either takes learners outside the class to see reality, where possible, or brings reality to class, where possible.

It was also interesting to note that Irene and Chrispin cited almost the same concepts that are problematic for them to teach because they are not familiar to learners such as central plateau, escarpment, coastal line, coastal plain and sandveld plain.

Strategy 12: Using demonstrations

The other strategy that emerged from the interviews was demonstrating. According to the Macmillan English Dictionary, to demonstrate means "to show someone how to do

something by doing it yourself" (2002: 369). Irene and Jane use demonstrations in their classes. It was interesting to note that both teachers taught the concept of direction using demonstration. They both used learners to show the four main directions. However, I feel the technique was used out of context here because it mostly applies to a situation involving showing and doing, mostly when teaching a skill.

Strategy 13: Interviewing

This strategy was exclusively used by Irene. Although this did not come out clearly as interviewing, I feel it falls into this category because she at times sent her learners to find out what some concepts meant from teachers or parents.

It is important to mention here that strategies from number 11 through to 14 were not observed in classes. However, the fact that they were not observed does not rule them out as strategies. It is not possible at times for one to implement all strategies in one week. And secondly, most of the strategies are determined by the concept to be taught.

Strategy 14: Giving summaries

Giving summaries is another strategy these teachers found to be useful. Unlike Chrispin, Jane and Irene give summaries to their learners. Such summaries seemed very helpful because they are simplified, short and concise, with some illustrations to break the monotony of text. However, what I found disturbing is the fact that learners use the same books for homework and class work. Ideally, the summary book should be used exclusively for summaries only. Some class works are used for assessment purposes and they use the same book, it is likely that some learners will consult the summaries.

Strategy 15: Lesson planning

Although this has no direct impact on the development of concepts, I found it useful to include this, because it is the first impression one gets. If teachers indicate concepts to be developed as part of their planning, it likely that such concepts will receive special attention, especially key concepts. As I have already discussed under the heading of 'The role of

concepts in learning', all three teachers either indicate how a certain concept will be developed in their lesson plans or include it as part of the general information, or do both.

4.7 CONCLUSION

In this chapter I have reported on my findings of how teachers understand and teach key concepts in their classes. Guided by the two research questions, I reported on the following issues:

- The profile of the schools and the teachers.
- The teachers' notion of concepts and their role in learning.
- The description of the teachers' lessons.
- The evidence of the teachers' understanding of concepts.
- Strategies that teachers use to develop concepts.

After presenting and analyzing my findings, a set of themes emerged, which will form the basis of my discussion in the next chapter. These themes were mainly influenced by the key indicators from my literature review chapter with consideration of my research questions. These key indicators will form the benchmarks against which I evaluate my findings.

Theme 1: Identification of key concepts

My main concern here is to find out to what extent teachers use the syllabus to identify concepts.

Theme 2: Experience in the subject

My discussion will be based on how much influence experience plays in determining the teacher's knowledge of concepts. This section will also include support for teachers, an issue that was a big concern to all teachers.

Theme 3: Teaching concepts for understanding

The discussion will centre on strategies teachers used vis-à-vis teaching for understanding.

Theme 4: Nature of activities

My main concern is to evaluate the nature of activities teachers designed for learners and the extent to which they yielded learning with understanding.

Synthesis of my findings

This part of my research gives an overview of my findings as well as the main lessons learnt as a way of consolidating my discussion chapter.

CHAPTER 5

DISCUSSION OF FINDINGS

5.1 INTRODUCTION

> Interpretation, by definition involves going beyond the descriptive data... attaching significance to what was found, offering explanations, drawing conclusions, extrapolating lessons, making inferences, building linkages, attaching meanings, imposing order, and dealing with rival explanations, disconfirming cases, and data irregularities as part of testing the viability of an interpretation (Patton, 1990: 423).

I chose to begin with Patton's quotation because it captures the essence of this chapter. My main task in this chapter is to interpret my findings in order to make meaning, to draw conclusions and to extrapolate lessons. My framework for doing this is based on the themes that emerged from my data analysis chapter. Such themes were carefully selected, mainly influenced by the topic under investigation as well as the theoretical framework underpinning this study. I intend to interrogate how well the teachers understood the concepts and how well they helped learners develop concepts. Therefore, in this chapter there are five themes that emerged, as follows:

- Identification of key concepts
- Experience in the subject
- Teaching concepts for understanding
- Nature of activities

5.2 IDENTIFICATION OF KEY CONCEPTS

As I indicated in Chapter 2, both the syllabus and textbook for Grade 5 clearly list concepts to be taught in a theme. This should therefore make it easier for teachers to identify key concepts to teach. As stipulated in the National Subject Policy guide for Social Studies (Namibia. MBESC, 2002: 2), "the syllabus gives information on what to teach in each grade... the Social Studies teacher should be well informed on the content of the syllabus (2002: 2). The Social Studies syllabus for Grade 5 (Namibia. MBEC, 1996: 6) also states that "this syllabus is for the planning of Social Studies lessons, teachers are assisted by a

teacher's handbook and a learner's textbook". Because the syllabus is a guide to teachers, it should play a more prominent role than that of a textbook as the textbook should just assist in planning but not determine what to teach. Therefore, one can still teach what the syllabus requires without necessarily using the prescribed textbook. The content to be taught can come from other sources other than the textbook.

This being so, the participating teachers should have made it a point that all concepts listed in the syllabus are given considerable attention. This was not the case with all three teachers. While two of them did use both the syllabus and textbook to identify concepts, the third did not. As the findings have shown, this teacher did not teach a single concept listed in the syllabus; instead, she used the textbook as her point of reference. As shown in the lesson observations for this teacher, key ideas to be taught were left out and this limited the effectiveness of the unit. Fisher (1995:59) argues that "if we cannot identify key words and concepts, and have not created patterns of understanding then our memory become fragmentary". The key concepts listed in the syllabus should serve as organizing ideas around which other secondary concepts can be developed. Fisher further argues that learning depends on key concepts, which he says if properly remembered can be easily transferred from short-term memory into long-term memory *(ibid)*.

I realized from this that these teachers do not really understand the role that key concepts play in the development of learning with understanding. As I indicated in Chapter 2, key concepts/ideas are central to understanding and if teachers do not understand this, they might not concern themselves with the development of concepts. It would seem that the role of key concepts is underplayed, because even the two teachers who used the syllabus to identify concepts revealed, through their teaching, that they themselves have not grasped the topics being taught as coherent, integrated units. The key concepts should have been seen as unifying; as all related concepts could be seen as a "coherent whole" within a unit (Van Harmelen, 2004a:2). From this one would conclude that teachers do not fully understand the role that key concepts play in either learning or the syllabus.

5.3 EXPERIENCE IN THE SUBJECT

The number of years one has taught the subject vis-à-vis the level of subject content knowledge emerged as a concern in this study. As mentioned in Chapter 2, authors such as Moll et al, (2001); Clark, (1995); and White & Gunstone, (1992); Hamlyn, in Peters, (1967) have all emphasized the need for teachers to fully understand what it is they are teaching, as Hamlyn (in Peter, 1967: 37) suggested they need "both the ability to give a formal account of the concept and the ability to recognize instances". All three teachers, despite their varying experience in the subject, showed a lack of understanding of some of the concepts and their interrelatedness with the topics taught. For example, Jane, who has been teaching the subject for more than eight years, demonstrated a similarly shallow understanding of some concepts as the other two teachers with one to two years' experience in the subject. If teachers do not have a deeper understanding of central concepts they teach, to what extent can they develop learners' understanding? It would seem to affirm Clark's view (1995: 11) that "one cannot teach what one does not understand". Considering the role that key concepts play, to what extent can learning become meaningful if an underlying concept is not understood?

5.4 TEACHING CONCEPTS FOR UNDERSTANDING

As I indicated in Chapter 2, authors and theorists such as Earl, (2005); Ellis, (2004); Mora, (2002); Darmofal et al, (2002); Duit eal al, (2001); Clark, (1999); Van Harmelen, (1999); Fisher, (1995); Cooper, (1992); Harlen and Jelly, (1989); and Ausbel, (in Bodner 1986), have shown that in order to teach concepts for understanding, there are strategies and principles that should be taken into consideration. Therefore, my discussion of the findings on strategies teachers used to develop concepts is guided by some of these strategies and principles. I am particularly concerned with how well the teachers developed the conceptual understanding of learners. I do this by examining the strategies they used vis-à-vis the principles of concept development, given that these principles form the theoretical framework of this study. This discussion raises two issues. The first one is on how well the

teachers used some of the strategies to bring about conceptual understanding. The other one is some difficulties teachers in this study seemed to encounter with the strategies.

5.4.1 Bringing about conceptual understanding

As affirmed in Chapter 2, a teacher needs both subject matter knowledge and pedagogical content knowledge to bring about conceptual understanding. Although, as noted by Ellis (2004) and Tolstoy (cited in Vygotsky, 1987), bringing about conceptual understanding is a challenging task, the three participating teachers showed a degree of understanding of some of the strategies used and in some ways managed to enhance conceptual understanding. In this section I consider how they effectively used certain strategies for conceptual understanding.

Examining how teachers in this study helped learners develop concepts, I first touch on the notion of translating to mother tongue as a strategy. Although this strategy was dismissed by Irene and Chrispin, Jane found it very useful in order to help learners understand and she used it in her class. What was very interesting is how much learners seemed to understand. Once ideas were translated into the learners' mother tongue, I could judge from the examples learners were citing that the concept was understood. For example, when she was teaching the concept cultural activity, immediately after translating it, learners cited good examples of such activities, which they failed to do before the concept was translated.

These findings confirm the study conducted by Probyn (2004). One teacher in her study successfully developed science concepts mainly because he code-switched and translated to Xhosa. If we are really concerned about teaching for understanding, we ought to do everything in our power to achieve it. The way Jane used this approach was through deliberate code switching and translation, a similar pattern that existed in the class of the teacher Probyn studied. This teacher consciously translated and repeated the new concept several times in English. It makes sense, particularly with younger learners, because as second language speakers of English they need some linguistic support in order to learn with understanding (Probyn, 2004: 51). This raises a concern as to whether code-switching

should be recognised as policy or whether it should remain "covert" and be "smuggled" into the classrooms (Probyn 2001, cited in Probyn 2004:50). One counter-argument to code switching is based on the question: if translating is recognized, how soon can learners become proficient in English?

Another approach that seemed to bring about conceptual understanding was the use of multiple strategies. The lessons generally tended to involve more than one strategy to help learners understand concepts. Even though there are instances when only a single strategy was used, these occurrences were seldom. The notion of using more than one strategy is supported and promoted by Ellis, (2004); Clark, (1999); and Mora, (2002). Each of them outlines a series of steps that should be followed, but not in a linear fashion, in order to bring about a deep understanding of concepts. For example, although teachers did not use all steps as recommended by Mora, they used some of them. What was common was: first giving the characteristics; second, giving examples; third, giving some cues, questions or directions that could be employed to call attention to characteristics in the concept examples; and lastly, that of using learning support materials. One example I cite is on the concept 'tourism'. In an attempt to make it understood by learners, the teacher first explained it; secondly, he related it to 'tourist'; thirdly, he used local examples and finally gave the characteristics. Although, as I indicated earlier on, he had trouble explaining the concept, he appeared to recognize that using multiple strategies might help more than just relying on a single strategy. One of the advantages of this strategy was observed in Chripin's lessons. Chrispin failed to give a meaningful explanation to the concept 'tourism', but by relating it to the concept 'tourist', somehow learners seemed to make connections between the two concepts.

5.4.2 Concerns regarding strategies teachers used

While teachers were able to apply certain of the strategies indicated effectively, there were instances which revealed that other valuable strategies are either not used, or are not used particularly effectively. The way the teachers in this study viewed and used some of the strategies, it would seem that they lack real understanding of how strategies could be best

applied to bring about conceptual understanding. It would seem that they either did not understand their role, or had problems of how to effectively employ them. Hence Perkins (1993: 8) cautions teachers to support definitions with "more imagistic, intuitive and evocative representations". In this section I analyze problems and issues concerning the use of various strategies.

Multiple strategies

First, I was concerned because, despite using multiple strategies, some of the strategies did not help much; for example, some of the examples given did not really relate very well to the concept. The examples did not share "a family resemblance" as Pritchard; (2006: 1) put it, meaning they were not appropriate ones. And if a concept can be understood through an example as shown in Chapter 2, what impact can such examples have on the learners? It would seem that learners might develop misconceptions about the concept.

Prior knowledge

Second, still concerning conceptual understanding, research has shown that what learners already know is important (Van Harmelen, 1999b; Harlen and Jelly, 1989; Ausbel, Novak and Hanesian, 1978). My findings have revealed that all three teachers in my study recognize this principle. It was emphasized through the use of local examples. Teachers in this study relied much on drawing examples from the learners' local environment, examples with which learners could easily associate. I was fascinated by Irene, the teacher at Lewis Primary School. This school was recently built and it is located where there was once a location called Piggery, a place well known in the town of Katima Mulilo. When Irene was developing the learners' understanding of the concept 'evidence', she used the site where the school was, trying to link the concept to remains that might be found if someone digs up the site. It seemed that learners would not reach such levels of understanding that they showed if the teacher had not used such an example. Learners seemed to know about the site and they seemed to understand that when ever a site is vacated, remains will always be found. Jane too was able to create understanding on the concept 'how communities contacted each other'. She cited how ladies from Zimbabwe make friends with the locals in Katima Mulilo through trade. These findings are aligned with the constructivist view that

learners bring experiences to the learning situation which teachers should build on. However, even here I felt that the notion of prior knowledge as developed by the theorists referred to in Chapter 2 was not deeply understood and that the use of local examples as indicated did not fully exploit the learners' experiences.

Further to this, Roth's argument that "a given student's growth will depend on the experiences and knowledge that he or she brings to the concept" (1996: 176) also raises some concerns. This principle demands the teacher to find out what experiences and knowledge learners have about a concept. In the process, research has shown, the teacher can also identify some misconceptions and these as Duit et al (2001) recommends, should be corrected. This principle, as revealed in Chapter 2, was put into practice. However, I feel the teachers did not effectively apply it. Although teachers gave an opportunity to learners to say what they knew about the concept, they did not apply what Duit et al (2001) call a restructuring process, where the teacher aims at correcting any misconceptions. There were some instances when learners showed misconceptions or lack of understanding, for example, as I indicated in Chapter 4, when Chrispin was helping learners understand the concept tourism, he asked learners to explain it. Learners explained it as "people who take care of animals"; "people who can come to our country". In the learners' responses, it was evident that the meaning attached showed lack of understanding. Instead the teacher did not analyze what they meant as Harlen and Jelly (1989) recommend, nor did he contrast and evaluate the answers, as Posner et al in Roth (1996) advocate, but instead he responded thus:

> *Right, we have this word tourism and we also have tourist (writes tourist as well). Let me explain to you the word tourism. Actually tourism is an industry name. We have a market there where people sell vegetables; you buy food stuffs and materials. They form a name. Also tourism, every country has tourism. It is an industry name that can attract people all over the world. It they know there is tourism in this country, they come to see what is there. Now tourist, what is a tourist?*

There was a need for the teacher to target the misconception. He should have first acknowledged the answers and used those answers to begin the restructuring process (Duit et al, 2001). There are two issues in the learners' responses. The first response indicates a misconception, and the second answer shows confusion between the concept 'tourist' and 'tourism'. But later on when the teacher asked the learners to explain the concept 'tourist',

no link was made to the learner's response; he ignored the learners' answers. Because the teacher did not target the misconception, seemingly the new concept will not be assimilated, as Darmofal et al (2002) argues. The learner's past experience, as Darmofal et al (2002) argue, will be in conflict with the new concept. The learner might not see anything wrong with the answer and such an answer might influence other learners.

Questioning techniques

Research has been conducted on how questioning is and can be used as a concept development strategy (Fisher, 1995; Doyle and Mallet, 1994; White and Gunstone, 1991). The third strategy, therefore, that I consider in this section focuses on questioning as a strategy and is largely influenced by the research mentioned above. There are a number of conclusions that could be drawn from such research, however, for this study I concentrate on four which I feel are crucial to concept development. The first one is by Fisher (1995: 24), who argues that learners become "active and adventurous thinkers" through asking questions. He further argues that "if children, themselves, identify what they want to know by asking a question, then they are much more likely to value and remember the answer".

Looking back at my findings, only one of the three teachers put this principle into practice. Although Irene invited questions only at the end of the lesson, learners were at least given an opportunity to ask questions where they still had some misunderstanding, doubts and issues needing clarification. For example, one learner wanted to know how come a snake is said to be food to some communities, yet it is known that a snake has some poison. She asked: "If they eat a snake, do they take out the poison?" Imagine if that learner was not given an opportunity to ask, she would have gone out of that class with an answered question. But after the teacher clarified it, such a learner at least, it seemed, was answered although the teacher did not really explain as to whether they take out the poison or not. If four-year-olds in the study conducted by Doyle and Mallet (1994) and those younger ones cited by Fisher (1995) managed to ask questions about whales and snails respectively, 10 to 11-year-old learners can comfortably cope with this strategy. Conversely, Chrispin and Jane did not give learners a chance to ask questions at all. In such a situation, learners are not encouraged to be "active and adventurous thinkers" (Fisher, 1995: 24) and can leave the

class with issues needing clarification, as was demonstrated in Irene's lesson. Irene asked learners many questions, but learners still had some questions to ask the teacher, which should be a routine in every class.

The second conclusion framing my discussion is on the nature and quality of questions asked by teachers. White and Gunstone (1991) and Fisher (1994) recommend that teachers should ask questions that require higher order thinking, questions that require a "thoughtful response" and that make the "mind buzz" (Fisher, 1995: 19). The questions asked by the three participating teachers were however not challenging and primarily focused on 'yes and no' answers or on a single 'right answer' Cornbleth (1987) such as 'Damaras'. For example, in lesson 1 Jane asked 33 questions and only three questions required a "thoughtful response" (Fisher, 1995:19) while the rest were closed-ended questions (Appendix 13). Such questions do not help learners think; they make "low levels of cognitive demand that do not encourage children to persist in their thinking and learning" (*ibid.*: 16).

The next part of this discussion centres on the quantity of questions asked. Research has shown that "adults who asked more questions were: less likely to receive questions from children; less likely to receive elaborated answers from children" and to a large extent, in this situation, ask closed-ended questions (Fisher, 1995: 16). Looking back at the example of Jane asking 33 questions in a 35 minute lesson: if other teachers too asked so many questions, how many questions were such learners asked at the end of the school day? This was almost the same pattern in Irene and Chrispin's lesson. Many questions were asked and these were mostly closed ended questions. The learners' responses corroborate the Oxford Pre-School Research Group's findings. The teachers never received "elaborated answers" from the learners (*ibid.*: 16). Some learners obviously paid little attention to the teachers' questions; they were seemingly bored or exhausted by the number, pattern and the frequency of asking questions. Hence Fisher cautions teachers to "ask fewer, but better questions" (Fisher, 1995: 18).

Resources, particularly graphics

The fourth strategy worth discussing is what Bruner refers as a "match by direct correspondence" (Baumann et al, 1997: 71). This is an idea arising from one of Bruner's three modes of representation, the iconic, which centres on the idea that some experiences can be represented through pictures, maps, paintings, diagrams and models. Bruner argues that such iconic representation helps us remember things we have learnt (cited in Baumann et al, 1997). Schunk (1996) supports this view because it is as a way of recognizing objects even when they are changed in minor ways. Despite being aware that teaching concepts that learners are not familiar with poses problems, it seems that the teachers in this study, especially Irene and Jane, had little real understanding of how to select, develop and use resources, particularly visual resources, to enhance learning. Some of the areas they mentioned as being difficult concepts for learners would have been made clearer through the use of chalk board sketches, sand trays and other models, even if more sophisticated representations were not available.

This raises a number of issues. If these teachers understood how learning support materials, especially pictures, bring about learning with understanding, it seems they would not underplay them. It would seem that the teachers in this study do not consider graphicacy as communication. They do not seem to regard learning materials as "vehicles to deliver a specific message" (Namibia. MBEC, 1996: 27). While it may be ideal to take learners into the field, these teachers had little understanding how in a subject such as Social Studies it is possible to bring the field into the classroom.

There were many instances where I felt teachers could use pictures or bring reality to class in order to promote understanding, but instead they either gave examples or simply explained it. Using explanations has shown that learners are not as interested as when they are shown an artifact, for example, a compass. This was affirmed when Chrispin, in one of his classes, brought in some objects such as a basket and a carved elephant when teaching the concept 'tourist attraction'. Learners enjoyed the session because they were given the opportunity to talk, see, hear and touch. This would seem that whenever such learners come across the concept 'tourist attraction', a direct match between the concept and the objects

will be established, something that might not be easily achieved when a mere explanation is given.

The role of definitions

How teachers in this study view the role of definitions in bringing about learning with understanding also raises a concern, and forms the fifth focus area of this discussion. On this issue, Fisher (1995: 59) argues that to understand a concept well, "it is not sufficient to be given a dictionary or textbook definition" only. He suggests that the definition be explained further. He does not invalidate the idea, but finds it insufficient when used as a sole strategy. In considering the use of definitions as a strategy for concept development, two aspects have therefore to be considered: whether it is used and then also how the use of definitions is supported.

My findings revealed that this strategy was not popular. Only one teacher used it once. The interviews revealed that Irene and Jane find this strategy limiting. However, Chrispin found definitions useful because he argued that if a learner can give a definition, it means that such a learner has an idea of it. What is very interesting here is that even Chrispin, who indicated that he found this strategy useful, did not use it all. However, it is worth mentioning here that two teachers, Irene and Jane, despite not emphasizing it in their classes, incorporated it as one the strategies when giving summaries to learners.

Therefore, from this I conclude that despite using it when giving summaries, teachers in this study did not use this strategy in a conscious manner to develop understanding. This raises a similar concern; do they really understand the role a definition plays in conceptual development? Considering the classical view of concept formation as well as analyzing Fisher's argument, it is clear that definitions have a role to play and should not be completely ruled out. Its significance is also evident in Blurton's view (1989). His view supports a combination of concept formation views such as the classical, the prototype and exemplar view. He recommends that if one wants to bring about deep understanding of concepts, one should give a definition (classical view); give examples of such a definition (exemplar view) and finally give characteristics of such a concept (prototype view).

Therefore, although the teachers in this study found definitions limiting, I would say that they have a role to play, because if a learner understands what the definition means, for instance, he/she understands all concepts involved in such a definition, such a learner is more likely to move towards a deeper understanding of a concept. However, that should not be the end in itself; it should be coupled with the prototype as well as exemplar views for attributes and examples of such a concept or other strategies.

The use of summaries

As I indicated in Chapter 4, giving summaries to learners was another strategy. However, the way this strategy was viewed and used by teachers in this study raises some concerns. I was concerned because of the disjuncture the teachers in this study showed between strategies used in class vis-à-vis strategies used when giving summaries. It seems the teachers do not really understand the role that learners' experiences play in learning for understanding. As I indicated under the heading of 'Bringing about conceptual understanding', teachers in this study relied a lot on local examples from the learners' environment in an attempt to make learners understand. I found this to be intuitive rather than intentional, because if they really were aware of its benefits to the learners, they would have used the same strategy when giving summaries. Instead, they relied on examples from the textbook, examples that might be unfamiliar to their learners. Ellis (2004), as part of his relate think sheet, recommends that conceptual understanding can be achieved if teachers do not only rely on examples from the lesson, but give real world examples, examples from their immediate environment.

There is another concern on the issue of giving summaries. As discussed, findings have shown that two teachers in this study found the use of definitions limiting and therefore it did not feature in their classrooms. However, it was strange that these teachers who found it limiting relied heavily on definitions when giving summaries. It would seem that the teachers in this study cannot simplify what is given in the textbook. They reproduce definitions as given in the textbook. If definitions are limiting, how do summaries become helpful to learners? This raises another question about the teachers' understanding of such

concepts. It would seem that the teachers in this study do not have a deeper understanding of the concepts, as they cannot explain concepts beyond the textbook definition.

5.5 NATURE OF ACTIVITIES

Learner Centred Education places emphasis on learners as constructors of knowledge (Bodner, 1986). It operates on the premise that "children learn best when they are actively involved in the learning process" (Namibia. MBESC, 1996: 25). Therefore, teachers are expected to design activities that require learners to "practice, apply" and "evaluate", activities that go beyond reading or listening (Brophy & Alleman, 1991: 9). Such activities, according to Brophy and Alleman (*ibid.*), can be based on speech, writing or action.

Therefore ideally, the learners observed should have been involved in activities that required them to speak, write or do something. This being so, my discussion of how well teachers involved learners in activities that enabled them to develop concepts will to a large extent be influenced by the criteria that Brophy and Alleman (1991) used to classify an activity. Considering what they say about activities, the three teachers in this study put a considerable effort in involving learners in a variety of activities. Activities, as my findings revealed, included acting out, picture analysis, listing, problem solving, demonstrating, working and discussing in groups, answering questions asked by the teacher, listening to the teacher talking, observing what the teacher does, and asking the teacher some questions. These activities do cover the three different ways that Brophy and Alleman (1991) suggest.

However, there was too much reliance on some strategies at the expense of others. For example, most of the time learners were either required to just listen or answer some questions asked by the teacher. There are very few instances when they were required to write something, apply a concept to other situations or evaluate a concept, a strategy recommended by Ellis (2004). As I have already indicated, there were only a few instances when I witnessed noteworthy involvement of learners. The first instance was in Jane's lesson on the concept 'contact' and the second one was in Chripin's lesson on the concepts

of tourist office, tourist and tourist officer. In both instances, learners were involved in a structured enactment.

Although not frequently used, I found the involvement of the learners in some enactments such as role-plays having an impact on the learners' understanding of concepts. For instance, Chrispin used it to help learners understand a series of concepts. This enactment did not last for a long time, but within a short period, there were indications that learners understood the concepts as well as the relationships between them. What was very interesting is that the teacher only gave a scenario; learners improvised what to do and say. Learners were highly involved and very interested. It is important to mention here that there were very few such sessions that really gave an opportunity to learners to actively participate. None of the teachers observed really thought of involving learners in activities other than asking them a series of questions. It seems that the teachers in this study do not really understand how learners learn and how to design activities that target the development of concepts, skills and attitudes.

5.6 SYNTHESIS OF MY FINDINGS

In this section, I use the teacher's level of understanding as my framework. Under this, I highlight what teachers seem to understand; what they seem not to understand regarding the issues under investigation; as well factors that might have contributed to their lack of understanding.

Teachers in this study seem to understand that what learners already know has the effect of bringing about conceptual understanding. Firstly, they have demonstrated their understanding through the strategies that they used. For examples, the majority of the examples and analogies they used were drawn from the learners' immediate environment. Secondly, they seem to realize that bringing about conceptual understanding is not easy. As a result, they employed different strategies for one concept. Thirdly, they seemed to have a fairly good understanding of some of the concepts that they taught. Finally, they seemed to understand how specific strategies could be used to bring about learning.

While the teachers seemed to understand some aspects of how conceptual understanding could be reached, they seemed to fall short on some issues. Firstly, they have a shallow understanding of some of the concepts they taught. Secondly, they seemed to lack understanding of how various resources and strategies contribute to conceptual understanding. Thirdly, they also appeared to lack understanding of how concepts serve the purpose of organizing and unifying the unit under study. Fourthly, one of them did not seem to understand the role that the syllabus plays in identifying key ideas and concepts. The teachers in this study also seemed not to understand how learning with understanding takes place. These problems suggest that these teachers' understanding of knowing, learning and knowledge is problematic and might be one of the fundamental issues that need to be addressed.

The teachers' lack of understanding could be attributed to a number of factors. As revealed in this study, the following could be some of the factors. First, one can attribute this to the quality of training received. All three teachers are BETD graduates, so the question is to what extent such training empowers teachers with the appropriate subject knowledge, especially knowledge of key concepts? This in a way affirms the most popular critique against the BETD program; that of not having sufficient subject matter knowledge (Namibia. MBE, 2003; Namibia. MBEC, 2004; Namibia. ME, 2005; Namibia. MBESC and MHETEC, 2001). However, these results also point to the subject knowledge at the BETD level needing a particular focus. Thus it is not more of the same, but infers that a reconfiguration of the BETD curricula is needed.

The second one could be linked to the teachers' qualification in the subject. I was concerned to discover that Chrispin has specialized to teach the Lower Primary phase, but instead teaches Social Studies in Grade 5. Is Chrispin really inducted into the concepts of the discipline? Chrispin could be one of other BETD graduates who are not teaching their specialized areas. This becomes problematic, because in the three year programme, student teachers should become experts in their area of specialization. And if that is not recognized

by the employing body, on what basis do they employ them? It is questionable whether anyone can teach any subject because one has been in a teacher training college.

Thirdly, one can attribute this to the facilities and resources in the schools, as well as awareness of the teachers about the use of such facilities. The question arises about how much teachers supplement their knowledge of concepts through further studies. Equally, the extent to which schools are adequately resourced would be a contributing factor to teachers' apparent lack of deep subject knowledge. The study showed that Lewis Primary School does not have maps; New Look Primary School's library is almost empty and Boma Primary School has no library at all. Lastly, I attribute the teachers' shallow understanding to the lack of support and guidance from advisory teachers. Teachers need to be supported and be given direction especially by the advisory teachers. As findings have shown, I was concerned to discover that one of the teachers does not even know the name of the advisory teacher for Social Studies and the other one had not attended a single workshop. This might be a similar situation with other teachers. And if this is the case, how do such teachers cope with changing syllabuses? Are such teachers helped to cope with LCE? What role should advisory teachers play? If teachers in semi-urban and urban schools face such dilemmas, what about those teachers in rural schools?

Therefore, from such findings, the following lessons emerge. First, is the need for ongoing teacher development. In spite of their recognized qualifications, the three teachers in my study needed additional support. They need ongoing professional development opportunities. Second, they should teach areas in which they have the necessary expertise. Third, the need for teachers as well as learners to have access to relevant resources was affirmed and highlighted. Schools should be equipped sufficiently with well resourced libraries and all necessary learning support materials, including maps, globes and models, if learning with understanding is to be a reality. Lastly, teacher training programmes should really induct student teachers into the concepts of the discipline, as Perkins (1993: 8) argues that if we really want to teach for understanding, we should "induct students into the discipline".

5.7 CONCLUSION

In this chapter I interrogated my findings vis-à-vis my theoretical framework. I interpreted my findings, made inferences and drew conclusions regarding my two research questions (Patton, 1990: 423). Below are some of the key conclusions.

The three teachers in my study, despite different experiences in the subject lacked knowledge on some concepts. They showed a shallow understanding of some of the concepts. However, there are instances whereby they showed a better understanding of some concepts; they had more information about the concept in the form of episodes, images, strings, propositions, etc (White and Gunstone, 1992). A number of strategies were used and in most cases, there were some indications of learning going on and at times, they used strategies that did not lead to the conceptual understanding of concepts. This is just a quick overview of the chapter; the synopsis of the whole study will be in the next chapter where I will

- give a brief explanation of what prompted this study and why it was considered worthwhile
- reflect on the research process and research design
- give an overview of the key findings of the study
- highlight lessons learnt
- give tentative suggestions about issues that need to be addressed in the light of my research
- briefly describe limitations of my study and
- suggest further research in the area

CHAPTER 6

CONCLUSION

6.1 INTRODUCTION

In this final chapter, I provide a critical overview and reflective summary of the main findings that emerged from this study. In the first section I reflect on what prompted the research and why it was considered worthwhile doing it. The same section gives a critical reflection of the research process and why I selected the research design that I did, what worked and what did not work. I end this section by giving an overview of the key findings of the study. This is followed by a section that focuses on the lessons learnt about the research process as well as lessons learnt from my findings. The third section provides a brief discussion of the limitations. Thereafter, I provide tentative suggestions about some of the issues that need to be addressed in the light of this research. I end this chapter with an outline of possible areas for future research.

6.2 PURPOSE OF THE STUDY

My reading and analysis of the Namibian educational reform ideology is that its fundamental focus, that of learning with understanding, differs radically from the pre-independence epistemology and pedagogy through the development of conceptual understanding as pivotal to understanding. The literature examined points to understanding as a process that is recursive, developmental and complex, one that leads to increasing sophistication in terms of being able to describe, explain and apply the phenomena we have internalized and of which we have made meaning. Yet, current research and educational statistics constantly point to teachers' lack of understanding of the pedagogy LCE, to their shallow understanding or lack of understanding of the content they teach. The national examination results also point to the fact that learners are deficient in their understanding.

The root of this problem could be the nature of preparation that teachers receive during training. As I indicated in Chapter 1, my interest in this study was first prompted by my observations during school based studies (SBS). Student teachers often showed a lack of understanding of some of the key concepts as well as the pedagogy of concepts. This was affirmed by the moderation team for Social Science Education in 2004. When student teachers during training show lack of understanding, it could be that they are not sufficiently prepared to handle subjects they are being trained to teach. As a lecturer responsible for the pre-service preparation of future teachers of social studies, my initial concern was to ask whether I am perhaps part of the problem, not only because of the way I prepare the students, but because I do not have an understanding of the issues that contribute to the reported state of affairs. This study was therefore prompted by my desire to improve my role as a teacher educator as well as to shed some light on some of the issues that might be contributing to this state of affairs.

By focusing specifically on conceptual understanding in the context of Social Studies I was able to ground my research within a specific area. So by concentrating my investigation on a small sample using a case study approach, I hoped to illuminate not just what these teachers could and could not do and what they thought and said, but to reach an understanding of why they do and say what they do. I hoped to reach an understanding of the situation in the context of my case study that not only sought to identify if indeed the situation is really as bad as it is painted by current research, but hopefully to identify what the contributing factors might be and to see if I was able to reach an understanding of problems, rather than the symptoms. Thus my research questions were aimed to ultimately find answers that can inform my own professional context. Through this overview of the findings, the lessons learned and the tentative conclusions I am able to draw, reveal the extent to which this study has served its purpose.

6.3 OVERVIEW OF THE STUDY

In this overview of the findings I provide a critical overview of the main results that emerged from this study. I begin by considering the research design and the research process and this is followed by the actual results.

6.3.1 Research design and process

As I indicated in Chapters 1 and 3, I placed my study within an interpretive paradigm using a qualitative approach. The design and approach helped to shape the success of this study. Placing it within the interpretive paradigm allowed me to make sense of what the teachers in this study said and did, while adopting a qualitative approach helped me probe deeply into their perceptions and views regarding issues surrounding my topic. This has been made possible through the integration of three methods (interviews, class observation and document analysis). Each of the methods made a contribution to the whole. Through the interviews, I managed to start the conversations with the teachers. This first conversation mainly centred on their perceptions and views, and I knew that other aspects of my study could not be revealed by interviews only. Therefore, other methods such as document analysis and class observation were considered. Class observations allowed me an opportunity to verify some of the claims that the participants made during interviews as well as an exposure to the teachers in their own classrooms. Despite my intrusion into their classes, the environment seemed to remain natural and allowed me to gain an understanding of how teachers understood and developed concepts without much trouble. I also found my choice to include documents in my study crucial. Documents consulted enabled me to further understand and exposed me to new insights. It allowed me an opportunity to check the learners' summary books, teachers' lesson plans as well as the textbook and syllabus. Such documents helped me triangulate and cross-check some of the issues.

However, during the research process, I faced some difficulties. Although they were not overly detrimental, I find them worth mentioning. The first one pertains to the teachers' understanding. Although I managed to find out how teachers understood concepts, I feel

there is more to find out about their understanding of concepts. I feel I missed some of the opportunities I had. This could be attributed to methods I selected. I feel I needed a method that could help me get a better picture of their understanding. One of such methods would be an extended interview after class over a specific concept. Such an interview could illuminate more of the teachers' understanding. The other issue which I feel seemed not to work well was the idea of stimulated recall interviews. Although I managed to do this on some issues, I feel I did not completely exhaust all issues that needed further clarity. One of the reasons for this failure is the reactions from the teachers. At times teachers did not seem to like the idea of being bothered after observing their classes. There were times when I also felt that I had asked too much from them already. This to some extent contributed to some gaps that I noticed during the analysis process.

6.3.2 Main findings

The main findings of this study are mainly influenced by my two research questions. The first dimension of this study is on the teachers' subject matter knowledge and the second one is on pedagogical content knowledge. Although it was not easy to measure the teachers' content knowledge, findings have shown that teachers demonstrated a fairly good understanding of some of the concepts they taught. Conversely, they showed a shallow understanding of other concepts. Their shallow understanding was shown to hinder learning with understanding. This confirmed research that has shown that the teacher cannot teach what he or she does not understand. The other dimension concerns their pedagogical content knowledge. The way the teachers handled some of the strategies and the nature of strategies they used reveal these teachers' lack of understanding about the pedagogy of concepts.

As shown in Chapter 5, of the strategies used, only two could be said to have been used with any degree of success. What was most significant in these findings was the sense that these teachers' use of various teaching and learning strategies is based more on intuition than a real understanding of the underlying theory.

The results have also revealed one of the teachers' lack of understanding of the role that the syllabus plays. It was revealed in this study that even the teachers who seemed to understand the role that the syllabus plays did not show understanding of how the identified key concepts play the role of unifying and serve as organizing ideas. They taught such concepts as isolated facts.

Another indicator of the teachers' lack of understanding is revealed through the nature of activities. This study has shown that learning with understanding is achieved when learners describe, explain, evaluate and apply new knowledge to other situations. The results showed that the teachers in this study did not allow that opportunity to learners. Learners spend the majority of the time listening to the teacher talking, as mainly teacher-tell strategies were commonly used. Although one may argue that it brings about learning, research has shown that it is not as effective as those that allow learners to do something.

While these teachers indeed may be seen to have a 'shallow' or 'superficial' understanding, the situation as revealed was more complex. On the one hand, as indicted in Chapter 5, there are a number of contributing factors that exacerbate the issues raised, which have contributed to the lessons learned from this study. However, on the other hand, what this study affirmed is that these teachers' views and practices are also part of who they are and where they have come from. For me it was significant to realize something that should seem self-evident: teachers' knowledge is no less influenced by their prior learning and experiences than that of their learners. I believe, therefore, that these findings serve to emphasize the need for and the value of small scale studies such as this, if we are to build up a picture to help us understand change and the issues of implementing change.

6.4 LESSONS LEARNT

Doing this research helped me learn a number of things. Some of the lessons learnt are on the whole research process, including the topic researched, as well as how I have grown as a researcher and teacher educator through the findings.

6.4.1 The research topic

Through my literature review in Chapter 2, I have come to the realization that how teachers understand and develop concepts in Social Studies is under-researched compared to other disciplines such as Science. Because of not being able to find appropriate studies conducted around this topic in my field of study, I relied on other studies conducted in other disciplines. By so doing, I have learnt that one can adapt what has been done in other fields of study to one's area of study. The other lesson is about my first research question: how teachers understand key concepts. I have to admit here that establishing such understanding through interviews and class observations was not easy: there was a need to use other data collection instruments such as discussions of some concepts, designing tests, etc., to get a clear indication. However, after a thorough investigation of what research says about this issue, I managed to find out how the three teachers in my study understood concepts.

6.4.2 The research process

I started this process as a novice researcher and ended up as a more experienced researcher, having developed a number of key skills, including: having gone through and experienced the process of proposing a research topic; reviewing literature regarding the topic; selecting an appropriate paradigm in which to locate the study, choosing the right methodology and successfully collecting data. It also includes experience in analyzing data collected. Through this process, I experienced new insights and lessons:

- I have learnt that placing my research within an interpretive paradigm in the form of a case study does not allow me to pass judgment, but to understand what teachers in this study do and say.
- I have also learnt that the nature of research questions determines the kind of data collection instruments. Because one of my research questions was about strategies teachers use, I found it necessary to observe the teacher teaching, check document and conduct interviews.

- Another fundamental lesson is how the different chapters of this thesis inform each other. For example, one cannot work on the discussion chapter without having reviewed the appropriate literature.
- I also came to realize that previous research does to a large extent determine or set the borders of your research. Instead of repeating what was done already, you look for a gap that needs to be filled.

6.4.3 From the findings

From the main findings of this study, I have learnt a number of lessons. I was particularly concerned with the lessons that impact me directly as a teacher educator. Therefore, the majority of the lessons relate directly to what I do as a teacher educator.

- First, I have learnt that the belief that a teacher holds about teaching and learning to a large extent influences what the teacher does in class. Therefore, as a teacher educator my role is to give teachers greater opportunities to interrogate theory and to understand it in their teaching and learning contexts.
- Second, I have also learnt that for one to teach for understanding, one needs a deeper understanding of concepts underlying the topic/unit as well as the pedagogy of concepts. Research has shown that there are recommended ways of bringing about conceptual understanding.
- Third, I have learnt that questions play an important role in bringing about conceptual understanding. Teachers need to be exposed to effective ways of using this strategy.
- The fourth lesson is about the continual professional support for teachers. Despite the professional training teachers receive, there is a need for continual support. Some of the training teachers receive might not sufficiently prepare them as teachers; they might still be some gaps that might exist. Such support becomes necessary as well after syllabus revision.
- The fifth lesson is on the identification of key concepts. I have learnt that if teachers cannot identify key ideas and concepts, they are likely to teach isolated and trivial

issues. Therefore, teachers should be made aware, especially during pre-service training, the role of the syllabus vis-à-vis that of a textbook.

6.5 ISSUES TO BE ADDRESSED

This research is not designed to make recommendations, but there are issues that emerged that need to be addressed:

- The teachers in my study need to be made aware of the role that the syllabus plays in the daily planning of their lessons. There is a need to differentiate between the textbook and the syllabus as far as the determination of what to teach is concerned.
- The teachers in my study need to be supported. It became very clear through this study that two of the teachers in this study have not received any support from the support body, the advisory services. There is a need for them to attend workshops in order to keep abreast with the current changes within the education arena.
- If teachers do not teach subjects that they specialized in, how do we expect such teachers to demonstrate a deeper understanding of what they teach? This is a plea to the placement bodies to consider the teacher's expertise if they want them to yield expected results.
- The three schools are not well resourced in terms of books and materials. If schools in urban and semi-urban areas face such dilemmas, what about rural schools? There is a need to establish libraries, and resource them sufficiently with books and materials. Once that is done, teachers need to be sensitized on the importance of such facilities.
- As far as the teaching of concepts for understanding is concerned, there are issues that need to be attended to in order to realize this. The three teachers need to be assisted with the quality of questions to ask. Questions should encourage learners to apply, evaluate and relate the concept to other situations. There is a need to correct learners' existing misconceptions about the concepts. Teachers should be encouraged to use more learning support materials when dealing with complicated concepts. Better structured activities should be designed in order to actively involve learners beyond just being listeners to what teachers say.

- Teachers should be allowed by policy to code-switch and translate whenever they find it necessary. In other words, the language in education policy should be revisited and make provision for translation to mother tongue up to at least the end of primary education.
- Pre-service and in-service programmes should focus their attention on the understanding and development of concepts.

6.6 LIMITATIONS

Due to the nature and size of my study I cannot generalize the findings. Therefore my findings are exclusive to the three participants in my study. However, I have made some suggestions on some of the issues that emerged from this study. Another one is on the choice of language. As I indicated in Chapter 3, I gave my participants an option to use the language they were comfortable in and all three teachers opted to do it in English. This affected my study, as there are times when teachers, instead of expressing a point sufficiently, only gave a one-word response. There was also a limitation regarding the recording of interviews. One of the three teachers was not comfortable with the idea of recording the interview. The other limitation worth mentioning is on the nature of my study. In this study, I have asked a number of questions which, because of the time constraint, I could not answer. However, some of such questions could be interesting to explore in an attempt to find some answers.

6.7 POSSIBILITIES FOR FURTHER RESEARCH

After a close scrutiny of the issues that need to be addressed, I suggest the following two areas as possible research areas. These are not the only ones; however, I feel they are crucial as they would further illuminate the issue of the teacher's knowledge.

- The possibility for further research that has become evident in this study is to investigate how teachers correct the misconceptions that learners might have about certain concepts. In this study, the three teachers did not consider such

misconceptions during the process of helping learners understand concepts. Research has shown that if the new concept is in conflict with past experience, the concept will not be well assimilated. Therefore, in such a case, the existing understanding of a concept should be uncovered and if there are signs of misconceptions, the restructuring process should take place.

- The placement of BETD teachers could be another interesting area of research. One teacher in my study is qualified to teach the Lower Primary phase, but at the time of research, he was teaching Social Studies. If there are other teachers in a similar situation, to what extent can such teachers handle the subject? Research has shown that each subject has concepts and skills that need to be mastered. When teachers are trained, they are inducted into the concepts and skills of the subject. And if they teach a different subject, it will be difficult for them to teach the subject for understanding. This could be one of the reasons for the national outcry that BETD graduates lack content knowledge.

6.8 CONCLUSION

The development of concepts should be given attention by teachers. Research has shown that if teachers do not have a deeper understanding of concepts they teach, and do not understand the pedagogy of concepts, no meaningful learning will take place. Therefore, pre-service and in-service programmes should pay attention to the key concepts of the discipline, both subject matter and pedagogical content knowledge. Until this happens, a situation similar to that of the lessons observed in my study will be inevitable. The lessons learnt through this study will inform and influence my future practice as a teacher educator.

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Appendix 1

MAJOR INTERVIEW QUESTIONS

Biographical information of the teacher

1. What information about your school would you like to share with me?
2. For how long have you been teaching at this school?
3. What is your teaching qualification?

The teacher's perceptions

1. For how long have you been teaching Social Studies to grade five learners?
2. Do you enjoy teaching this subject? Why?
3. Do you think this subject is important for learners? Why?
4. What are the key ideas that learners need to learn about this subject?
5. What is your understanding of a concept? Are concepts and ideas the same – what do you think? What about a key concept?
6. What are some of the key concepts in Social Studies grade 5?
7. Should we teach these concepts to learners? Why?
8. If yes, how do you help learners understand such concepts? What strategies do you use to help learners understand the key ideas/concepts?
9. Which of the strategies do you find most effective? Which one is least effective? Why?
10. When do you say that the learner understands a concept?
11. Do you think that the learner understands a concept if he/she can define it only?
12. Do you think it is important for learners to understand the key concepts well? Why?
13. Do you at times translate the concept/idea into mother tongue? Why?
14. Is translating into mother tongue a good idea? Why?
15. Which concepts/ big ideas do you find easier to teach? Why?
16. Are there some concepts/ideas you find difficult to teach? Why?
17. What kind of support do you get in teaching Social Studies?
18. What challenges do you face as a Social Studies teacher?

Appendix 2

CLASS OBSERVATION SHEET

Teacher:	School:	Date:
	Number of learners present:	Length of lesson: 35 minutes

Topic: **Concepts:**

Time	Description of the lesson		Comments	Issues needing further clarification

Appendix 3

Completed Class Observation Sheet

Teacher: Jane	School: Boma Primary School	Date: 13 March 2006
	Number of learners: 43	Length of lesson: 40 minutes

Topic: Not specified
Concepts: Not specified

Time	Description of the lesson		Comments	Issues needing further clarification
7:05	Prayer			
07:07	Last week we talked about the Khoisan group. Do you remember how these people moved? From which country did they move to where?	They moved from Botswana to Namibia.		Why asking them questions on the previous topic?
	Yes.			
	There were two groups of Khoisan who moved to Namibia, which are they?	Damaras		
	(Teacher draws a map of Namibia on the chalkboard)			Why did you decide to draw a map?
	Yes, Damaras. Which way did they move? Who can come and show us?	One learner indicated the route the Damaras took from Botswana to Namibia. (on the map drawn on the chalkboard)		
	Yes, the first group were Damaras. They settled here (teacher indicates the place on the map). What did they bring with them when they migrated?	Goats	Learners remembered what they learnt in the previous lesson.	
	Yes, they brought some goats. (the teacher writes it on the chalkboard) What else?	Sheeps		
	Yes, they brought sheeps (the teacher writes it on the chalkboard)			
	What was the reason for migrating?	They were looking for good grazing land.		
	Good, looking for good grazing land (the teacher writes it on the chalkboard)			
	Now, what was the second Khoisan group?			
	Who will show us where the second group moved to?	One learner shows the route.		
	This second group shifted or migrated			

	from Botswana to South Africa. They stayed for few days and moved to which country?	To Namibia (almost all learners).		
	Which group is this one that moved from Botswana to South Africa, then to Namibia?	The Nama people (one learner).	The teacher seems to understand the role of prior Knowledge as she spent a lot o time on the previous topic.	Why spend so much time on the previous lesson?
	Good. These groups that shifted from South Africa to Namibia, what did they learn while in South Africa?	How to keep cows (one learner).		
	Yes, but in a group we call them cattle. They learnt how to keep cattle.			
	All right, we heard about the Nama people who came to Namibia, who kept cattle. When these two groups came, there were already people in Namibia, which group was already in Namibia?	The San people.		Why did you inform them about what the topic will focus on?
	Yes the San people. Now there were three groups in Namibia. Which language did they use altogether?	Khoi Khoigowab (learner struggles to pronounce it).		
	(She writes it on the chalkboard.) Yes, Khoi Khoigowab, everybody.	Khoi Khoigowab (everybo		Why did you use the map of Africa?
07:12	Yes, that is what we did last week. So the other groups started moving in again in the years 1500 (she writes it on chalkboard). So today we will find out who are these groups who also started moving in Namibia. (puts an old map of Africa on the chalkboard). Can everyone see?	Yes.		
	No, all those who are at the back come in front.	(Learners move to the fron		
	Where is Namibia on this map?	(Learner points.)		
	Yes, this is where Namibia is. We heard that the Damaras and Namas were coming from Botswana, now today we will find out where other groups came from.		There was a good link between the previous top and the present topic	Why did you ask them to read out the word Bantu group?
	The group that we are talking about today are the Bantu group, everybody (writes the word Bantu on the chalkboard).	Bantu group (all learners)		
	Again.	Bantu group (all learners)		

	Yes, last week we talked about the Damaras and Namas, the Khoisan group, altogether they are called Khoisan group. (She shows the routes on the chalkboard of the Damaras and Namas.) Today we will talk about the Bantu group. Yes, if you look on this map you will see where Namibia is, we have people in the North and North West (points on the map of Africa). (She pastes the map on the wall. She uses it to show learners the places where the groups settled.) Yes, these Bantu groups were blacks like us. They were coming from central Africa. (Shows the route on the map of Africa.) What is meant by central?	Middle.	The teacher, instead of telling Learners that they were "blacks like us", she could tell them that these are our ancestors.	
	So these people were coming from there, slowly, one group comes this year, another one, slowly they settled here. Yes, every year one group comes and settled themselves on the central here (points on the map). After some years they started moving downwards to here (points on the map), coming to Namibia here. These groups did not come one day, or one month, they were moving slowly. This month one group moved up to Zaire, others up Gabon and others stayed in Central Republic. After some months when they see that there is no grass for their animals, they shifted again. Other groups came to Angola, others Zimbabwe, others to Zambia and so on. They stayed there for few months and they started to shift again until they came to Namibia. (She repeats the route using the map).		The teacher talked for a long time without involving the learners.	
07:20	In Namibia they settled along rivers. If you look on this map, we have rivers. (She draws in the rivers on the sketched map.) Which river is this? Yes Kavango river. And this? And the river in the North West? Angola river? Yes. Yes Kunene river, everybody.	Kavango river. Zambezi river. Angola river? No. Kunene river. Kunene river (all learners).	She kept on adding to the map drawn. This	Why did you repeat the task several times?

	Why do you think they settled along the rivers?	Because their animals need water.	Showed the teacher's understanding that such topics belonged to one theme	
	Good, give hands.	(Learners applaud)		
	Are animals the only ones that need water?	No.		
	Who else needs water?	People.		
	Yes, these people settled along rivers because they needed water. They needed water to use.			
07:29	Now, open your books on page 45. Page 45, quickly. Find out what the Bantu brought with them. Which group will finish quickly? (Repeats the task several times.) We heard about Damaras and Namas who brought goats and sheeps, what about Bantus?	(Learners go back to their and take out their books). No response. (Learners take time to settle).		
	Yes, they brought what? (She writes in on the chalkboard.) Yes the brought cattle.	Cattle.		
	What else did they bring?	Seeds.		
	What seeds did they bring?	Mahungu		
	What else apart from mahangu? Yes vegetables, what else?	Vegetables. (Learners look confused).		
	Think of other seeds your parents used to grow?	Beans.		Why did you translate into Silozi?
07:38	Yes, beans, mealies, pumpkin and so on. Yes, Bantus brought seeds and cattle, while Damaras and Namas brought goats and sheeps, and cattle. So the San people learnt how to keep animals like goats and cattle from the Damaras and Namas. They learnt these thing. So as time went on the Bantu also moved this way (points on the map). They settled along the rivers and started planting the seeds. *Ni kacenu bashemi ba luna ba sac ala licalano ze kwa tuko ni mezi.* (explained in Silozi.		Good Participation of learners. She gives chances to almost all learners in groups to say something on types	
	Why? Yes to get water. Now, let us find out who these Bantu groups are?	Kuli ba fumane mezi (One learner responds in Silozi.)		

	Ki mishobo ifi ya ma Bantu group? (Mixing Silozi and English). (Writes the tribes on the chalkboard).	Masubia Vakwanwali Mayeyi Mafwe Ovahimba Owambo Vashambiyi Ovambanderu Mambukushu	of tribes that make up the Bantu group.	Do you think the word Bantu became clear to learners?
07: 42	Yes, these groups, some start with M, others with V and some with O. The Ms settled here. (Writes the tribes which settled in Caprivi, extending the map). While those starting with V settled in Kavango. While those with O settled here. (indicated them on the map). They allocated according to the language they speak. *Neb a ina ka mushobo oba bulela.* (She translated into Silozi). Can you remember this? Where did the Os settled?	There (points at the Northern areas of Namibia.	She used a good strategy to help learners remember they way the different groups of Bantus settled in Namibia. Could probe learners' understand-ing of the word Bantu, before Explaining to them.	
	So all these languages are Bantu languages. Do you understand?	Yes.		
	Now the word Bantu, what does it mean? This word comes from "ntu". Who is a mufwe here? How do you call a person in your language?	Muntu	Learners seem interested,	
	In Subia? What about in Silozi?	Muntu Mutu		
	You see they all end up with "tu". So this word come from "ntu" which is used by most of these languages. Who will tell us how the groups migrated? (She explains the way the Damaras and Namas migrated.)	One learner explains how Damaras and Namas move from where they settled.	She shows understand-ing of the migration routes of the Damaras and Namas.	
	Who will come and show us where the Bantu people came from? Yes, they moved from here to there. (points on the chalkboard). (translated into Silozi)		Some learners	

	So I want you to read page 45. Read the names of the Bantu groups. If you read on page 46, you will find two groups. Thank you.		start reading silently. The key Concept Bantu languages was not explained to learners.	

Follow up

Interviewer: You started by reminding them what they did previously: why did you do that?
Interviewee: To see if they remembered.
Interviewer: Do you always do that every time?
Interviewee: Only if I am still on the same theme.
Interviewer: Okay. Why did you use maps?
Interviewee: To show them the places we are talking about in the lesson.
Interviewer: Can you imagine a situation if you had not used them?
Interviewee: They could not understand because they don't know where Botswana is, where South Africa is. When you show them a map, they see the places, the other areas as well and the direction. They cannot realize which direction they moved.
Interviewer: Which were the key concepts that you were addressing?
Interviewee: Migration.
Interviewer: Is that the only one?
Interviewee: Yes.
Interviewer: Do you still remember how you explained it to them?
Interviewee: Last time I explained that migration is the movement.
Interviewer: So this was already explained in the previous lesson?
Interviewee: Yes.
Interviewer: Why were you translating?
Interviewee: For them to understand better.
Interviewer: You think if you don't they won't understand?
Interviewee: Some, but many of them can not unless you translate.
Interviewer: When you started, you drew the map of Namibia, what was the idea behind that map?
Interviewee: To show them the different regions inside.
Interviewer: Why did you keep of extending it? What I mean is that when you started there were only Damaras and Namas indicated, thereafter, you added on rivers, Bantus and so on?
Interviewee: I wanted to widen their knowledge so that they can know that there are people who moved in and understand how they moved, from which countries.
Interviewer: Why did you ask them to tell you how they call Bantu in their language?
Interviewee: I wanted them to realize that Bantu is batu in their language from the word "ntu".
Interviewer: Do you think the word Bantu was clear to learners?
Interviewee: Yes, because they said it in their mother tongue.
Interviewer: Thank you.

Appendix 4

LESSONS LEARNT FROM PILOT STUDY

Part A: Biographical information of the teacher

~~1. What is your name?~~

(Left out, not necessary)

~~2. What is the name of your school?~~

(Left out, not necessary)

3. What information about your school would you like to share with me?
4. For how long have you been teaching at this school?
5. What is your teaching qualification?
6. ~~Since qualifying, have you attended any further programmes or courses of study, and could you tell me something about these?~~

(Left out)

Part B: The teacher's perceptions

1. For how long have you been teaching Social Studies to grade five learners?
2. ~~What are your experiences regarding the teaching of Social Studies to grade five learners?~~
3. (Left out, part of question 5, part A and question 1, part B)
4. ~~What do you think are the most important aspects of this syllabus/subject?~~
5. (Left out, part of question 5)
6. ~~Why do you think this subject is important for learners?~~
7. (Rephrased)
8. What are the key ideas in the syllabus that learners need to grapple with/learn about?
9. What is your understanding of a concept? Are concepts and ideas the same – what do you think? What about a key concept?
10. What are some of the key concepts in Social Studies grade 5?
11. ~~How do you help learners understand the important ideas/concepts? What strategies do you use to help learners understand the key ideas/concepts?~~
12. (Rephrased)

~~13. How do you assess learners' understanding of such concepts?~~

14. (Rephrased)
15. Do you think it is important for learners to be able to understand the key concepts/ideas? Why?
16. Do you at times translate the concept/idea into mother tongue? Why?
17. Is translating into mother tongue a good idea? Why?
18. Which concepts/ big ideas do you find easier to teach? Why?
19. Are there some concepts/ideas you find difficult to teach? Why?
20. What kind of support do you get in teaching Social Studies?
21. What challenges do you face as a Social Studies teacher?

Appendix 5

LETTER TO PRINCIPALS

P.O.Box 373
Katima Mulilo
Namibia
06 March 2006

The Principal
..... School
P.O.Katima Mulilo
Namibia

Dear Sir

Request for a research site

I am a part time student with Rhodes University, Grahamstown, in the Republic of South Africa, (Student number: 603S4414). I am enrolled for a Master of Education Degree (GETP). I am required to carry out a research in grade five Social Studies classes. The research involves interviewing, observing and documenting the ways teachers explain key concepts to learners. I have contacted Mrs....., and she allowed me interview her as well as to visit and observe her grade 5 class. I intend to interview her on Thursday, the 9th of March and observe her class for a period of one week, from the 13th to the 17th of March 2006. After each lesson observed, I will conduct a brief discussion with her to get clarity on some of the lesson activities. The discussions after observation will not interfere with her normal teaching times as they will be scheduled outside her teaching times.

The school and Mrs.....are assured of anonymity in the final research report, and the transcript shall be returned to her to proofread, edit and make some final comments.

The purpose of this letter is to request your permission to allow me to interview and observe the teacher mentioned. Should you have any questions or concerns about this request, contact me at cell: 0812445720/ Tel at work: 253422/ Tel at home: 253327.

I would be most grateful if you grant me permission.

Yours sincerely

_____

Mrs. Beatrice Sichombe

Appendix 6

LETTER TO TEACHERS

P.O.Box 373
Katima Mulilo
Namibia

To: Mrs .....
..... Primary School.
Katima Mulilo

Date: 13 March 2006

Permission to observe your classes

I am a part time student with Rhodes University, Grahamstown, in the Republic of South Africa, (Student number: 603S4414). I am enrolled for a Master of Education Degree (GETP). I am required to carry out a research in grade five Social Studies classes. The research involves interviewing, observing and documenting the ways teachers explain key concepts to learners.

The purpose of this letter is to request for your permission to interview you and observe your classes for a period of one week. You are assured of anonymity in the final research report, and the transcript shall be returned to you to proofread, edit and make some final comments.

I have attached a consent form that you should sign if you grant me permission. Should you have any questions or concerns about this request, contact me at cell: 0812445720/ Tel at work: 253422/ Tel at home: 253327.

If you grant me permission, please sign the attached consent form.

Yours sincerely

_____
Mrs. Beatrice Sichombe

Appendix 7

CONSENT FORM

Mrs Beatrice Sichombe is hereby granted permission to interview me as well as to observe my classes for a period of one week, thereafter; a stimulated recall interview will be conducted. I am aware that both the interview and class observations will be recorded, and that transcripts will be made of the interview and that extracts from these may be used in the final report. I have also been assured of my anonymity and that of the school.

Signed:_____ Date:_____

Appendix 8

TRANSCRIBED INTERVIEW

The interview was conducted on the 26th of October 2006 at the first technique for data collection

Interviewer: Good afternoon madam. As agreed upon, I am here to ask you questions regarding your views about the teaching of Social Studies. I hope you do not mind me recording this interview.
Interviewee: No, go ahead.
Interviewer: Thanks. What information can you share with me about your school?
Interviewee: I am teaching at Brendan Simbwaye. I am teaching Social Studies grade five. My school is nearby the town where I stay. It is a very nice school and is a committed one. It is a school with a platoon system. It accommodates +- 1044 learners and 44 teachers. Many of them are females. It is interested by parents and learners, the way it looks, maybe it attracts them. I like it. Although I have short time at this school. I am having one year and some months at this school. That's about my school.
Interviewer: Before you came to Brendan Simbwaye, where were you teaching?
Interviewee: I was teaching at Mafuta Combined School for ten years. I was transferred from there in 2004 to Sachinga Combined School. I was transferred again in 2004 to the school where I am now.
Interviewer: While you were at Mafuta Comined School, did you teach Social Studies grade five?
Interviewee: Yes, I taught it for one year. I was teaching languages.
Interviewer: You only taught it for one year?
Interviewee: No for two years, this year will be my third year.
Interviewer: Forgive me for asking this question; what is your teaching qualification?
Interviewee: My teaching qualification is National Education Certificate, which is NEC.
Interviewer: When did you get it?
Interviewee: In 1994.
Interviewer: Are you currently pursuing any studies?
Interviewee: Yes, I completed BETD last year. I am graduating this year.
Interviewer: Oh, you are graduating this year! This is interesting; I will meet you during graduation at the College. You said that you have been teaching Social Studies for more than two years now, do you enjoy it?
Interviewee: I like it very much. I want to share my knowledge with the small kids about Social Studies. I like it because it tells me about the past, the present and the future things.
Interviewer: Apart from the past, present and future things, what else do you enjoy about Social Studies?
Interviewee: I enjoy it because it is an integrated subject, where I can learn about Civics, I can learn about Geography, History and others.
Interviewer: Why do you say that it is integrated?
Interviewee: It combines other subjects, like I said, Geography is there, History is there, Civics is there.
Interviewer: What specific things or ideas do you teach in this integrated subject?

Interviewee: The key ideas which I am teaching there, is the relationship between people and their environment, the interaction within the social, civics , the political, economic and cultural as well as the natural environment.
Interviewer: These are the key ideas that you teach in the subject. Do you find these to be very important things for learners to learn about?
Interviewee: They are very important because they are within their environment. When we talk of people, we talk of people; we talk of people who are within those learners. When we talk of environment, they are in their country; they have to know what is happening in their country.
Interviewer: Are there some key ideas that you teach in Social Studies that are not taught in other subjects?
Interviewee: Our subjects nowadays are integral subjects. What we teach in Social Studies should be taught in other subjects so that learners should catch those things, they can see that they are simple to them.
Interviewer: Which of these ideas are also taught in other subjects? (Pause). One example of an idea that is taught in Social Studies but still taught in other subjects.
Interviewee: For example, when we talk of population, you can find that it is in Mathematics where they make a graph to show their population density.
Interviewer: So that is one idea that is taught across?
Interviewee: Yes.
Interviewer: Thanks. Everyday we hear people talk about concepts, what is your understanding of a concept? What is a concept?
Interviewee: My understanding is that a concept is a word or a key word of a lesson. So if you bring one concept to learners and tell them this concept stand for this and this, they will understand the whole content of the subject.
Interviewer: Are you making an argument here that if the concept is not made clear, learners won't understand the topic?
Interviewee: Yes, they will not understand the whole lesson.
Interviewer: I see! Which other reason would you attach to the importance of concepts apart from helping learners understand the whole lesson or content?
Interviewee: They are also important to learners because they form the thinking of learners. Say I give a concept to a learner, he/she will think of the meaning of it. He/she can think it for himself, or if he does not know, he can ask for the meaning of it from others.
Interviewer: You mentioned earlier on that a concept is a key word of a lesson, Do you find this to be different from a key concept?
Interviewee: I find them to be the same, because a concept and ideas are all the same.
Interviewer: Can you share with me some of the key concepts in Social Studies grade five, those concepts that you find to be very important?
Interviewee: Like in grade five, the most important key concepts, although every chapter has its own concepts, I will just mention a few of them: weather, directions, borders, population, democracy, colony, those are the concepts.
Interviewer: You mentioned that each chapter has some concepts. How are they presented in the textbook?
Interviewee: They are written in the syllabus. Every chapter, say chapter one has different sections. At the end of those sections, they write the concepts of section or topic. And also in the textbook, if they put a topic on top there, they have to write key words for that topic.
Interviewer: It looks like you find it very easy to identify those concepts?

Interviewee: Yes.
Interviewer: How do you use them?
Interviewee: First of all, when I come to a topic, concepts are there on the topic. I have to deal with those concepts which are in the textbook for that time when I am teaching that topic.
Interviewer: Do you include them in your lesson plan?
Interviewee: Yes, I include them in my lesson plan. For example, for the first day, if I start the new topic, say tomorrow on Monday I start a new topic, I have to deal with the concepts that are on that topic that I am going to teach.
Interviewer: Why?
Interviewee: I have to explain them before I go in detail with my lesson so that they may know that what we are going to deal with that day, we are going to deal about weather.
Interviewer: Thank you. You mentioned earlier on concepts like maps, weather, direction, population, democracy as some of the key concepts in Social Studies grade five. Can you think of ways you helped learners understand any of these concepts, the methods you used?
Interviewee: Okay. First of all I can write those concepts on the chalkboard or on the chart. I ask learners to read those words, after reading them, I ask anyone to define one of the concepts. If they fail, I explain the concepts, then I give them time to look them in their textbooks, or I write the concept on the chalkboard, and I ask them to take out their textbooks since their books have glossary at the back, I ask them to look for the meaning of those concepts at the back of their books. I ask them to look for meaning of the concepts. I give them time to give me the meaning of the words.
Interviewer: Are those meanings very easy for them to understand or you do something to help them further understand the words?
Interviewee: Other words are simple; they can understand them. If they don't understand, I have to add on where they didn't get the message.
Interviewer: How do you add on?
Interviewee: I explain the words again to them. I try to simplify the word in other word again.
Interviewer: In this simplification you use, do you sometimes use pictures, or drawing to further understand the concept?
Interviewee: Of course yes.
Interviewer: For instance, if you teach direction, what specific things do you do?
Interviewee: I always use learners themselves. They use their bodies, stretching their arms. I tell them that this arm stands for North and this one for east and so on, or your head or feet stand for each direction. Sometimes I make a cross, a drawing on the chart and show them the directions.
Interviewer: What about for concepts like democracy where you can not show them?
Interviewee: First of all, I explain, I ask them how their country is. Is their country still under a colony or is it an independent country? If they say independent, then I will say, now you are living in a democracy country.
Interviewer: Does that help them understand?
Interviewee: Yes, it helps them. If I ask them, today if I look at you learners you are even touching your teachers, you can touch the teacher whereever you like, what makes you to do that? It means that you are free, you can speak freely, that is why you are doing that.
Interviewer: So you use examples to help them understand democracy?
Interviewee: Yes.

Interviewer: Aha! Apart from these strategies you mentioned like learners can read, check the glossary for the meaning, and ask them to demonstrate the directions as well as using pictures, are there other ways you use to teach concepts?
Interviewee: In general, if I want to give homework for the next lesson, I tell them to go and ask their parents at home. When they come, we know our learners today, others like to ask, but others I don't, if they are shy or what, they don't ask. But others will give you more information about the concept.
Interviewer: Any other strategy that you use?
Interviewee: I also use group work in my class, pair work to find the information for themselves, to find the meaning of words for themselves.
Interviewer: How does group work help them to understand concepts?
Interviewee: They share ideas in their groups. Even those who do not want to talk in their group, they can help them.
Interviewer: Alright. Any other strategy? Go on give me as many as you can.
Interviewee: The other strategy, I can send them to other teachers to get information. For example, last week when we were talking about the history of their school. I tried to send them to other teachers to ask when did their school open and other things that are at their school.
Interviewer: So you are kind of introducing them to interviewing, because you want them to go out and ask for information?
Interviewee: Yes.
Interviewer: Okay. Any other strategy?
Interviewee: I think that is all.
Interviewer: Thank you. Do you sometimes in your strategies compare things like known to unknown? For example, you use what they know to help them understand what they don't?
Interviewee: Very much. For example, when I talk of population, I have to ask them the people whom they live with. How many villages are there? How many locations, for example these learners that are here in urban areas; I have to ask them compounds which are around their towns, and at the end when they say these people who are living in your town, do we call them population or people? Others are going to say, population, people, men, women. Then I will say these people are not population. We call the people who are living in the whole of this region population.
Interviewer: Okay, you use what they know to help them understand?
Interviewee: Yes.
Interviewer: Now, what about examples? Don't you sometimes, like for example the concept border; won't you use examples to help them understand the concept border?
Interviewee: I always use examples. Like if I talk of our school, one time I asked them to tell me what separates the school and the nearest compound, Lyambai location. Others say this fence separates our school and Lyambai, others say this road separates our school and Lyambai. So I have to give them examples before we come to the real borders, the main borders of our country, like rivers and others.
Interviewer: Thank you very much. And now, after you have done all this, explaining concepts, using the textbook to define concepts, using pictures and so on, how do you find out as to whether the learners understand the concept or not?
Interviewee: The way they respond when I ask them questions. If they respond positively, I will know that the learners have gained something.
Interviewer: What do you mean by 'if they respond positively'?

Interviewee: If I ask a question, and the learners give me the correct answer.
Interviewer: In terms of concepts, for example the concept direction, what understanding do you assess? Do you want them to define it or to demonstrate the four directions?
Interviewee: What I will assess here (pause) is to demonstrate their understanding. They draw that cross in their textbooks and they will tell me that this pointer is North and this pointer is East and so on.
Interviewer: Okay, why?
Interviewee: Because even if he/she is on her way, he should know that I am facing to this direction and my back is at this direction, and so on and so on.
Interviewer: Will you be satisfied if a learner just defines the concept direction without demonstrating it?
Interviewee: I am not going to be satisfied. I want them to define it and demonstrate it.
Interviewer: Why are you not satisfied with a definition only?
Interviewee: By defining a word, does not mean a learner understood the concept; unless he or she demonstrates it, because he/she will just depend in the textbook by saying this word means this and even if I will ask him next time, he will just scratch his head; he wants to look it up in the book. But if he demonstrates it, he will not easily forget.
Interviewer: Okay. We earlier on talked about why it is important for learners to understand the concepts well, whereas you said that it is important because it will help them understand the concepts well. Now, if we can go back to this question. Do you have an experience where learners (interruption). Could you share with me an experience where learners either succeeded because they knew the key concept very well of the task or maybe they failed to do the task because the key concept was not very clear?
Interviewee: Yes, when you give them homework to do at home, others do it while others don't, they say they don't know. They tell me that I asked my father or mother, they also don't know it. So when they come up with those answers, I have to help them. I tell them what they were supposed to do.
Interviewer: Do you think they fail because of the concept that was not made clear, or because of the nature of the task?
Interviewee: Because of the nature of the task as a whole.
Interviewer: During SBS, student teachers always face problems because they claim that we cannot use English throughout because teachers translate into mother tongue. Do you also do the same? Do you have such a situation in your school? Do you also translate into mother tongue to help learners understand the concept?
Interviewee: Of course, yes. For example, I am teaching grade 5,learners who are from grade 4, most especially this term, it is sometimes very difficult to understand other words unless to explain them in their home language. But as time goes on, like in the second term, we always try by all means to explain the words in other ways, without translating, it helps them.
Interviewer: If you find yourself in a situation where learners don't have a problem with English, do you think translating into mother tongue is a good thing?
Interviewee: It is not a good thing, because if we train our learners to explain things in their mother tongue, when we test them, we test them in English. So they find it very difficult unless to read the whole question paper and translate each question to learners at a time. So we have to train them to understand the concepts in English.
Interviewer: What do you always do if, as you said, that you always translate to help them understand? Do you just translate the word and you stop there?

Interviewee: No, I tell them, that word which I was telling you in your mother language, is this and this in English. I tell them, tomorrow when you come, don't tell me the word in your mother language.
Interviewer: As someone who has been teaching this subject for more than two years now, which concepts or big ideas do you find easier to teach?
Interviewee: The concepts I find easier to teach are borders; population; weather and trade.
Interviewer: Why do you find these ones easier to teach?
Interviewee: They are easier because even learners themselves can give me examples. They know them, they are local.
Interviewer: Apart from being familiar, are there other reasons why you find them easier to teach?
Interviewee: They are daily things which they are using in their environment.
Interviewer: Thank you. Are there some concepts you find difficult to teach? Concepts which are not easy to teach?
Interviewee: The concepts that are difficult for my learners are concepts like central plateau, coast line, and escarpment. These concepts are difficult to my learners. Even to me who is a teacher, because this Geography is difficult for me, I am not good in it. They are difficult because they are not familiar to them; they are not in our region.
Interviewer: What do you always do when you come to such concepts?
Interviewee: I always use pictures, and sometimes, I always use our school because our school in on a high, high, what (pause) can you help me?
Interviewer: A slope maybe?
Interviewee: Yes, we go out and when you look down, you find that that place is lower than our school.
Interviewer: What do you relate that to?
Interviewee: I relate it to 'escarpment', but central plateau, I have problems as well.
Interviewer: What would you wish in order to solve this problem?
Interviewee: If there was transport to take our learners where these places are, it could be better for me and them to see the reality. I want my learners to go out and see such places.
Interviewer: In the absence of this, you said that you use pictures. Do you find these pictures helpful?
Interviewee: They are not, because they are not clear in their books.
Interviewer: Okay. Apart from escarpment, central plateau and so on, are there other concepts which are not clear to you or the learners?
Interviewee: I think, to me it is the only ones.
Interviewer: What kind of support do you get in order to teach Social Studies better?
Interviewee: I always consult my colleagues who are teaching Social Studies to help me where I have a problem. We always come together as Social Studies, we set tests together. We always come together and work on those tests.
Interviewer: Any other support from outside the schools?
Interviewee: Other support from outside the school, we always meet, we have five sister schools here, we always come together to talk about the way we can help our learners.
Interviewer: Thank you. Let me take back to the issue of concepts. How did you come to know about the idea of focusing on concepts? Were you taught about it or you just use your common sense?

Interviewee: I was not taught about these concepts. Because since I started teaching this subject, I never attended a workshop for this. I just ask other teachers who are already doing it to help me. I have never attended a workshop.
Interviewer: Why are you bothered about teaching concepts? Did someone tell you to always teach concepts?
Interviewee: I have read my syllabus and I have to follow what is written in the syllabus.
Interviewer: Does the syllabus require you to teach the concepts as well?
Interviewee: It requires to teach the concepts. That's why they are written in the syllabus. Those are the key words which are in each topic. They always pick the main concepts on the topic and write them at the back of the syllabus.
Interviewer: So that indicates to every teacher that they should be taught?
Interviewee: Yes.
Interviewer: And in the planning, when you plan, how do you indicate them so that you don't overlook them or forget about them?
Interviewee: There is a column which shows those concepts, so you have to write them. You write them, there is a form. You write the topic, the concepts, the basic competencies. So you have to fill them there.
Interviewer: Apart from indicating them at the top, do you as well indicate them under activities, indicating how you intend to teach them?
Interviewee: Yes.
Interviewer: Okay. Now, as someone who has been teaching the subject for more than two years now, are there some challenges that you face as a Social Studies teacher? Anything that you feel or think is a challenge? Anything that a new Social Studies teacher can learn from you or should be carefully of when teaching Social Studies? This should be an open talk. Tell me anything.
Interviewee: (laughs) Okay. I want my learners who are in grade five to love and understand the subject of Social Studies. So that even if they reach grade six or grade seven they should not forget what they learnt in grade five. It is very important because, when they started in grade four, they started with their region, in grade five they have to learn about their country and a bit part of their continent. So that when they reach grade six, they should not find it very difficult to talk about their country and continent, they have to combine those things. Even if you hang the map of Africa, they should know that this one is not a continent, this one is a region and this one is a country which is on this map and this one as a whole is a country.
Interviewer: They should be able to differentiate?
Interviewee: Yes. From there I want to work together with my colleagues, more especially those who are teaching Social Studies in order to help each other. Say at our school we are three teachers who are teaching Social Studies. If I work with someone who is teaching in grade seven, it will be easy for him or her to help that in grade seven your learners will get this and this, so try to introduce this to your learners.
Interviewer: So you work together?
Interviewee: Yes.
Interviewer: Are there some concepts, while we are on this one, are there some concepts that run through grade five, six and seven?
Interviewee: Of course, more especially colony and democracy. From their country, where Namibia is, up to grade seven.
Interviewer: So it is important that they understand them straight away from grade five?

Interviewee: Yes.
Interviewer: Any other challenge?
Interviewee: The other challenge is that you teachers who are teaching there at the college also you should also help us. The other thing is that our support subject advisors are not helping us in our schools. Even these maps, we have to struggle unless to draw your own map. We don't have printed maps. Since I came to this school, I never saw the map of Namibia which shows the regions. So I have to draw it on my own or ask the learners to help me to draw it for me. While in the syllabus, they say that those maps, the map of Namibia, the map of Africa and the world map should be in each class permanently, not to borrow from one another. Today I use it, tomorrow the grade six teacher is going to use it, the grade seven teacher is going to use it next time, that is not good. If they could help us with those sources, our learners could improve in their learning.
Interviewer: You mentioned here that teacher educators should also help you. How do you want the college to help you?
Interviewee: The College can also help us, more especially, during those times when their students are in our schools. They could provide us with materials. Even these small charts we don't have, unless if you buy.
Interviewer: Any other challenge?
Interviewee: Our learners have also a problem of writing, so we have to struggle, since they don't know how to read on a question paper like this. You can set your test and type it on a piece of paper, if you give it to a learner, answer those questions, they can't read unless to read for them. You have to read the first question and tell them to write the answer and read the next one until they all finish. We really find it very difficult.
Interviewer: Where do you think is a problem? Is it in the lower primary?
Interviewee: I think it is in the lower primary because in grade four they don't read on a question paper like this. What they always do, they write those questions on the chalkboard and then read for them. They read the first question and tell them to write the answer. They do this to all question. So this is what they want to do even when they are in grade five. But now maybe we will get a support, other teachers were at Ondangwa, they tried to make a question paper for grade four, they should read instead of the teacher reading for them.
Interviewer: I see.
Interviewee: Another thing at our school, we have more learners. The number of learners are many. You can not afford to help each learner in 35 minutes. You can find that each class has 45, or 46 learners and when it comes to marking, it is very difficult. I am teaching grade 5 learners and those learners are 179 in total, four classes. You have to give them work to do and it takes a long time to mark those books. We also fail to do remedial teaching because of too many school activities, sports, HIV programmes, Window of Hope, so each day has its own activities. But we are trying, we try to give them too many homework.
Interviewer: Thank you. Allow me to ask me one question that I have just thought about now.
Interviewee: You are welcome madam.
Interviewer: When you set your tests, do you also include explanations of concepts?
Interviewee: To define a word?
Interviewer: Yes.
Interviewee: Yes. How we always do there, you write a statement, the meaning of that concept, and then you put four concepts for the learner to choose from. Mostly done in

multiple choice.
Interviewer: Anything else?
Interviewee: No, my head is now empty. (laughs).
Interviewer: Thank you very much for your time. It was a very informative interview. Thank you very much.
Interviewee: You are welcome.

Appendix 9

DATA ANALYSIS LEVEL 1

Lesson number: _____ Date _____ School _____

The concepts identified/ taught or which should have been aught.	**Evidence of the teacher's understanding of the concept (in the lesson) or during the stimulated recall**	**Strategies used by the teacher to help learners understand concepts.**	**Evidence of the learners' understanding.**

Appendix 10

INDICATORS: PRINCIPLES OF CONCEPT DEVELOPMENT

Teacher_____ School_____

Indicators	Lesson 1	Lesson 2	Lesson 3	Lesson 4	Lesson 5
1. How did the teacher relate concepts to real world situations?					
2. How did the teacher help learners develop concepts in context of the subject/topic?					
3. How did the teacher relate learners' background knowledge, experience or learners' frame of reference?					
4. Which view of concept formation did the teacher show?					
5. How did the teacher use definitions to develop concepts?					
6. At what level did the teacher explain concepts? (labelling, enumerating, making a link, identifying common characteristics. Identifying similarities & differences)					
7. How did the teacher allow learners to communicate the concept? (could discuss or explain concepts to other learners).					
8. How did the teacher use the questioning strategy to					

develop concepts?					
9. Was there any evidence of enactive representation of concepts/ enactive techniques used? (Learning through doing)					
10. Was there evidence of iconic representation/ iconic techniques used? (Match by direct correspondence)					
11. Was there evidence of symbolic representation/ symbolic techniques used? (Using language)					
12. How did the teacher establish what the learners know about the concepts?					
13. How did the teacher allow learners to construct knowledge?					
14. How did the teacher show understanding of concepts? (relating to reality; using images, episodes, intellectual skills, prepositions, strings, motor skills, cognitive skills; using analogies, etc.).					

15.Is there evidence of teaching key concepts of the subject?					

What else did he/she do to develop concepts?

Appendix 11

LEARNERS' SUMMARY BOOKS FOR EVIDENCE OF DEVELOPING CONCEPTS

Boma learner 4

Concepts	Strategies
Map	➢ Explanation given ➢ A sketch of the class drawn
Direction	➢ 8 pointer direction drawn
Border	➢ Textbook definition given ➢ Examples given
Physical features	➢ Examples given ➢ Shown on the map ➢ Gave examples of some physical features e.g. mountains
Measuring time	➢ Ways of measuring time are given ➢ Drawings
Rainfall	➢ Textbook definition given ➢ Amount of rainfall received in different places
Evidence	➢ A simplified explanation ➢ Examples given
San group	➢ Characteristics given
Cattle herders and crop farmers	➢ Characteristics given

Lewis learner 1

Concepts	Strategies
Map	➢ A simplified explanation ➢ Characteristics given
Direction	➢ 8-pointer direction drawn
Border	➢ Definition given ➢ Examples given ➢ A map drawn to show borders
Neighbouring countries	➢ Example of countries and their cities given ➢ A map of Southern Africa drawn
Landforms	➢ A map drawn to show landforms ➢ Examples given
Rainfall	➢ Textbook definition given

	➢ Characteristics given
Tourist	➢ Textbook definition given
Tourist attraction	➢ Explanation given ➢ Characteristics given
Season	➢ The four seasons given
Public holidays	➢ Namibia's public holidays given
First people	➢ Characteristics given
Evidence	➢ Examples given

Appendix 12

LESSON PLANS FOR EVIDENCE OF DEVELOPING CONCEPTS

	Jane	**Chrispin**	**Irene**
Lesson 1	➢ Indicated the key concept	➢ The teacher explains key concept	➢ Indicated key concepts ➢ Writes the concepts on the chalkboard ➢ Asks learners to read and explain concepts
Lesson 2	➢ Indicated the key concept	➢ Ask learners what tourism is	No evidence
Lesson 3	➢ Indicated the key concept	No evidence	➢ Indicated key concepts ➢ Writes concepts on the chalkboard ➢ Asks learners to read the concepts in groups
Lesson 4	No evidence	➢ Indicated key concepts ➢ Ask learners what they understand by the key concepts	No evidence
Lesson 5	No evidence	No evidence	➢ Indicated key concepts ➢ Writes the concepts on the chalkboard ➢ Choose learners to read it

Appendix 13

QUALITY AND QUANTIY OF QUESTIONS ASKED

Quality and quantity of questions asked in Jane's lesson 1	**Closed**	**Open**
Do you remember how these people moved? From which country did they mo to where?	➢	
There were two groups of Khoisan who moved to Namibia: which are they?	➢	
Which way did they move? Who can come and show us?	➢	
What did they bring with them when they migrated?	➢	
What else?	➢	
What was the reason for migrating?		➢
Now, what was the second Khoisan group?	➢	
Who will show us where the second group moved to?	➢	
They stayed for few days and moved to which country?	➢	
Which group is this one that moved from Botswana to South Africa, then to Namibia?	➢	
These groups that shifted from South Africa to Namibia, what did they learn while in South Africa?	➢	
All right, we heard about the Nama people who came to Namibia. When thes two groups came, there were already people in Namibia. Which group was already in Namibia?	➢	
Which language did they use altogether?	➢	
Where is Namibia on this map?	➢	
What is meant by central?	➢	
Which river is this?	➢	
And this?	➢	
And the river in the North West?	➢	
Why do you think they settled along the rivers?		➢

Are animals the only ones that need water?	➢	
Who else needs water?	➢	
We heard about Damaras and Namas who brought goats and sheeps, what abo Bantus?	➢	
Yes, they brought what?	➢	
What else did they bring?	➢	
What seeds did they bring?	➢	
What else apart from mahangu?	➢	
Yes vegetables, what else?	➢	
They settled along the rivers and started planting the seeds. Why?		➢
Can you remember this? Where did the Os settled?	➢	
Now the word Bantu, what does it mean?	➢	
Who is a mufwe here? How do you call a person in your language?	➢	
In Subia?	➢	
What about in Silozi?	➢	