

**AN INVESTIGATION OF CODE SWITCHING IN
DIFFERENT LEARNING AREAS IN A GRADE SEVEN
CLASS**

THESIS

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By

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ABSTRACT

The research described in this thesis is a case study of the communicative repertoires of teachers and learners of a grade seven class in a small rural primary school. The aim of the investigation was to find out if code switching is different in content subject classes than in an English language class. The study accomplishes this by looking at code switching in different learning areas. Different research techniques such as observations, video recording, taking of field notes and interviews are used as the means of data collection.

The study does not attempt a full linguistic description of the switches made by the research subjects. For example, it does not deal with linguistic constraints on code switching, but instead it focuses on the functional aspects of code switching. The study reveals that there are various functions of code switching in the classroom.

The following are the major findings noted in this study:

- Code switching is a communicative resource, which enables the teachers and learners to accomplish a considerable number and range of social and educational objectives.
- Code switching is used to negotiate and renegotiate meaning.
- How teachers code switch in class depends on how difficult the lesson is for the learners.
- The study reveals no major differences between code switching in content subjects than in English as a subject.
- Although the subjects engage in code switching, they seem to feel guilty about their behaviour.

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CONTENTS

Title

Abstract

Acknowledgements

Abbreviations found in the study

1. Introduction	1
2. Literature Review	3
2.1 Introduction	3
2.2 Code switching in non-educational contexts	3
2.3 Code switching in the classroom	7
2.4 Concluding remarks	14
3. Research Methodology	17
3.1 Introduction	17
3.2 Rationale for the choice of case study research	17
3.3 Research site	18
3.4 Population	19
3.5 Research methods employed in the study	20
3.5.1 Ethical considerations	20
3.5.2 Data collection procedures	21
3.5.2.1 Pilot study	21
3.5.2.2 Classroom observations	22
3.5.2.3 Video recording	23
3.5.2.4 Lesson transcripts	33

3.5.2.5 Interviews	24
3.6 Reliability	25
3.7 Validity	25
3.8 Generalization	26
3.9 Analysis and interpretation of data	26
4. Data analysis	27
4.1 Introduction	27
4.2 Analysis	28
4.2.1 Natural Science (NS)	28
4.2.2 Language Literacy and Communication (LLC2)	35
4.2.3 Mathematical Literacy, Mathematics and Mathematical Science (MLMMS)	42
4.2.4 Human and Social Science (HSS)	48
4.3 Research subjects' perceptions about CS in general	51
4.4 Conclusion	54
5. Findings and Discussion	55
5.1 Introduction	55
5.2 Findings	55
5.2.1 Functions of CS in content subjects	55
5.2.2 Functions of CS in the language lesson	60
5.2.3 CS as an avoidance strategy	63
5.2.4 CS as an unmarked choice	63
5.2.5 Participants' attitudes towards CS	64
5.2.6 CS in content subjects compared to CS in the language lesson	64
5.3 Discussion	64
5.4 Conclusion	68

6. Conclusion	69
References	71
Appendices	79
Appendix A MLMMS 1	79
Appendix B MLMMS 2	86
Appendix C LLC 2	92
Appendix D NS	99
Appendix E HSS 1	109
Appendix F HSS 2	117
Appendix G General questions for interviews	124
Appendix H Interview with Ncumisa	125
Appendix I Interview with Songezo	127
Appendix J Interview with Zongamele	130

ACRONYMS & ABBREVIATIONS FOUND IN THE STUDY

L1	First Language
L2	Second Language
ESL	English Second Language
HSS	Human and Social Sciences
LLC	Language Literacy and Communication
NS	Natural Sciences
MLMMS	Mathematical Literacy, Mathematics and Mathematical Science

CHAPTER 1

INTRODUCTION

Xhosa speaking learners and other African children in South Africa have long experienced schooling through the medium of a language not their own. These circumstances are common worldwide and are sometimes taken for granted. Although taken for granted, they undeniably present a challenge for both the teacher and the learners in accomplishing the teaching and learning tasks of education. To overcome such challenges, teachers and learners engage in creative and strategic strategies, which frequently give rise to code switching. Code switching refers to the use of two or more languages during a single utterance or sequence of utterances between two or more speakers (Dube and Cleghorn 1991).

Recent developments in the language in education policy in South Africa promote multilingualism, that is, learners should learn in two and preferably three languages and may use their primary languages as languages of learning and teaching (Language in Education Policy, 1997). According to Vinjevold (1999), the government's policy documents advocate an additive bilingual model as a central feature of the education policy. This model, she argues, recognizes learners' home languages as powerful tools for cognitive development.

It is in the light of these recent changes in language-in-education policy that code switching is no longer discouraged in the classroom as a symptom of inadequate command of the target language and an impediment to its acquisition. In fact, the use of code switching as a classroom strategy is a wide spread phenomena in South African schools, and was going on before its approval by the present government. The most obvious reason for this is that, while many learners in South Africa aspire to acquire English because of its socio-economic value and prestige, they struggle to learn through the medium of English.

This study takes a close look at code switching in different learning areas in a grade seven class. It seeks to observe when, why and how teachers interact with their learners through code switching. In addition, this study aims at establishing whether code switching is different in content subject classes other than in Languages, in this case an English class. It explores the contexts in which instances of code switching typically occur and describes the functions of code switching.

Chapter two offers a review of relevant literature, while chapter three describes the research methodology employed. In chapter four, the research data are analyzed in chapter five they are discussed and in the sixth and final chapter; some conclusions are drawn regarding the issues investigated.

CHAPTER 2

LITERATURE REVIEW

2.1 Introduction

The aim of this chapter is to provide insights into how the study of code switching has developed and how the categories and forms of analysis will be used in this study. In addition, this chapter will provide an overview of research that has been done on classroom code switching. I will begin by examining code switching in non-educational contexts because, in order to get a balanced and fully conceptual perspective on classroom code switching, one has to appraise the recent trends in research on code switching generally. For the purpose of such a broad overview, the works of Martin-Jones (1995, 2000), Myers-Scotton (1983, 1993, 1998) amongst others will be looked at. I will then move on to research on classroom code switching, the focus of this study.

2.2 Code switching in non-educational contexts

Code switching is one of the central issues in bilingual research. This phenomenon can be best understood by placing it in the context of the verbal repertoires of individual members in a multilingual community (Heller, 1988). According to Milroy and Muysken (1995), the switches occur in different ways, sometimes the switching occurs between the turns of different speakers in a conversation, sometimes between utterances within a single turn and sometimes even within a single utterance.

In Heller's (1988) view, code switching should be approached as a form of verbal strategy which represents the ways in which the linguistic resources available to individuals differ according to the nature of social boundaries in the community, and the ways in which individuals use on those resources to communicate effectively as part of

their combined construction of an interpretive structure in social interactions. She goes on to say that this interaction will be based on the extent to which people who take part in a conversation share conventional relations between linguistic forms and social relationships, or based on the extent to which interlocutors can draw on their verbal resources to reach a shared understanding. She argues that the study of code switching has moved towards a dynamic model in which code switching can be seen as a resource for indicating situational-salient aspects of context in speakers' attempts to accomplish interactional goals, that means, negotiating meaning. This therefore implies that the study of code switching becomes a means to understanding how such verbal resources, through use, acquire conventional social discourse or referential meaning. In Myers-Scotton's (1988) view, all talk is always a negotiation of rights and obligations between speaker and addressee.

Heller (1988) introduced the concept of situational code switching. This concept involves a switch in variety that is accompanied by a change in situation. In Heller's (1988) view, situational code switching has roots in the separation of social activities, each of which is conventionally associated to the use of one of those languages or varieties in the community's linguistic repertoire. Through these connections, linguistic varieties come to symbolize the social situation, roles and statuses and their attendant rights and obligations, expectations and assumptions. An important result of studies on code switching is that linguistic choices are seen as powerful, and code switching is seen as sign of skill rather than as a mistake.

Fishman as cited in Kieswetter (1995), states that different language varieties are linked with different fields or social situations and that these show different types of relationships and values that exist for a particular speech community. Holmes (1992) also argues that different domains can be important in accounting for the language variety that the speaker selects. She goes on to say that the speaker, the setting and the topic are three important social factors in selecting a code or variety. Social distances, status, formality of the situation and the goal or function of the interaction, are also important factors affecting the code choice.

Adendorff (1992) provides an example of an instance where code switching was carefully calculated. He gives an example of Margaret Thatcher, who is an English First Language (L1) speaker but who made headlines when she greeted her audience at the Rand Afrikaans University (RAU) in Afrikaans. RAU is, an Afrikaans medium University, so she used Afrikaans then switched and remained with English.

Some researchers view code switching as representing an inadequate knowledge of language and a grammarless mixture of two languages, but, in line with Heller and Myers-Scotton's explanations of code switching, Gumperz as cited in Milroy and Muysken (1995), argues that the successive change of language should be conceptualized not as an inadequacy to speak that particular language but as an additional resource through which different social and influential meanings are expressed. According to Gardner-Chloros (1995), the study of code switching was partly the product of the realization within linguistics that bilingualism was not a situation deviating from the norm and that the linguistic behaviour, which results from bilingualism, could not be dismissed as not being absolute. She goes on to say that code switching can now be seen as a form of skilled bilingual behaviour that involves one language influencing another.

Although I gave an example of calculated code switching, most code switching is spontaneous or, as explained below, unmarked. Code switching is a well-known feature in schools, universities and colleges in multilingual countries such as South Africa. The linguistic behaviour of TV presenters and their studio guests also gives evidence of natural code switching and this is even found in commercial and business settings.

Myers-Scotton (1993) proposes two models to explain both social functions and social motivations of code switching, and the structural constraints placed upon code switches within a conversation, in other words why and how people switch codes. The two models are the Markedness and the Matrix Language Frame Models. Although I will not focus on these in my analysis, I will just give a brief definition of these terms.

According to Myers-Scotton, the Markedness Model is concerned with analyzing the social functions of code switching. The general argument of the Markedness Model is that members of bi-multilingual communities know that code switching is a strategy that is followed when speakers perceive that their own costs-rewards balance will be more favourable in the conversation at hand through engaging in code switching than through using only a single code.

This model is based on the notion that speakers make marked and unmarked choices for any given situation. An unmarked choice is one that is “expected” i.e. a particular code choice is expected in a particular situation given the societal norms in which it occurs. Myers-Scotton (1983:122) argues that unmarked use of code switching is found in communities and groups that tend to stress a multicultural identity. In this case, code switching symbolizes the dual identities of the bilingual speakers. Marked choices on the other hand are dis-identifications with what is expected. Identity here generally means a particular social identity in relation to other participants in a particular exchange. Adendorff’s example of calculated switches stated above is an example of marked code switching because Mrs. Thatcher does not ordinarily speak Afrikaans. Her behaviour has a foregrounding effect similar to that achieved by a highlighter when one marks important information in a book (Adendorff 1992). A speaker may also use marked code switching to increase social distance or as an ethnically based exclusion strategy.

Myers-Scotton as cited in Kieswetter (1995) gives four social functions of code switching:

- (a) *Code switching in a sequence as an unmarked choice.* In this case the speaker changes from one unmarked code to the other as the situation changes.
- (b) *Code switching itself as the unmarked choice.* Code switching here is the linguistic variety, or a badge of identity and it differs with different social contexts.
- (c) *Code switching to make a marked choice.* In this case the speaker chooses the variety to indicate that s/he is sending a meta-message i.e. the speaker changes some aspects of the rights and obligation balance within a particular situation.

(d) *Code switching to make an exploratory choice.* In this instance code switching is momentary as strangers explore code choices within a new and uncertain situation.

The Matrix Language Model on the other hand is concerned with identifying the structural constraints that are placed on code switching. According to Kieswetter (1995), the Matrix Language Model defines code switching as the selection by bilinguals or multilinguals of forms from an embedded variety in utterances of a matrix variety during the same conversation. The speaker must have two or more languages to draw from. The Matrix Language (ML) is the main language used and it plays the more dominant role, while the Embedded Language (EL) is any other language being used in the code switching to a lesser degree.

In closing, code switching itself becomes a bridge when it indicates a shared frame of reference that represents the neutralization of tension at the boundary between separate domains. Code switching necessitates that at least some individuals have access to all domains in question, and therefore have access to those linguistic resources. By understanding the nature of code switching, those individuals have access to certain kinds of roles and role relationships within each of those domains. Code switching provides a clear example of the ways in which individuals draw on their linguistic resources to signal changes in the different aspects of contexts.

2.3 Code switching in the classroom

Having looked at research that covers code switching generally, I now move on to research dealing with code switching in the classroom as this has self-evident importance for my study. Canagarajah (1997) and Lin (2000), describe all code switching practices in the classroom as establishing some sort of resistance to the imposition of a second language (L2) as the medium of instruction by those who control policy in both political and educational fields.

This section will consist of two parts: (1) Code switching in educational contexts and (2) Educational code switching. It will be taking note of research that has been done on classroom code switching in South Africa and other parts of the world, for example, research by Adendorff (1992) in Kwa Zulu Natal, South Africa, Arthur (1987, 1996) in Botswana primary schools, and Lin's (2000) study of bilingual practices in Hong Kong amongst others.

2.3.1 Code switching in educational contexts

Code switching in educational contexts is the use of two or more codes in the classroom for classroom management, solidarity purposes, giving instructions and / or for any other activity that is not part of the actual learning process.

Lin (2000) in Hong Kong, Dube and Cleghorn (1991) in Zimbabwe, Adendorff (1992) in South Africa and Mondada and Gajo (2000) in Switzerland all found that code switching serves both social and academic functions in the classrooms they observed. The following are the different social functions they observed.

Lin re-examined Johnson's (1983,1985) work that focused on teaching and learning in different subjects. She did this because she felt that there were more functions of code switching than those given by Johnson. Like Johnson, she found that code switching in the classroom has social functions, and added what she terms as "acculturation" (Lin 2000:158). Acculturation literally means to assimilate the cultural traits of another group. In a multilingual classroom context though it is when the teacher temporarily ceases his/her use of English (or other L2 used as medium of instruction) and speaks in the learners' mother tongue as a member of the same cultural group. Lin gives an example of a case where a teacher might temporarily stop using English and start talking in the learners' L1 to highlight a shift in his/her concerns. By so doing, the teacher might be trying to discipline a student for an unacceptable behaviour or attitude as a member of the same cultural group. S/he might also be appealing to and reaffirming indigenous cultural

norms and values. This, Lin argues, could not be achieved without the code switch to a student's L1.

Dube and Cleghorn (1991) like Lin also observed in their study that the learners' L1 was used for disciplinary comments. They argue that the learners' L1 is more personal and less formal than English would be in such circumstances, and due to that it may serve affective purposes. They go on to say that this is an effective strategy for teachers to minimize the formality that attended the use of English, possibly closing the gap between the culture of the classroom and that of the home.

The learners' L1 can also be used for effective classroom management. This is when a teacher wants to establish what Lin describes as "a less distanced and non-institutionally defined relationship" (150) with his/her learners. Teachers, Lin argues, find it necessary to switch to their (teachers and learners) common L1. In Adendorff's (1992) study, Zulu (the learners' L1) was the means of exercising classroom management. It appeared to be the language of persuasion and enforcing obedience. However, it was also the language of a type of solidarity, which Adendorff describes as 'solidarity downward' (31). It was used to show the teacher's appreciation of the learner and his/her answer. Furthermore, Zulu code switching indicated the teacher's wish that learners share his passion for the experience he was unfolding.

Mondada and Gajo's (2000) study on the other hand revealed that the learners' L1 was most often incorporated when the management of classroom interaction followed a more communicative method as opposed to the one that paid attention to formal and normative elements of learning. The learners' L1 was used as a resource for removing barriers in a conversation.

Apart from being used for disciplinary comments and management, the learners' L1 in multilingual settings can fulfil other social functions such as giving instructions, as in Dube and Cleghorn's (1991) work, encouragement and checking if learners follow the lesson taught, as in Adendorff's study. It can also intervene between the difficulty of the

lesson taught, the hard work of the teacher and the spirits of the students (Adendorff 1992).

In summary, the learners' L1 in the research conducted by the above-mentioned academics had an implicit symbolic function since it was the code that reached everyone in the classrooms observed. Hence, it was the solidarity code.

2.3.2 Educational code switching

According to Gough (no date), this refers to the use of two or more languages in the actual learning process, that is, it is the use of all these languages during all the activities related to transmission teaching, teacher questioning on content matters in the classroom, students discussing a particular problem, and any other teaching activity related to teaching and learning.

Arthur (1987) in Botswana, Rowel and Prophet (1990) in Botswana, and McDonald (1991) in South Africa observed that the use of English as the medium of instruction puts learners into some kind of prison because of their inability to express themselves. For instance, according to Barnes as cited in Arthur (1987:14), through the use of English teachers and learners find themselves constrained to what he terms as "final draft" talk since they cannot express themselves openly in English. This hinders the cooperation between teachers and learners and also results in the lesson focus being switched from content to the accuracy of superficial characteristics of the learners' English.

In Arthur's view, learners' limitation in expressing themselves well in English classifies them as achievers and non-achievers across the whole curriculum. This shortfall results in learners being judged in terms of what they cannot do, that is, express themselves in English rather than what they can do, meaning, any skill linked with different learning areas. She goes on to say that, due to this misconception, teachers tend to give learners easy classroom tasks. This, she argues, is one major unpleasant result of teaching learners

through a language which they have limited access to because teachers' perceptions of their learners' abilities can be easily distorted.

Bunyi (2000) who conducted a study in Kenya found that schools in Kenya define children on the basis of the linguistic and cultural resources that they bring from home. Because English is the lawful language within the Kenyan education system, children's knowledge of English and their ability to speak and write it has become the standard on which teachers' expectations are based. Those who do not have access to English therefore fail to meet the criterion.

Dube and Cleghorn's (1991) and Adendorff's (1992) studies revealed that code switching in their studies was also used for translation. Dube and Cleghorn conducted research on code switching during the teaching of Mathematics in several types of primary schools in Zimbabwe. Their research was aimed at giving insights into the purposes of code switching in the primary classroom as well as its likely effects on learning. They observed that the learners' L1 was used to repeat what had been said in English. This appeared to emphasize what had been said while possibly keeping the learners' attention on the problem at hand. However, they noticed that the formal terms were in English. Those were the terms the learners needed to know for examination purposes.

Adendorff on the other hand looked at code switching in a predominantly Zulu speaking environment. He analysed data collected from three high school teachers teaching English, Biology and Geography. In the English lesson he found that Zulu was the language of direct translation. According to him, the teacher resorted to the learners' L1 because he felt that they did not understand what he was saying.

Gough (no date) views translation as being valuable because it helps one's ability to learn about the language. Through translation, he argues, people begin to notice how language works and they get meta-linguistic knowledge. Here he is talking about translating text from one language to another or translating what the learner has to say in his/her L1 into English orally.

Gough, Dube and Cleghorn all agree that translation has an important role to play in multilingual classroom such as those they conducted research on because it promotes understanding. However, it reduces the learners' exposure to English in school. According to Gough, the learners' process of language acquisition is not encouraged, because learners are not encouraged to speak English. Gough supports code switching in content subjects but becomes cautious when it is used in a language class, where the aim is to acquire the target language. In contrast, studies in other African countries, for example, in Burundi (Eisemon et al 1989), or Tanzania (Yahya-Othman 1990) confirm that where a foreign language is used as an education medium, every lesson becomes a language lesson. Therefore, I think this implies that teachers should be careful about their code switching strategies even in content subjects. Arthur, Dube and Cleghorn argue that by not letting learners use the target language even in content subjects, teachers further disadvantage learners when it comes to incidental learning of functional English through content-based lessons and passing English-only examinations.

Code switching can also be used in the classroom to give fuller explanations of concepts and/or what is being taught. This emerged from studies conducted by Ndayipfukamiye (1994) in Burundi, Grima (2000) in Malta, Dube and Cleghorn (1991) in Zimbabwe and Adendorff (1992) in South Africa.

In Burundi, code switching provides an important resource for teachers in managing the communicative demands placed upon them by the French-medium provision introduced in grade five (Ndayipfukamiye 1994). In her study of code switching in Burundi primary schools, Ndayipfukamiye found out that teachers used code switching to explain difficult concepts. They do this by presenting new terminology in French, and then giving explanations and interpretations in the learners' L1 and associating the new concepts to those they felt were familiar to students. I think by so doing teachers are in a way trying to build what Lin terms "bilingual academic knowledge" (Lin 200:158), which will be discussed later in this section.

Grima, Adendorff, Dube and Cleghorn found that teachers used code switching as a resource for managing communication in cases where the teacher wants to provide explanations, introduce new topics or in making asides. In their view, teachers make linguistic choices depending on the apparent needs of the learners. They also observed that code switching in the classrooms they observed served the purpose of promoting an understanding of important concepts. On another level it was the code by which the teacher advanced his interpretations to some extent. According to Adendorff, the learners' L1 was also the code with which the teacher tried to make sense of what was taught.

It is important for teachers to make learners aware of the fact that whatever they are taught in English exists in their mother tongue too. By so doing, learners will know that there exists a corresponding body of scientific knowledge in their L1 too. In Lin's view, this has cognitive advantages, for instance, by knowing both the medium of instruction (which is the students' L2) and L1 terms, students cannot only understand scientific texts in both languages but also form numerous conceptual associations that facilitate their understanding and learning of the fundamental scientific concepts. Lin based her arguments on conclusions she drew on the data she analysed. The data was on Chinese learners who's L1 was Cantonese. Their teachers encouraged them to use Cantonese interpretations to ensure better understanding of the L2 instructions and also to relate the unfamiliar L2 topics to the students' familiar daily experiences.

Like Lin, Mondada and Gajo (2000), also observed the use of the learners' L1 to develop the set of available linguistic forms and make possible reflections on the similarities and differences between the languages involved. This, they argue, allows different languages to become a part of the very subject of the lesson and assigns value to them.

In all, code switching in multilingual settings is a contextualization cue. Contextualization cues, according to Adendorff (1992), help to describe the context, thereby directing or guiding interpretation and so giving additional meaning to what is said and done in a conversation.

2.4 CONCLUDING REMARKS

Lin argues that bilingual discourses like those she was drawing on, reflect the teacher's responsibility as a linguistic and academic agent whose task is to make English-medium education comprehensible and meaningful to students with limited English resources. She argues that, these "... reflect the teachers' resistance to the "use-English only" institutional rule, a practice that makes English-medium education more bearable and less alienating for the students" (Lin 2000:158).

She further argues that, bilingual classroom practices like these are teachers' practical answers to the burden of an English-medium education. Many students and parents have come from a social world where English has a prestigious value; therefore they think it is necessary for their socio-economical development, yet they have limited access to it. According to Lin (2000:158), "the teachers' and students' bilingual classroom practices represent their local, pragmatic solutions to the problems created by the imposition of a foreign language as the medium of instruction despite their having a common native language." She goes on to say that these practices lessen the painful problems brought about by the use of English in the society.

In Canagarajah's (2000) view, code switching in ESL classrooms is a tool for skilful management of identities, roles, values and group membership. Code switching, he argues, also allows participants to deal with contradictory communicative norms and beliefs.

Adendorff's (1992) study tries to offer another view of code switching to that held by those who reject code switching because they see it as lowering standards. He deals with code switching as a contextualization cue and analyses the switches in his data as describing the context for those involved in the interaction in various ways. He views the switches as directing the participants' analysis of academic goals and objectives as well as their interpretation of social relationships in the classroom.

In most of the multilingual settings considered in this section, educational choices are clearly much more than choices about how to accomplish linguistic competence. They are choices about how to deliver linguistic resources and about what value to attach to linguistic forms and practices. “They are choices that are embedded in the economic, political and social interests of groups and they have consequences for life chances of individuals as well as for the construction of social categories and relations of power” (Heller and Martin-Jones 2000:419).

Among the issues emanating from this literature review on code switching in educational contexts are the following:

- English has a symbolic domination in multilingual societies.
- Though learners are aware of the prestigious value of their L2s, they struggle to learn through the medium of these languages.
- Through L2 teaching and learning, learners are put into some kind of prison, that is, they are silenced.
- Code switching in the classroom is used as a communicative resource to un-silence learners who would be silenced by the use of a L2.
- Code switching in the classroom is also a form of resistance to the agendas of those who control policy both political and educational.
- Code switching in the classroom should be viewed against the general language practices of the society.
- In bilingual classrooms, the teacher serves as an agent for learning whose task is to make English-medium education accessible to those with limited resources.
- Code switching in the classroom has both academic and social functions.
- One of the most important functions of code switching is to make an input more comprehensible.

This chapter has focused on research dealing with code switching outside the classroom as well as exploring code switching in the classroom. Aspects of code switching in educational contexts have proved relevant to this study, for example, the functions of switches made by the teachers in my study will be examined using models of functions

described in this literature review. The research on classroom code switching reviewed in this chapter was conducted in a variety of countries such as Hong Kong, Burundi, Switzerland, Botswana, and South Africa. The relevance of these studies exists in the fact that they all deal with classroom situations similar to the one that is the focus of my observation.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

This chapter offers a description of the research process. It deals with research methods adopted, equipment used for data collection and the population in this study. It also discusses research theory relevant to this study, concentrating on four criteria for judging the quality of the research design, these being: reliability, validity, ethics and generalization.

3.2 Rationale for the choice of case study research

The researcher chose the case study method in order to probe deeply and analyse intensively the multifarious phenomenon of code switching to gaining sights into how, when and why teachers code switch in different learning areas, that is, the functions served by the switches in these learning areas. Furthermore, the researcher wanted to find out if code switching is different in content subject classes than in a language class, in this case in an English Second Language (ESL) class.

Walker (1993) defines a case study as the examination of an instance in action. According to him, the study of particular incidents and events, and the selective collection of information on biography, personality, intentions and values, allows a case study worker to capture and portray those elements of a situation that help in giving it meaning (Walker 1993: 165). In Walker's view, case studies help us to get beyond formal structures to the reality of human life. Malinowski (1967) further argues that case studies put flesh and blood on the skeleton by giving insights into specific instances, events or situations. Stenhouse (1988:49) simply describes the case study method as involving

collection and recording of data about a case or cases, and the preparation of a report or a presentation of the case.

In this study, the data collected and recorded concerns one case. The study therefore employs the strategy of the single case study rather than that of multiple case designs. The case concerned here is that of code switching in different learning areas in a grade seven class.

The importance of case study research, as argued by Collins *et al* (2000) is that the researcher focuses on various factors and it constitutes an in depth investigation into interaction among factors influencing explanation or change which are then analyzed. For Denzin and Lincoln (1994), the value of case study research is that the researcher spends substantial time on the site, has personal contact with the activities and operations of the case and then reflects on and revises the interpretations of what takes place on the site. Bell (1993), on the other hand, argues that a case study gives an opportunity for one aspect of a problem to be studied in some depth within a limited time scale. She goes on to say that the greatest advantage of a case study is that it allows the researcher to concentrate on a specific situation and try to identify the various interactive processes at work. According to Eisner and Peshkin (1990), a case study puts emphasis on practice, participation, reflection and interpretation. Due to the arguments stated above, the researcher feels that case study research is appropriate for the study in question.

3.3 Research site

Lumko (pseudonym for the school for anonymity reasons) is a small rural primary school, which is about 60 km from East London. It is co-educational and caters for learners from grade one to grade seven. The school is situated in a small village, which consists of about 200 closely related families. Most of the families live on pensions and subsistence farming. The majority of the learners live with their mothers and grandparents since their fathers usually work in towns. The majority of the people in the community are illiterate or semi-literate. Xhosa is their L1 and there is limited access to

English. The learners are sometimes withdrawn from the school for various periods to help with family chores such as driving or dipping cattle, fetching pensions or sometimes looking after siblings.

The class I observed was a grade seven class of 17 learners. The learners were seated in permanent groups. This classroom was equipped with a chalkboard and a duster as learning aids. The learners' ages ranged from 12 to 17 years and they were all Xhosa-speaking, learning English as a second language. Though my subjects told me that English is the medium of instruction, I observed that learners use their mother tongue, Xhosa, to communicate with one another inside and outside the classroom.

There are seven teachers including the principal. Teachers are mother-tongue speakers of Xhosa. They also communicate with one another in Xhosa, though their discourse is characterized by Xhosa / English code switching. My subjects are two male teachers, Songezo and Zongamele, and one female teacher, Ncumisa (pseudonyms for the teachers). Their ages are between 31 and 40. Ncumisa, the Human and Social Science (HSS) teacher has been teaching for 12 years, Zongamele the Natural Science (NS) and English (LLC2) teacher for 14 years and Songezo the Math (MLMMS) teacher for 5 years. They are all qualified teachers working towards their first university degrees.

3.4 The population

The population is defined by Roscoe as cited in Mounton (1996:34) as a collection of objects, events and individuals having some common characteristics that the researcher is interested in studying. The population in this study was chosen as a result of the choice of the research site. I chose this site because of the fact that I have worked there for a long time so it would be easier for me to conduct such research. I chose Zongamele, Ncumisa and Songezo because they are subject teachers in grade 7. Their willingness to participate influenced my choice too.

3.5 Research methods employed in this study

The conceptualization of the research has been influenced by the interpretive research paradigm. According to Ellis (1992), interpretive research is usually naturalistic, that is, it takes place in an ordinary setting such as the classroom. It is designed to describe and understand some phenomenon that takes place as a matter of course in that setting. Ellis goes on to say that interpretive research assumes that the best way to understand a phenomenon is by studying it in its natural context so as to develop some explanation and provide a rich description of it.

The research took place in a natural or normal classroom situation. I observed teachers teaching without getting involved. In Cohen and Manion's (1985) view, I was a non-participant observer. I did this because I was trying to acknowledge any preconceived ideas I might have about the use of code switching in the classroom and work against being influenced by them by trying to make the familiar strange. This was not easy to do. Nevertheless, what was important was the awareness of potential bias and the effort of not allowing preconceived ideas to influence the research.

In this study, self-report and observation were used in collecting data. Data collection was facilitated by the use of a video recorder, tape recorder and it was supplemented with field notes.

3.5.1 Ethical considerations

Providing information about the research you are conducting and being trustworthy are the most important things one has to consider when researching, as this allows participants to make free and informed choices. Furthermore, this ensures that their participation is voluntary. Dane as cited in Marawu (1997) states that the ethical balance of voluntary participation involves two separate issues: coercion and awareness. He defines coercion as the use of threats and force as well as offering incentive other than

what would reasonably be considered fair compensation. In this study, no coercion was used.

I first met the principal of the school to ask permission to conduct the research. He had no problem with the idea but said that it was up to the teachers to be observed to decide. I met with the grade seven teachers and explained to them the intentions of conducting this research, that is, that of observing classroom interaction with the aim of seeing how they and their learners used languages for teaching and learning. I did this because I wanted to make sure that their participation in this research was voluntary. I also informed the grade seven learners so that they could know what would be taking place in their class. I made sure that teachers had access to their lesson transcripts.

3.5.2 Data collection procedures

3.5.2.1 Pilot study

I first paid Zongamele, Songezo and Ncumisa two visits each, observing them teaching lessons that were not video recorded. Out of the two visits, one lesson was just observed and the other was audio recorded. The aim of this was to make them feel at ease with the procedures I was going to follow in this research process and make them ignore my presence so as to be able to behave normally. I acknowledge that this was difficult for them. However, I observed that Zongamele and Songezo seemed to get used to my presence as time went by and during the whole research period, but Ncumisa did not quite adjust to my presence. I say so because she behaved differently when video recorded than when merely observed. This issue will be further discussed in chapter 5.

The other reason for doing this pilot study was to rehearse the main investigation. According to Huysamen as cited in De Vos (1998), the purpose of a pilot study is to investigate the feasibility of the planned project and to bring possible deficiencies in the measurement procedure to the fore. In De Vos's (1998) view, a pilot study is a small-scale planned investigation. A pilot study helps researchers test the quality of their data collection procedures before they are administered in the actual research. This, Seliger and Shohamy (1989) argue, helps to avoid problems during the actual administration of

the research. In addition, this helps the researcher to revise the data collection procedures or the whole research.

3.5.2.2 Classroom observations

According to Cohen and Manion (1985:125), at the heart of every case study lies a method of observation. In this study, the actual classroom observations were conducted after the pilot study. The duration of each observation lasted approximately 35 minutes and these observations were recorded in note form.

The purpose of each session, therefore, was to observe language use, that is, the use of the learners' L1, Xhosa in English medium lessons and to observe if teachers had different code switching strategies in different learning areas. This enabled me to gain first-hand experience of how teachers use code switching to get things done in their classrooms.

Nevertheless, although classroom observation enables the researcher to explore certain features in the learning environment in a focused way, it also has its limitations. Bell (1993:109) points out that one cannot record everything that happens in a classroom and hence it is difficult to avoid bias influencing the observer's decisions about what to record and what to omit. In addition, observations are time consuming. Due to the limited duration and scope of this study, this meant that only a minimal number of observation sessions could be conducted.

As I mentioned before, the observations were recorded in note form, that is, written comments or field notes of everything I found worthwhile. These served as a supplement to my other methods of data collection. In these notes I recorded my observations of classroom activities that were of particular relevance to my research because I did not want to leave anything to recall. I kept a diary where I wrote comments about each lesson I observed. This helped me during my analyses because I used my comments as a form of triangulation. Triangulation as defined by Anderson (1998), is the use of various data

collection methods to validate research findings. Therefore, I used my field notes to detect irregularities and inconsistencies in my discoveries.

Despite the limitations discussed above, it is the belief of the researcher that the opportunity to observe provided important insights which enhanced those from interviews, videotape and lesson transcripts.

3.5.2.3 Video recording

Two lessons from each teacher were video recorded to provide a comprehensive record of classroom behaviour that was preserved for subsequent analysis. The video recorder also ensured that I obtained both a visual and an auditory record of the classroom activities. The other reason for using a video recorder was to do stimulated recall during interviews. I was going to watch a recorded lesson with the teacher concerned so as to enable him / her to relive the original situation.

3.5.2.4 Lesson transcripts

I transcribed two video recorded lessons from each teacher. This was the most difficult and time consuming part of the research process, as I had to make sure that I put everything that was said down, but it was the most worthwhile. Transcribing the lessons gave me the opportunity to notice even the smallest details of the lesson, which I might have missed by just looking at the videotape or by simple observation.

After I finished transcribing the lessons, I gave each teacher his/her copies. By doing so I was still building that mutual trust and at the same time hoping to raise their awareness about their practices, which was one of my aims for conducting this research.

3.5.2.5 Interviews

Cohen and Manion (1989), describe an interview as an unusual method because it involves the gathering of data through direct verbal interaction between individuals. I also used interviews as additional means of data collection for this research, the purpose being to obtain information by actually talking to the subject (Seliger and Shohamy 1998).

The duration of each interview was approximately 30 minutes. Each interview was recorded on tape and then written in note form. The interviews were primarily intended to give a broad understanding of the issues relating to code switching. The interviews were semi-structured and consisted of general questions and some probe questions. The latter served the purpose of drawing out more detailed responses from the interviewees with regard to particular issues. The interview schedules were used with some flexibility when it seemed important to pursue a point further with an interviewee. Thus, the advantage of using the semi-structured interview is that it provides one with some latitude and enables one to elicit more elaborate in-depth responses when it appears worthwhile to do so. Yet, its structure guides the interview and prevents it from becoming unfocussed. Wragg (1984:184) remarks: "A semi-structured interview schedule allows respondents to express themselves at some length, but offers enough shape to prevent aimless rambling".

I conducted stimulated recall interviews. According to Nunan (1992), stimulated recall is a technique where the researcher records and transcribes part of the lesson and the teacher comments on what takes place during that particular lesson. Bloom (1953) states that the importance of the stimulated recall interview is that a participant may be enabled to relive an original situation with vividness and accuracy if s/he is presented with a large number of cues or stimuli that occurred during the original situation. In this study, I showed the teachers the video clips and allowed them to comment where I needed explanation; in this way their voices were heard.

However, despite the advantages of using this method, it has its limitations too. These include the fact that it is relatively subjective method and it is difficult to prevent bias on the part of the interviewer from occurring. Yet, I believe that this method suited the purpose of the investigation and provided useful findings, which will be presented later.

3.6 Reliability

According to Marawu (1997:23), research is reliable if a different investigator, using the same research procedures used by an earlier investigator, conducts the same study and produces the same findings and conclusions. He goes on to say that this is problematic in interpretive research because a different researcher may produce a different interpretation of the same study. However, Yin (1984) suggests that the researcher must make every step as operational as possible. Accuracy in every step of the research is crucial.

To ensure reliability, I established a clear research procedure and each step was followed and documented. This started from the day I started my research. In doing this I did not forget the ethics of research. Audio-visual records of the classroom activities serve as permanent documents and accessible sources for data analysis.

3.7 Validity

According to Taft (1988), validity refers to the quality of the conclusions and the process through which these were reached. He goes on to say that the exact meaning of validity depends on the criteria of the truth that are adopted. According to Yin (1984), multiple sources of evidence with various perceptions of the same situation are important in ensuring validity.

To enhance the validity of my own interpretation, I conducted interviews with research subjects in order to give them opportunities to comment on my interpretation of the data.

3.8 Generalization

Another concern about single case studies is whether their findings are generalisable. In Bassey's (1999) view, the term *relatability* rather than *generalizability* is a better term in case study designs. He goes on to say that an important criterion for judging the merit of a case study is the extent to which the details are sufficient and appropriate for a teacher working in a similar situation to relate his decision making to that described in the case study. Therefore, the *relatability* of a case study is more important than its *generalisability*.

Bell (1999) argues that a successful case study will provide the reader with a three-dimensional picture and will illustrate relationships, micro-political issues and patterns in a particular context.

3.9 Analysis and interpretation of data

Data analysis is the process where the researcher summarizes and analyses the data collected. According to Seliger and Shohamy (1989), data analysis is about sifting, organizing, summarizing and synthesizing the data so as to arrive at the results and conclusions of the research. For this research I analyze transcribed lessons. The works of people like Adendorff (1992), Dube and Cleghorn (1991), Lin (2000) and Arthur (1996) amongst others influenced my analysis. I looked at the functions of the English / Xhosa code switches. I also drew on interview data to discuss the reasons given by teachers for different kinds of code switches. Data was analysed by focusing on extracts that were instances of bilingual discourse video-recorded in this class. I looked at the functions of code switches in the following learning areas: NS, LLC, MLMMS and HSS. I used one lesson transcript from each learning area.

This chapter dealt with the research methods adopted in this study as well as data collection procedures. The data collected is analysed in the next chapter.

CHAPTER 4

DATA ANALYSIS

4.1 Introduction

At a first glimpse of code switching in the classroom, it is easy to form the opinion that teachers switch codes for one reason only, to make the learners understand their utterances. This, of course, is one of the main functions of code switching since the primary purpose of classroom instruction in a L2 medium class is to teach the learners in a way that encourages meaningful learning. And since their proficiency in this language is incomplete, the teacher feels it necessary to use the learners' L1 in order to make his / her learners understand.

Teachers know that they are supposed to teach in English, but there is seldom-true bilingualism on the teacher's behalf in using the L2 for teaching, since s/he is usually a L2 speaker of that language too. Furthermore, teachers know that their learners will probably not understand if they teach them in English. Thus, according to McDonald (1991:19), teachers also find themselves "struggling with handicap", that of teaching in a L2. Further investigation of classroom data, however, clearly indicates that code switching has more functions than mere translation.

This chapter features the analysis of data based on the interaction of three grade seven teachers with their learners. The focus is on the language they use to impart information to the learners, in particular the functions of code switching in their learning areas. In addition, the researcher wants to find out if code switching in the classroom is different in content subjects than in language lessons, in this case English.

Data is analysed by focusing on extracts that were instances of bilingual discourse video-recorded in this class. I examine the functions of code switches in the following learning

areas: NS, LLC, MLMMS and HSS. One lesson transcript from each learning area is analysed. The analysis starts with the social functions of code switching, that is, all those switches identified as not forming part of the actual learning process and then moves on to educational / academic functions of code switching that occur in my data, these being all the switches related to teaching and learning. I draw on interview data to discuss reasons given by teachers for how, why and when they code switch.

4.2 Analysis

A quick glance at the lesson transcripts (with reference to appendices A, D, C and F) reveals use of code switching in the teachers' interaction with their learners, and this study aims at identifying these instances of code switching and describing the reasons for them. The focus of this analysis, as I stated before, is on the functional aspects of code switching that occurred in this study. The following section looks at the functions of the various switches in each learning area.

4.2.1 Natural Science (NS)

The teacher was doing the principle of displacement and measurement of irregular solids. He had apparatus to conduct this lesson. I identified five uses of code switching, three of which were social and two were educational. Therefore, switches to Xhosa (learners' and teachers' first language L1) served both academic and social functions. Xhosa was used as a confirmation check device, for management, for giving instructions, clarification and it also served a repetitive function.

Social Functions

L1 as a confirmation check device

Zongamele used tag switches, “**nhe**”, “**andithi**”, “**iyavakala**” and “**siyevana**”, which are in the interrogative form. “**Siyevana**”, literally means “Do we hear / understand each other / Do you get it / Are we still together?”; “**iyavakala**”, on the other hand, means “Is

it understandable?”. “**Andithi**” means “Isn’t it / not so?” and “**nhe**” means “Ok / Is it?” Tag switches according to Marawu (1997), are exclamations, tags or parentheses in another language. The following extract is an example of these tag switches.

Extract 1

- T: the space of water [*writing on the board*], the space of water. That means that your body displaces, **siyevana** [do you get it]?
 C: Yes
 T: displaces water and the water level [*writing on the board*] water level rises, **siyevana** [do you get it]?
 C: Yes
 T: and the water level rises, **iyavakala** [is it understandable]?
 C: Yes

[*As the lesson progresses*]

- T: u200 instead of?
 L11: 300
 T: 300 **nhe** [is it]? **Nina, o-o** iright **le yenu** [You, ok, yours is alright]. Now (Learner 7) ireading **yenu ibisithini kuqala** [what was your first reading]?
 L7: 500
 T: was 500, **andithi** [not so]?
 C: Yes **tishala** [sir]

When asked why he uses these expressions, Zongamele said he usually uses them to check learners’ understanding. This is indicated in the following extract from the interview with Zongamele.

Extract 2

- Researcher: I also noticed the frequent use of the following phrases in your lesson: “**siyevana**”, “**nhe**”, “**andithi**” and “**iyavakala**”. What is / are the functions of these phrases?
 Zongamele: One thing I can say is that, I look at the learners’ response, for example, facial expression, nodding and any other body language

which suggests that learners are confused or stuck, then I use those phrases to check if they understand.

I observed that these tag switches prompted a class chorusing which does not guarantee that learning has occurred. Although Zongamele told me that he uses these to check understanding, I also think that these switches facilitate participation from the learners and they constitute what is termed by Arthur (2000:63) as a “ritualistic pseudo-checking.”

Management

Xhosa was also used as a means of exercising classroom management, that is, L1 was also used for its effect in highlighting frame shifts and changes in the teacher’s concerns. This break in the English pedagogic frame to highlight a different, urgent set of concerns could not have been achieved without the teacher’s switch from English to Xhosa. The data which I see as supporting the contentions which I have made above, is the following:

a) You count the volume, two minutes. [*No response from learners*]. ***Siyabala kaloku ngoku*** [we have to calculate now] in groups. ***Naziya iilantika zenu*** [There are your things]. You’ve got the old reading and the new reading. You must check the volume of the object you put in water. [*Some learners do as they are told*]. ***Khawulezisa*** [Hurry up]. ***Sisebenza sonke*** [We work together (learner’s name)] ***kuba kaloku kufuneka siproduce intobana siyitacklisha njani kuba kaloku sifuna*** [because we have to decide on how to tackle the problem, because we want], we want the volume of that stone inside your, your water. The volume of the stone inside. ***Waphel’umzuz’okuqala*** [The first minute has ended]. ***Sesigqiba ke ngoku***, [We are about to finish now]... ***Masithethe ngokuba*** [Let us talk because] everybody is finished.

The teacher here is concerned about the fact that learners were not following his instructions, and some worked independently although they were supposed to work in groups. He was also concerned about time. The word “***kaloku***”, which I do not have an

English equivalent for, was used for politeness to signal solidarity with the learners as well as the teacher's desire that learners co-operate with him.

Giving instructions

Instructions are essential features of any classroom activity, therefore, they are very important and it is essential for learners to understand them in order to get things going in class. The following extract shows how Zongamele used L1 to give instructions for the activity he wanted the learners to conduct.

Extract 3

- T: [Distributing apparatus to groups] ***Umnt'uzakuthatha le nto ikhoyo phambi kwakhe ... Ndifuna ke ngoku nani nithathe*** [a person will take what is in front of him / her ...I want you to take now], you must take those as basins. Pour water inside. You put any object inside, where this object is going to make the water rise. ***Nani*** (Learner 1) ***yizani nizojoina apha*** [you too come and join here]. ***Nakuphinda nibuyele ezindaweni zenu*** [you will go back to your places]. ***Nanga amatye akhona phandle*** [stones are available outside]. [*Learners pour water in containers*]. ...

[Later]

- T: ... Make sure that the, is exact. If it's not exact, make sure that you reduce water or ***uphungul'amanzi kodw'id'ibeyiloo nto, siyevana?*** [decrease the level of water but it must be the original level, understand?] But ***uqinisek'ba uGroup C*** [make sure that Group C] has got 400ml. One member from each group to find an object to put inside so that the water is displaced by that object.
- C: [no response].
- T: ***Igroup nganye mayikhuph'into ilantika imember iyokukhngela intw'engayifaka phakathi ezakwenza laa manzi anyuke.*** [each group must select a what-you-call a member to look for something that they will put inside, something that will make the water rise].
- C: [some learners go outside]
- T: ***Intw'ezakungena kuloo nto yenu.*** [Something that will fit in your container]. ***Bayalwa, ... Benzani? Bayalwa bayagilana.*** [*Learners laugh*] [They are fighting, ... What are they doing? They are fighting and pushing each other]. ***Uthe u*** [(Learner11) said],

T&C: the water, the, the, your body takes the space of water. That is why
the water is rising, and eh-e it means your body displaces what ---?
water

This extract reveals three ways in which the teacher use L1 to enhance a better understanding of the instructions for the given activity. First, it reveals the use of L1 as a signal from the teacher to the learners about the upcoming message. The switch “**Ndifuna ke ngoku nani nithathe....**[*continues in English*]” implicitly alerts the learners to the fact that the coming instruction is very important.

The second thing which is revealed by this extract is the use of L1 to translate what has been said in English to give learners a better understanding of the instruction. The learners did not respond to the teacher’s instruction which was initially said in English (second last paragraph of the extract), but after the translation, the learners did as they were told.

The last thing which makes the role of Xhosa interesting in the above extract and in the whole activity is that L1 was also used for humor. If we look at the last paragraph of this extract when the teacher said “**Bayalwa bayalwa, benzani? Bayalwa bayagilana.**” The laughter from the learners confirms that the learners perceived the teacher’s comment as humorous.

Extract 4

T: Let’s put the objects inside. [*Learners do as they are told*].
[*Teacher talking to one of the groups*]. **Niliyeke lihlale phantsi**
kaloku [Let it sink down]. [*talking to the whole class*] **Nawe awu**
... Awuthi xa ungen’e komini wenjenje [Even you, you don’t do
like this when you are entering the basin] [*demonstrating*],
[*learners laugh*] ...

The above extract also shows how Xhosa was used for relationship building. Even in this extract, learners perceived the teacher’s behaviour as humorous. I think most importantly, the teacher’s aim was to relieve tension as the activity was going on. Stated differently, I

could say that this was also an effective strategy for the teacher to reduce the formality that attended the use of English.

Academic Functions

Repetitive Function

According to Flyman-Mattsson and Burenthunt (1999), one of the main reasons for teachers switching codes to the L1 of the learners is to make the learners understand their utterances. In the following extract, code switching is used as a repetition of the previously asked question.

Extract 5

- T: We say water rises, why?
C: [Quiet]
T: Mhm, Why is water rises?
C: [Quiet]
T: Why does water rises, (Learner 1), yes (Learner 15)?
Ls: [Quiet]
T: **Kuthen'amanzenyuka xa ungena pha?** [Why does water rise when you are in?] (Learner 9)
L9: **Kungokuba uneweight ngoku anyuke.**[It's because you have weight, then it rises]
T: Mhm, **ndiyavuma uneweight, ... ungene pha wena, kutheni lento enyuka? Ngenxa b'uneweight?** [I agree you have weight, ... when you are in, why does it rise? Is it because you have weight?]
L11: **Kalok'uthath'ispace.** [Because you have taken the space]
T: Good, good, **uthini?** [what does she say?] They have taken the space of water, good. ... , this means that your body displaces, **siyevana?**[do we understand each other]
C: Yes
T: displaces water and the water level [writing on the board] water level rises, **siyevana?** [do we understand each other?]

In this extract, the teacher resorted to Xhosa because he felt that the learners did not understand the question. While the learners did not respond initially, the switch to Xhosa

ushered in some answers. I think the use of L1 in this case did not only help learners understand the question, but also encouraged contributions from them. Furthermore, the “follow-the-leader” principle of code choice identified by Zentella (1981) in bilingual classrooms in New York, is evident in the above extract because the option of code switching was also available to learners. The learners took the signal sent by the teacher’s switch into Xhosa for a genuine invitation to reply in Xhosa. Thereafter, the teacher proceeded to introduce the English vocabulary items related to the lesson.

Clarification

According to Grima (2000), an important component of communication in the classroom is the way in which teachers and learners talk about texts in their interactions with each other. In this lesson, Xhosa was the code by which the teacher slightly advanced his interpretations of the text.

Extract 6

T: ... What is the volume of the object or the stone that you have put inside the water? Group C, the water was 300ml, now you have put the stone you’ve got 450ml, and with you Group A, you had 500ml and now you’ve got 750ml. You count for me the volume the volume of your stone. [*Talking to Group B*] and then 200ml, you’ve got 230ml. You count the volume, two minutes.

[*Learners calculated the volume, and the teacher noticed something wrong*]

T: ... Right, I think **abantu** [people] they have added, they have added the volume of the water with the volume of what ---? Of the stone, **andithi?** [not so?]

C: Yes

T: **Andithi?** [Not so?]

C: Yes

T: Now, let’s go. It means **ngoku ubangaba nibala** i volume [now we / you have added the volume] of the stone inside the volume of the water. That means **ni/nenze intoni?** [what have you done?] **Amanzi ngathi ayintoni?** [Water as if it is what?] **Alilitye nawo** [It is the stone too]. **Itsho kaloku loo nto** [This implies that]. **Ithi njeng’ba ubungene kaloku kule bhafu yakho** [It means as you entered your bathtub], **andithi**, [isn’t it] **inamanzi** [with water] and

- water rises, **uth'umbuzo** [the question is], what is the volume **yent'ubuyifake pha phakathi, andithi?** [of the thing you put inside, isn't it?]
- C: Yes
- T: **Andithi?** [Isn't it?]
- C: Yes
- T: Eh-e, now **uz'uthi wena ngamanzi adibene nalaa nto** [Then you say it's water together with that thing]. **Itsho kaloku lento** [That is what is meant by this]. Now let's go. Let's do this **ke ngoku** [now]. Subtract the first reading volume from the second reading. **Ke senze loo nto ngoku** [Let us do that now]. Subtract the first reading from the second one. ...

In this extract, the teacher was trying to clarify the question in order to make it accessible to learners so as for them to be able to answer it correctly. He tried to reiterate, paraphrase and reinterpret it. By so doing, he was trying to translate the meaning of the question into the more comfortable patterns of spoken language. The teacher explained the question in Xhosa by gradually eliciting the meaning of the problem that was asked in English.

In concluding my analysis of the data from the Natural Science lesson, it is clear that Xhosa code switches facilitated the teacher's accomplishment of his academic and social agendas by enabling him, implicitly, to clarify information, facilitate participation, encourage contributions from learners, give instructions and manage classroom activities.

4.2.2 Language Literacy and Communication (LLC2 - ESL)

As I stated before, NS and LLC2 were both taught by Zongamele. In this English lesson, he was introducing learners to poetry. The data alerts one, as it did in the previous lesson, to a two-fold set of functions which Xhosa code switching accomplished in that classroom, namely, academic and social functions. However, let me point out that the use of L1 in this lesson revolved around the clarification of a previously asked question and management. Nevertheless, five uses of L1 were identified. Xhosa was used as a confirmation check device, and for encouragement, management, clarification and translation.

In this analysis, I will not tackle the use of Xhosa as a confirmation check device because I think the functions of the tag switches used by Zongamele in this lesson are the same as those used in the NS lesson. He used the same tag switches in both lessons except “**nhe**” which was not used in the English lesson. In our interview too, he never gave me any reason to believe that he used these tag switches differently in his learning areas.

Social Functions

Encouragement

Xhosa was also the code of encouragement, which means that it fulfilled a social function. It interceded between the complexity of the lesson, the efforts of the teacher and the morale of the learners.

Extract 7

T: **Khawutsho mfondini** [Just tell me pal] what can make you write a poem? Or, what can you say ...about writing a poem?

[Later]

T: **Imbongi ibonga phi kuqala?** [Where does a traditional poet sing his praises?] **Wakhe wayiv'ibonga phi imbongi?** [Where have you heard a traditional poet singing his praises?] **Khawutsho** [say something (learner 11)].

The teacher in order to establish a less distanced and non-institutionally defined relationship with his learners uses the phrase “**Kawutsho mfondini**” and “**Khawutsho**”. The teacher uses the word “**mfondini**”, which in Xhosa is used amongst men of the same age group, instead of “**kwedini**” which refers to a boy. By saying “**Mfondini**” instead of “**kwedini**” to that learner, the teacher was trying to put himself and the learner at the same level and by so doing encouraging the learner to give responses. In addition, the teacher was signaling friendship and solidarity to his learners with the hope of eliciting responses.

Management

Extract 8

- T: ... *kodwa ke make sizibeke phantsi iincwadi ezi, ke sidiscusse thina*, [but let us put our books down and discuss] what makes one to write a poem? ... *Sidiscussa sonke ke ngoku* [Let us all discuss now]. *Nakuthethathethana nixoxe laa mbuzo nize neempendulo, siyevana?* [You will talk amongst yourselves, discuss that question, and come with answers, do you get it?]
- L3: Yes
- T: Get it?
- L3: Yes
- T: (Learner 2) *kha uhoeye idiscussion le ninayo apha eklasini* [Pay attention to the discussion that you have in class]. *Siyevana?* [Understand?]
- L3: [No response from the learner]
- T: (Learner 3) [Referring to the same learner] *kuyaxoxwa pha ngabanye abantwana* [Other learners are discussing there].

[Later]

- T: ... *wakhe wayiv'ibonga phi imbongi? Khawutsho* (Learner 11). [Where have you heard a traditional poet singing praises? Say something]
- L11: *Xa kukho indibano* [When there is a gathering] [*speaking softly*]
- T: Mhmm, *sithi xa kukho indibano enkulu, andithi?* [We say, when there are big gatherings, not so?]
- L11: Yes *tishala* [Sir]
- T: *Heke*, [That's it] *okanye phi?* [or where?]....

The above extract reveals how Zongamele used Xhosa for efficient classroom management. He used L1 for procedure and direction, “**Make sizibeke phantsi iincwadi ezi, ke sidiscusse thina. Nakuthethathethana nixoxe laa mbuzo nize neempendulo, siyevana?**” The teacher here was trying to direct learners towards the given activity. He did that in the learners’ L1 to make sure that everybody understood so as to be able to do the activity.

Secondly, L1 was used to reprimand, “(Learner 2), **kha uhoeye idiscussion le sinayo apha eklasini ...**”. Here the learner who was not taking part in the given activity annoyed the teacher. By switching to Xhosa, the teacher seemed to be relaying to this learner this implicit message, “Now I am so annoyed by your behaviour, and you’d better take my

command seriously” and the use of the tag switch “**siyevana**” has a different meaning in this context. By saying “**siyevana**” at the end of his command, the teacher was saying, “I am enforcing it”.

Lastly, the teacher used L1 to compliment the learners, “**Heke**”. Here, Xhosa carries the weight of the teacher’s approval of the learner’s answer. Hence, once again it signals the teacher’s solidarity with the learner.

Academic Functions

Clarification

The teacher started by writing two questions on the chalkboard, and asked the learners to discuss those questions in groups, starting with the first one. The questions were: (1) what makes one to write a poem? (2) As a reader, when reading a poem, what do you get from a poem? He gave learners two minutes to discuss the questions in groups, after which he asked them individually to give him answers. The following extract is an example of what happened.

Extract 9

- T: **He** [Pardon] (Learner 7), what, what makes you to write a poem? **Ufun’uthetha ngantoni kuloo poem** [What do you want to talk about in that poem], **thetha ngantoni?** [talk about what?] **Ufun’uthetha ngantoni?** [What do you want to talk about]
- L7: [*Quiet*]
- T: (Learner 6)
- L6: [*Quiet*]
- T: Let’s say ... 2001, **kha ubhale** [write] write a poem. **Ungabhala ngantoni mhlawumbi**, [what can you perhaps write about] ‘cause **mhlawumbi le poem izaku ...** [may be this poem is going to be] Is going to be distributed **aph’elalini**[here in the village]. **Uyafumana?** [Do you get it?] And **ifundwe ngumntu wonke** [read by everyone]. **Ungafun’uthetha ngantoni pha kulaa** poem [What would you like to talk about in that poem?] **Yintoni onga ... uzakuthetha ngantoni?** [What would you talk about] (Learner 11). **ungathini?** [What can you say?] **Ufun’ubhal’ipoem** [You want to write a poem], **le poem kodwa izakufundwa ngumntu wonke kwa (their village’s name) nase** (Their region’s name)[But this poem is going to be read by everyone in (Their

village's name) and (Their region's name)]. **Ungathetha ngantoni kule poem** (Learner 11)? [What can you talk about in that poem?] What can you speak about in a poem?

L11: [Quiet]

T: ...come on. What can you speak about in a poem? Yes [*referring to a learner*]

L: [Quiet]

T: (Learner 1) **loo** group **yakho** [your group].

L1: [Quiet]

[*Later as the lesson progressed and learners were still quiet*]

T: Mhmm, **Theth'ba xa kunokuthiwa kha ubhale nje uvoice uluvo lwakho** [Do you mean if you can be asked to write just to voice your opinion], **theth'ba awunayo into onayo apha ngaphakathi obawel'ba mayaziwe ngabantu?** [You mean you don't have anything inside which you wish people to know] **Noba uyayithanda noba awuyithandi na** [Even if you like it or not]. **Nob'uzayincoma, nob'uzayigxeka** [Even if you are going to praise or criticize it]. **Akunayo nje int'onothetha ngayo wena?** [Don't you have anything to talk about?] (Learner 11).

L11: **Ndizakuthetha ngesikolo tishala.** [I am going to talk about the school Sir]

T: You can write about ---

L11: the school

T: The school. Say what about the school? **Uzakuthi sitheni isikolo?** [What are you going to say about the school?]

L11: **Isikolo sam tishala asibiyelwanga.** [My school is not fenced Sir]

T: Mhmm, the condition of my school.

After the learners did not respond to the question, Zongamele realized that some clarification was needed to help learners understand the question. In the above extract we see him providing explanations and commentary in Xhosa. He tries to ensure comprehension by relating the unfamiliar L2 academic topic to the learners' familiar life-world experiences, which are naturally encoded and expressed in the learners' native language. For instance, he asked them what they could write about, what they wished to voice about their feelings, something that might be read by the people of their village or area. By so doing, he was trying to make poetry meaningful and relevant to the learners' own experiences.

The few learners who responded in this lesson did so in their L1 except two, one of whom gave a one-word answer in the target language. The teacher translated and incorporated their otherwise “illegitimate”(in the sense that this was an ESL lesson) L1 contributions into L2 knowledge corpus. This reflected the teacher’s pragmatic response to the dilemma of trying to value and build on all that the learners bring with them to the classroom, on the one hand, and fulfilling the curriculum requirements of teaching ESL, on the other.

What made this lesson difficult is the fact that the teacher did not pick up that learners did not know what a poem is in the first place. This was revealed by the learner/learner interactions that took place away from the teacher’s eyes and ears. This is what is termed by Canagarajah (2000:205) as the “classroom underlife”. The following data reveal this “underlife”:

[Groups are quiet. After a while one learner whispers to her group members]
Andiyazi ipoem *ba yintoni mna* [I don’t know what a poem is]
[Another learner]
Yhu! Andiyazi [Oh! I don’t know]

These secretive exchanges, which took place while the teacher was otherwise occupied, could have helped him understand the learners’ problem.

Translation

Translation is another aspect of code switching, which appears in my data. According to Gough (no date), the value of translation in a language lesson is that, through this means people begin to notice how language works, that is, they gain meta-linguistic knowledge. Particularly in the case of vocabulary, learners are also able to relate knowledge in their home language to new terms in their additional language. The following extract shows instances when the teacher translated an English word / sentence.

Extract 10

L11: *Isikolo sam tishala asibiyelwanga* [My school is not fenced, Sir]

T: ... (Learner 11) can express ideas about *the school that needs fencing*, ...

[*As the lesson progressed*]

T: ... Someone can be talking about *parenthood*, that is *ubuzali, siyevana?*
[parenthood, do you get it]

[*Later*]

T: ... *Sithi xa kukho indibano enkulu, andithi?* [We say, when there is a
big gathering, not so?]

C: Yes *tishala* [Sir]

T: ... *When there are big gatherings.*

The teacher translated what a learner said in Xhosa and sometimes what he said in English / Xhosa himself. By so doing, the teacher was actually doing some language work and at least learners were getting some potential to learn. He was also helping learners to associate what they already knew in their mother tongue with what he was saying in English.

All in all, the transcript revealed that there was little use of English as a language of active communication by the learners in this lesson. Zongamele used code switching as a resource for ensuring that meaningful communication took place.

When asked about his code switching strategy in the learning areas he teaches, Zongamele said, he code switches less in an English lesson than in a Science lesson. These are the reasons he gave for this:

Extract 11

Researcher: You teach NS and LLC2 i.e. ESL, do you feel that your code switching strategy differ in these learning areas?

Zongamele: I code switch less in an English lesson because there are certain areas that I need to discover in a language lesson. At the end learners should be able to speak the language. They must hear English, they must read and write English. So I have a specific purpose in an English language lesson, that of teaching learners to speak the language itself, unlike in NS where I tell myself that I am mainly concerned with the understanding of the content. ...

Although my subject told me that he limits his switches to Xhosa in an English lesson, my data showed otherwise. At this point I resorted to stimulus recall using lesson transcripts. I decided to use lesson transcripts because the switches are highlighted in bold and therefore it would be easy to see the difference. I showed him both his lessons i.e. NS and ESL, and this is how our conversation went:

Extract 12

Researcher: [*stimulus recall*] Let us now look at this highlighted lesson transcripts of both your lessons. If you notice, the switches are almost equal, can you give me the reasons for this.

Zongamele: One thing that may have caused this is that I noticed that learners were very confused in that English lesson and I could not reverse the lesson, rather I implemented another strategy or approach. Code switching a lot is a sign that learners do not understand, you see...

He went on to say that how often one switches codes in a lesson is sometimes not always about teaching a content subject or a language lesson, but sometimes it is about how difficult or abstract the lesson is. It is this that determine how often one will switch codes in the lesson.

4.2.3 Mathematical Literacy, Mathematics and Mathematical Science (MLMMS)

The lesson was on division of fractions. The teacher used the whole class instruction approach. In this lesson, five functions of code switching were identified. Code switching was used as a confirmation check device, for repetition, as an attention focusing device, to draw on learners' experiences and for solidarity purposes.

Social Functions

CS as a confirmation check device

Songezo's lesson transcript revealed almost the same tag switches as those in Zongamele's data. He used "**nhe**", "**andithi**" and "**moss**" (which was not used by Zongamele). "**Moss**" [not so] is an Afrikaans word, which is used by Xhosa speakers more or less the same way as "**andithi**" and in some cases they are used simultaneously. The following extract shows how Songezo employed tag switches in his lesson.

Extract 13

- T: **Ziyashota aziphelelanga** [There is a shortage, they are not all there].
 Injalo moss loo nto [Is it like that, not so?]
C: Yes, **tishala** [sir]
T: ... Then **uyaaddisha moss** that **andithi**? [you add that, not so?]
C: Yes
T: But now we are dealing with division of fractions, **nhe**? [ok?]
C: Yes

Like Zongamele, he said he used these phrases to check if learners understood what he was saying. Worth noting though are other reasons he gave after the researcher resorted to stimulus recall.

Extract 14

- Researcher: [*Stimulus recall*] Do you still think that the learners' responses here show that they agree / understand what you were saying?
Songezo: Sometimes they do. But, what I can also point out is that, I do not only use these phrases to check understanding. Most of the time I use them to see if the learners are still with me, and if they still follow the lesson. I use these phrases to get attention from all of them, i.e. to get them to pay attention and be part of the lesson.

I think in Songezo's view, tag switches were the means by which he checked if his learners were following the lesson. The above extract shows that, these tag switches

seemingly were not intended by my participants as a genuine check of learners' understanding; they were facilitative strategies to encourage participation by learners.

L1 as an attention focusing device

Using extract 16 (on page 19) as an example, the switch to “**Ke ngoku**” [Now], was not meant to repeat or clarify anything said in English, but Songezo used Xhosa here as a communicative strategy to focus or redirect the attention of the learners. He wanted the learners to listen carefully as what he was going to introduce was an important part of his lesson. The “**Ke ngoku**” code switch is a brief contextualization cue, signaling an implicit message that what follows is an important procedure in the division of fractions, and was being introduced into the discourse for the first time. According to Adendorff (1992), this is a prospective signal.

Solidarity

Extract 15

T: Then, in the old days, we were having, **ndenz'umzekelo mhlawubi** [Making an example], we are saying [*drawing on the board*] this is another goat, this is another goat, **ziibhokhwe zam ke eziya**. [Those are my goats] [*Learners laugh*]

Xhosa was, at this point used by the teacher as the solidarity code. This I can infer from the fact that the teacher drew funny goats and said to the learners “**Ziibhokhwe zam eziya**”. And both, the verbal and non-verbal (the drawing) behaviour of the teacher, were perceived by the learners as being humorous. This was an attempt on the teacher's part to create a positive attitude towards what was happening in class.

In addition, the teacher's code switching also carried the full weight of the teacher's approval of the learners' answers. But what is interesting here is the fact that the teacher did not use the learners' L1 to do that rather L3 (Afrikaans). He used the Afrikaans word

“ja” [Yes]. Xhosa speakers of the same age group normally use “Ja and / or Ija”, in fact, “Ja” is usually associated with “Tsotsi taal”, and this is why a young person cannot use “Ja” to an elderly person, as this would be a sign of disrespect. But when an old person uses “Ja” to a young person, it is a sign that he/she is trying to build some kind of a familiar relationship. I think by using “Ja”, the teacher was trying to create a friendly atmosphere in the classroom.

Academic Functions

Repetitive Function

What Songezo did here was to build on learners’ understanding of multiplication of fractions. In the example below, we see the pattern of code switching in which the teacher easily moved back and forth from English to Xhosa, repeating in the learners L1 what had been said in English.

Extract 16

- T: Then **ke ngoku** [now], something new **apha kwi** [here in] division is that, now you write the first term **engu** [which is] 5/1, then this division sign is going to change into a multiplication sign like this. Then after you changed your signs, then, your denominator will become a numerator, and then the numerator will become a denominator. **Iyatshintsha idenominator yakho ibe yintoni?** [Your denominator changes to be what?]
- T&Ls: **Yinumerator** [a numerator]
- T: **Inumerator yakho ithini, ibeyi?** [What happens then to your numerator, it becomes a?]
- T&Ls: **Ibe yidenominator** [it becomes a denominator]
- T: ...Then after that you multiply the numerators, then you multiply the denominators. ...

As in Dube and Cleghorn’s (1991) study, Xhosa appears to emphasize what has been said in English, at the same time retaining the learners’ attention to the problem at hand. The formal terms though remain in English. There might be two reasons for this: Firstly, perhaps there are no Xhosa equivalents for those terms or, secondly, these are the terms

learners need to know for examination purposes. But all in all, L1 appeared to prompt understanding.

L1 to draw on learners' experiences

The following discourse reflects the teacher's attempt to relate culturally and linguistically distant L2 academic topic to learners' most familiar life world experiences to make school learning relevant and interesting to them.

Extract 17

T: ... Then ... *Kudala moss ukuba nisakhumbula abantu bakudala indlel'ababebala ngayo iinantsika iinkomo zabo. Wayenamaty'utat'omkhulu, kungen'inkomo yokuqala, athath'ility'alibeke ngapha.* The moment *amaty'akhe angaphe angalithathi uzakuyazi ukuba iinkomo zakhe azitheni?* [If you still remember in the olden days how people used to count what-you-call, their cattle. Grandfather had a heap of stones, and when the first cow enters, he would take one stone and put it aside, and so on. The moment a stone is left, he would realize that his cows ...?]

C: *Aziphelelanga* [That they are not all there]

[As the lesson progressed]

T: *Xana moss pha uthatha amacephe eswekile uwagalela entweni? Emxobeni wakho wenantsika wo womxobo wamanz'eswekile okanye umxobo weti yakho ugalele loo macephe ayi 4, andithi uyabala?* [When you take some spoons of sugar and pour them in what? Into an empty tin cup with sugar water or tea tin cup. When you pour those four spoons, you are counting, aren't you?]

C: Yes

T: Then *uyaaddisha* moss that, **andithi?** [Then, you add, not so?]

This was at the beginning of the lesson when the teacher was trying to show learners that what they do in Maths at school is what they do in their everyday lives. The teacher uses L1 here because the learners' life world experiences are encoded in their L1. The data below show reasons given by Songezo when asked about the functions of those particular switches.

“I was trying to give my learners a better understanding of what I was teaching, and I was trying to show them that some of the things we do in Maths at school, are what they do in their daily lives. I was trying to link what I do in class with what they do outside the classroom. I do this in Xhosa because I feel it would not have the same impact if I use English. I think, if said in English, they will think it’s something new”.

Further reasons for code switching

Apart from the functions of code switching discussed above, there are also some cases that are difficult to explain since there are no obvious reasons for switching code. My field notes and the data below reveal the use of the word “**nantsika**” by Songezo, and the insertion of a vowel before an English word making it sound like a Xhosa word e.g. **in**umerator, **iden**ominator, **nem**ultiplication, **idiv**ision, **ip**art etc. The data below is an example of what I stated above:

“ Now I’ve just said that we did **isubtraction**, sayenza **idivision inantsika** **isubtraction**, ...**emxobeni wakho wenantsika wo womxobo wamanz’eswekile**. ...It is what we are doing amongst the **nantsika**, the community. **Icross nantsika** ... then 5x5 ...

When asked about the above instances, this is what my subject said:

Extract 18

- Researcher: You also use the word “**nantsika**” a lot in the lessons I observed, can you tell me why?
- Songezo: I use “**nantsika**” when the word I want to use in that particular sentence flushes. Most of the time I remember that word after I used “**nantsika**”, then I just continue with what I was saying.
- Researcher: What is the reason for the insertion of a vowel before an English word making it seem like a Xhosa word e.g. [*stimulus recall*] **ianswer, ipart, uaddisha, in**umerator etc.
- Songezo: I usually do that when I begin my sentence in Xhosa and do not have a Xhosa equivalent for that English word. But most of the time, it happens spontaneously because it is the way we talk.

In multilingual communities, code switching is construed as a bilingual mode of communication. Approached from Songezo's point of view, code switching in the above examples can also be perceived as not only a display of his level of proficiency in English and Xhosa, but also a display of his bilingual ability. In other words, code switching also happened as an unmarked choice, i.e. it occurred naturally as a phenomenon that is frequently and extensively used by participants proficient in two or more languages.

In sum, code switching in this lesson guided the participants' interpretations of academic goals and intentions as well as their interpretation of social relationships in the classroom.

4.2.4 Human and Social Sciences (HSS)

The teacher was teaching the climate of Great Britain. She used the map of Great Britain as a teaching/learning aid. A quick glance at her lesson transcript reveals very few switches to Xhosa, but a lot of drilling of answers as she used the question and answer methods a lot. However, my field notes reveal that Ncumisa code switched more or less the same as other teachers during my observations, but seemed to control her switches in the two lessons that were video recorded for analysis. I will try to argue the possible reasons behind this behaviour later in this analysis. Nevertheless, three uses of code switching were identified in this lesson. Xhosa was used for management, translation and scaffolding.

Social Functions

Management

Ncumisa used Xhosa when she wanted to reprimand learners or elicit responses from them. The following extract is an example of that.

- T: **Ziinton'ezinye eziya** [What are those things] (learner's name)?
Khanival'incwadi nina. Khanival'incwadi ezingeyayo lento ndiyifunayo.
[Just close your books. Just close the books that are not for what I want].
What do we mean by weather? What do we mean by weather? What do we mean by weather?
- C: [Quiet] [one learner busy doing something else]
- T: [Referring to that learner] (Learner 4) **ubusy zezakhwizinto wena** [you are busy doing your own things]. What do we mean by weather? (Learner 8)

[As the lesson progressed]

- T: We mean wind, temperature and climate. What do we mean by weather class?
- C: ... [Mumbling]
- T: **Sonke**
- C: Temperature, wind, climate

[Later]

- T: **Yintoni ebangel'ba ugungquze, awuyaz'imap yakho, awuyaz'imap yakho?** [What makes you fidgety, don't you know your map, don't you know your map?]

Learners who were not yet settled disturbed Ncumisa. She told them initially to close all other books, but some did not. “**Khani**” in “**Khanival'incwadi nina**”, shows that these learners annoyed her. It also shows that it was not the first time she was telling them to close their books. What is especially important to note in this regard is the manner in which the classroom management was carried out. The video clips showed that Xhosa was the language of extra loudness. It was also the language of authoritarianism. “**Khanival'incwadi ezingeyayo lento ndiyifunayo**” [Just close all the books that are not for what I want], shows that the teacher was enforcing the command and expected the learners to do as they were told.

Furthermore, Xhosa was also used to facilitate contributions from the learners. The teacher was drilling the learners on the definition of weather and at first some of them mumbled. The use of “**Sonke**” [All] prompted a response from all the learners.

Academic Functions

Translation

Some of the switches Ncumisa used to interact with her learners were translations. The following extract is an example of translation used by Ncumisa.

Extract 20

- T: ...When do the people of Great Britain get rain?
C: [*Quiet*]
T: (Learner 1)
L1: [*Quiet*]
T: ([Learner 3])
L3: [*Quiet*]
T: When do the people of Great Britain get rain?
C: [*Quiet*] T: *Nini*, when *nini*? *Bayifumana nini invula abantu baseGreat Britain?*

After asking the question in English and got no responses, she started by translating “when” which in Xhosa means “**nini**”. She then decided to translate the whole question “**Bayifumana nini invula abantu base Great Britain?**” This is a direct translation of the question, and as I pointed out before, direct translation is meant to help learners associate what they already know in their mother tongue with what is said in the L2. The important function of this translation though in this context was to help learners understand the question so as to be able to answer it.

Scaffolding

Ncumisa also used the L1 to help learners answer questions. After translating the question in extract 17, she still did not get responses from learners. She decided to prompt answers by giving learners answers to choose from. This was done in the learners’ L1. This is what happened:

Extract 21

- T: ...**Bazifumana nini imvula abantu base** Great Britain?
C: [Quiet]
T: **Kany'enyakeni** [Once in a year]? **Kabini** [Twice]? **Ebusika** [In winter]?
Bazifumana ebusika [Do they get them in winter]? In summer? In autumn? When?
L9: All the year round.

What Ncumisa was doing here was scaffolding. Scaffolding, according to Hausfather (1996), requires the teacher to provide learners with the opportunity to extend their current skills and knowledge. Ncumisa was using questions to scaffold the learners' response and by asking the initial questions in the learners' L1 she was providing additional support so that she could reach her instructional goals, in this case to get responses from learners. Hausfather (1996) further argues that scaffolding requires the teacher to look for discrepancies between the learners' efforts and the solution, and to control frustration and risk. Maybe Ncumisa recognized the learners' problem and decided to control their frustration by giving them options to choose from in their mother tongue. When asked why she used both Xhosa and English in her lessons, Ncumisa said:

"I use Xhosa when I get the feeling that learners do not have an idea of what I'm talking about i.e. if they seem not to understand the topic I am talking about. For example, if I teach them about the continents of the world and notice that they do not have an idea of what a continent is, I use a Xhosa word for a continent, which is "**ilizwekazi**".

From what Ncumisa told me, it is clear that she (and other subject teachers too) use their instincts when teaching. Ncumisa used code switching as a valuable resource for scaffolding, translating and managing her classroom activities in order to prompt a shared understanding amongst her and the learners.

4.3 My research subjects' perceptions about code switching in general

In chapter three (Methodology), I mentioned the importance of validity in the interpretation of data. To enhance the validity of my interpretations of the data presented



here, I gave my subjects an opportunity to give me their reasons for code switching in the classroom as well as their feelings about code switching in general.

Before undertaking this study, the first thing I asked my participants was for them to behave as naturally as they could and use language in class as they normally do because I wanted to make sure that I observed the language they customarily use in their day-to-day interactions with their learners.

I have already given teachers' reasons for code switching in L2 medium lessons in the above analysis. In this part I am going to deal with their general feelings about code switching as well as their reasons for letting their learners use their L1 in L2 medium lessons. When asked why they let their learners use Xhosa in English medium lessons, this is what they said:

[General question]

- Researcher: I observed that you allowed your learners to use Xhosa in English medium lessons. Why and when do you allow your learners to use Xhosa in class?
- Zongamele: When I see that they are stuck and they know the answer but cannot express themselves in English. And also when they work in groups.
- Songezo: Sometimes they got stuck if I expect them to answer in English, that is why I allow them to use Xhosa. Sometimes I pose a question in English and get no response, then in such cases I am forced to translate the question, then they respond.
- Ncumisa: Most of the time I let them use Xhosa when they talk to each other in groups. Sometimes I ask them a question in English and notice that some of them know the answer but it's difficult to express themselves in English, in such a case, I allow them to answer in Xhosa so as to make them comfortable and to encourage them to participate in the lesson.

From this I can deduce that my subjects allow their learners to use their L1 to facilitate participation and to create an atmosphere that is conducive to learning. When asked if the only reason they code switch in class was to benefit learners (taken from the reasons they

gave for code switching), all of them said that was the reason that is to help learners understand what was taught.

Although my subjects had “good” reasons for code switching in the classroom, their general feelings about code switching said otherwise, especially Zongamele’s. Ncumisa and Songezo saw the need for code switching in classroom but Songezo had his own fears and he thought that at least 90% of what one says in class should be in the medium of instruction, Xhosa being used only because he felt that there are English terms that are difficult that need to be explained in the learners’ L1. He emphasized the fact that he did not think the use of Xhosa in an English medium lesson was the right thing to do. These were his own words:

“... I do not think the use of Xhosa in an English medium lesson is the right thing, I really do not think it is the right thing because the learners won’t get used in using English. That’s how I feel about code switching”.

Ncumisa felt that code switching is one of the resources she has in the circumstances she teaches under. She felt that because of her learners’ lack of exposure to English, they end up having difficulty expressing themselves. That is why she code switches and she allows them to do the same. This is what she had to say:

“... In the area where I teach learners are not exposed that much to English. I end up being one of the few resources they have. Therefore because of that our learners have difficulty expressing themselves well in English”.

Zongamele had a totally different opinion about code switching. He felt that code switching distorts the learners’ standards of speaking the language, in this case English. Due to that reason, he would prefer that code switching be limited. Rather teachers must resort to other teaching strategies to help learners understand. These were his own words:

“I think code switching is an old style of our teaching which I think distorts the learners’ standards of speaking the language more especially English, it really distorts. ... They end up mixing the two languages. ... I think this is caused by the confusion of code switching. That is why I prefer that code switching must be

closed once and for all. ... I think we must not code switch, rather resort to other teaching strategies so as to help learners understand”

From these interviews, I found out that my subjects, Zongamele and Songezo viewed code switching as leading to lowering the standards. I also found out that although all of them engage in code switching, they have a guilty conscience about doing so. I think that is why Ncumisa decided to control her code switching in the video recorded lessons.

4.4 Conclusion

This chapter analyzed instances of code switching used by my research subjects in interacting with their learners. It looked at ‘the functions of the switches to the learners’ mother tongue, noting that switches were used for various purposes to meet the academic and social agendas of the classroom in order to negotiate and renegotiate meaning, and for constructing and interpreting meaning in context. I drew on interview data to discuss reasons given by my subjects for how, when and why they code switch. Generally speaking, my subjects used code switching for clarification, repetition, encouragement, management, as a confirmation check device, an attention-focusing device, for giving instructions, solidarity, translation, to draw on learners’ experiences and for scaffolding. The last section of this chapter looked at how my subjects perceived code switching. It was observed that though they engage in code switching and consider it to be an important learning resource, they also feel ashamed about their behaviour.

The comparison of code switching in different learning areas will be addressed in chapter five by discussing findings in content subjects classes separately from those in the English class with the aim of finding out if there are any differences or similarities emerging.

CHAPTER 5

FINDINGS AND DISCUSSION

5.1 Introduction

This chapter will discuss the main findings arising from the data analysis in terms of the categories that emerged. The functions of switches were categorized according to, (i) switches that encouraged participation by learners, (ii) those that were inter-comprehension strategies, (iii) Those that were focusing devices and (iv) Those for management.

I will discuss the main findings from content subjects separately from the language (English) data so as to see if any differences or similarities emerge. There will also be discussion concerning teachers' perceptions of code switching as well as some consideration of the use of code switching as an avoidance strategy by both teachers and learners.

5.2 FINDINGS

5.2.1 Functions of code switching in content subjects

The data collected showed extensive use of code switching by Zongamele and Songezo. Ncumisa's lesson transcripts revealed less code switching to the learners' L1. Our attention turns to the nature and functions of code switching employed in content subjects by my participants.

L1 to encourage participation by learners

Tag switches and switches for *solidarity* purposes were categorized as facilitative strategies that encouraged participation by learners. All the above switches were identified as serving social agendas in those classrooms.

“**Andithi**”, “**siyevana**”, “**iyavakala**”, “**nhe**” and “**moss**” were tag switches that dominated the NS and the MLMMS lessons. It has been noted that these tag switches performed a social function, an observation based on the assumption that learners would have understood them even if they were not expressed in Xhosa.

It has also been observed that these tag switches were in the interrogative form. The kind of response they elicited from learners however, did not have educational value as they tended to prompt not an individual response but class chorusing to punctuate a continuing teacher monologue of statements such as, “But now we are dealing with division of fraction, **nhe**?” The kind of response from the learners though, did not guarantee that learning had occurred.

In addition, by using these tag switches, the teachers seemed to be managing learners’ contributions, both by selective hearing and by reformulation of learners’ responses. This was the underlying structure in instances where learners were asked merely to confirm statements made by the teachers. These statements were given the appearance of questions by the use of the above tags, which, as I mentioned before, resulted in affirmative responses that were simultaneously chorused by learners.

Though I have made the assertion that the use of the expressions “**nhe**”, “**andithi**”, “**siyevana**”, “**iyavakala**” and “**moss**”, prompted chorus responses from the learners which might give a false impression that they have understood the lesson, at some points they did show by their answers that they had generally understood. However at one point

in the Math lesson they just chorused without noting that the teacher had made a mistake. The extract below is an example:

Extract 22

- T: So, even if your father is going to slaughter a cow, amongst those 42 cows that he has, he's going to subtract one cow, *andithi*?
C: Yes **tishala**
T: And he will have a remainder of 39 cows, *nhe*?
C: Yes **tishala**

As I mentioned earlier teachers also used code switching for solidarity purposes. Extracts three and fifteen in the analysis chapter are examples where teachers (NS and MLMMS) were using the learners' L1 for relationship building. The important thing about both these switches is that the teachers were trying to relieve tension so as to reduce the formality that attended the use of English thereby creating a positive attitude towards the activities that were taking place in the classroom.

L1 as an inter-comprehension strategy

Lemke (1989) once pointed out that spoken language is the medium through which we reason to ourselves and talk our way through problems to answers. He suggests that when we approach written text, we need to be able to do more than just decode letters to sounds/words, but translate the meaning into more comfortable patterns of spoken language. This I think is more necessary in bilingual classrooms where learners learn through a L2. In my study, the teachers used the learners' L1 to accomplish that, that is, translation of meaning.

According to Nussbaum (1990), bilingual classrooms are sites of skilled communication, in which a high degree of deviation between the linguistic repertoires of the participants leads to a need for inter-comprehension strategies, of which code switching is one. Examples of inter-lingual reformulations that occur in my data are in the form of *repetition, clarification, translation, scaffolding* and use of L1 to *draw on learners'*

experiences. With all these switches teachers intended to fulfill academic agendas in their classrooms.

Repetition, clarification and translation, are all examples of what is termed by Gumperz (1982) as reiteration or pseudo-translation by Auer (1984). In these switches, no new information was added; the purpose in each case was to facilitate repetition rather than repair. As in the study conducted by Dube and Cleghorn (1991), the formal terms were kept in English. For example, “*uneweight, ispace*” (from extract five), “*inumerator, idenominator*” (from extract sixteen). I argued that there might be two reasons for this behaviour, (i) There might be no Xhosa equivalents for the terms used, for example in the Math example from extract sixteen or (ii) Learners needed to know those terms for examination purposes for example NS example from extract five.

By code switching, the teachers were also endeavouring to bridge the gap between the world of the textbooks and the learners’ existing knowledge. This bridging could not have been done solely through the medium of English, because, according to Lin (2000), learners’ life world experiences are naturally encoded and expressed in their native languages. In this case, each teacher was an important linguistic and academic middleperson who helped to bridge the gap between the unfamiliar L2 academic world of the school and the familiar L1 life world of the learners. All these efforts by the teachers were meant to make English-medium education accessible, meaningful, relevant and thus more bearable and less alienating for learners who are in a dilemma of having limited English resources and yet desire an English-medium education for its socio-economic value (Lin 2000:155).

The data from the HSS lesson reveals that, the learners’ L1 was also used for scaffolding, for example extract 21. The teacher was trying to simplify the question she asked so that she could reach her instructional goals. Xhosa was used to provide learners the opportunity to extend their thinking skills.

L1 as an attention-focusing device

Xhosa was used in the MLMMS lesson as communicative strategy to focus or redirect the attention of the learners. The teacher was going to introduce for the first time an important part of his lesson (procedures to be followed in the division of fractions, (extract sixteen). His switch “**Ke ngoku**” [Now] was a brief contextualization cue that signaled an implicit message that what was going to follow was an important part of the lesson. In Tannen’s (1985) view, this was a meta-message that was meant to provide an advance message from the teacher to the learners that “I want you to listen very carefully now”.

In the NS lesson, the teacher used Xhosa while he was giving instructions for the class activity (extract three). The teacher used the L1 as a signal for the upcoming instruction. As I stated in the previous chapter, the switch “**Ndifuna ke ngoku**” [I now want you] [*continues in English*] implicitly alerts the learners to the fact that the coming instruction is very important. Therefore, the switch was guiding the learners to focus their attention on the coming instruction.

CS for efficient classroom management

Here Xhosa was used to highlight frame shifts and changes in the teachers’ concerns. In the instances that appear in my data (NS, HSS and MLMMS), teachers were either concerned about learners who did not do what they were supposed to do or approving answers given by learners. Code switching was used as a *politeness strategy*, to *reprimand* and for *approving learners’ answers*.

These switches were at times used to fulfill such pragmatic functions (Gumperz 1982) as addressee specification, where a teacher wished to approve a learner’s answer or reprimand individual learners. These switches also served as a framing device, typically to get learners’ attention.

Concluding remarks

Teachers in content subjects alternated frequently between Xhosa, English and in some cases Afrikaans, in attempting to deal with the communicative challenges placed on them and to check on understanding. Bilingual discourse practices discussed above had the effect of efficient classroom management, attention focusing device, inter-comprehension strategies and encouraging participation by learners. These practices served both academic and social agendas of that classroom

5.2.2 Functions of code switching in the language lesson LLC2 (English)

The data from the LLC2 (English) also reveals extensive use of the learners' mother tongue, that is, Xhosa. In this section of this chapter, I will look at the various kinds of switches found in the English lesson, the nature and functions of those switches as employed in the lesson by participants.

L1 to encourage participation by learners

Tag switches and switches that were meant for *encouraging learners* to participate were categorized as strategies to encourage participation by learners. As observed in the content subjects, these switches were identified as serving the social agendas of that classroom.

Since these tag switches were employed by the same teacher who taught NS, I will not discuss my findings since my subject used almost the same tag switches in both lessons and in our interview, he gave me no reason to believe that he used these tag switches differently in his learning areas.

Xhosa was also the code that interceded between the complexity of the English lesson, the efforts of the teacher and the morale of the learners. Evidence for this interpretation comes from extract seven. The use of the phrases “**Khawutsho mfondini**” and

“**Khawutsho**” (used alone) were used by the teacher to signal friendship, as a plea and for solidarity, with the hope of eliciting responses. As argued in the analysis chapter, the teacher was trying to establish here a less distanced and non-institutionally defined relationship with his learners.

L1 as an inter-comprehension strategy

Education is communication. It is only through proper communication strategies that teachers are able to help learners understand what they are teaching. If failure in communication occurs, it might be caused by a language barrier that needs to be overcome. This leads to a need for inter-comprehension strategies. Inter-comprehension strategies that occur in the English data are in the form of *translations* and *clarification*. These seemed to serve the educational agenda of that class.

The functions and purposes of these switches have already been discussed above in the content subjects, but I would like to point out the importance of translation in a language lesson as argued by Gough (no date). He is one of the people who support code switching in content subjects but is cautious when it is used in a language class. However, he provides us with a reason to value the use of code switching in a language class for translation. He states that through translation, people get meta-linguistic knowledge. Extract ten is an example where the English teacher used translation in his lesson. In Gough’s view, by so doing, the teacher was doing some language work, and at least learners were getting the potential to learn. He was helping learners to associate what they already knew in their mother tongue with what he was saying in English.

L1 for efficient classroom management

L1 in this case was used for *procedures and directions*, to *reprimand* and to *approve learners’ answers*. Xhosa here, as in content subjects, was used to highlight frame shifts and changes in the teacher’s concerns. Extract eight is an example where the teacher was exercising his classroom management skills.

The teacher was trying to guide the focus of the learners towards the given activity. He chose the learners' L1 in doing this because he wanted to make sure that everybody understood, so as to be able to do the given activity. The switch "*Kodwa ke make sizibeke phantsi iincwadi ezi, ke sidiscusse, thina, ...Nakuthethathethana nixoxe laa mbuzo nize neempendulo, siyevana*", in extract eight, is an example of what I pointed out above.

After the teacher gave procedures and directions to be followed for the given activity in the learners' L1, one of the learners did nothing, that is, she did not take part in the given activity. Then the teacher used the learner's L1 to reprimand the learner. What is interesting about this switch, though, is the use of a tag switch, "*siyevana*" at the end of what the teacher was saying. Here the function of the switch was different in this way: it was used to reinforce the command to show the teacher's authority as he was annoyed by the learner's behaviour.

The teacher also used "*Heke*" [here you go / that's it] to compliment some learners. Xhosa carried the full weight of the teacher's approval of the learners' answers. Hence, it signaled the teacher's solidarity with the learners.

Concluding remarks

The LLC2 teacher alternated frequently between Xhosa and English trying to deal with the communicative challenges placed on him. The teacher did almost all the talking; this can be deduced from the fact that learners' responses were very few in this lesson and were in their L1 except for two. What is interesting about this lesson is the fact that, although Zongamele did a lot of code switching, in theory, he did not approve of the practice in the language classroom. The question is then, why did he do it? When asked, he said, he noticed that learners were confused and he could not reverse the lesson (maybe due to the fact that he was video recorded for the purpose of this research) so he decided to implement another strategy, that of code switching. The videotape and the lesson transcript also reveal that the learners were really confused. This was shown by

their silence, which I think pressurized the teacher into code switching. The confusion might be a result of a combination of things such as: The lesson seemed to be pitched too high, beyond the level of the learners. Therefore it was difficult for them, which resulted in learners not understanding what was going on. Or, the other possibility might be that the lesson was not well framed.

5.2.3 Code switching as an avoidance strategy

In addition to the social and educational functions performed by code switching in the classroom already mentioned, there is a possibility that teachers switched to the learners' L1 so as to avoid using English in the classroom because of their own lack of knowledge of the language or lack of facility in that language in a certain subject/learning area. Although people like Adendorff (1992), recommend the use of code switching where necessary, they warn that teachers should not use it as an avoidance strategy. In my data, however, there is no indication that my subjects switched from English to Xhosa because they wanted to avoid the former. To substantiate this view, it will suffice to point out that the dominant code switching features of their discourses are expressions that they would have been able to phrase in English. There is a possibility, though, that learners used code switching as an avoidance strategy. This can be seen in the English lesson where the first two learners to respond did so in Xhosa although they could have answered in English. I say this because when the first learner was encouraged by the teacher to respond in English, she did so.

5.2.4 Code switching as an unmarked choice

My research subjects are bilingual and, according to Myers-Scotton as cited in Marawu (1997:55), bilingual speakers use two codes to index what they see as their unmarked rights and obligation balance. My research subjects switched codes sometimes, as they would normally do in their informal conversations. In such cases, code switching occurred as a common feature of a bilingual discourse, which is the embodiment of their simultaneous identity.

5.2.5 Participants' attitudes towards code switching

I have no doubt in my mind that my research subjects feel that code switching plays an important role in their interaction with their learners. This I can deduce from the interviews we had and from the data presented in this study. I am reasonably sure that Zongamele and Songezo tried to behave as they normally do in their classes because the way they taught in the video recorded lessons is the way they taught during my observations. But in Ncumisa's case, I think my presence with a video camera evoked an observer effect that in one way or another inhibited the extensive use of code switching. This behaviour, as well as what Zongamele and Songezo said in our interviews suggested that my participants felt guilty about code switching in class.

5.2.6 Code switching in content subjects compared to code switching in an English language lesson

By merely looking at the lesson transcripts of these subjects, one can see that there is no difference in the way teachers code switched. Even when looking at the analysis and findings, the functions of the switches employed in content subjects are more or less the same as those found in the English lesson. At this point, I do not know if the fact that English and NS are taught by the same person would have an effect on this behaviour. But, when asked Zongamele said he limits his use of L1 in an English lesson because in a language lesson learners have to learn to use the language, which was not the case in the lesson in question. My field notes also revealed extensive use of code switching in the English lessons I observed. Nevertheless, he had his reasons and he pointed out that the level of difficulty of a lesson determines how often one code switches.

5.3 DISCUSSION

Many ordinary people in South Africa see a need for English as a language of wider communication and for gaining access to certain material and symbolic rewards in their

own communities, rewards that are derived from global hegemony of English. But the problem is that many of those ordinary people have limited access to English. Teachers who teach through the medium of a L2 have to deal with communicative demands placed upon them and their learners by the use of a L2 as the medium of instruction.

I would argue that these teachers should be seen as active and creative agents who, through their day-to-day communicative practices, respond in diverse and complex ways to the political and symbolic order of their teaching. They use their professional and personal instincts in response to the communicative needs of their learners, in this case by code switching.

In this study code switching was one of the resources in Zongamele's, Songezo's and Ncumisa's communicative repertoires. In their interaction with their learners they used code switching to encourage participation by learners, as an inter-comprehension strategy, as an attention-focusing device and for management. Analysis of incidences of these switches revealed that they perform both educational and the social functions.

According to Martin-Jones (1995), teachers use code switching to negotiate and renegotiate meaning. If we look at the instances where my research subjects switched to Xhosa, we see evidence of the "negotiation and renegotiation of meaning".

In their explanations as to why they use code switching, the main reason they gave was that they code switched to make learners understand what they were teaching and also to check if they understood. Furthermore, according to Zongamele, the "bond" they share with their learners was also the main factor of the switches. The bond he was talking about was the fact that they (teachers and learners) share the same L1. It was also revealed that they wanted their learners to feel comfortable in class. Maybe teachers felt the learners would see them as Xhosas hiding behind the mask of English speaking teachers, who would remain socially distant from the learners. It was also found out that these teachers allowed their learners to use their L1 in English medium lessons, their reason for this too was to encourage participation by learners.

Code switching therefore, is a communicative resource these teachers draw upon to convey meaning to the learners. They do this by making use of their multilingual resources, not just Xhosa and English, but Afrikaans too. They use code switching to draw on learners' experiences so as to make learning through a second language meaningful and less alienating.

As in Johnson's study, English was also found to be associated with text-dependent, formal, didactic and memory-based functions, whereas Xhosa was found to be associated with text-independent, informal, explanatory, and understanding-based functions.

Worth noting though, are some differences between classroom code switching in the school where this research was conducted and the schools in Lin's study, that is, the differences between classroom code switching in a Xhosa speaking and a Cantonese speaking educational context. In Lin's study, as mentioned in the literature review chapter, Cantonese teachers promoted an equivalent body of scientific knowledge in both languages. They did this by linking scientific terms in English to those in Cantonese to form numerous conceptual connections that make it possible for the students to understand and learn more effectively fundamental scientific concepts. These teachers also helped their students to understand English terms and concepts of their English textbooks through the use of the students' L1 interpretations, that is, students translated English terms to Cantonese into their textbooks.

However, my data show that this did not happen in the Xhosa speaking classroom I observed, rather teachers used English terms even when they were speaking in Xhosa and learners were never encouraged to write Xhosa translations of terms in their textbooks. This may be, as I suggested earlier in my data analysis, the terms they use in English even when they speak Xhosa, do not exist in Xhosa. But the other case might be what could be described as a "diglossic" situation in South Africa, where Xhosa is used as the oral language of the classroom and English used as the written language.

Although I argued that my subjects did not try to establish bilingual academic knowledge in the lessons I observed, interview data reveal that my subjects sometimes use similar strategy to that of the Chinese teachers, (extract from Ncumisa's interview).

What I can deduce from the arguments put above is that: These differences exist because China has a long history of literacy that is much longer than that of English and Chinese children would acquire literacy in Cantonese at home. Literacy in Xhosa though is more recent. This may point to the need to develop scientific literacy in African languages.

Field notes, observations, lesson transcripts and the analysis chapter revealed no apparent differences between code switching in content subjects and code switching in English lessons. The NS teacher who was also the ESL teacher pointed out that the level of difficulty of the lesson determines how often one code switches. According to Gough (no date), by using all languages as resources, we un-silence people who would be silenced through the tyranny of one language only. Therefore we allow people to produce output, output that would be comprehensible. Gough sees no problem in this strategy in content subjects but it becomes problematic in a language lesson. As Zongamele pointed out in our interview, the aim of teaching a language is to help learners speak the language, these were his exact words, "... So, I have a specific purpose in an English language lesson, that of teaching learners to speak the language itself". What happens then when teachers code switch in a language lesson as they do in content subjects?

Gough argues that while we get understandable participation and learners can express themselves about a specific educational field, we are not promoting the development of language acquisition itself. He goes on to say that by so doing, we may instill a particular point in learners' language development and fail to support it to advance. As far as Gough is concerned, this is skipping one of the steps involved in learning a language:- the step of becoming aware of something about that language and then internalizing it. In his view, we learn more language when we understand more of the target language, and code switching could be an approach of understanding and interpretation that decrease access

to input in the target language because it evades the need for improvement and collaboration in the target language.

5.4 Conclusion

This chapter looked at the main findings arising from the research data analysis. For instance, it has been noted that in content and language lessons, teachers used switches that were meant to encourage participation by learners. These switches were identified as serving a social function in those classes.

Furthermore, there were switches that were also identified in both content and language lessons as inter-comprehension strategies. Most of these switches had an educational value because they fulfilled academic agendas of those classes. Xhosa was also used for efficient classroom management in all the lessons in question. The learners' L1 here highlighted a change in the teachers' concerns. Xhosa was also an attention-focusing device. The implications of code switching in a language lesson as one does in content subjects were also discussed drawing on Gough's arguments.

The demands teachers face within classroom situations have also been highlighted. One of these demands is that teachers have the task of teaching the subject matter and at the same time have to teach through the medium of English. This is a classroom demand because the learners are not yet well versed in English but at the same time have to receive instruction in it. In addition to this, English is the language of status in South Africa so everybody desires to learn in it. Therefore, code switching is a kind of language teachers use to ease some of the effects of differences between the learners' life-world experiences and the school situation. It was also observed that though teachers use code switching in class and say that it has an important role to play in their classes, they feel guilty about using it.

CHAPTER 6

CONCLUSION

The main focus of this thesis has been the use of code switching in the classroom in different learning areas in order to establish whether code switching was different in content subject classes than in a language class. It has examined the nature and functions of the switches by grade seven NS, MLMMS, LLC2 and HSS teachers in conveying information to their learners.

The general conclusion to be drawn from the observation and arguments of the previous chapters is that code switching has an important role to play in the school classroom, but more longitudinal studies are needed on the implications of code switching especially in language lessons (LLC2) in the South African context.

Gough (no date) and Adendorff (1992) both agree that code switching has a positive role to play in the classroom, but Gough feels that it should be used effectively / strategically in a language lesson since it does not promote language learning and use. Adendorff, on the other hand, feels that there is a need for consciousness raising amongst teachers on how to use code switching effectively in the classroom, because it is a simple fact that code switching is a widespread phenomenon in schools, that teachers are using it without proper guidance, and that they will continue to use it in mediating the constraints of the classroom and the curriculum.

We must also be careful of the other negative side of classroom code switching. According to Adendorff (1992), teachers should be made aware of the importance of code switching in the classroom, but they should not use it as an avoidance strategy. This means that teachers should not use the fact that they have been given permission to code switch in the classroom as an excuse to avoid using English. This is particularly important for teachers who teach through the L2 and share a L1 with their learners. If

schools maintain English as their official medium of instruction, it is the responsibility of teachers to ensure that their learners acquire an adequate command of it. Thus Atkinson (1987), as cited in Marawu (1997), warns against excessive use of the learners' L1.

Even if code switching has been recommended as a classroom strategy by the present government, it must not be used as an avoidance strategy. English is not only an international language but also the language of socio-economic power and mobility in South Africa. This implies that while teachers may use code switching as a communicative and learning resource in the classroom, they have to also ensure that learners are not denied access to English as we cannot run away from the fact that it is the language of wider communication, and of social, cultural and economic empowerment.

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APPENDIX A

MLMMS LESSON TRANSCRIPT – 14 APRIL 2001

TRANSCRIPTION CONVENTIONS

T- Teacher, **L-** Learner, **Ls-** Learners, **C-** Class, ... Didn't hear what was said, -----
Teacher expects learners to join and continue with him, [*italics*] Researcher's comments,
(normal font) Teacher called learner by name, **bold** Xhosa utterances.

T: Ok, if you still if you still remember that we were dealing with fractions. Then, we tackled the addition of fractions, we also tackled the subtraction of fractions and the multiplication of these fractions. Now there is another last part, which we didn't do. Which is the last one that we didn't do? Now I've just said that we did isubtraction, **sayenza idivision inantsika isubtraction, sayenza imultiplication, sayenza iaddition. Inoba yeyiphi eyokugqibela?**

C: Division

T: Now yidivi-----

T&C: sion

T: So we are going to deal with division of fractions. As we all know that we are having each and every operation sign, it has its own sign. Isn't it?

Ls: Yes

T: We have this sign for -----

T&L7:Addition

T: This one for -----

T&L7:Subtraction

T: And this one for -----

T&Ls: Multiplication

T: Which sign do we use for division? Come and show me. Come and show me sign for division

L7: Division sign

T: **Ja**, that is correct. That is the sign of -----

C: Division

T: That shows you that you are doing -----

C: Division

T: Is that correct?

C: Yes **tishala**

T: **Ja**, then now in this issue of dividing these fractions there is a purpose. Each and every time we are dealing with any operation sign in Maths there is a purpose. And as I've said to you earlier on that, in all these basic 4 basic operation signs is our daily lives, That's what we are doing in each and every day. Some of us doesn't under doesn't know that we are doing it each and everyday. **Yilento iyayenza** each and every time. **Awuyazi wena ukuba wenza ipart ethile yantoni?**

T&Ls: YeMaths

T: **Xana moss pha uthatha amacephe eswekile uwagalela entweni? emxobeni wakho wenantsika wo womxobo wamanz'eswekile okanye umxobo weti yakho ugalele loo macephe ayi 4, andithi uyabala**

C: Yes

T: Then **uyaaddisha moss** that **andithi?**

C: Yes

T: That is addition **leyo**. Even when you walk from your home to school, you know that those steps that you are taking that is part of -----

T&Ls: Maths

T: Isn't it?

C: Yes

T: So, even if your father is going to slaughter a cow, amongst those 42 cows that he has, he's going to subtract one cow, **andithi?**

C: Yes

T: And he will have a remainder of 39 cows, **nhe?**

C: Yes **tishala**

T: So all these things, all these operation signs that we are doing, each and every time here at school, it's what we are doing at home. It's what we are doing amongst the **nantsika**, the community **okanye apho nihlala khona**. **Yilento niyenzayo lena qha aniyazi nina ukuba nenza ntoni?** You are applying **intoni?**

T&Ls: Maths

T: E-e- **phana kwisoccer**, even at the soccer ground when you are passing the ball, **upasa ibhola** at an angle, isn't it?

C: Yes

T: That is Maths. You are passing that ball at an angle. If unnumber 7 **uphaya**, then **wena ukuposition 9**, **yi angle leya laabhola izakuya kuyo**. **Uzakuphinda uyifumane ukuba loluphina uhloba lweangle**. **Sizakuzenza phi? Apha esikolweni**.

C: Yes **tishala**

T: **Nhe?**

C: Yes **tishala**

T: **Iyafana**, if you want to build a house. You are also applying mathematical concepts there, when you are building a house. Some of you doesn't know that, that you are applying maths there. Now we are here with division. Now, here if we are saying for argument's sake that we are having e-e-,m there are, let's say 21 goats, **nhe?**

C: Yes **tishala**

T: There are 21 goats. Now here we are having these three gentlemen. These three gentlemen each and everyone wants an equal amount of from these 21 goats, you see. Let's say we have here e-e-e **uDavid**, we have here **Samson**, now we have e-e- we have **John**. **David** wants the same amount of goats from these 21 goats. Even **Samson** wants the same amount from these 21 goats, and even **John** wants the same amount from the same amount of, of the total of these goats that we are having. Then, then that will mean that **ubangaba** then we will have to share these 21 goats amongst these three guys. Isn't it?

C: Yes **tishala**

T: Then, in the old days, we were having, **ndenz'umzekelo mhlawumbi**, we are saying this is another goat, this is another goat [*drawing goats on the board*] **ziibhokhwe zam ke eziya**.

C: [*laugh*]

T: So, **sinabani phayana**, we've got

T&C: David, Samson and John

T: They want the same the equal amount of these 21 goats from these 21 goats. They want the equal share, equal goats. They want to share these goats among between

T&C: David, Samson and John

T: Now let's take that we don't know these operation signs. Then **Kudala moss ukuba nisakhumbula abantu bakudala indlel'ababebala ngayo iinantsika iinkomo zabo. Wayenamaty'utatomkhulu, kungen'inkomo yokuqala, athath'ility'alibeke ngapha.** The moment **amaty'akhe angaphe angalithathi uzakuyazi ukuba ezankomo zitheni?**

C: Aziphelelanga

T: Ziyashota aziphelelanga. Injalo moss loo nto?

C: Yes, tishala

T: So, ba ezankomo beziyi 42, namatye ngapha kufuneka abe mangaphi?

T&C: Eyi 42

T: So, the moment **eliny'ility'angalithathi, kubekhw'ashiyekayo noba mabini phaya, loo nto itheth'ukuthini?**

T&Ls: Ikhon'inkomo eshotayo.

T: Nhe?

C: Yes

T: Then, kwakusenziwa ngolu hlobo naphaya, kuthiwa nants'enye yekabani? This one is for John, and this one is for David, this one is for Samson. **Phinde bacheke ukuba kushiyeke ezingaphi ke ngoku, then baphinde baqale ekuqaleni, baqale kubani ---**

T&Ls: KuDavid

T: Baphinde u-----

T&C: Samson

T: Baphinde u -----

T&C: John

T: **Baphinde bachekishe ukuba zingaphi na ezishekileyo. Bathi hayi moss bazakufumana ngokulinganayo. Nazi iinkomo zabo. Nhe?**

C: Yes

T: That is another way of dividing these goats amongst -----

T&C: David, Samson and John

T: But we are having **inantsika indlela emfutshane esinokuyenza ngayo thina singabantu abayaziyo imaths. Ngokuthi sithini? Sithi 21 divide by, bangaphi aba bantu?**

Ls: 3

Ls: **Bathathu**

T: Divide by 3, so answer **yethu izakuba ngubani** (learner 7)

L7: 7

T: That will be 7, then that, that will mean that **uDavid uyakufumana 7 yakhe, uSamson 7 yakhe, uJohn naye i -----**

T&Ls: **i7 yakhe**

T: **Nhe?**

C: Yes

T: But now we are dealing with division of fractions, **nhe?**

C: Yes

T: But we are going to start with a division of a whole which is going to be divided by a ---

T&C: a fraction

T: **Nhe?**

C: Yes **tishala**

T: **Njani? Ngolu hlobo**, For example: We are given 5 divided by, let's say $1/5$, **nhe?** 5 divided by $1/5$. As I've told you earlier on when we were doing multiplication, I said each and every whole **siyinika ntoni? Idenominator engubani?**

T&C: **Engu 1**

T: So the whole **yethu izakuba ngu** $5/1$ divide by $1/5$, **nhe?**

C: Yes

T: Then **ke ngoku** something new **apha kwidivision** is that now you write the first term **engu** $5/1$, then this division sign is going to change to a multiplication sign like this. Then after you changed your signs, then your denominator will become a numerator and then the numerator will become a denominator. **Iyatshintsha idenominator yakho ibe yintoni?**

T&Ls: **Yinumerator**

T: **Inumerator yakho ithini, ibeyi?**

T&Ls: **Ibe yidenominator**

T: **Ibengu 1, sorry ibe ngu**

L7: 5/1

T: 5/1, then we are dealing with division of the fractions. Then after that you multiply the numerators, then you multiply the denominators. If **akukhgo nani lingenayo kulaa** denominator **nalapha kulaa** numerator, **nhe** across **nantsika** , then 5 x 5 **isinika ntoni loo nto**

L7: 25

T: 1x1

L7: 1

T: 1, then 25/1 **isinika ntoni loo nto**

C: 25

T: U25, is that clear?

L7: Yes Sir

T: **Ja**, then also example number 2, 3 divide by $\frac{1}{2}$, **nayo kwenziwa** the same thing, **nhe?**

C: Yes

T: You give your whole number a denominator. **Ibe ngubani kanene**

L7: Engu 1

T: Engu 1, **ibe ngu 1** , then **emvak'b'uyenze loo nto** , change your division sign into a multiplication sign 3/1 x then you change I denominator **yakho ibe yi** numerator, inumerator **yakho ibe yintoni** -----

T&C: Ibe yi denominator

T: Then **sine no** 2/1. Then 3 x 2 **isinike ntoni loo nto**.

C: 6

T: 6 over ----

T&C: 1

T: is equal to ----

T&C: 6

T: Is going to be your answer, **nhe?**

C: Yes **tishala**

T: These are your examples .Then another example, e-e- let's take 9, 9 divide by 1/3. **Naphayana kwenzeka** the same thing. There's nothing new. You give your whole number a ----

L7: 9/1

T: 9/1 divide by 1/3. It's going to be 9/1

T&C: $\times 3/1$

T: Then it's going to be 9×3

C: 27

T: over

T&C: 1

T: Then 27/1 is going to be

C: 27

T: 27, then the last example 6 divide by 2/3, **nhe?**

C: Yes

T: Then we are going to give our whole number a denominator which is equal to 1, **nhe?**

C: Yes **tishala**

T: divide by 2/3, then we are going to change inumerator **yakho ibeyi** denominator, idenominator **yakho ibe ibe** yinumerator. **Sibe no** $6/1 \times 3/2$. Now **u2 uyangena moss ku6, andithi?**

C: Yes

T: **U2 ku 2, kayi 1. U2 ku6**

T&C: **Kathathu**

T: 3×3

T&C: 9

T: 9 over

T&C: 1

T: Is equal to

C: 9

T: **Nhe?**

C: Yes **titshala**

APPENDIX B

MLMMS LESSON TRANSCRIPT – 30 JULY 2001

TRANSCRIPTION CONVENTIONS

T – Teacher, L – Learners, Ls – Few learners, C – Class, ... Didn't hear what was said, ----- Teacher expects learners to join and continue with him, [*italics*] Researcher's comments, (normal font) Teacher called learner by name, **bold** Xhosa utterances.

T: E-e-e, we are doing rounding off of decimal fractions to the nearest tenth, to the nearest hundredth, to the nearest thousandth. Now as we all know the form of basic operation signs that we have addition, we have subtraction, we have multiplication, we have division. So **nalapha kwiñantsi kwiaddition yakho**, if you are given a sum **kuthiwe**, add the following sums, then round off your answer to the nearest ten to the nearest tenth. Then you will know that **intobangaba** after the comma you must have one decimal place, **nhe?**

C: Yes

T: **Usayikhumbula loo nto?**

C: Yes

T: After the comma you'll be having one decimal place. For instance, if we can look on page 67, on page 67. **Phayana laa nto yandiswe** into decimal notation that after the comma you have tenths, then **ibe ziihundredths ibe ziithousandths**. Then you are given $3,146+5,374$. **U 3 siyamazi moss ba ziintoni? Zii** units, then **U 1 ibe ziitenths, u 4 abe ziihundredths, then u 6 abe ziithousandths. Kuthiwa** Plus 5,374, then as you know **moss iaddition uyayazi kwaphaya ekùqaleni ukuba kuaddishwa njani na**. You start first with the first **nanstika** column, then the second column, then up to the left hand side, **nhe?** Then $4+6$?

C: 10

T: Is equal to 10. We take the zero. Then $7+4$?

C: 11

T: $11+?$

C: 1

T: 1, **ibe ngubani?**

C: 12

T: **Ibe ngu** 12, then $1+3$?

C: 4

T: $4+1$

C: 5

T: **Ibe ngu** 5. Then after, after the unit **sibe nantoni? Sibe ne** comma. Then $3+5$?

C: 8

T: Is equal to?

T & C: 8

T: Then here is you're your answer. Then when you are, when it is said **ke ngoku** round it off to the nearest

L7: tenth

T: tenth, to the nearest

T&L7: tenth

T: **Sijonga ndawoni ke xa siroundisha** off to the nearest tenth? **Sijonga kweyiphi icolumn kwezi? Sineethousandths, hundredths, sineetenths, sineeunits bangaba** it is more than 5, it is equal to 5 or it is less than 5? **Sijonga kweyiphi icolumn xa siroundisha** off to the nearest tenth? Mhm?

L7: [*Whispering*] **Sijonga phaya**

T: (Learner 7)

L7: Hundredths

T: **Sijonga kwiintoni? Kwiihundredths. Ihundredths zethu ngubani?**

T&L7: Ngu2

T: So **u2** is it more than 5, equal to 5 or less than 5?

C: Less than 5

- T:** Is less than 5, so to the nearest hundredth, tenth **izakuba ngubani** ianswer **yethu?**
- L7:** 8,
- T:** 8,?
- L7:** 8,5
- T:** 8,5 (Learner 9). So, to the nearest hundredth **izakuba ngubani**, to the nearest hundredth?
- L9:** [*Softly*] 8
- T:** **Andiva. Izakuba ngubani** to the nearest hundredth?
- L9:** **Izakuba ngu**8,52 [*another learner repeats*]
- T:** 8,52 [*writing on the board*] 8,52. To the nearest unit **izakuba ngubani**, to the nearest unit? (Learner 12).
- L12:** 8, [*another learner jumps in*]
- L7:** **Izakuba ngu**9
- T:** **Ayicingi kaloku ibe ngu**8,nto **mfondini xa iyiunit**.
- L7:** **Iba ngu**9 **titshala**
- T:** **Izakuba ngu**9 because **lo5 utheni?** Is equal to 5. So **xa** iequal to 5 **iiunits zizakuincreasa ngabani?**
- C:** **Ngo**1
- T:** **Ngo**1. **Ibe ngubani** ianswer
- C:** **Ngu**9
- T:** **Ibe ngu**9, **siyevana?**
- C:** Yes
- T:** So **ihamba ngolaa hlobo**. Then the second example is a subtraction example, **nhe**, isubtraction. Then **jonga phaya kupage** 67 again number C. From **pha** kupage 57, 67 number C, **senz'umzekel'ubemnye phaya**. **Nalapha sineeunits, sibe neetenths, sibe neehundredths, neethousandths, dhe?**
- C:** Yes
- T:** Then **sinabani pha?** 5,619, **sino** 5,619 [*writing on the board*] subtract **u** 2,380, **nhe?**
- C:** Yes [*softly*]
- T:** **Uhleli?**

- C: [*Lifting their voices*]: Yes **tishala**
- T: Then **ke ngoku nalapha senza** the same thing **siqala ngale** column **isekugqibeleni, nhe?**
- C: Yes
- T: From the right **kula** column **isekugqibeleni** to the left, to the left hand side, **nhe?**
- C: Yes **tishala**
- T: **Ihambe ngolaa hlobo.** Then 9-0?
- C: 9
- T: 9. Then 8-1? 1-8?
- Ls: 9
- T: [*non-verbal cue indicating that the given answer is wrong*]
- L7: **Sakuboleka**
- T: E-e-e then we go to the next column, **nhe?**
- C: Yes
- T: We borrow **u1 pha, kushiyeke bani?**
- C: U5
- T: U5. Then next **pha ibe ngubani?**
- C: 11
- T: **Ibe ngu11.** 11 take away 8?
- C: 3
- T: 3. 5 take away 3?
- C: 2
- T: 2. Then **ungayilibali ikoma yakho.** 5 take away 2?
- C: 3
- T: That is equal to -----
- T & C: 3
- T: Then **ngoku** **sirounda** off this thing, this **nantsika**, this answer **yethu** to the nearest unit, to the nearest tenth, to the nearest hundredth, to the nearest thousandth, **nhe?**
- C: Yes
- T: Then to the nearest tenth?

L: 3,2

T: 3,2. Then to the nearest e-e hundredth?

L3: 3,23

T: 3,?

L3: ,23

T: 3,2----?

L3: 3

T: **Ayicingi**

L3: 2, 3,24

T: 3,24, because **u9 utheni?** Is more than -----

T & L7:5

T: So **inantsika**, ihundredth digit **yethu izakuincreasa ngobani?**

T & C:Ngo1

T: Ibe ngu 3,-----

C: 4

T: 4. 3,24. Then to the nearest e-e- thousandth?

C: [*Quiet*]

T: **Uyabona ke ngoku apha xana ingenalo inani ngapha kwekoma thath'ba ngapha kwenantsika kwethousandths, thath'ba elaa nani liphaya li, lingubani? Liless than 5. Siyevana?**

C: Yes

T: **Thath'ba liless than -----**

T & C:5

T: Cause **asinayo enye icolumn engaphaya. Siyevana?**

C: Yes

T: So **sakuthath'ba liless than -----**

T & Ls:5

T: So **laa answer yethu izakuhlal'ihleli nje ngolaa hlobo ingu 3,239. Siyevana?**

C: Yes

T: So, **xa singenayo eny'icolumn engaphaya sithath'ba ngaba laa nantsika, laa answer yethu, I'm sorry, inani elingaphaya lingubani? Liless than 5. Sithathe**

okokuba, okanye ngubani? Ngu zero elo nani elo. So izakuhlala ihleli leya ingu3 decimal places. So, icacile lento?

C: Yes

T: Cause isimilar **kuleya besiyenza kuqala** (learner 5), **qha onto apha eyenzekayo** yisubtraction **nantoni? Neaddition.** Same applies **nakule yemultiplication** and division, **izakuqhubeka ngolu hlobo. Siyevana?**

C: Yes

T: So let's try the next **nantsika** problems **phaya uB.** Let's do **unumber 2, 3, 4. 2, 3, 4. Zonke ke u**rounde off to the nearest thousandth, hundredth, tenth and unit. **2, 3, 4. Iaddition, unumber B. Yincwadi kabani le?**

L8: *Yeyam tishala*

T: Number B, number B

[Learners do the given class work. Teacher moves around monitoring]

APPENDIX C

LLC 2- (ESL) LESSON TRANSCRIPT – 30 JULY 2001

TRANSCRIPTION CONVENTIONS

T- Teacher, C- Class, L- Learner, Ls- Few learners, ... Didn't hear what was said, Gr- Group, ----- Teacher expects learners to join and continue with him, [*italics*] Researcher's comments, (normal font) Teacher called learner by name / the learner's village or region, **bold** Xhosa utterances.

T: Let's sit in our groups and discuss those questions. I'll give you just two minutes. I'm gonna give you just two minutes to discuss these questions, [*teacher reads the questions for the learners*]

What makes you to write a poem? In groups, let's discuss, what makes one to write a poem. Let's turn on to page mmmm [*paging the book*] Page 37, [*learners turning to page 37*]. Page 37 [*helping a learner*] 36, 37, 38, page 38. Now, page 35, we've got page 35, the next page **ngu** 36, 37, 38, that is page 38. **Kodwa ke make sizibeke phantsi iincwadi ezi, ke sidiscusse thina**, what makes one to write a poem? When writing a poem, what makes you to write a poem? Two, as a reader, when reading a poem, what do you get from a, a poem? It means what do you gain when reading a poem? Number three, how do we call someone who writes poems? Somebody who writes poems, how do we call him? Let's discuss the questions in groups. (Learner 3), **sidiscussa sonke ngoku. Nakuthetha-thethana nixoxe laa mbuzo nize neempendulo, siyevana?**

L3: Yes

T: Get it?

L3: Yes

T: (Learner 2), **kha uhoye idiscussion le ninayo apha eklasini, siyevana?**

L2: [*No response from the learner*]

- T:** (Learner 2), **kuyaxoxwa pha ngabanye abantwana**
- L2:** [No response]
- T:** [Ignoring the learner he was talking to earlier, now talking to another learner]
Awucingi wedwa uxoxa nabanye abantwana. Usharisha le nto uyicingayo, bazakuza nezabo izimvo nabo. [After a while, the learner moves closer to the members of her group, teacher monitors discussion by moving around from group to group, scaffolding]. **Khange ndithi makuxoxwe ngencwadi. Ndithe xoxani ngeequstions eziya.** [Referring to Gr1]
- Gr1:** [Quiet]
- T:** (Learner 15), **kaloku niyancedisana apha. Uthetha le yakhe ayicingayo, nawe uthethe le yakho uyicingayo, andithi?**
- L15:** Yes
- T:** **Nixoxe ke ngoku.** [He reads the questions again for group 1]. Why does one write a poem? As a reader what makes one to write poems?
- Gr1:** [Quiet]
- T:** [Talking to one of the learners in group 1]. **Khawutsho mfondini,** what can make you write a poem? Or, what can you say about writing a poem?
- L15:** [Quiet, teacher leaves the group without getting any response]
- T:** [Referring to the whole class as he moves to the other side of the class]. **Iminute iphelile ngoku.** [Groups are quiet. After a while, one learner whispers to her group members]
- L7:** **Andiyazi ipoem ba yintoni mna.**
- T:** **He** (Learner 7) [Referring to the learners who has just whispered]. What, what can make you to write a poem? **Ufun'uthetha ngantoni kuloo poem, thetha ngantoni? Fun'ukuthini?**
- L7:** [Quiet]
- T:** (Learner 6)
- L6:** [Quiet]
- T:** Let's say 2001, **kha ubhale,** write a poem. **Ungabhala ngantoni mhlawumbi,** 'cause **mhlawumbi le poem izaku,** is going to be distributed **aph'elalini. Uyafumana? And ifundwe ngumntu wonke. Ungafun'ukuthetha**

ngantoni pha kulaa poem. Yintoni onga, uzakuthetha ngantoni? (Learner 11), **ungathini? Ufun'ubhal'ipoem, le poem kodwa izakufundwa ngumntu wonke** (their village's name) **nase** (their region's name). **Ungathetha ngantoni kule** poem, (Learner 11)? What can you speak about in a poem?

L11: [*Quiet*]

T: Come on. What can you speak about in a poem? Yes [*Referring to a learner*]

L13: [*Quiet*]

T: (Learner 1), loo group yakho.

L1: [*Quiet*]

T: **Ungathetha ngantoni xa kunokuthiwa kha ubhale nje** (Learner 1), **into ekuthiwa izakufundwa ngabantwana ba** (their village's name)? **Ungathetha ngantoni? Xa kunokuthiwa bhala loo nto ufuna ukuyibhala.**

L1: [*Quiet*]

T: (Learner 16 twice)

L16: [*Quiet*]

T: (Learner 2)

L2: [*Talking softly to her group members*] **Yhu! Andiyazi**

T: **Ungathetha ngantoni xa kunokuthiwa kha ubhale?** Let's say, you are told to write about something, what can you write about? What do you want to speak out to the people? Mhm (Learner 7)?

L: [*Quiet*]

T: [*Scaffolding*] can write about -----

L: [*Quiet*]

T: Mhmm, **theth'ba xa kunokuthiwa kha ubhale nje uvoice uluvo lwakho, theth'ba awunayo into onayo apha ngaphakathi obawel'ba mayaziwe ngabantu? Noba uyayithanda, noba awuyithandi na. Noba uyayincoma, nob'uzayigxeka. Akunayo nje int'onthetha ngayo wena?** (Learner 11)

L11: **Ndizakuthetha ngesikolo tishala.**

T: You can write about -----

L11: the school

T: The school. Say what about the school? **Uzakuthi sitheni isikolo?**

L11: **Isikolo sam tishala asibiyelwanga.**

T: Mhmm, the condition of my school. Mhmm, **uthini omnye?** What others say? Mhmm, U(Learner's name) **yena** can express ideas about the school that needs fencing, which has no roof, which has got no windows. It is painful to attend to school with no windows during windy days. We cannot have some proper lessons, **andithi?** Our school is not fenced because some goats come in to make it dirty, **andithi?**

C: Yes

T: That is what she wants to voice out because all the people of (their village's name) will be reading about the bad school. The school that has got no fence, no windows, no roof. When it is raining there is a water, lot of water coming inside the -----

Ls:

T: the classrooms. Everybody is catching cold. Some other people have got pneumonia, **siyevana?**

Ls: Yes **tishala**

T: **Uthin'omnye?** What can you talk about (Learner 6)

L6: [*Quiet*]

T: We said, what makes one to write a poem? There must be something that makes you to -----to write, **siyevana?**

Ls: Yes

T: There must be something inside your ----- your heart or your mind that makes you to ----- to write. You want to speak, you want to write. You want to speak, you want to write. What can you write about (Learner 7)

L7: [*Quiet*]

T: What can you write about?

L7: [*Quiet*]

T: (Learner 8)

L8: [*Quiet*]

- T:** Uvoice uluvo lwakho. Ungavoica uluvo lwakho ngantoni? Usazi intokubana abantu bazakumamela ba (their village's name) bonke. Akufani nokuthetha netshomi yakho ukuba izolo uyavuya ukuba ukore igoal udlala noLusasa, kodwa ke ngoku kufuneka kumamele-l'umdala nomncinci, andithi?
- L8:** [*softly*] Yes tishala
- T:** What can you talk about?
- L8:** [*Quiet*]
- T:** Yintoni le ufun'ba khe iviwe ngabantu? Le cac'ba ayid'iaddresswe aph'elalini. Le cac'ba mawukh'uthethe ngayo. (Learner 3), unqwenel'ba ungakh'uthethe ngantoni?
- L3:** [*Quiet*]
- T:** (Learner 12), what can you talk about?
- L12:** Ngekliniki
- T:** You want to voice yourself about -----? The importance of a clinic in our community. Mhmm, uthin'omnye? U(Learner 12) ufun'uvoic'i..... Ufun'u, he wants to speak about the clinic, which is not there at (Their village's name). That people are suffering. They have to walk long distances to Sotho where there are no medicines at Sotho, andithi? Some people end up dying because of unforeseen illnesses, because there is no clinic here, phi ----- (Their village's name). Now that the people of (Their village's name) bayakufunda intokubana, tyhini! Ikhona intoni? Iconcern ka (Learner 12) about ikliniki. Tyhini! Kutheni singaphakami thina, sithini? Senze ikliniki, ikliniki, iyavakala?
- C:** Yes tishala
- T:** So if we say abantwana benu bakuthi ze baphile kwigeneration elandelayo okanye kwixesha elizayo kubekhw'ikliniki, it means nina (Their village's name) nakusoloko nicutheka zizifo ezitheni? Eziqubulayo. Ezisoloko zitheni? Zibakhona. Kuzakusweleka abantu abadala. Old people will die 'cause there's no clinic. Young people will die because of the illnesses and diseases. Do you get it?
- C:** Yes

- T: What else can you talk about (Learner 6). Let's say you are writing something. You want people to get something from you.
- L8: [*Softly*]
- T: He
- L8: Train
- T: About a train, what can you say about the train?
- L8: [*Quiet*]
- T: Yes, you can write about what, (Learner 3)? You can write about -----
- L3: I can write about the police station.
- T: You can write about the police station, good. There's no police station. What else can you write about? Can you write about HIV AIDS? Can't you write about that? Who else can write about that?
- C: [*No response*]
- T: To warn people about HIV AIDS. Right, let's go to the second question. As a reader of that poem, what do you get from the poem? What do you get from that poem? Let's say your answer You can write about [*writing on the board*], you can write about HIV what? Let's read that.
- L7: I can write about
- T: I -----
- C: I can write about HIV AIDS.
- T: I can write about HIV AIDS. That is an example. Someone may want to talk about eh-e friendship, how important is a friendship. Someone can be talking about parenthood, that is **ubuzali, siyevana?** How important to be a? A parent, more especially at hard times. There are many more topics you can write about in a poem. As a reader, what do you get from a poem? When reading a poem, what do you get from a poem?
- C: [*Quiet*]
- T: (Learner 3), **thetha**. What do you get from a poem?
- L3: [*Quiet*]
- T: (Learner 7)
- L7: [*Quiet*]

T: (Learner 1)

L1: [*Quiet*]

T: (Learner 2)

L2: [*Quiet*]

T: What do you get from a poem? **Yintoni oyifumanayo ke? Nike niyibon'imbongi?**

L11: Yes

T: **Imbongi ibonga phi kuqala? Wakhe wayiv'ibonga phi imbongi? Khawutsho,**
(Learner 11)

L11: **Xa kukho indibano** [*speaking softly*]

T: Mhmm, **sithi xa kukho indibano enkulu, andithi?**

L11: Yes **tishala.**

T: **Heke, okanye phi?** When there are big gatherings. Where our former president Mr. Mandela would arrive. What else, what else? **Kuph'okunye aph'ufuman'imbongi?** (Learner 13)

L13: [*Quiet*]

T: **Masith'emicimbini, andithi. Emicimbini like bekukh'umgidi okany'umtshato, andithi?**

Ls: Yes **tishala**

T: What else do you get from a message **ke**, I'm sorry from **intw'ethethwa yimbongi?**

C: [*Quiet*]

[*End of period*]

APPENDIX D

NS LESSON TRANSCRIPT –7 AUGUST 2001

TRANSCRIPTION CONVENTIONS

T- Teacher, L- Learner, Gr- Group, ... Didn't hear what was said, C- Class,-----

Teacher expects learners to join and finish with him, [*italics*] Researcher's comments, (normal font) Teacher called learner by name, **bold** Xhosa utterances

T: We say water rises, why?

C: [*quiet*]

T: Mhm, Why is water rises?

C: [*quiet*]

T: Why does water rises, (Learner 1), yes (Learner 15). **Kuthen'amanz'enyuka xa ungene pha**, (Learner 9)

L9: ngoku anyuke

T: Mhm, **ndiyavuma uneweight ungene pha wena, kutheni lento enyuka? Ngenxa b'uneweight?**

L11: **Kalok'uthath'ispace.**

T: Good, good, **uthini?** They have taken the space of water, good. **Utheni?** You, you, your body-----

C: [*no response*]

T: **He**, your body ----- [*writing on the board*]

C: takes

T: the -----

T&C: the space

T: of water, good, the space of water [*writing on the board*], the space of water. That means your body displaces, **siyevana?**

C: Yes

T: Displaces water and the water level [*writing on the board*] water level rises, **siyevana?**

C: Yes

T: And the water level rises, **iyavakala?**

C: Yes

T: [*distributing apparatus to groups*] **Umnt'uzakuthatha le ikhoyo phambi kwakhe..... Ndifuna ke ngoku nani nithathe**, you must take those as basins. Pour water inside. You put any object inside, where this object is going to make the water rise. **Nani** (Learner 1) **yizani nizojoina apha. Nakuphinda nibuyele ezindaweni zenu. Nanga amatye akhona phandle.** [*learners pour water in containers*]. Right, (Learner 7), what is the volume of water there? You must check the volume of water in your glass beaker. What is your volume?

Gr C: 400ml

T: **He**

Gr C: 400ml

T: That is group? Group?

Gr C: C

T: Group C equal to 400 -----

Gr C: ml

T: ml, **nhe?**

Gr C: Yes

T: Group -----?

Gr A: A

T: A is -----

Gr A: 500mm

T: He

Gr A: 500mm

T: 500mm ml

Gr A: Yes

T: 500ml, and group -----? Group B?

Gr B: 400ml

T: He

Gr B: 250ml

T: 250, 250ml. Make sure that the volume is exact. If it's not exact, make sure that you reduce water or **uphungul'amanzi kdw'id'ibeyiloo nto, siyevana**. But **uqininsek'ba** ugroupC has got 400ml. One member from each group to find an object to put inside so that the water is displaced by that object.

C: [no response]

T: Igroup nganye mayikhuph'u nto ilantika imember iyokukhangela intw'engayifaka phakathi ezakwenza laa manzi anyuke.

C: [some learners go outside]

T: Intw'ezakungena kuloo nto yenu. Bayalwa [learners laugh], benzani? Bayalwa bayagilana. Uthe u(Learner 11), the water, the, the, your body takes the space of water. That is why the water is rising, and eh-e it means your body displaces what-----?

T&C: water

T: and the water level rises. When talking about the measurement of, measurement of irregular, irregular solids [learners return outside, teacher talks to one of group B members]

L8:

T: Ubufunela ntoni? Hamb'ufuna pha phandle. Make sure it's your volume. We said two hundred and what? 200, 250, ok, 250ml. [checking other groups]. Khathi ndibone eyakho. 200ml. Yours is? Beka phantsi. Eh-e, yabon'igqithe kancinci, ... kancinci [learner laughs]. Mhm, we said group C is 400ml, group A is 500ml, and group B is 250ml, and we use the principle, the principle when we are talking about the measurement of irregular -----?

T&C: solids

T: We talk about the principle of displacement, do you get it?

C: Yes

- T:** Displacement [*writing on the board*]. That is, taking the space of, of water. We said your body, when you get into a basin, you pour water into a basin, you get into a basin, water rises **andithi?**
- C:** Yes
- T:** And then we said eh-e your body displaces or takes the space of water. That is why water is rising, **siyevana?**
- C:** Yes
- T:** Ok, You must put in your objects. checkisha **intok'bana ayizwezi zizonyibilika, siyevana?**
- C:** Yes
- T:** Let's put the objects inside. [*learners do as they are told*]. [*teacher talking to one of the groups*] **Niliyeke lihlale phantsi kaloku, nawe awu..... awuthi xa ungen'ekomini wenjenje** [*demonstrating*], [*learners laugh*] [*goes to another group*] water to 300ml **ub'izoba iabove level masophungul'amanzi ngoba kufuneka sireadile apha 400. Sithe yenza bani wena? Sithe yenza bani?**
- L11:** u200
- T:** u200 instead of ?
- L11:** 300
- T:** 300 **nhe? Nina, o-o iright le yenu.** Now (Learner 7) **ireading yenu ibisithini kuqala?**
- L7:** 500
- T:** Yes **tishala**
- T:** Their reading was 500ml. That is group A. Now is equal Can you give me the reading? Can you give me the reading now?
- L7:** Above 500
- T:** What is it that is above 500?
- L7:** Water
- T:** **He**
- L7:** Water

T: What is the reading now? Where is water now? Tsiba you said 500ml
Where is water now..... ? [*helping the group to get the reading*] this is
 600, 700, 800, 900. 750ml you your jug is 750ml after you have put the
 stone, ok. Group C? Where are you B'....? Group B your reading was 300ml.
 Group C, what is your reading now? [*helping the group*] 300ml, 350ml,
 400ml, 450ml, good, is equal to 450ml. And with you? You had eh-e 300ml
 Here that 300ml [*helping the group*] 10, 20,... ok, 10, 20, 30, 40, ...
Andithi? Ok, **Masiphinde sidibane.** What is the volume of the object or the
 stone that you have put inside the water? Group C, the water was 300ml, now you
 have put the stone you've got 450ml, and with you group A, you had 500ml and
 now you've got 750ml. You count for me the volume of your stone. [*taking to*
group B] And then 200ml, you've got 230ml. You count the volume, 2 minutes.
Siyabala kaloku ngoku in groups. **Naziya ilantika zenu.** You've got the old
 reading and the new reading. You must check the volume of the object you put in
 water. [*learners calculate*]. **Khawulezisa. Sisebenza sonke** (Learner 16) **kuba**
kaloku kufuneka siproduce intobana zizayitacklisha njani kuba kaloku sifuna,
 we want the volume of that stone inside your, your water. The volume of the
 stone inside. **Waphel'umzuz'okuqala. Sesigqiba ke ngoku, sesigqiba ke ngoku**
tsho le nto mhm. Sesigqiba itsho le nto. Sesigqiba ke ngoku itsho le nto, ok?
Masithathe ngokuba everybody is finished. Yes, group A, what is your
 answer?

Gr A: 1240

T: Mhm?

Gr A: 1240

T: She says 1240. Group A says 1240. 1240 what? Ml

C: Yes

T: What's your, what's yours?

Gr B: 430

T: 430, group -----?

Gr B: Group B

T: 430ml, what's yours?

Gr C: 750ml

T: They say 750ml [*writing responses on the board*]. Right, I think **abantu** they have added, they have added the reading of the first volume, **andithi?**

C: Yes

T: The reading of the first volume with the reading of the second volume. It means you have added the volume of water with the volume of what ---? Of the stone, **andithi?**

C: Yes

T: **Andithi?**

C: Yes

T: Now, let's go. It means **ngoku ubangaba si/nibala** ivolume of the stone inside the volume of the water, that means **ni/nenze intoni? Amanzi ngathi ayintoni? Alilitye nawo. Itsho kaloku loo nto. Ithi njeng'ba ubungena kalokukule bhafu yakho, andithi, inamanzi,** and water rises, **uth'umbuzo,** what is the volume **yent'ubuyif'apha phakathi, andithi?**

C: Yes

T: **Andithi?**

C: Yes

T: Eh-e, now **uz'uthi wena ngamanzi adibene nalaa nto. Itsho kaloku le nto.** Now let's go. Let's do this **ke ngoku.** Subtract the first reading volume from the second reading. **Ke senze loo nto ngoku.** Subtract the first reading from the second one. The first reading from the second reading. **Ke senze loo nto.** [*learners calculate*]. Subtract the first volume reading, volume reading, from the second volume reading, in order to get your answer. Come on. First we had a, a volume of water reading. Secondly there was some/ an object put in and had a second reading. Subtract the first reading from the second reading. Uready? **Phakamis'isandla kalok'umnt'oready. Group ? Mhm. Yiza.** Yes, group A

Gr A: 240

T: 240 what?

L14: [*learner speaking very soft*] mm

T: He

L14: mm
T: loud, **sithe**-----?
L14: 240
T: **He**
L14: 240mm
T: 240ml, good. 240ml. (Learner 3)
L3: 1/150ml
T: **He**
L3: 150ml
T: Where are we? 150ml, good. Group B, the answer----
Gr B: 70
T: 70
L:
T: 230, 200. Come on (Learner 1) **maan**.
L1: 30
T: 30 what?
L1: ml
T: 30ml. Now that you subtract the, the first volume reading from the second volume reading, **iyavakala ke?**
C: Yes
T: **He**
C: Yes
T: [*laughing*] **He** (Learner 7 twice) **uyayiva le nto?**
L7: **Andiyiva titshala**
T: **Sithi sithabatha laa** reading **yokuqala, le ibiyeyamanzi, andithi ubugalele amanzi?**
C: Yes
T: **Wenza ntoni, iobject phakathi, enyuka amanzi.** Then **waneny'**reading **yesibini emveni kwalaa manzi.** It means **yenyuke, ukuba yenyuke ngo200,** it means **uminusa** the first reading from the second reading. It means the difference

is the volume of the irregular block that you have in your, in your container.

Iyavakala ke ngoku?

C: Yes

T: **Ukhon'umbuzo bethuna okany'umnt'ofun'uphind'acaciselwe? Nivile**
(Learner 1)

L1: Yes

T: Mhm

L1: Yes

T: Whenever when we measuring the volume of regular solids, we talked about eh brick, we talked about eh-e , what else did we talk about? An ice block, **andithi?**

C: Yes

T: We talked about the rectangle, **andithi?** Where we are having the length, breath and the -----

T&C: height

T: and the height. Now where can you get the height here [*lifting a stone*]. Where can you get if it is irregular like this. The block is irregular like that, **siyevana?**

C: Yes

T: Now can we get another example? Can you go and find another object? A lesser object. **Khawulezisa.** Tsiba **thatha laa** block **yabo nizokutshintshiselana njalo njalo. Hayi thath'ility'eliya**

L: Oo

T: **Mnike nob'ingathi Lifake** (Learner 7) **ubone. Uyabona** (Learner 7) **uvel'ulifake nje. Asazi noba loo manz'aphungulekile, nobaselwe ngubani na.**
Let's have the first readings. What is your first reading, what is your reading (Learner 7)?

L7: 500ml

T: He

L7: 500ml

T: 500, put the water in, put the stone in. what is what is yours? What is the reading? What is your first reading (Learner 3)?

L3: 300ml

T: Put the stone in, what is it now?

L3: 500ml

T: And what is eh-e Of the stone? What is the volume of the stone?

L11:

T: Mhm ?

L11:

T: 500ml, mhm (Learner 7) what is yours?

L7:

T: He

L7: 740

T: mh-m [*teacher doesn't agree & helps the group*] here this is 500, 600, 700, it should be 680ml. [*talking to another group*] **Nina nifumana ntoni, he, he**

Gr B:

T: He, he niphinde nafak'eliny'ilitye apha?

Gr B: Hayi ibileli lokuqala

T: Ithini ke ngoku?

Gr B: 260

T: 260 **nhe?** What is the volume of the stone inside? **Yenza khawuleza maan.** What is the volume of the solid inside?

Gr B: 60ml

T: 60ml, **andithi?**

Gr B: Yes

T: 60ml, eh-e now, (Learner 11), (Learner 3) **nisaphikisana**, ok, **khanibe niphikisana.** (Learner 7) **uthe uno500 kuqala, ngoku uno 680**

L7: Yes **tishala**

T: The difference is -----

L7: [*quiet*]

T: Subtract the first reading from the second reading. Yes (Learner7), **wena** (Learner 11) **le group yakho.**

Gr C: [*quiet*]

T: **Yenza**, Yes (Learner 11). Subtract the first reading from the second reading

L11: 200 tishala

T: 200? What was your first reading?

L11: Ibingu 300

T: It was 300ml, and then you have what now?

L11: 500mm

T: ml, yes [*referring to another learner*]

L9: 180

T: 180 what?

L9: ml

T: 180ml, **masibuyise laa matye nantsiya.** Calculate the volume of an irregular solid that is put into a glass beaker of 375ml of water and after that goes to 550ml.

C: [*nothing happens*]

T: **Thath'incwadi zeclasswork kaloku.**

[*Learners do as they are told*]

APPENDIX E

HSS LESSON TRANSCRIPT – 8 AUGUST 2001

TRANSCRIPTION CONVENTIONS

T- Teacher, L- Learner, Ls- Few learners, C- Class, ... Didn't hear what was said, ---
Teacher expects learners to join and continue with her, [*italics*] Researcher's comments,
(normal font) Teacher called learner by name, **bold** Xhosa utterances.

T: the map of the world. Outline the map the world. [*sighs*], I want the names
of the continents from the map of the world, names of the continents.

C: [*Quiet*]

T: Hands up

L1: Asia

T: Asia [*writing on the board*].

L7: Africa

T: Africa [*writing on the board*]. (Learner 8)

L8: [*Quiet*]

T: (Learner14)

L14: [*Quiet*]

T: (Learner 9)

L9: South America

T: Oo, South America [*writing on the board*], (Learner 10)

L10: North America

T: North America [*writing on the board*], (Learner 3)

L3: Australia

T: Australia [*writing on the board*], and the last one

L15: Antartica

T: Antartica, antar--- [*writing on the board*]

L3: tica
T: In which continent is South Africa? In which continent is South Africa?
C: [*Quiet*]
T: In which continent is South Africa?
C: [*Quiet*]
T: (Learner 1), in which continent? We have 7 continents, in which continent is South Africa? (Learner 3)
L3: Africa
T: Africa, who can show me Africa? Who can show me Africa in that map of the world?
C: [*no response*]
T: Who can show me **Afrika**?
L9: [*learner goes in front to point Africa*]
T: Where's Africa?
L9: [*points South America*]
C: [*laughs and other learners take the pointer*]
T: Where's Africa
L3: [*points correctly*]
T: Africa, who can show me South Africa, South Africa?
L15: [*learner guesses*]
T: South Africa
L15: [*keeps on guessing*]
T: South Africa, this is Africa, in which where is South Africa in Africa? Where is South Africa?
L1: [*another learner tries*]
L7: (Learner 1) **hlala phantsi awukabizwa nguMiss**
L1: **Umzantsi Afrika**
T: Which ocean lies on the East of Africa? Which ocean lies on the East of Africa?
Ls: Miss, Miss
T: (Learner 11)
L11: Indian Ocean

T: Indian Ocean, where's Indian Ocean? (Learner 16), where's Indian Ocean?

L16: [*guesses*]

C: [*laugh*]

T: (Learner 15), where's Indian Ocean?

L15: [*points at a wrong spot*]

T: (Learner 9), (Learner 11)

L11: [*points correctly*] **nantsi** Miss

T: Which ocean lies on the, good, on the west of America? Which ocean, which ocean lies on the west of America? (Learner 9)

L9: **Yi** Pacific

T: Which ocean lies on the west of America?

L3: Atlantic Ocean

Ls: Miss, Miss

T: (Learner 8), which ocean lies on the west of

L8: Is Indian

L7: Atlanta

T: (Learner 1)

L1: Pacific Ocean

T: Where is Europe in our map? Where is Europe in our map, Europe?

L9: [*points*]

T: **Ayiphelelanga kulaa ndawo ulathe kuyo.**

L9: [*continues to point and talk*]

T: **Iyahamba**

L9: **Intaba**

T: [*saying something in Xhosa*], who can show us?

L9: Europe

T: **Ziph'imountains, iph'iEurope? Sibonise kakuhle.** Which mountain separates Europe from Asia? Which mountain separates Europe from Asia? Which mountain separates Europe from Asia? Who can tell us mountain that separates Europe from Asia?

L3: Europe

T: Mountain, mountain

L3: Drakensburg

L9: Ura mountains

T: Show us Ura mountains (Learner 11). Ura mountains, show us Ura mountains

L11: [*pointing*] **Nazi**

T: So now we are going to deal with Great Britain. Today we are going to deal with Great Britain. Here is Great Britain [*pointing on a map*] on the -----

T&Ls: West of Europe

T: Here is Great Britain on the -----

T&C: West of Europe.

T: Ok, [*using a map of Great Britain*]. This is Great Britain. All this pinkish colour is Great Britain. Great Britain, [*sighs*], eh-e-, if we look on the map of Great Britain there are mountains, there are mountains, rivers, and it is surrounded by ---

C: [*Quiet*]

T: And it is surrounded by the -----

Ls: O o

T: Sea, Great Britain is surrounded by the sea, [*writing on the board*]. It is the island north, this is the island west of Europe. Great Britain is the island west of Europe. And this Great Britain is divided into -----

T&C: 4 countries

T: Great Britain is divided into 4 countries, that is: England, Scotland

L16: Scotland

T: Wales

L10: Wales land

T: Northern Ireland [*writing on the board*]. This is Ireland [*pointing*], Here is Northern Ireland. Northern Ireland is also the, is also the part of -----

C: Great Britain

T: Great Britain. Here is [*pointing*] England, here [*pointing*] Scotland, this is Scotland, and the Wales [*pointing*], this is Wales, England, Scotland and, and ----

C: Northern Ireland

T: Ireland, Northern Ireland

T: Ireland, Northern Ireland

T&L9: Scotland

T&C: England, Wales, Northern Ireland, Scotland, England, Wales [*pointing on the map*]

T: of the whole Britain. What is the capital town of Great Britain? Capital town of Great Britain, as you are at East London what is the capital town of Great Britain? Capital town of Great Britain is ---- [*writes the answer on the board*]

L3: London

Ls: London

T: London. Capital town of Great Britain

L9: Is London

T: Is

C: London

T: London is here in England, and that London is also the capital town of --- [*pointing on the map*], that London is also the capital town of ----

L15: England

T&C: England

T: That Great Britain, that London is also the capital town of ---- [*pointing*]

C: England

T: England

Ls: England

T: There is a sea that separates England from Spain or France. This is France, this is Great Britain [*pointing*]. There is a sea, which is called the English Channel [*writing on the board*] English

Ls: Channel

L1: Channel O

T: [*pointing*] this is called the English

L7: Channel

T: Channel, [*sigh*] on the Northern side of the North West of England [*pointing*] is North Sea, North Sea. This is called the North Sea, North Sea.

L3:

- T:** I can't hear you. In which hemisphere is Great Britain? Hand up. In which hemisphere is Great Britain? We have Southern hemisphere, Northern hemisphere. In which hemisphere is Great Britain?
- C:** [*Quiet*]
- T:** All the parts South of the Equator are in the Southern hemisphere, and all the countries North of the Equator are on the Northern hemisphere. In which hemisphere is Great Britain?
- C:** [*Quiet*]
- T:** We have 2 hemispheres, Southern hemisphere and Northern hemisphere. In which hemisphere is Great Britain?
- L7:** Northern hemisphere
- T:** Northern hemisphere, Great Britain is in the Northern hemisphere. Where's Great Britain class?
- C:** [*Quiet*]
- T:** Great Britain is in the Northern hemisphere. Where's Great Britain class?
- C:** Great Britain is in the Northern hemisphere.
- T:** Again
- C:** Great Britain is in the Northern hemisphere
- T:** Great Britain is in the Northern hemisphere
- C:** Great Britain is in the Northern hemisphere
- T:** Which 4 countries that form Britain, which are those countries that form Britain?
- L3:** Scotland
- T:** Scotland, (Learner 9)
- L9:** England
- L15:** Wales
- T:** Wales
- L8:** Northern Ireland
- L1:** Northern Ireland
- T:** Northern Ireland. Which country is North of England? Which country is North of England [*pointing*]? Which country is North of England? Hands up, (Learner 10)
- L10:** Scotland

T: Scotland. Which country is West of England? West of England, which country is West of England? (Learner 2)

L2: [*Quiet*]

T: (Learner 8)

L8: [*Quiet*]

T: (Learner 7)

L7: Wales

T: Wales, Wales is in the West of England. Where is Wales class?

T&C: Wales is in the West of England.

T: Wales is in the West of England. Where is Wales class?

C: Wales is in the West of England.

T: Wales is in the West of England, where's Wales class?

C: Wales is in the West of England.

T: Which sea is between Ireland and England? There is a sea between Ireland and England, which sea is that?

C: [*Quiet*]

T: Irish Sea, Irish Sea, Irish Sea, what which sea

C: Irish Sea

T: Irish Sea

C: Irish Sea

T: Again, [*writing on the board*] Irish Sea

C: Irish Sea, Irish Sea

T: Irish Sea

C: Irish Sea

T: Between which lines of latitude and which lines of longitude does Great Britain lie?

C: [*Quiet*]

T: Lines of latitude, it is between Tropic of Cancer

L9: Cancer

T: Tropic of cancer [*writing on the board*] and the Equator. What is the other name of the zero degrees latitude. There is a line that (Learner 1)?

L1: Equator
T: Equator
Ls: Equator
T: Equator
C: Equator
L9: Equator **lanto**
C: [*laughs*]
T: Another name for the zero degrees line is called the ----
C: Equator
T: Equator. Which country is South of Great Britain? South of Great Britain? France.
 In which continent is the country mentioned in question, in the in the previous
 question? In which continent is France?
C: [*Quiet*]
T: In which continent is France? Where's that map of the world. We have 7
 continents. **Izo bamb'apha.** France, here is France [*pointing*].
L9: **Ise** South of the equator **iFrance.**
T: Here is France, and we have 7 continents. In which continent is France?
C: [*Quiet*]
T: We have 7 continents
L3: Asia
L11: Miss
T: And here is France
L9: Europe
T: Europe, where is France?
T&C: France is in Europe
L11: France is in Europe
T: We are going to draw the map of Great Britain. We are going to draw the map of
 Great Britain.

APPENDIX F

HSS LESSON TRANSCRIPT – 10 AUGUST 2001

TRANSCRIPTION CONVENTIONS

T – Teacher, L – Learner, Ls – Few learners, C – Class, ... Didn't hear what was said, ----- Teacher expects learners to join and continue with her, [*italics*] Researcher's comments, (normal font) Teacher called learner by name, **bold** Xhosa utterances.

T: Zinton'ezinye eziya (Learner 6). **Khanival'incwaddi nina. Khan'ival'incwadi ezingeyayo lento ndiyifunayo.** What do we mean by weather? What do we mean by weather? What do we mean by weather?

C: [*Quiet*] [*one learner busy doing something else*]

T: (Learner 4) **ubusy zezakhwizinto wena.** What do we mean by weather? (Learner 8)

L8: [*Quiet*]

T: (Learner 3)

L3: Temperature

T: Temperature, temperature, what else?

C: [*Quiet*]

T: Wind, what else?

C: [*Quiet*]

T: Climate. We mean weather, temperature and climate. What do we mean by weather class?

C:[*mumbling*]

T: Sonke

C: Temperature, wind climate

T: Climate. What do we mean by temperature? What do we mean by temperature?

C: [Quiet]

T: Temperature, what is temperature? What is temperature?

C: [Quiet]

T: [says something in Xhosa in one group]. Temperature, what is temperature?

C: [Quiet]

T: (Learner 6), what is temperature?

L6: [Quiet]

T: (Learner 1), what is temperature?

L1: [Quiet]

T: (Learner 7)

L7: [Quiet]

T: What is temperature (Learner 9)?

L9: [Quiet]

T: Is it fine? Is it partly cloud? Is it mild? How is the weather today?

L9: Mild

T: Mild, mmmm and what else? Is it clear, no clouds? Is it clear?

C: [Quiet]

T: Yijongeni nani Is it clear or cloudy or partly cloud?

L3: Partly cloudy

T: Partly cloudy. In which province are we? In which province are we? In the map of South Africa we have 9 provinces, in which province are we? Mhm

L3: Eastern Cape

T: When do we get rain in the Eastern Cape? When do we get rain in the Western Eastern Cape? (Learner 10)

L: Summer

T: Summer, we get summer rain. How many seasons are there in a year? How many seasons? How many seasons are there in a year? (Learner 15)

L15: [*speaking softly*] 4

T: He

L15: 4

T: How many seasons are there in a year?

L15: 4 seasons in a year

T: 4, four seasons, four seasons [*writing on the board*]. Can we name them (Learner 16)

L16: Summer

T: Summer [*writing on the board*], (Learner 7)

L7: Winter

T: Winter [*writing on the board*], (Learner 11)

L11: Autumn

T: Autumn [*writing on the board*], (Learner 6)

L: Spring

T: Spring [*writing on the board*]. Which season is between summer and winter?
Eweke [*referring to a parent who was greeting from outside*]. In which eh-e, which season is between summer and winter?

L9: Autumn

T: Autumn, autumn is is the season between -----

T&C: Summer and winter

T: Which season is between winter and summer? Which season is between winter and summer (Learner 9)

L9: Autumn

T: Is it?

C: [*mumbling*]

T: Summer is between, the autumn is between?

C: Summer and winter

T: We move from summer, autumn,

L7&T: Winter

T: And this season is between sum winter and summer

L9: Winter

T: Between summer between winter and summer

L3: Spring

T: Spring, spring is between -----

T&C: Winter and summer

T: And autumn is between -----

T&C: Summer and winter.

T: We have dealt with the relief of the Great Britain, we have dealt, so now we are going to deal with the climate of Great Britain. Climate [*writing on the board*]. In which hemisphere is Great Britain? In which hemisphere is Great Britain? We have southern hemisphere and northern hemisphere. In which hemisphere is Great Britain? When you look on your map at the map of the world, in which hemisphere is Great Britain?

C: [*Quiet*]

T: **Yintoni ebangel'ba ugungquze, awuyaz'imap yakhō, awuyaz'imap yakho.**

[*drawing on the board*] this is the northern hemisphere and this is the southern hemisphere. In which hemisphere is Great Britain? this is the Equator, the line that divides the earth into two equal parts [*writing on the board*] Equator.

L10: Northern Hemisphere

T: Northern Hemisphere. Great Britain is in the -----

T&Ls: Northern Hemisphere

T: How many states are there in the Great Britain? How many states?...

C: [*Quiet*]

T: In South Africa we talk of provinces. In Great Britain we talk of states. How many states are there in the Great Britain? In South Africa we talk of provinces, in the Great Britain we talk of states. How many states are there in the Great Britain?

C: [*Quiet*]

T: 9, 20, 5, 4, how many states are there?

L8: 4 states

T: Can you name them please.

L1: Scotland

T: Scotland [*writing on the board*] 2

- L3:** England
- T:** England [*writing on the board*] 3
- L10:** Wales
- T:** Wales [*writing on the board*] 4, 4
- L9:** Island
- T:** Ireland [*writing on the board*], Ireland [*emphasizing pronunciation*]. So the climate of Great Britain is fairly mild. How is the climate of Great Britain class?
- C:** Is fairly mild
- T:** Fairly mild [*writing on the board*]. How is the climate of Great Britain class?
- C:** Fairly mild
- T:** The climate of Great Britain is fairly mild. Hot temperatures are about 30cm 30 degrees Celsius, temperatures 30 degrees Celsius ihotness. The hotness of Great Britain is 30 degrees Celsius, 30 degrees Celsius, and it usually get rain all the year round. Great Britain get rain all the year round. So in winter it frequently snows: Rain all the year round, temperatures 30 degrees Celsius, fairly mild, **yinton'eny**e, snows in winter. When do the people of Great Britain get rain? When do the people of Great Britain get rain class? Hands up. When do the people of Great Britain get rain? Mhmmm
- C:** [*Quiet*]
- T:** (Learner 1)
- L1:** [*Quiet*]
- T:** (Learner 3)
- L3:** [*Quiet*]
- T:** When do the people of Great Britain get rain?
- C:** [*Quiet*]
- T:** Nini, when nini? **Bayifumana nini imvula abantu base** Great Britain?
- C:** [*Quiet*]
- T:** **Kany'enyakeni? Kabini? Ebusika? Bazifumana ebusika?** In summer? In autumn? When?
- L9:** All the year round.

T: All the year round. They get the rain all the year round. How is the weather? Is it very hot? Is it cold?

C: [*Quiet*]

T: Mhmm how are the temperatures in Great Britain? Are they mild? Hot?]

C: [*Quiet*]

T: [*Drawing weather symbols on the board*] mild, cold, hot? How are the temperatures in Great Britain? Very hot? Mild?

L3: Hot

T: Mhmm how are the temperatures? How are the temperatures of Great Britain?

L10: Mild

T: Just mild? Just mild? Mhmm (Learner 6)

L6: Hot

T: **Zimild** but **ngowuphi lo** mild? Fairly mild, fairly mild. The temperatures of Br of Great Britain are -----

Ls: Fairly mild

T: The temperatures of Great Britain are -----

Ls: Fairly mild

T: **Abany'abathethi**. The temperatures of Great Britain are -----

C: Fairly mild

T: How are the winters of Great Britain?

C: [*Quiet*]

T: Which is the highest degrees they get in Great Britain, highest degrees they get?

L10: 30

T: 30 degrees Celsius, and which degrees they get in winter?

L9: 3

T: 3 degrees Celsius. How do we measure temperature? What instrument is used to measure temperature? Which instrument is used to measure temperature?

L3: Thermometer

T: Thermometer, and which instrument is used to measure rain?

C: [*Quiet*]

T: Rain-----, rain----- [*scaffolding*].

C: [*Quiet*]

T: Rain gauge, rain gauge [*writing on the board*] rain gauge. Which instrument is used to measure rain?

C: Rain gauge

T: rain gauge. So take out your HSS books and draw my Great Britain map as quickly.

[*Learners do as they are told*].

APPENDIX G

GENERAL QUESTIONS FOR INTERVIEWS

1. Is there an official language policy in your school, if yes, what is it?
2. As I observed your lessons, I noticed that you used both English and Xhosa when teaching. Can you explain to me why and when do you do that?
3. I also noticed the frequent use of “siyevana”, “nhe”, “andithi”, “moss” and “iyavakala”. What is / are the function/s of these phrases in your lesson? [*Question not meant for Ncumisa*]
4. I observed that you allowed your learners to use Xhosa in English medium lessons. Why and when do you allow your learners to use Xhosa in class?
5. What are your general feelings about code switching in the classroom?
6. Do you only code switch in class for the benefit of the learners?

APPENDIX H

TRANSCRIPT OF INTERVIEW WITH NCUMISA

1 NOVEMBER 2001

R: Is there an official language policy in your school? If yes, what is it?

[pause]

N: We use English and Xhosa. If a learner doesn't understand quite well what the teacher is saying or asking, s/he may clarify in Xhosa, in order to help learners understand what s/he is saying.

R: What I'm trying to ask is, what is the official language of learning and teaching i.e. the medium of instruction and which other languages do you offer at your school, in which grades?

N: From grade 4, I don't know what is happening in the foundation phase, from grade 4, English is the medium of instruction and Xhosa and Afrikaans are taught as subjects.

R: Ok. As I observed your lessons, I noticed that you use both English and Xhosa when teaching. Can you explain to me why and when do you do that.

N: I use Xhosa when I get the feeling that learners do not have an idea of what I'm talking about i.e. if they seem not to understand the topic I am talking about. For example, if I teach them about continents of the world and notice that they do not have an idea of what a continent is, I use a Xhosa word for a continent, which is "ilizwekazi".

R: I also observed that you allow your learners to use Xhosa in English medium lessons. Why and when do you allow your learners to use Xhosa in class?

N: Most of the time I let them use Xhosa when they talk to each other in groups. Sometimes I ask them a question in English and notice that some of them know

the answer but it's difficult to express themselves in English, in such a case I allow them to answer in Xhosa so as make them comfortable and to encourage participation in a lesson. In tests and examinations I do not allow them to use Xhosa, they answer in English.

R: If we look at the lessons taught on the 8 and 10 of August (video taped lessons), you didn't code-switch as you use to during the lessons I observed earlier on. Is there any particular reason for this?

[pause]

N: I don not know. I didn't notice that. Maybe the learners didn't have difficulty understanding what I was teaching.

R: What are your general feelings about code switching in the classroom?

N: I allow my learners to use Xhosa and I also clarify things in Xhosa too because in the area where I teach learners are not exposed that much to English. I end up being one of the few resources they have. Therefore, because of that our learners have difficulty expressing themselves well in English.

R: Do you only code switch in class for the benefit of the learners?

N: Yes

R: Let me take this opportunity to thank you for filling me in your busy schedule, and for your participation in this whole research process. Thank you.

APPENDIX I

TRANSCRIPT OF INTERVIEW WITH SONGEZO

5 NOVEMBER 2001

- R:** Is there an official language policy in your school? If yes, what is it?
- S:** To my understanding, our language policy is as follows: From grade 1 to grade 2 the medium of instruction is Xhosa, then from grade 3 to grade 7 English is the medium of instruction.
- R:** As I was observing your lessons, I noticed that you use both English and Xhosa when teaching. Can you explain to me why and when do you do that?
- S:** I switch codes when I reinforce a particular part in a lesson to make sure that the learners understand for example there are certain mathematical terms, which are difficult to understand, in such cases I switch to Xhosa.
- R:** Can you tell me the functions of these switches [*stimulus recall using video clips*].
- S:** I was trying to give my learners a better understanding of what I was teaching, and I was trying to show them that some of the things we do in Maths at school, are what they do in their daily lives. I was trying to link what I do in class with what they do outside the classroom. I do this in Xhosa because I feel it would not have the same impact if I use English. I think they will think it's something new.
- R:** Ok. I also noticed the frequent use “**nhe**”, “**andithi**”, “**siyevana**”, “**moss**” in your lessons. What is / are the function/s of these phrases in your lessons?
- S:** I use these terms to check if learners understand what I teach them. I want to get their response so as to see if they understand.
- R:** I noticed that every time you use these phrases the learners response is “Yes / Yes **tishala**”. From your point of view, does this show that they all understand / agree with what you say?
- S:** Yes I think so.

- R:** Now, let us look at this video clip. If you notice, you made a mistake here and then used the phrase “**andithi**”, and the learners’ response was “Yes”. Do you still think that the learners’ response here show that they agree / understand what you were saying?
- S:** Sometimes they do. But, what I can also point out is that I do not only use these phrases to check understanding, most of the time I use them to see if the learners are still with me, and if they still follow the lesson. I use these phrases to get attention from all of them, i.e. to get them to pay attention and be part of the lesson.
- R:** You also use the term “**nantsika**” a lot in the lessons I observed, can you tell me why?
- S:** I use “**nanstika**” when the word I want to use in that particular sentence flushes. Most of the time I remember that word after I used “**nantsika**”, then I just continue with what I was saying.
- R:** What is the reason for the insertion of a vowel before an English word making it seem like a Xhosa word e.g. [*stimulus recall*] ianswer, ipart, uaddisha, inumerator, etc?
- S:** I usually do that when I begin my sentence in Xhosa and do not have a Xhosa equivalent for that English word. But most of the time it happens spontaneously because it is the way we talk.
- R:** I also observed that you allow your learners to use Xhosa in English medium lessons. Why and when do you allow your learners to use Xhosa in class?
- S:** Sometimes they got stuck if I expect them to answer in English, that is why I allow them to use Xhosa. Sometimes I pose a question in English and get no response, then in such cases I am forced to translate the question, then they respond.
- R:** What are your general feelings about code switching in the classroom?
- S:** I think teachers may code-switch but it must not take the whole lesson. At least I think 90% of your lesson must be in the medium of instruction, English and 10% Xhosa. There are terms really that are very difficult to be explained in English, and there are words that are cannot be translated from English to Xhosa, then in

these cases we can use Xhosa. However, I do not think the use of Xhosa in an English medium lesson is the right thing, I really do not think it is the right thing because the learners won't get used in using English. That's how I feel about code switching.

R: Do you only code switch in class for the benefit of the learners?

S: Yes, I think so.

R: Ok. Let me take this opportunity to thank you for fitting me in your busy schedule, and for your participation in this research. Thank you.

APPENDIX J

TRANSCRIPT OF INTERVIEW WITH ZONGAMELE

6 NOVEMBER 2001

- R:** Is there an official language policy in your school, if yes, what is it?
- Z:** Yes, the language policy in all government schools is that, the medium of instruction is English and in other schools it is Afrikaans, but our school falls under those schools whose medium of instruction is English starting from grade one to seven.
- R:** As I observed your lessons, I noticed that you use both English and Xhosa when teaching. Can you explain to me why and when do you do that?
- Z:** Firstly, I use Xhosa when the learners do not understand what I teach or what I ask them. I end up making reference of Xhosa in such cases. Sometimes I use Xhosa when I want to relate something to their every day lives, this is what is called situational teaching, where one refers the learner to something which is relevant to his / her background. But mainly I think the main factor of using Xhosa in English medium lessons is the relationship we have with our learners. Our (teachers) learners are Xhosa L1 speakers and we are Xhosa L1 speakers too. This, I think is the main thing which strongly influence the use of Xhosa in English medium lessons, because sometimes I want the learners to feel comfortable in the lessons although this might be un-official. At the same time this causes delays in grammar pick up to learners because they turn to be more flexible when they use their L1. They easily get what I'm talking about when I clarify in Xhosa.
- R:** I also noticed the frequent use of “siyevana”, “iyavakala”, “andithi” and “nhe” in your lessons. What is / are the function/s of these phrases in your lessons?

- Z:** One thing I can say is that, I look at the learners' response, for example, facial expression, nodding, and any other body language which suggests that learners are confused or stuck, then I use those phrases to check if they understand.
- R:** I also observed that you allow your learners to use Xhosa in English medium lessons. Why and when do you allow your learners to use Xhosa in class?
- Z:** When I see that they are stuck and they know the answer but cannot express themselves in English. And also when they work in groups.
- R:** You teach NS and ESL, do you feel that your code switching strategies differ in these learning areas?
- Z:** I code switch less in an English language lesson because there are certain areas that I need to discover in a language lesson. At the end learners should be able to speak English. They must hear English, they must read and write English. So I have a specific purpose in an English language lesson, that of teaching learners to speak the language itself, unlike in NS where I tell myself that I am mainly concerned with the understanding of the content. Though there are grammatical structures in the language used in content subjects, but the concern is not much with language learning, just the understanding of the content.
- R:** If I understand you quite well, you are saying, in an English language lesson you limit your switches than in a content subject lesson.
- Z:** Yes, but I think one must guard the grammatical structures even in content subjects but I switch less in an ESL lesson than in an NS lesson.
- R:** [*stimulus recall*] Let us now look at these highlighted lesson transcripts of English and NS lessons. If you notice the switches are almost equal, can you give me the reason for this?
- Z:** One thing that may have caused this is that I noticed that learners were very much confused in that English lesson and I could not reverse the lesson, rather I implemented another strategy / approach. Code switching a lot is a sign that learners do not understand, you see.
- R:** Ok
- Z:** Sometimes it is not about, is it a content or language lesson. The difficulty of the lessons determines how one code switches. For example, in a poem there are very

difficult words, which are used, so as a teacher, you need to simplify those words for your learners. In some situations, our learners do not even understand simple words. A lot of code switches is an indication that learners do not understand, so you have to make ends meet. In all I can say code switching sometimes is determined by how difficult the lesson is.

R: What are your general feelings about code switching in the classroom?

Z: I think code switching is an old style of our teaching which I think distorts the learners' standards of speaking the language more especially English, it really distorts. If we can practise not to code switch at all even in lower classes, I think things could be better as far as ESL use is concerned because code switching confuses learners. They end up mixing the two languages. For example you may find them using an English words in Xhosa lessons and vice versa. Some learners confuse the two languages, do you get it.

R: [Nods]

Z: Some use English words in Xhosa compositions without realising that those are not proper Xhosa words. They are so used in talking that way such that they think it is acceptable even here for educational purposes. I think this is caused by the confusion of code switching. That is why I prefer that code switching must be closed once and for all because it distorts language upbringing. If we are dealing with a lesson in Xhosa, we must speak proper Xhosa and if we are dealing with a lesson in English, we must speak English because these are two different languages although they may have common rules here and there, but I think we must not code switch rather resort to other teaching strategies so as to help learners understand.

R: Do you only code switch in class for the benefit of the learners?

Z: Sometimes yes. Though there are simple forms or strategies that can be used to clarify things in class, like bringing pictures that, learners can relate to in order to understand even those things they are not familiar with. That is why I say I want an end to code switching in our classrooms because we have language goals to achieve.

R: Thank you very much for your time and thank you once more for your participation in this research.

