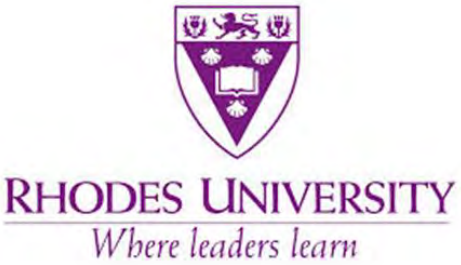

EXPLORING GRADE 8 TEACHERS' CODE-SWITCHING IN TEACHING ORTHOGRAPHIC DRAWING IN THE KHOMAS EDUCATIONAL REGION, NAMIBIA

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

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By

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02 FEBRUARY 2023

DECLARATION OF ORIGINALITY

I, **Gabriel Iita**, student number **17I8200**, hereby declare that this thesis entitled "Exploring Grade 8 teachers' code-switching in teaching Orthographic Drawing in the Khomas educational region, Namibia" is my own work, and a product of my research. It has not been submitted in any form to another institution. Where I have drawn on ideas of people from other publications or other sources, I have fully acknowledged these in accordance with Rhodes University, Education Department reference guide.

Date: 02 February 2023

Gabriel Iita

DEDICATION

This project is dedicated to my beloved late father, Mr Brasius Iita (1958-1982) and my beloved late grandmother, Mrs Hedwig Iipumbu ya Tshilongo (1923-2002). And may their souls rest in peace!

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ABSTRACT

Studies in learner English proficiency in Namibia have shown that a considerable number of learners in primary and high schools have low proficiency. Naturally, this will be problematic for both learners and teachers who operate under a policy that dictates that from Grade 4 upwards, English is the medium of instruction in government schools. Literature has shown a general bias towards English as a medium of instruction from both the Namibian government and Namibian parents, despite the broader level of low English proficiency among learners. Research reviewed within this study has outlined the multiple benefits of code-switching for both learners and teachers. In fact, a recent study on the perceptions of code-switching in classrooms among Namibian learners indicated a positive attitude towards code-switching as a learning tool.

Grade 8 Technical Drawing classes tend to be challenging due to the complexity and novelty of some of the concepts and terminologies used when teaching the subject. This makes it particularly difficult for learners whose first language is not English. Learners struggle to understand and make meaning of the concepts and objects used in Orthographic Drawing. Code-switching has been seen as a beneficial pedagogical tool. The study was therefore conducted to explore the Grade 8 teachers' code-switching when teaching Orthographic Drawing in the Khomas educational region, Namibia. The study used the Matrix Language Frame Model by Myers-Scotton as the theoretical framework which focuses on two crucial language aspects of participating in code-switching and the matrix and embedded language, which guided this study.

The qualitative approach employed a case study design which was used to gain first-hand experience in the Technical Drawing classrooms. Semi-structured interviews and an observation checklist were the research instruments that were used to generate data on the use of code-switching in Orthographic Drawing. Two schools, two Technical Drawing classes with 40 learners and two teachers in the Khomas region, Namibia were conveniently and purposively sampled. The data were analysed using coding, descriptive statistics and thematic data analysis. The primary and secondary results indicate that code-switching occurrence has constructive effects. Consequently, recommendations have been made on the effective use of code-

switching along with other pedagogical tools based on the research insights into code-switching when teaching and learning Orthographic Drawing.

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LIST OF ACRONYMS

EL	Embedded Language
EMI	English as a medium of instruction
MBESC	Ministry of Basic Education, Sport and Culture
MEAC	Ministry of Education, Arts and Culture
MLF	Matrix Language Frame
ML	Matrix Language
MoE	Ministry of Education
NIED	National Institute for Educational Development

CHAPTER ONE: INTRODUCTION

1.1 Introduction

This chapter introduces the study on the exploration of the Grade 8 teachers' code-switching when teaching Orthographic Drawing. A brief background of the study, the reasons why the study was carried out and the theoretical framework that underpinned this study are provided. The research objectives and questions that the study attempted to answer are also given. This chapter ends with the significance of the study.

1.2 Background of the Study

The Namibian education system has experienced many reforms and transformations in the past (Uugwanga, 2018). For instance, in 2011, Namibia hosted a national conference to interrogate the Namibian education system and contribute towards improved learning outcomes at all levels of education (Iyambo, 2011, p. 14; Uugwanga, 2018, p. 12). The Namibian Ministry of Education, Arts and Culture [MEAC] has been tasked with implementing a number of cabinet directives from the outcomes of the conference. One of the directives was to re-introduce and revitalise the technical pre-vocational subjects into the National Curriculum for Basic Education as from Grade 8 (Ministry of Education [MoE], 2014). Namibian basic education is currently subdivided into four phases: Junior Primary (Pre-primary and Grades 1–3), Senior Primary (Grades 4–7), Junior Secondary (Grades 8–9) and Senior Secondary (Grades 10–12) (MEAC, 2016).

The technical pre-vocational subjects are grouped as follows: *Technical Studies A* (Metalwork and Welding, Woodwork, Bricklaying and Plastering); *Technical Studies B* (Electricity and Electronics, Motor Mechanics and Metalwork and Welding); *Technical Studies C* (Bricklaying and Plastering, Electricity and Electronics and Plumbing and Pipefitting); and *Technical Drawing* (compulsory for each Technical Studies subject) (MEAC, 2016). These technical pre-vocational subjects are offered in schools with both academic and pre-vocational streams in order to achieve the Namibian basic

education's goal. The goal is to "empower learners to actively participate in making Namibian society a knowledge-based society" (MEAC, 2016, p. 5).

To fulfil the cabinet directive on the re-introduction and revitalisation of the technical pre-vocational subjects, well qualified technical pre-vocational subjects teachers with a broader understanding and knowledge of teaching technical pre-vocational subjects were employed. Even so, the learners do not do very well in the Grade 8 Technical Drawing classes. This could be attributed to the use of English as a medium of instruction which seems to be a barrier during teaching and learning process. Thus, this may actually be one of the reasons why Technical Drawing teachers code-switch when teaching even though the Namibian language policy does not allow them to do so (Ministry of Basic Education, Sport and Culture [MBESC], 2003).

According to the National Planning Commission report of the National Development Plan 5 (NPC, 2022) policy framework, the provision of Technical Drawing in the school curriculum lays a strong foundation for readying learners to participate in the knowledge-based economy through creative and innovative skills. Despite the fact that the MEAC is collectively implementing the recommendations arising from the national conference, Chedi (2015) highlighted that:

> Due to the current technological development and changing demands in society and labour market it becomes necessary for teaching and learning to devise the means for overcoming the challenges in Technical Drawing / graphic and these could only be successful through sound pedagogy. (p. 128)

Therefore, teaching and learning of Technical Drawing for a knowledge-based society requires an appropriate and effective pedagogy such as code-switching (Chedi, 2015; Ilter & Kilic, 2015). Code-switching is defined as the practice of switching between variations of languages in both oral discourse and written form in any bilingual or multilingual society (Hamid, 2016; Iipinge, 2019; Simasiku, 2016). In an educational context, teachers normally code-switch to facilitate the teaching and learning process (Adriosh & Raz, 2019) to help learners understand the subject content better (Suganda et al., 2018). Various studies on code-switching have been conducted nationally and internationally.

Shilongo (2017) and Simasiku (2014) conducted studies on code-switching in Junior Secondary Geography classrooms and the perceptions of Grade 10 English Second Language teachers about the effects of code-switching in their classrooms respectively. Both studies were done in Namibia and they found that code-switching yielded positive effects as it improved learners' understanding of the subject content and overcame learners' and teachers' English language proficiency in their classrooms. Memory et al. (2018) and Shilamba (2012) also found that teachers in Namibian schools preferred to code-switch because the majority of the learners' language proficiency was not good and/or some learners had subject learning difficulties. Code-switching is not only used in the teaching and learning process in Namibian schools but globally (Chikiwa, 2016; Magulu, 2016; Teklesellassie & Boersma, 2018).

Chikiwa (2016) conducted a study in South Africa on how precisely and consistently teachers of multilingual Mathematics classes were code-switching, whereas, Magulu (2016) focused on the impact of the language of instruction on teacher-pupils classroom interaction in History in Tanzania. Despite the positive effects brought forth by code-switching, the studies found that teachers' frequency of code-switching was inconsistent due to the lack of planning and teaching materials in indigenous languages – teachers also encountered problems and distress during the teaching and learning process because of the lack of learners' active participation (Chikiwa, 2016; Magulu, 2016). When looking at some findings and reasons above, it is obvious that code-switching has many positive effects on learners and teachers. Code-switching seems to scaffold learners' learning when teachers code-switch to learners' home languages than when they are taught entirely in an alien language (Teklesellassie & Boersma, 2018). It is against this background that the current study sought to explore the Grade 8 Technical Drawing teachers' code-switching when teaching Orthographic Drawing in the Khomas educational region, Namibia and not on other subjects as some researchers have studied.

1.3 Statement of the Problem

Based on the researcher's experience as a former senior education officer for technical subjects, on many occasions during his visits to Technical Drawing classes, he could hear learners whispering and asking their peers in their home languages for clarification of terms that the teachers were using. The researcher observed that teachers were code-switching to the learners' home languages during the teaching and learning process, despite the fact that the Namibian language policy for schools states that "Grades 8–12 should be taught through the medium of English and the mother tongue will continue to be taught as a subject" (MBESC, 2003, p. 4). Code-switching is commonly used in Namibian schools and it is a well-known fact that teachers code-switch in their classrooms for various reasons; therefore, the insights from this research will help inform the education department leadership and curriculum planners to make informed decisions when they structure the policy regarding language use in the classroom.

Furthermore, the persistent misconceptions by learners of the language register in Grade 8 Technical Drawing classes, particularly the learners whose first language was not English, were also witnessed. Learners were struggling to understand and make meaning of the concepts and objects used in Orthographic Drawing. However, the Technical Drawing classes are multilingual settings where the majority of learners and teachers bring to class various language competencies, which means that the effect of language is even more critical in these classes where the Technical Drawing subject is taught and learnt in a foreign language (Chikiwa, 2016). This has raised concern regarding the Grade 8 learners' misinterpretations and misapprehensions of the language register (such as dimensions, scale drawing and Orthographic Drawing, left view, front view and top view projection to name but a few) used in Technical Drawing classrooms. As a result, most of the drawings they produce during classroom activities lack the expected accuracy.

According to Chikiwa (2016), teachers and learners tend to switch into their vernaculars as it gives them the opportunity to continue communicating in order to bridge the gaps resulting from English being an alien language. According to Simasiku (2014), "since the introduction of the new language policy in 1992, very little has been done to investigate the impact of code-switching in the Namibian classrooms" (p. 31).

It appears there has been no research done on the impact of using code-switching in the teaching of Orthographic Drawing in Namibia. Therefore, this study explored the Grade 8 Technical Drawing teachers' code-switching when teaching Orthographic Drawing in the Khomas educational region, Namibia.

1.4 Theoretical Framework

This study was guided by the influential theory or model of code-switching developed by Myers-Scotton in 1993 (Myers-Scotton, 1993). This theory is the Matrix Language Frame Model (MLF) (Iipinge, 2019; Mugo & Ongo'nda, 2017; Myers-Scotton, 1993). The theory was used to explore how Grade 8 teachers employ code-switching when teaching Orthographic Drawing among bilingual learners in Technical Drawing classrooms.

1.4.1 The Matrix Language Frame Model

The MLF Model is a bilingual linguistic theory of code-switching and it has two crucial language aspects (Wakasa, 2004) which are the matrix language and embedded language (Iipinge, 2019). According to Wakasa (2004), the MLF Model emphasises that in code-switching "one language acts as the dominant language, or the matrix language, and the other language as the subordinate, or the embedded language" (p. 1). The matrix language is the leading language that plays the central role in code-switching and is also known as the "host language", while the embedded language also known as the "guest language" takes on the morphological and phonological structure in code-switching (Mokgwathi, 2011). Even though the MLF Model is primarily a bilingual theory, it has been used in multilingual contexts in other studies such as Mugo and Ongo'nda (2017). The context in which the framework was adapted and used in this study was multilingual.

This current study suggests that English is the matrix language (in which words are more frequently spoken in the teaching and learning process) while mother tongues such as Afrikaans, Oshiwambo and Otjiherero are the embedded languages (in which words are less spoken in the teaching and learning process) (Simasiku, 2014; Wakasa, 2004) in the teaching and learning of Orthographic Drawing in Technical Drawing classrooms. According to Malik (2016, p. 2108), matrix language "provides

content and system morphemes" whereas embedded language "provides only content morphemes". This means that in code-switching, matrix language is regarded as the base language that sets the grammar of the sentences containing switches while the embedded language is regarded as the contributing language(s) which contributes the inserted single words or phrasal elements into the matrix language. Simasiku (2014) argues that embedded language is a language which contributes to the grammar of the matrix language in speech or conversation.

When it comes to code-switching, the MLF Model seems to play an important role in people's lives because people often use various languages at the same time during their conversations in order to understand each other better. Therefore, the MLF Model helped the researcher to identify the matrix and embedded languages which were used in teaching Orthographic Drawing by paying attention, in particular, to the insertions of words and phrases by the Technical Drawing teachers. The researcher used the MLF Model specifically to observe the occurrences of code-switching in the matrix language (dominant) and also in the embedded language (guest/mother tongue) and to engage teachers in discussions during the interviews to gauge their understanding of the matrix-embedded languages in code-switching.

1.5 Aim of study

The aim of this research is to explore the practice of code-switching employed by Grade 8 teachers during the teaching of orthographic drawing in the Khomas Educational Region, Namibia.

1.6 Research questions

The following research questions formed the basis of this study:

1. How do the Grade 8 Technical Drawing teachers code-switch when teaching Orthographic Drawing in the Khomas educational region?
2. What role does code-switching play when teaching orthographic drawing in Grade 8 Technical Drawing classes?
3. What are the perceptions of the Grade 8 Technical Drawing teachers in the Khomas educational region regarding code-switching when teaching orthographic drawing?

1.7 Research objectives

The main objectives of the study were:

- To explore how Grade 8 Technical Drawing teachers in the Khomas educational region code-switch when teaching Orthographic Drawing.
- To explain the role of code-switching when teaching Orthographic Drawing in Grade 8 Technical Drawing classes in the Khomas educational region.
- To understand the perceptions of the Grade 8 Technical Drawing teachers in the Khomas educational region regarding code-switching when teaching Orthographic Drawing.

1.8 Significance of the Study

The study might be useful in many ways to various stakeholders in education. These may include but are not limited to the following.

- It may help teachers to understand the importance of code-switching when teaching orthographic drawing and help learners to master orthographic drawing concepts and their content through English and another home language(s).
- Learners are the direct recipients of the output of this research as their cognitive, creative and innovative skills might be improved.
- The extent of any improvement in classroom communication between learners and teachers as a result of the code-switching might improve mastery of orthographic drawing.
- It might, thus, help teachers to be more strategic and thoughtful when planning and implementing instructions during the teaching and learning process.
- Since teachers are policy implementers, especially with the language of instruction used in the classrooms, this study may benefit them in effectively transferring their knowledge and experience to their learners through code-switching.

1.9 Outline of the Chapters

In **Chapter One**, the background of the study, research problem, theoretical framework, research objectives and questions and significance of the study were described. The outline of the chapters was also provided.

In **Chapter Two**, the following is discussed related to the reviewed relevant literature: what is code-switching, the Namibian language policy on code-switching, uses of code-switching in the classrooms, teachers' perceptions of code-switching in multilingual classrooms including inter-sentential switching and intra-sentential switching, terminologies used in teaching orthographic drawing, the impact of code-switching in teaching and learning orthographic drawing, the influence of society on code-switching and code-switching and translanguaging in the classroom.

In **Chapter Three**, the following are provided and described: the research design, population and sample, the profiles of the schools and teachers, sampling procedure, research instruments, data collection procedure, ethical considerations, data analysis, and the validity and reliability of the study.

In **Chapter Four**, the results are presented, interpreted and discussed about lesson observations, lesson evaluations and semi-structured interviews. The themes that emerged from observing lesson presentations and teachers' interviews are also presented and discussed.

In **Chapter Five**, an overview of the whole thesis such as its summary, limitations, conclusions and recommendations for further study are provided based on the three research questions.

1.10 Summary of chapter

This chapter presented some background information on the study and the motive behind the study. The linguistic model, the MLF Model (1993a) of Myers-Scotton that underpined this study was discussed and conceptualised. The research objectives and questions that the study attempted to answer were also provided. Furthermore, this chapter provided the significance of the study and ended by outlining the chapters. The next chapter is the literature review, which discusses code-switching and its types,

the Namibian language policy on code-switching and finally, teachers' perceptions of code-switching.

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction

A key aspect of the study is to effectively define code-switching and the background in which code-switching occurs. This means a review needs to be done of the Language policy for Schools in Namibia and the sentiments of parents, teachers and learners on The Language policy for Schools in Namibia. In order to bring greater clarity to the concept of code-switching, different approaches are presented as a way to achieve academic rigour and explore code-switching from all angles. The chapter goes on to review the functions of code-switching and the contexts in which code-switching is used. Clear distinctions between code-switching and translanguaging and code-switching and borrowing are outlined in this chapter. The chapter concludes by outlining some of the challenges experienced with using English as a medium of instruction and presents the benefits and disadvantages of using code-switching.

2.2 Definition of concepts

2.2.1 Bilinguals: Baker (2011) states that, bilinguals are individuals who use two languages or dialects in their daily lives.

2.2.2 Borrowing: Kieswetter (1995) states that, borrowings are words that have been integrated phonologically and morphological into the host language.

2.2.3 Code-switching: Code-switching refers to the practice of alternating between two or more languages or dialects within a single conversation or social setting (McCormick 1995). In this study, it refers to concurrently using English and a mother tongue as medium of instruction in the classroom.

2.2.4 Embedded language: According to Myers-Scotton (1993), refers to the other language being used in code-switching, i.e. the non-matrix language which is used to a lesser degree in the code-switched interaction.

2.2.5 Medium of instruction - The language through which a subject is taught (MBESC,2003).

2.2.6 Matrix Language: Myers-Scotton (1993), refers to the matrix language as the main language, i.e. the dominant language, during code switching interactions.

2.2.7 Mother tongue - The term refers to the language or languages that a person acquires naturally from birth or early childhood. It is the language that one identifies with and is most proficient in (UNESCO, 2003).

2.2.8 Multilingual: Crystal (2008) refers multilingual as a speech community which makes use of two or more languages in their daily conversations.

2.3 Sociolinguistic Approaches to Code-switching

In an attempt to understand code-switching further, sociolinguists began to analyse the characteristics of code-switching and the social situations which result in multilinguals using two languages in the same single conversation. Heller (2008) looked into the speech patterns of those who speak which language when and to whom along with the social factors that motivate the switch and the social meanings communicated by it. This sociolinguistic view of code-switching was initially presented by Sapir (1929), who proposed that “language is bound to interact with neighbouring languages or culturally dominated language and is not just a grammatical overlapping” (p. 12). Sapir (1921) believed that language is a by-product of multiple fields of life interacting with each other.

It is essential for linguists to be increasingly conscious of the numerous sociological, anthropological and psychological problems associated with language use (Sapir, 1929). Hymes (1964) concurs with the aforementioned assertions and indicates worry at research carried out by linguists, stating that in their study of code-switching, linguists had abandoned its connection with human feelings and behaviour in pursuit of formalist studies alone.

Apart from the theoretical framework, the MLF, I present other approaches to code-switching that can effectively assist in providing a solid foundation for the meaning of code-switching within a broader context.

2.3.1 Situational and metaphorical code-switching

The study by Gumperz (1977) on code-switching saw the merging of socioculturists and linguists into a single field of sociolinguists. Gumperz (1982) in a study in Northern Norway and India found that in each population, the local dialects were normally observed in informal settings such as talking to neighbours whereas standard dialects were seen in formal settings like across ritual barriers. In India, the barriers were discovered in village and caste groupings while in Norway, this was observed in administrative, academic or religious settings. Here it was seen that "the linguistic separateness between dialect and standard is conditioned by social factors" (Gumperz, 2006, p. 12). Blom and Gumperz (1986) allude that in some settings, one type of code-switching can be more suitable and the same speakers may select another type of code-switching in a different kind of setting. This phenomenon is referred to as "situational switching". For instance, on one hand a group of teachers may switch their languages entirely while talking in the school diner as opposed to when they are in class teaching.

Metaphorical switching on the other hand happens when two languages are used by bilinguals/multilinguals in the same setting. For example, employees working in a bank can greet each other in the local dialect and then transact business in a standard dialect.

2.3.2 Myers-Scotton's Markedness Model

Scotton (1993) explains the model in the book "Social Motivations for Code-switching: Evidence from Africa". The model explains that the selection of code by bilinguals depends heavily on the social roles of the community (Scotton, 1993). Social roles here are outlined in terms of the "rights and obligations" that must be mutually comprehended by the bilingual speakers that are engaged in the conversations. Rights and obligations are further elaborated when understanding the present situation, feelings and attitudes of the listener.

Myers-Scotton (1993) is of the view that for this mutual comprehension to occur, bilinguals have to share a common understanding of the language codes and then select a code choice. Scotton (1993) outlines the Markedness Model in the form of a

single principle and three maxims. Here the negotiation principle model is, “Choose the form of your conversational contribution such that it indexes the set of rights and obligations which you wish to be in force between the speaker and address for the current exchange” (Nilep, 2006, p. 11). However, Auer (1999) presents criticism of the Markedness Model as too reliant on external knowledge, such as the assumptions about what the speakers believe and understand. Auer (1998) thereby suggests that it is entirely possible to view the characteristics of code-switching in the absence of the conversation-external aspects of language use. The criticism by Auer (1999) seems logical, as it implies that in the absence of sufficient information about the current situation then bilinguals cannot code-switch.

2.3.3 Grammatical analysis of code-switching by sociolinguists

The MLF Model by Scotton (1993) outlines a scheme of grammatical structure in a sentence with a code-switch. It, therefore, combines the two approaches. The MLF argues that for a switch to occur the two grammars must maintain their functional status in a conversation. This assertion diverges with the notion of Equivalent Constraint by Poplack (2000). Poplack (2001) based his observations on one sentence and indicated that code-switching occurs where grammar in both languages merges into each other.

These sociolinguistic approaches align perfectly with the scope of the study as they offer a thorough comprehension of code-switching within the context of teaching orthographic drawing. They take into account the social factors, language choices, and grammatical patterns that underlie code-switching behaviour, with the ultimate goal of illuminating the motivations and implications of code-switching among Grade 8 teachers in the Khomas Educational Region, Namibia2.4 Code-switching Versus Mixing

The differentiation between code-switching and mixing is a phenomenon that authors have taken great interest in. Terms like Namlish, Hinglish, Wenglish and Spanglish are often used in a derogatory fashion. However, it may be seen as routine in certain bilingual or multilingual societies. Multiple researchers have attempted to propose a solution to the difference between code-switching and mixing, however, agreeing on labels for these two varieties has been challenging. Some authors see mixing as similar to code-switching, for example, Bouman (1998). Poplack (2001) on the other

hand describes it as “word changes at the intra-sentential level and reserve switching for the intersentenial level” (p. 25) Kachru (2008) sees it as “the mixing of two languages beyond ‘switching’ with more integration of the two varieties” (p. 9). The view by Kachru (2008) is more accepted in studies and significantly more research is carried out with this point of view.

2.5 Code-switching Versus Borrowing

According to Baker (2006), borrowing indicates the loan of foreign phrases or words that are not part of the spoken language and have become an integral element of the recipient language. This is the inclusion of lexical items which are not a part of the Matrix Language, however, they are included to convey a specific meaning. Baker (2006) states that without these borrowings, particular concepts cannot be conveyed. It is, therefore, a natural process for foreign words to be borrowed when they come into contact with a different language. “Borrowing” is a result of historic events which reshaped cultural relations and so is a natural phenomenon (However, he did not specify what kind of “borrowing”) (Sapir, 2001).

Some sociolinguists, particularly Myers-Scotton (1993) and Bentahila and Davies (2008) are against distinguishing between code-switching and borrowing. Some authors state that those which carry some social meanings are considered code-switching while those which do not are defined as “borrowings” (Bouman, 1988). Myers-Scotton (1993) provides a distinction saying code-switching involves bilingualism whereas “borrowing” does not.

The models outlined above by sociolinguistics converge the social and linguistic approaches to the phenomenon of code-switching. The models get their foundations from two elements: social influences which shape speech patterns in communities and analysis of the grammar of the two languages that are involved. Explicitly speaking, these characteristics are sufficient to legitimise code-switching as a phenomenon.

2.6 Code-switching and Translanguaging

According to García (2009), translanguaging varies from code-switching as it is not merely switching in and out of different monolingual codes but combining two languages in unison to achieve effective communication. Here, translanguaging posits

that bilinguals have one linguistic repertoire from which they select features strategically to communicate effectively (García 2009). In light of this, the focus of translanguaging is more on observable communicative practices (García, 2009).

According to Chayani and de Courcy (2016), translanguaging within classrooms occurs when two languages are used in a coherent and integrated way to manage and enable the mental process of learning, either by teachers or learners.

Heugh (2015) views translanguaging as a key use of code-switching that involves cognitive engagement while working with two or more languages at the same time rather than separately. According to Baker (2012), translanguaging is strategic in that the teacher and learners can use two languages for both the inputs and outputs. Here, the emphasis of classroom translanguaging is more towards function rather than the form of language, and largely on the bilingual learning process rather than the outcomes or outputs (Lewis et al., 2012). Chayani and de Courcy (2016) state that, research in code-switching focused primarily on language interference and transfer or just transfer, while research in translanguaging focuses on the phenomena that illustrate how multilingual are involved in linguistic practices.

2.7 What is Code-switching?

According to Fromkin et al. (cited in Kamati, 2011), code-switching refers to “switching back and forth between two languages in a conversation” (p. 10). Similarly, Richard (cited in Hamid, 2016) defines code-switching as the “practice of moving back and forth between two languages or between two dialects or registers of the same language” (p. 176). In other words, code-switching is a strategy of shifting the conversation from one language to another language to express the meaning of the same topic in an understandable and meaningful manner.

Other authors have provided definitions of code-switching. Myers-Scotton (1993) describes code-switching as the alternation of linguistic varieties in the same conversation. Gluth (2008) views code-switching as a blending process of two or additional languages in a conversation without any changing of a topic or an interlocutor.

Similarly, Nguyeni (2009) describes code-switching as the mixing of two languages within the same discourse. The aforementioned definitions are taken from the original definition by Myers-Scotton (1993), who primarily focused on the benefits of two languages in the same conversation. Despite the initial definition by Myers-Scotton (1993), Shuter (2013), considers code-switching as an integral part of society, since it relates to so many different people in civilisation. Code-switching happens when a speaker changes between two or more languages in a dialogue or uses two separate languages back to back. Gardner-Chloros (2009) defines code-switching as "the alternate use of two or more languages or language varieties by bilinguals for communicative purposes" (p, 202).

2.8 Language Policy for Schools in Namibia on Code-switching

The Namibian Language Policy for Schools in Namibia states that "Grades 8–12 should be taught through the medium of English and the mother tongue will continue to be taught as a subject" (MBESC, 2003, p. 4). The Namibian language policy for schools is silent on the use of code-switching as a strategy to enhance learners' understanding and the majority of the Namibian population are not first-language speakers of English (Kamati, 2011). Thus, code-switching is used in the teaching and learning process to bridge the gap by imparting meaningful knowledge to the learners (Cahyani, 2015). According to Rovira (2008), conceptual knowledge is developed and understood better if it is taught in the language of birth and in cases where an alien language is used as a mode of instruction. In Namibia, content subjects such as Technical Drawing are taught in English as per the Namibian language policy. Still, English remains an alien language to the learners; hence, it makes it difficult for the learners to acquire knowledge with understanding. Tötemeyer observes that:

> There has been until to date, little understanding among language policy planners of how difficult it is, for learners to cope with a language of instruction they do not understand, their parents do not understand and, particularly in rural areas where 65% of the population is domiciled, is hardly spoken outside the school. (2010, p.17).

As mentioned above, linguistic professionals and educators have opined that learners who learn in their mother tongue will learn a second language and other subjects more easily and more effectively than those who are taught in an alien language without allusion to the mother tongue. Frydman (2011) points out that given a multilingual nation like Namibia, there is a clear indication that a monolingual policy is not suitable for the Namibian context. It is against this background that language policy planners should take cognisance of the indigenous languages spoken in Namibia and promote a bilingual approach to the language policy. This approach will benefit children academically, for example, parent's involvement in their children's school work will be maximised due to the fact that homework is in the language that is widely understood and spoken at home, school and within the community at large. The classroom environment will harmonise cultural values and practices since the learning materials are in the inherent language which is familiar and communicated in the most by learners (Frydman, 2011).

2.9 Attitudes Towards the Language Policy for Schools in Namibia

In the initial years following independence, Chamberlain (1993) in their study found that parents in Namibia looked favourably at English as the medium of instruction and in another instance, a study carried out by Harris (2011) on "language in schools in Namibia", found that 100% of parents interviewed wanted their children to be taught in English, despite them not using English at home or within the community. Tötemeyer (2010) found that a large number of parents showed preference for their children being instructed predominantly in English from the 4th Grade at least. In light of the aforementioned results, Tötemeyer (2010) alludes that "there is a growing habit among parents to remove their children from schools offering mother-tongue instruction and enrolling them at schools with English as the sole medium of English" (p. 55). Due to these phenomena, Tötemeyer (2010) indicates that "in 2008 there were 243 schools in Namibia that had ministerial approval to offer English as the sole medium of instruction from Grade 1 on ward" (p. 55).

Tötemeyer (2010, p. 55) criticises this trend of parents' showing preference for English as the medium of instruction, and thus outlines that "it is disconcerting that in spite of the difficulties encountered since independence in the education arena, parents are

still not aware that English-medium instruction is contributing to their children's poor performance in school".

In addition to the parents, it was earlier seen that Namibian teachers also had a preference for English as the medium of instruction. Harlech-Jones (1988) in their study titled "The implementation of English as a medium of instruction in Namibia" found that teachers showed great favour for English as the medium of instruction in primary and secondary schools – with results being 78.1% for primary schools and 85.4% for secondary schools. In another study carried out by researcher Ashton and Elyildirin (2006), when teachers of Grade 1–3 were asked what language they would prefer to teach in if they had authority to choose any language, the majority of teachers responded "English". Showing similar results, a study by Iipinge (2013) in the northern parts of Namibia titled "English lingua franca as a language of learning and teaching" showed that teachers were extremely comfortable with English as the medium of instruction. These results are despite the prior findings that the majority of Namibian teachers were seen to have very poor English proficiency according to Harris (2011). The aforementioned indicate that teachers are generally positive towards English as the medium of instruction. Harlech (1996) found that the reason Namibian teachers had positive attitudes towards English as the medium of instruction was because the teachers believed that learners would do considerably better in their school work if English was used as the main medium of instruction.

Ironically, Harris (2011) found that students' attitudes towards English as the medium of instruction were not positive. The study by Harris (2011) on "Languages in schools in Namibia", showed that 83% of students preferred to learn in their home language and 87% responded that they wanted to speak to their teachers in their native language. These results showed, that at the time, learners did not truly appreciate having English as the sole medium of instruction. Students in this study made it quite clear that they do not entirely comprehend their teachers or the subject matter whenever they are taught in English (Harris, 2011). Results of the study further showed that 61% of Namibian students struggled with English as the LOLT. Diescho (2014) states that it is not simple for the Namibian learner to learn a language at school and use it as a medium of instruction, while they use another language at home altogether.

2.10 Functions of Code-switching

Code-switching has been evaluated from multiple perspectives: sociolinguistic, pragmatic, grammatical and educational. In order to understand the various pragmatic and discourse functions of code-switching, there is need to acknowledge that often, switches tend to be multifunctional according to Ferguson (2009) and thus, it can be quite challenging to provide an explanation for every instance of code-switching.

A taxonomy of usual purposes of code-switching is proposed by Baker (2011, p. 289–290) as follows:

- For the emphasis of a point made.
- For the substitution of words which do not have a direct translation in the other language.
- For expressing a concept that has no equivalent in the culture of the alternative language.
- For reinforcing a request and often, to express authority.
- For clarification of a point or to explain a concept.
- For reporting direct speech.
- For use as an interjection.
- For easing tension and adding humour to a conversation.
- For introducing a certain topic, which is normally discussed in the preferred language. For instance, English is the language of commerce and so Afrikaans-English bilinguals in Namibia will tend to switch to English when having discussions about money.

2.11 Development of Classroom Code-switching Research

Since the late 1970s, studies of classroom communication have particularly focused on the communicative functions of teachers' code-switching. In these studies, classroom observations were merged with quantitative assessment of test results (Legarreta, 1979) and juxtapositions were then made of the various techniques of bilingual education programmes. The most frequently used system was originated by Flanders (1970). Research studies that followed in the 1980s–1990s gave more attention to the sequential progression of classroom discourse and the manner in

which code-switching contributed to interactions between teachers and students in bilingual classrooms.

Milk (1982) and Guthrie (1984) both used audio-recorded data in their different studies and applied descriptive frameworks created by linguists who focused on monolingual classroom discourse; from this, both authors were able to present direct proof of linguistic behaviour. The aforementioned studies (Milk, 1982 and Guthrie, 1984) foregrounded the assessment of classroom discourse use where the focus moved from what roles various languages played in a bilingual classroom to the manner in which language values were shared through language choices. In their study, Milk (1982) used a model originated by Sinclair and Coulthard (1975) which placed focus on the patterns of code-switching in the data, whereas Guthrie (1984) juxtaposed how two teachers (one monolingual and one bilingual) worked with Chinese students in a school in California. Guthrie (1984) used a system of conversational acts to code all communication by teachers in an audio-recorded corpus. Guthrie (1984) was able to identify five communicative functions of teachers' code-switching.

Martin-Jones (1996), however, commented that the approach used by Guthrie (1984) was "a relatively static, quantitative and taxonomic one" (p. 93) and was focused more on quantifying and cataloguing as attention was more on individual speech acts rather than the sequential progression of classroom discourse. This quantitative stance to classroom code-switching received multiple criticisms from authors like Mehan (1979), and Payne and Cuff (1982). Mehan (1979) indicates that the quantitative approach to classroom code-switching "reduces the contribution of learners, neglects the interrelationship of verbal to nonverbal behaviour, obscures the contingent nature of interaction and ignores the often multiple functions of language" (p. 62). To the critics of the quantitative stance, classroom discourse had to be assessed in its totality where research explored the participants' personal interpretation of the verbal and nonverbal behaviour. The research tools used in Mehan (1979) interpretative approach comprise observation and note taking, case studies, interviews and assessment of other crucial teaching materials.

Gardner-Chloros (2009) presents three approaches with increased popularity in the study of code-switching:

1. Pragmatic/conversation analytic approaches.
2. Sociolinguistic/ethnographic descriptions of code-switching situations.
3. Grammatical assessments of samples of code-switching and the exploration of underlying models, rules and explanations of the identified patterns.

However, niether of these methods in isolation could provide a broad picture of the complex behaviour of code-switching. When selecting a methodological strategy for a research, Romaine (1984) asserts that “there can be no question of choosing one method which will be universally the right" (p. 1). Moyer (2008) concurs and suggests that in the rea of bilingualism, it is best to use a combination of methods.

2.12 Functions of Classroom Code-switching

Mitch (2016) states that classrooms tend to be places where there are tensions surrounding language practice and policy, with teachers being faced with complex dilemmas which are both political and pedagogical. For instance, teachers can be uncertain if they should use the mother tongue in classroom discourse under the circumstance that their government instituted English as the language of instruction in most subjects (Mitch, 2016).

Martin (2005, p. 99.) asserts that the reason behind such teacher dilemmas is “the lack of official support or recognition of these practices due to uncertainty of the efficacy of code-switching as a pedagogical tool”. Simply put, the government may withhold supporting the act of code-switching due to fear that this practice may compromise the effectiveness of classroom teaching. Be that as it may, multiple classroom-based studies have indicated that classroom code-switching does in fact have many advantages and productive functions. A number of these studies were carried out in a post-colonial environment, where English had remained the official medium of instruction way after the British colonisation. Such studies occurred in Brunei by Martin (2005), South Africa by Adendorff (1993), sub-Saharan Africa by Clegg and Afitska (2010), Turkey by Eldridge (1996), Hong Kong by Lin (2013), Malta

by Gauci and Camilleri Grima (2013), Sri Lanka by Canagarajah (1995) and Malaysia by Then and Ting (2011).

The aforementioned studies highlight that the numerous functions of classroom code-switching have been recorded in a multiplicity of educational contexts across the globe, in order to show that classroom code-switching is not all dysfunctional, inexplicable or useless and that it in fact provides opportunities for learners to prepare for their sociolinguistic life outside of the classroom in Jaffna. Here, Canagarajah (1995) outlines the micro-functions of classroom code-switching. The following table presents the useful functions that code-switching provides for classroom management and the transmission of knowledge.

Table 2.1: Functions of classroom code-switching

Categories	Functions of classroom code-switching
Classroom management	Initiating the class Providing or asking directions Asking for help Management of discipline Teacher encouragement Teacher's commands Teacher compliments Unofficial interactions Teacher admonitions
Content transmission	Reviewing Definitions Explanations Clarifying cultural relevance Unofficial student collaboration Parallel translation

Source: Canagarajah (1995, p.173-195)

Adendorff's study (1993) also views code-switching as a means of guiding the learners to comprehend the academic objectives along with learner interpretation of their social relationships in class. Martin (1996) found that the teachers that were involved in their study showed conviction that code-switching is a useful strategy to help them cope with the curriculum. In another study, Rollnick and Rutherford (1996) assessed the audio recordings of class group work in various science classes with the use of English and siSwati and the effect on learning and expressing of science concepts. The authors outlined a number of reasons for the use of code-switching. For instance, switches from mother language siSwati to official language English occurred when:

a) it is more direct to describe a scientific concept in English;
b) leaners are required to take notes in English; and
c) a quote or statement is taken from the English textbook.

Rollnick and Rutherford (1996) found that switches from English to siSwati normally occurred when:

a) another response is required as the correct answer;
b) repetition to explain something that was prior explained in English; and
c) groups communicating a procedural matter.

Still, Rollnick and Rutherford (1996) found multiple occasions where the switches happened for no apparent reason. The conclusions of the study favoured the use of code-switching in classroom as it served multiple functions, like "the voicing of alternative conceptions, eliminating misconceptions, clarifying concepts and formulating ideas" (p. 110), along with "a naturally evolved strategy that makes sense in the pragmatic terms" (p. 112).

With a number of studies carried out on identifying the pedagogic functions of code-switching, Eldridge (1996) proposes that the prime problem with these assessments is that "numerous switches can be multifunctional, or privy to different functional interpretations" (p. 305). According to Ferguson (2003), an overlap has been identified between the functions of code-switching in the classroom, which is the reason there has not been a single taxonomy of the pedagogic functions of code-switching. Ferguson (2003) therefore proposes three categories of functions. First, code-

switching is for constructing and imparting knowledge. In the instance that a lesson is carried out in a language in which learners have limited proficiency, then learners find it very difficult to comprehend texts or what the teacher is saying in the class. Second, code-switching for the management of classroom dialogue. “Specifically, code contrast often contextualises a shift of ‘frame’ away from lesson content and toward some ‘off-lesson’ concern” (Ferguson, 2003, p. 5), for example to discipline a learner, to attend to latecomers, to gain and focus learners' attention. Thirdly, interpersonal relations in the classroom, this category of function highlights the fact that the classroom is not only a room of formal learning but also a social and affective setting in its own right, one where teachers and learners discuss relationships and identities. To build rapport with individual learners, create greater personal warmness and encourage greater learner participation, the teacher may, therefore, when the time is fitting, switch to the local language.

This includes explaining pivotal L2 technical terms and explaining the meaning of L2 textbooks. With this, code-switching is an essential means that teachers can use to explain written texts and instructions in a language that learners are familiar with. These assertions are in line with a study by Martin (1999), who found that teachers switch from English to Malay for these purposes:

1. encouraging and eliciting learner participation;
2. clarifying the meaning of text; and
3. differentiating for instance when the teacher is reading the text or rather commenting on it.

Lin (1996) in their study in Hong Kong found that code-switching is used to explain key textbook terms that are first introduced in English followed by an explanation in Cantonese.

Ferguson (2003) states that the second pedagogic function of code-switching is for managing classroom discourse. This comprises managing learners' behaviour in class. Canagarajah (1995) and Lin (1996) found that teachers use code-switching when disciplining learners and giving task instructions. Code-switches into the L1 of the teacher and learners was seen to more easily convey meaning to the learners as both the parties possessed better proficiency in L1.

In conclusion, Ferguson (2003) indicates that the classroom is also an affective, social environment where teachers and learners negotiate identities and relationships. Therefore, code-switching is used to form interpersonal relationships and to humanise the learning environment. In order to build rapport with learners, Ferguson (2003) sees it fit to allow teachers to code-switch so that learners can feel that their relationship with their teacher is a personal one.

2.13 Code-switching in Content Classroom vs. Language Classroom

Apart from research assessing the effectiveness of classroom code-switching in stand-alone cases, some studies investigated the differences and functions of code-switching across different subjects (Setati et al., 2002). In his study, Adendorff (1993) juxtaposed the functions and motivations of code-switching in English, Geography and Biology classes. Adendorff (1993) found that in the English classes, the teacher code-switched into Zulu for several reasons:

1. for provision of direct translation and to paraphrase as they feel that the learners do not understand;
2. for the clarification of the interpretation of a text or a poem;
3. for the encouragement of learners;
4. for provoking passive learners to engage; and
5. to reach all learners in the classroom.

When Adendorff (1993) compared code-switching in the English lessons with switches during the Biology classes, they found different functions. One of these functions was providing a cue for the learners to pay attention to concepts that were coming up (Adendorff, 1993). It was seen that this normally occurs when an important technical term is being introduced to the learners for the first time. The researcher found another instance of code-switching to Zulu when the teacher was checking if the learners were

paying attention and as an encouragement to learners. Unlike the English and Biology classes which used Zulu code-switching for social and academic functions equally, the teacher for Geography relied on code-switching for classroom management (Adendorff, 1993).

In another study, Setati et al. (2002) concluded that the Science and Mathematics teachers observed code-switched more during the entire lesson than the English language teacher. This phenomena was essential for the English language teacher to play a greater role in scaffolding and modelling the use of English than for Science and Mathematics teachers. The aforementioned assertion concurred with the report of an English teacher who said they code-switch more when they taught other subjects like health lessons for instance, compared to when they taught English. This teacher reported that they “would only switch to Venda during the English language class only as a last resort" (Setali et al., 2002).

Although classroom code-switching is within the educational policy in Malaysia, studies have expressed support for code-switching (see Hisham & Kamaruzaman, 2009; Then & Ting, 2011; Kamisah & Misyana, 2011). According to Then and Ting (2009), code-switching is essential for imparting content knowledge in both Science and English lessons. Code-switching is particularly important in the case for content lessons to ensure that learners comprehend the lesson, the reiteration of crucial points and for message qualification. Then and Ting (2009) suggests that teachers have to accept code-switching as a tool to explain concepts, particularly when learners lack great proficiency in the language of instruction.

2.14 Code-switching in Classrooms in Africa

Code-switching as a phenomena in classrooms in post-colonial settings has been a subject for scholarly attention for a number of years. For instance, Clegg and Afitska (2011) brought forward various studies which evaluated the pedagogic significance of learning and teaching in two languages in African classrooms. Clegg and Afitska (2011) highlight that language practices like code-switching in classrooms in subSaharan Africa are controversial, as authorities tend to condemn their use and similarly, teachers do not entirely welcome their use in classrooms.

Despite the negative attitudes, Clegg and Afitska (2011, p. 71) assert that “code-switching plays crucial pedagogic roles in classrooms”. For instance, code-switching is useful for elaborating and explaining concepts thus increasing classroom participation, allowing for the smooth progression of the lesson, creating good classroom relationships and establishing connections with local cultures of learners. Clegg and Afitska (2011) thus advise teacher education protocols which would factor in the crucially bilingual pedagogy and broader language practices which teachers could adopt to improve pupils’ participation and understanding in the classroom.

Based on an earlier ethnographic study in Botswana, Arthur (1996) investigated the interactions between teachers and learners in Grade 6 classes in two primary schools. The policy under which the schools operated prescribed the use of Setswana, the national language from preschool to Grade 3 with a shift to English as medium of instruction from Grade 4. According to Arthur (1996), teachers used code-switching to stimulate participation by students. However, code-switching by learners was not always accepted because the policy stipulated English as the explicit medium of instruction. Arthur (1996) showed that in a transcript of an interaction between a teacher and students in a science class, the teacher presented a question switching from English to local Setswana. It followed that the teacher rejected a student’s answer in Setswana. It was seen in this study that teachers used code-switching in classrooms to achieve particular pedagogic objectives, they were, however, ashamed and reluctant to admit this as a classroom practice (Arthur, 1996).

Yevudey (2012) states that code-switching and its use in Ghanaian classrooms has been an area of study since the 1970s. For instance, Forson (1979) shows that code-switching was not an option in Ghana until well after the early 1950s whereafter English became introduced as the medium of instruction in preschools. In their work on English-Akan code-switching, Forson (1979) found that during meetings or gatherings of bilingual Akan and English speakers, any code-switching was viewed with disdain and the speaker normally became an object of ridicule. However, throughout the years, the attitudes towards code-switching have shifted with recent studies by Yevudey (2012) acknowledging that code-switching in Ghana is now an anticipated code choice due to its acceptability and normality increasing amongst both bilinguals and multilinguals. The acceptability and normality is encountered in domains

like the television, churches, radios and classrooms. The changes that occurred in Ghana show what Myers-Scotton (1993) describes as “marked and unmarked code choices”. In the 1950s, code-switching was a marked code in Ghana and in recent times, it has moved to an unmarked code among bilinguals (Yevudey, 2012).

A number of studies illustrate that teachers and learners tend to employ code-switching during lessons in order to achieve learning and teaching objectives in the classroom (Adjei 2010, Opoku-Amankwa & Brew-Hammond 2011, Ezuh 2008). A study by Adjei (2010) based on code-switching of Ewe-English in a rural school highlights three code-switching patterns used by teachers: inter-sentential, intra-sentential and repetitive. According to Adjei (2010), teachers use repetitive inter-sentential code-switching when leaners show a low understanding of concepts which are introduced in the L2 by translating these ideas into the L1, i.e Ewe. In this study, Adjei (2010) found that teachers had positive attitudes regarding code-switching as they viewed it is a code choice which enabled students’ understanding during lessons.

A similar study carried out in Ghana also by Ezuh (2008), assessed the effectiveness of the use of code-switching as a means of instruction in classrooms. Ezuh (2008) argues that learners were seen to perform better when they were taught using code-switching, and their performances diminished when they were taught using English alone as a medium of instruction. The study went on to present a questionnaire survey to both teachers and learners to view their attitudes towards code-switching in the classroom – the overall attitudes were positive of both teachers and learners; some went as far as encouraging code-switching as a medium of instruction. From their findings, Ezuh (2008) suggests that due to teachers using code-switching as a means of instruction but largely illegally, scientific research into code-switching needs to be conducted in order to authenticate its use through education policy. This conclusion by Ezuh (2008) reflects the earlier findings by Arthur and Martin (2006), who then went on to propose that the use of code-switching in classrooms should be seen as a teachable pedagogic resource. However, the implication would be that teachers would have to be introduced to the effective and strategic use of code-switching in classrooms; therefore, it would have to be introduced into the teacher-training curriculum.

Amekor (2009) reviews the use of code-switching in classrooms in a district in the Volta Region in Ghana. The objective of the research was to assess the language use patterns in classrooms where English was the stipulated code choice, along with the motivations resulting in the code choice in the classrooms. Bringing forward evidence from questionnaire surveys and recorded data, Amekor (2009) highlights that all the classrooms showed use of code-switching. The responses from teachers showed that they used code-switching because they viewed their learners' grasp of English to be insufficient to be used as the absolute medium of instruction. The study revealed that it was not the learners alone who did not have a good grasp of English and that some of the teachers were less proficient in English – this also led to the use of code-switching in the classroom. Amekor (2009) saw code-switching as an unavoidable code choice in classrooms, and thus suggests that teachers be initiated into code-switching as a concept that enables them to teach more effectively; therefore, it is important to know the types of code-switching that exist and the appropriateness of each to enhance both language and content acquisition.

The study by Brew-Daniels (2011) on code choices of teacher trainees to review their language use patterns and effects thereof on learners' performances found the use of code-switching both in and out the classroom by teacher trainees. The responding teachers reported that they made use of code-switching in the classroom in order to facilitate learner comprehension and participation, along with "covering up for their limited abilities to express themselves eloquently in one language (Brew-Daniels, 2011, p. 50). In order to ascertain the academic performance of learners based on language choice, the researcher requested that teacher trainees teach a lesson using English alone as the medium of instruction and a different lesson code-switching between English and the L1 language Twi; the author then asked the teachers to conduct a class test and record the marks. "The execution of a comparative assessment of the class tests showed that the learners performed relatively better when the medium of instruction was Twi-English, whereas a decline in performance was experienced when English alone was used" (Brew-Daniels, 2011, p. 50). With these findings, the author came to the conclusion that code-switching in classrooms does not necessarily result in a "deficiency in learning a language", however, it was actually seen to foster learner performances. Brew-Daniels (2011) cautions the

sparing use of code-switching as its continuous use may have an effect on the learners' competence in the L2 languages.

In their study on code-switching in the Republic of Gambia by McGlynn and Martin (2009) where schools had a no vernacular policy, teachers were seen to occasionally code-switch into the native languages, Wolof and Mandika, to achieve communicative effect. The study showed that code-switches were attempts by teachers to diminish levels of formality and establishing themselves as members of the local community rather than purely as teachers in higher positions of power (McGlynn & Martin, 2009). Switches into native languages typically occurred during discussions of cultural and local concepts and the authors argued that this was a strategy that enabled teachers to gain the learners' trust and attention. Probyn (2010), in South Africa, along with Raschka et al. (2009) in Taiwan, illustrate how teachers code-switched in classroom interactions in order to signal solidarity, friendship and to build rapport with learners. None of the studies disregarded the environment where code-switching happened; they largely brought into focus the social evaluations of the different languages used in classroom interactions. Explicitly speaking, teachers code-switched into the home or vernacular languages of the learners as these were broadly associated with informality; thereby, teachers were in a better position to improve their relationships with learners and to achieve goals such as the trust of learners (McGlynn & Martin, 2009).

2.15 The Perception of English-only Versus First Language (L1) use in the Classroom

There has been considerable argument and support for English-only classes from different authors. The points expressed by these authors allow for competing points that help to clarify the usefulness or the hindrances of code-switching in classes. Authors who favour the English-alone approach indicate that the First Language (L1) plays a small pivotal role in learning when compared to the target language (Levine, 2003). Ellis (1994), in their study, spoke against the attachment of any role of L1 in L2 classrooms and indicated that class time should be entirely devoted to the L2, with neither any inclusion nor interruption of the L1.

Chaudron (1988) found that the use of L1 or code-switching does not promote the continued interest in subject terminology knowledge in learners and instead, results in a lack of ability in learners to grasp some explicit details on subject matter concepts. Other arguments against code-switching were that students would become too reliant on code-switching to comprehend any interaction in the L2. In line with this thinking, Jingxia (2010) is of the view that the increased use of the L1 may have an impact on the quality and quantity of the L2 input. Additionally, Jingxia (2010) believed that learners were less disposed to learn using code-switching as much as they would have if the teacher used the L2 only. For instance, Jingxia (2010) found that the use of L1 resulted in internalisation of a non-standard L2 form and thus a pepertuation of errors.

2.16 Uses of Code-switching in the Classrooms

There are many reasons why code-switching is used in classrooms and of course it differs based on the subject under dialogue, the type of people involved in the dialogue and the milieu where the dialogue is taking place. Cahyani et al. (2016) clearly state that teachers' code-switching helps learners to understand unfamiliar concepts when teaching the subject matter rather than the language itself. Code-switching has been interrogated from a sociolinguistics viewpoint (Baker, 2006), and several uses of code-switching have been identified. Many times these uses can be observed in the classroom environment during teacher-learner interactions.

Baker stated that code-switching can be used to emphasise a specific point, and in some bilingual circumstances, code-switching transpires when certain themes are introduced to replace a word in place of an unknown word in the language at hand. According to Baker (2006), teachers also use code-switching to express a concept that has no comparison in the other language to highlight its main point in order to clarify an argument. Baker (2006) further argues that teachers code-switch in their classrooms during the teaching and learning process to express distinctiveness and communicate rapport to ease tension and add humour into a dialogue.

Setati et al. (2002) probed code-switching in content subject classes and found that the content subject teachers encountered some challenges in multilingual classrooms where learners were not English first language speakers. One of the challenges was that teachers were using English as a teaching language while their learners were still

learning English as a language and code-switching was regarded as an instructional approach. According to Setati et al. (2002), code-switching practices are indispensable in the classes where English language is being learnt and at the same time used as the language of instruction during the teaching and learning process. Setati et al. (2002) also found that learners in remote areas were only exposed to speaking, reading and writing English in formal contexts rather than engaged in code-switching which supports classroom interaction in general, as well as fact-finding dialogue in particular, as an integral part of the learning process. This practice enhances understanding among learners when they are interacting about the subject matter.

However, a code-switching exercise is a necessary fragment of classroom dialogue and is viewed as the most effective teaching and learning approach when the learners' main language is considered (Setati et al., 2002). In addition, Setati et al. (2002) identified another use of code-switching as it helps learners in their understanding of concepts and ideas. According to Setati et al. (2002), code-switching should be invigorated as a tool to enable learners to talk more freely and with confidence in their classes, and learners should be encouraged to use their home languages as a learning resource.

Code-switching is not always a conscious process, especially when teachers are using English as a medium of instruction for teaching other content subjects other than English (Rahmat et al., 2019). According to Mattson and Burenhult (1999), there are three functions of teachers' code-switching and these are topic switch, affective functions and repetitive functions. In topic switch, the teacher shifts from the English language to the home language when explaining a particular topic. When making use of code-switching in topic switch, the learners' attention is directed to the new knowledge. In affective functions, code-switching is used for creating a supportive language environment in the classroom. The affective function of code-switching, in this case, is used by the teacher to express emotions and build rapport with the learners. In the repetitive functions, the teacher uses code-switching in classroom situations to provide clarity in meaning. While the instruction is conducted in English, the teacher code-switches to the home language in order to clarify meaning. Therefore, code-switching serves as a tool for communicative purposes in the transfer of knowledge and for clarity in meaning.

2.17 Teachers' Perceptions of Code-switching in Multilingual Classrooms

Code-switching is perceived as a teaching strategy in a classroom where the majority of learners, if not all, come from non-English mother tongue backgrounds. Code-switching helps learners to maintain cultural values and norms in the classrooms as they are able to express and share their identities and their culture with other learners freely (Aukongo, 2015). Teachers sanctioned that the interchange to a home or dominant language should be done to highlight important communications or challenging content in order for the learners to better understand. In addition, teachers argued that code-switching consolidates what has been taught in each lesson and it assists learners to remember what they have been taught, and also helps teachers to realise what they left out of the lesson (Raman & Yigitoglu, 2015). Adriosh and Raz (2019) stress that teacher code-switch to clarify ambiguous vocabulary and grammar.

Code-switching during lesson presentations is perceived as an approach that has a role in developing a positive classroom atmosphere. Researchers such as Yet and Cheng (2013) warn that even though code-switching is widely acceptable, it should only be used in a controlled way to explain difficult grammatical rules and incomprehensible linguistic concepts. However, some teachers perceive code-switching as having a negative impact on learning because it is not purely the language of instruction in schools (Kamati, 2011). Despite the disapproval, below is a discussion on some of the benefits derived from the use of code-switching.

Teachers mostly code-switch to increase interactions in the classrooms, to attract learners' attention, to control the class or maintain discipline and to share a joke (Horasan, 2014). Horasan (2014) further stresses that code-switching in the classroom is done to take charge of the conversation, show a sense of humour or simplify learning and ease learning and speaking. According to Horasan (2014), learners and teachers are excessive code-switchers in classes and inter-sentential code-switching is slightly more common than intra-sentential code-switching.

2.18 Types of Code-switching

Blom and Gumperz (1971) state that code-switching can be categorised into different classifications – grammatical and contextual classifications.

2.18.1 Grammatical classification

Blom and Gumperz (1971) state that grammatical classification is centred on the place where the utterance or sentence of the switching appears. Under grammatical classification there are three types of code-switching: i) tag code-switching, ii) inter-sentential code-switching, and iii)intra-sentential code-switching.

2.18.2 Tag code-switching

Tag code-switching occurs when a bilingual speaker inserts a short expression/tag from a different language at the end of their utterances or sentence. Here is an example when a Namibian bilingual speaker switched from English to Oshiwambo, e.g.: *"It's a difficult subject, kau".*

2.18.3 Inter-sentential code-switching

Code-switching is the use of two or more languages in the same discussion or vocal sound. According to Poplack (2000), code-switching is the change of two languages within a single discourse, sentence or integral. Clyne (2000) highlights that code-switching is the substitute use of two languages either within a sentence or between sentences. Intra-sentential and inter-sentential are two familiar classifications in the code-switching literature. Myers- Scotton (1993b) states that usually, a person will try to find out whether the switch from one language to another takes place at a sentence boundary (hence inter-sentential switching). For instance, in inter-sentential code-switching, a teacher/learner might mix the Afrikaans/Khoekhoegowab and English language alternately from one sentence to another.

In inter-sentential switching, a person speaks by switching from one language to another language between different sentences (Kebeya, 2013). This denotes that when the speaker's course of conversation is separated into sentences, one sentence would be in one language and the other sentence would be in a completely different

language. As illustrated in the following example demonstrating code-switching between English and Oshiwambo, e.g.:

The shop has closed, *otatu patula ongula/*The shop has closed, *we will open tomorrow*.

2.18.4 Intra-sentential code-switching

According to Kebeya (2013), this form of code-switching allows indviduals to code-switch from one language to a different language within the same sentence. For example, in intra-sentential code-switching, a learner/teacher uses Afrikaans/ Khoekhoegowab language whenever they cannot find an English word in one sentence. As a result, a sentence will be made up of more than one or two languages. It is, therefore, important when it comes to the intra-sentential code-switching aspect to first establish the dominant language or the embedded language in the course of conversation. Two langauges play unequal roles in the course of conversation and therefore the dominant language (matrix language) is the main language compared with the embedded language which plays a less significant role. Myers-Scotton (1993) asserts that the matrix language plays the key role in generating code-switches and determining the grammar of the entire communication.

Intra-sentential and inter-sentential are the two most common sorts in code-switching. In short, intra-sentential code-switching transpires when the speaker code-switches within sentences, whereas, inter-sentential code-switching refers to the mixing of two languages in two separate sentences in a vocal sound.

2.18.5 Contextual classification

This classification is based on the reason why the utterance or sentence is switched. Whereas grammatical classifications are based on the position of varying codes found in sentences and utterances, contextual classification is based on the motivations of why speakers switch their languages. There are two types of contextual classification, i.e. the situational code-switching and metaphorical code-switching.

a. Situational code-switching

This occurs when there is a change in the situation which results in bilingual switches from one code to the next (Jendra, 2010). Wardhaugh (1986) states that situational code-switching happens when languages used shift based on the situation. Here the speaker uses one language in a particular situation and another in a different situation, despite there being no topic change. Jendra (2010) also states that factors of selecting a code in a shifting situation could be the result of the participants, setting or the norm of the interaction.

b. Metaphorical code-switching

This code-switching happens when there is a shift in the perception, topic or purpose of the conversation. Accordng to SavilleTroike (1986), metaphorical code-switching is code-switching which occurs in a single situation adding meaning to such components.

2.19 Terminologies Used in Teaching Orthographic Drawing

The terminologies used in teaching orthographic drawing were identified and translated into four vernacular languages. This was done simply because learners in Grade 8 classes are from the households where these four languages are spoken. Table 2.2 presents the English terminologies used in teaching orthographic drawing and their meanings in other four vernacular languages.

Table 2.2: Terminologies used in teaching orthographic drawing

English	**Oshiwambo**	**Otjiherero**	**Afrikaans**	**Khoekhoegowab**
Orthographic view	Oombinga ndatu dhatopoka	Ominda vitatu pekepeke	Ortografies	Igam kőxa Ikhũb
Isometric view • Front view	Oombinga ndatu dhilikumwe • Ombinga yo komesho • Ombinga yo pombanda	Ominda vitatu mbiatuuakumue • Omunda wokomurungu • Omunda wo mbanda	Isometries • Voorste aansig • Boonste	Iguiti kőxa Iguiti • Ais Ikhũb

• Top view • Left view	• Ombinga yo kolumosho	• Omunda wo komamaho	aansig • Linker aansig	• ≠am!nᾶb • Ilare lkhᾶb
Dimensions • Height • Width • Depth	Eemeta • Uule • Omutamo • Uunene	Omeetera • Oure • Oupapi • Ounene	Dimensies • Hoogte • Breedte • Diepte	kőxa linőxa • Igapisib/ Igawib • Harasib/ ≠hawab • !gamsib
Blocks (Objects) of • Wood • Iron • Plastic	Oshipambu sho- • Oshiti • Oshitenda • Oplastica	Otjindimbu • Tjorukune • Otjitenda • Tjoplastika	Blokke • Hout • Metaal • Plastiek	Blokdi • !naodi • Metal-i • Plastik-i

Compiled by the Researcher

2.20 Impact of Code-switching in Teaching and Learning Orthographic Drawing

Any communicable language is an important factor in the teaching and learning of orthographic drawing. Cahyani (2015) argues that teaching and learning become more relevant and meaningful when teachers code-switch into the language that the learners understand; in this case, learners' mother tongues. Therefore, code-switching should be advocated as it also supports classroom interactions as well as exploratory dialogue, which is an integral part of learning. In so doing, learners are likely to achieve positive results (Chikiwa, 2016).

According to Yamat et al. (2011):

> In order to compensate for learners' weakness in the English language, a teacher may start teaching in the class first using English and then repeats the clarification in home language for the benefit of those who have low English proficiency. (p. 19)

According to Hamid (2016), teachers employ code-switching in teaching and learning of orthographic drawing to minimise either learners miscomprehensions or learners' difficulties in understanding the concepts taught by the Technical Drawing teacher in the classes. When teachers use code-switching during the teaching of orthographic drawing, it is grounded on the methods of assimilation, accommodation and developing meaningful cognitive arrangements (Domalewska, 2015). For example, forming logical connections and organisation in the subject content using advanced organisers such as general subject related concepts helps learners to organise and understand new concepts (Domalewska, 2015). Morever, code-switching makes teaching easier and more meaningful which permits the information to be reserved for an extended period of time – what was taught can be recovered quicker and learners' mental structures are advanced.

In the teaching and learning process, code-switching encourages active classroom participation and learners do not waver in their conversations or become distracted due to language barriers (Ferguson, 2003). Probyn (2005) as cited in Shilongo (2017) points out that "teachers code-switch from English to the learners' home language to explain concepts, clarify statements or questions and make connections with learner's own context and experience" (p. 12). In bilingual settings, learners are able to comprehend information without difficulties and convey information to their peers and teachers freely. In addition, learners' attachment to home languages in their classroom dialogues enriches and promotes the growth of knowledge and skills which are built on background practices (Ferguson, 2003).

2.21 Conventionalised Forms of Action in the Orthographic Drawing Classroom

Kress and van Leeuwen (2020) points out that there are three forms of action in the drawing classroom.

1. Imaginary demonstration: This action is used to make clear particular entities which may be unseen. During the imaginary demonstration, the teacher will draw on the learners' everyday life observation or to reconceptualise what is taught.
2. Demonstration: In a demonstration, the teacher interacts with drawing equipment at the front of the class.
3. Analogy: In this process the sociohistorical and sociocultural meanings of the objects are brought into the drawing classroom as a resource for clarifying meaning. These analogical connections provide for connecting theory with practical work.

2.22 The Influence of Society on Code-switching

Any spoken language and the society in which it is spoken in are bound together and cannot be divided; therefore, people within that society communicate better in the language that they can understand (Kretzer, 2019). Memory et al. (2018) indicate that the "school location had a great influence on learners' class participation" (p. 59). This means that learners live in a free environment, in a society that allows them to speak their home languages frequently and that this might contribute to their attitude to code-switch when they are in the classroom (Ochieng' Akumu, 2014). Ouldmoussa (2017) states that a society with different people where one or more languages are used at the same time can influence people to use code-switching in their conversation.

2.23 Code-switching and Translanguaging in the Classroom

Beres (n.d.) defines translanguaging as a "method of learning, where learners are required to produce an output of their learning in a language different to that of instruction" (p. 1). According to Kretzer (2019), teachers who speak more than one language might start a sentence in English then switch to the learners' mother tongues. This practice is known as code-switching which forms part of the translanguaging process. Maluleke (2019) argues that code-switching is a strategy

that teachers use to pass on the knowledge to the learners in bilingual and/or multilingual classrooms. In addition, Childs (2016) states that translanguaging is the practice that teachers engage in to help learners with low proficiency in English to understand the lessons better, improve learners' academic performance and to foster learning and teaching. The integration of code-switching and translanguaging in the classroom seems to be a way of providing a scaffolding approach to instruction in which the bilingual learners engage in order to make sense of the subject content (Rivera & Mazak, 2016). This means that teachers use code-switching as well as translanguaging process to help learners to better understand the concepts which are taught in the classrooms.

García (2009) emphasises that translanguaging has been understood as part of a movement in the educational field from monolingual to multilingual education and as a modern model in bilingual classrooms. Translanguaging is an action intended to access different linguistic features to enhance communication. According to Cahyani et al. (2016), translanguaging in classrooms takes place when two languages are used in an integrated and comprehensible way to manage and facilitate the cognitive process of teaching and learning. It is, therefore, not just using the two languages but also making meaning and attaining knowledge with understanding through the incorporation of those languages. Heugh (2015) views translanguaging as a strategic use of code-switching involving mental engagement while working with two or more languages concurrently rather than separately. Translanguaging through pedagogical practices may promote a deeper and complete understanding of the subject matter, which may help the advancement of the weaker language and facilitate and foster close cooperation between home and school environment (Baker, 2011). According to Baker (2011), translanguaging may develop learners' second language ability simultaneously with content learning.

2.24 Attitudes and Arguments for Code-switching in Classes

Despite there being multiple studies on code-switching in classrooms, there are several competing arguments concerning code-switching. For instance, some authorities in education are of the view that languages must not be mixed and that learners will not be able to grasp content sufficiently if they keep on being mixed. These same sectors view code-switching as a dysfunctional type of speech behaviour.

In a study by Lin (2014), it was seen that in Hong Kong, there were repeated official instructions for teachers to stop using code-switching when teaching. We have contrarian studies with proof from Adendorff (1993) that showed that code-switching is incredibly functional, even though normally subconscious and is a communicative resource that enables teachers and learners to accomplish a number of educational and social objectives.

2.24.1 Negative attitudes to code-switching

Earlier sections outlined the benefits of code-switching in the classroom. Despite this, not all researchers view it as a classroom practice that should be encouraged. For instance, Martin (2005) indicates that the use of a local language in conjunction with the official instructional language can be a result of the teacher's own limited proficiency in the instructional language and thus this can be detrimental to the learners. Therefore, this is a case where code-switching is not beneficial for learners but covers the shortcomings of the teacher.

Clegg and Afitska (2011) outline that the occurrence of code-switching is affected by the preconceptions and the attitudes of stakeholders in the education system. Multilingual communities may look positively towards code-switching as a regular strategy for deciphering meaning among speakers, however, it may be a different story when it is being used in schools. Clegg and Afitska (2011) state that code-switching may be considered inappropriate, banned outright or officially frowned upon in some countries. Mitch (2016) found that the reasons for the negative attitudes about code-switching included the different statuses of languages in a society/countries and their allocation for varying purposes. Explicitly speaking, in multiple multilingual communities, L1s or the native languages are seen as unsuitable selections for the medium of instruction (Mitch, 2016). Rosewood (2017) found that in a Tamil speaking society in Sri Lanka, code-switching into the L1 language Tamil, showed interactions which were personal and unofficial, while English was the language of the curriculum and textbooks.

Teachers were also seen to face a conundrum between "access to meaning and access to English" as stated by (Setati et al., 2002, p. 140); this was because, inasmuch as teachers are permitted to explain the concept in learners' mother tongue,

learners are still expected to present the content in English during formal examinations. In light of this, the practice of code-switching may affect learners' ability to answer questions and respond in English. Finally, the practice of code-switching can negatively effect learning. Payawal-Gabriel and Reyes-Otero (2006) found that in the Philippines, teachers who used code-switching often confused learners and in the process affected their comprehension.

According to Modupeola (2013), if teachers use code-switching to compensate for their own deficiency in the language of instruction, this will send the wrong message to the students – implying that teachers should be role good models for standard English which students must emulate. Modupeola (2013) indicates that continuous code-switching by repeating an idea or an instruction in a diferent language may decrease the rate of learning the language of instruction.

2.24.2 Positive attitudes to classroom code-switching

There have been considerable benefits that have been outlined by researchers of using code-switching in classrooms. Most of the advocates for code-switching have stated that code-switching is a useful resource in teaching. For instance, Macaro (1997) outlines that discouraging L1 use in classrooms is impractical and further deprives pupils of an essential tool for learning language. Similarly, Rollnick and Rutherford (1996) propose that the use of code-switching in science class communication provides crucial functions, like clarifying concepts, presenting alternative conceptions, forumulating ideas and eliminating misconceptions. Lin (2005) describes code-switching as "local, pragmatic coping tactics and responses to the socioeconomic dominance of English in Hong Kong, where many students from socioeconomically disadvantaged backgrounds with limited access to English resources struggled to acquire an English-medium education for its socioeconomic value" (p. 16).

According to the study by Arthur and Martin (2006), code-switching helped learners' understanding and provided bilingual support. Kamisah and Misyana (2011) in their study argue that learners who had limited proficiency in the instructional language (English) were more tolerant of a teacher's code-switching compared with the group that was more proficient. This less proficient learner group was of the view that their

low level of understanding English hindered their comprehension, therefore it was essential for the teacher to use code-switching in order to aid understanding. Classroom code-switching was seen not only to bring benefits to the learners but for teachers as well who may be less proficient in the instructional language. Kamisah and Misyana (2011) found that the teachers saw classroom code-switching as a useful coping strategy.

Teachers who possessed greater proficiency in English were of the view that classroom code-switching has to be minimised or even prohibitied, however, they admit that it is impossible to avoid due to the variations in English proficiency among the learners (Kamisah & Misyana, 2011). Therefore, classroom code-switching is viewed to be “a strategy that promotes fast and simpler understanding among the learners” (Kamisah & Misyana, 2011, p. 240).

Given that the main objective of classroom code-switching is for learners to comprehend the content taught in an instructional language which they are not entirely familiar with and to assist learners to grasp the concepts better, then it is extremely beneficial to consolidate the broader learners’ perceptions of teacher code-switching, Badrul and Kamaruzaman (2009) in their study suggest that there are multiple functions of teacher code-switching in classrooms:

1. Teacher code-switching is normally associated with learners’ support.
2. Teacher code-switching is associated with the students’ learning success.
3. Students support code-switching.

2.25 Challenges of English as the Medium of Instruction

García (2020) outlines some of the challenges of English as a medium of instruction and they include:

1. learners’ language proficiency and abilities;
2. the right teaching methods; and
3. insufficient resources.

Bradford (2016) presented four categories of challenges that come with English as a means of instruction, these include:

1. linguistic challenges;
2. cultural challenges;
3. structural challenges; and
4. identity-related challenges.

Linguistic challenges comprise language issues experienced by both teachers and learners involved English as a medium of instruction programmes. These language issues are normally encountered by non-native learners as they struggle to comprehend the accented English of native teachers (Ammon & McConnell, 2002) and have difficulties comprehending class content delivered in English (Hellekjær, 2010). Alternatively, learners may face challenges in English as a medium of instruction in comprehending academic literature written in English due to their insufficient English proficiency. This was indicated by Wilkinson (2012) when referring to Dutch learners who had problems following English as a means of instruction during programmes due to their inadequate English proficiency.

According to Bradford (2016), a type of cultural challenge faced by students and learners is cultural anxiety surrounding English as a medium of instruction and the perceived superiority of the instruction in English at the risk of local languages. Structural challenges in English as a medium of instruction programmes are concerned with the broad programmatic coherence and insufficient support staff that cannot work with diverse learners in their large numbers (Bradford, 2016). Byun (2011) states that there is a belief that high proficiency amongst learners is necessary in order for them to learn effectively through English as medium of instruction. However, due to lack of institutional assistance towards code-switching, teachers lack confidence where there is a linguistic challenge in their classrooms.

The identity-related (institutional) problem is related to how English as a medium of instruction (EMI) programme is perceived from the outside and the identity of the EMI institution and programme, where the teachers who are teaching the EMI course and the learners are enrolled (Bradford, 2016). In this case, it involves institutional identity, particularly the preoccupation around how it is viewed by the rest of the world, for

instance in world rankings, which seem to be a growing concern for most higher education institutions that want to internationalise (Knight, 2015). Also, mastery of English is seen as a by-product of attaining academic knowledge in content subjects. This assertion is confirmed by the study by Harris (2011) where Namibian parents largely preferred English as the medium of instruction in all schools.

2.26 Summary of Chapter

The current chapter presented a detailed review of literature on code-switching in general and code-switching in the classroom environment in relation to society in particular. The review was presented in terms of the meaning and description of code-switching and its types (inter-sentential code-switching, intra-sentential code-switching). The terminologies used in teaching orthographic drawing were identified and translated into four vernacular languages since the Grade 8 classes comprised learners from these language backgrounds. The impact of code-switching in teaching orthographic drawing as well as teachers' perceptions of code-switching in multilingual classrooms were also discussed.

Furthermore, the position of the Namibian language policy on code-switching was briefly given. Despite results showing that Namibian parents and teachers preferred teaching in English alone, literature shows that learners were more keen on using code-switching. The stance of learners was confirmed by numerous researchers who were reviewed in the chapter who were of the view that code-switching can be viewed as a useful pedagogical tool to help in classroom management and to convey information. In the next chapter, the study design and the methodology used in data collection is discussed.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter presents the research methodology for this study. The research design and appropriate research instruments within the qualitative approach are presented. The procedures of selecting the samples from the population and the issues of validity and reliability are provided. The chapter ends with how the data was analysed and interpreted and the ethical considerations that were put in place during the entire study period. The research methodology segments are important to the study as it is through the convergance of these elements that research questions are allowed to be answered and objectives achieved.

3.2 Research Approach

This study is mainly qualitative in nature and the data was analysed qualitatively. A qualitative approach (Creswell, 2014) was based on a case study research design in order to explore the occurrence of code-switching in multilingual Grade 8 Technical Drawing classes in the Khomas educational region. I carefully selected the research methods because they offered the best means of obtaining valid data for the study (Gay et al., 2011). According to Yin (2014), qualitative research strives to define, understand, decode, explore, translate and clarify situations, views, values, beliefs and experiences of a group of people. This approach help me to explore the impact of teachers' code-switching in orthographic drawing teaching in two selected schools.

3.3 Research Design

A research design is a research plan that directs the researcher on how they intend to carry out the research (Creswell, 2014). According to McMillan and Schumacher (2001), the research design is the plan and structure of the investigation that is used to obtain evidence, answers and possible solutions to the research questions.

Sung and Akhtar (2017) describes the research design as "the structure of research it is the aspect that holds all of the elements in a research project together". Numerous researchers and scholars have provided a definition of a research design and these

are outlined in order to provide a consistent framework of what research design is and provide a meaningful basis for the type of design that was selected in this study. According to Jahoda, Deutch and Cook (1951), “a research design is the arrangement of conditions for the collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy and procedure” (p. 12). Borwankar (1995, p. 50) states that “a research design is a plan, strategy and structure and investigation consolidated in order to obtain research answers and control variance”. The control of variance is crucial in a research as this allows for consistency in researcher intentions and the actual procedure carried out to achieve these intentions/objectives. This is primarily the most important aspect of a well-crafted and articulated research design, i.e. control of variance.

This research used a qualitative enquiry and a case study research design (Creswell, 2014). I was more concerned with gathering rich insight into subjective meanings amongst the municipal employees rather than objects, thus reflecting the interpretivist stance. According to Creswell (2012), a case study design is “an in-depth exploration of a bounded system (e.g., activity, event, process or individuals) based on extensive data collection” (p. 465). A case study was used to gain in-depth understanding of the role that code-switching plays in teaching orthographic drawing, the perceptions of the Grade 8 Technical Drawing teachers on code-switching and the effects of code-switching in teaching orthographic drawing in Grade 8 Technical Drawing classrooms. Furthermore, an extreme case research design was used to analyse and/or show similarities and differences between the responses from the two teachers.

3.2.1 Population

The population of this study consisted of 14 regions and 17 public secondary schools offering technical pre-vocational subjects (one school per region except Khomas, Omusati and Otjozondjupa regions which had two schools each). The population of this study consisted of 17 teachers and 34 classes (two classes per school) offering Technical Drawing with about 680 learners altogether.

3.2.2 Sampling

According to Gay et al. (2011), the term sample in the research refers to “individuals selected from a population for a study” (p. 12). A sample of one region (Khomas region), two schools, two Technical Drawing classes (one class per school) with 40 learners (20 learners per class) and two teachers (one teacher per school) was conveniently and purposively sampled from the population. Purposive sampling was used as I deliberately chose participants based on their potential to provide rich and relevant information (Etikan et al., 2016).

According to Creswell (2014) and Etikan et al. (2016), convenience sampling meant that I selected the participants on the basis of their willingness and availability to participate in the study at a given time or when they were easily accessible during data collection. Other criteria for selecting the participants were that these schools must not be adjacent to one another to avoid data contamination; teachers must have taught Grade 8 Technical Drawing for more than five years of which three years were at the current school and teachers must be fluent in English, Afrikaans, Oshiwambo, Khoekhoegowab and Otjiherero. Consequently, teachers code-switched in their classes since learners were also multilingual and as such, these teachers provided sufficient information about the topic under investigation.

3.2.3 Participants

The participants’ demographics and profiles information such as their ages, gender, and years of teaching experience, education status and the schools’ profiles are presented below.

3.2.3.1 Teachers’ demographics and profiles

As described in Section 3.2.3 on samples and sampling procedures, the sample consisted of two Grade 8 Technical Drawing teachers. The researcher used pseudonyms in order to protect the teachers.

Teacher X was a 48 year old Khoekhoegowab speaking male with teaching experience of more than 15 years, and at the time of the study was serving as the head of the technical department at school A where he was teaching Technical

Drawing to the Grade 8 class. He holds a bachelor's degree in education which he obtained in 2006 from the University of Namibia. Teacher X is a man who conducts himself professionally most of the time and has a great sense of humour.

Teacher Y was a 58 years old Afrikaans speaking male with teaching experience of more than 20 years, and at the time of the study was serving as a teacher for Technical Drawing to the Grade 8 class at school B. He holds an N4 Technical Certificate from the South West Africa Academy which he obtained in 1985. Teacher Y made jokes from time to time during lessons and learners seemed amused being part of Teacher Y's class.

3.2.3.2 Schools' profiles

Two schools with two Grade 8 Technical Drawing classes each participated in this study. I used pseudonyms in order to protect the schools.

School A

School A was established on 18th January 1972 as a technical school for boys only. The school offered technical skills for the then minority 'White Namibian Race' during the time the country was called South West Africa and then after independence in 1990, it included all Namibian citizens.

At the time of the study, the school had nine school board members; five management members (one principal and four HoDs for Mathematics and Science, Social Science, Language and Technical) and 39 (male – 12; female – 27) teaching staff including management. There are also 21 (male – 8; female – 13) cleaning staff and institutional workers.

All the subjects at the school are taught in Afrikaans as the medium of instruction including technical subjects (Motor Mechanics; Technical Drawings; Machine Drawings; Electricity; Sheet Metal and Welding; Fitting and Turning; Basic Engineering). Following are the current statuses of grades and subjects at the school: Technical Studies B (Gr 8 and 9); Technical Studies C (Gr 8 and 9); Technical Drawing

(compulsory for technical subjects in Gr 8 and 9); Motor Mechanics (Gr 10); and Sheet Metal and Welding (Gr 10). All these trades are offered in a fully equipped workshop with qualified instructors.

School B

School B was established in 1950 in the then South West Africa. The school aims to accommodate learners who are unable to cope in the mainstream educational system due to their learning difficulties.

At the time of the study, the school was overcrowded with 480 boys and 40 teachers. All the learners met the requirement to be diagnosed as “learners with special needs”. School B offers five different educational streams, e.g. Mainstream, Vocational Training, Learner Support Classes, Technical Orientation and Training and the Basic Pre-Vocational Stream. All learners are expected to communicate in English.

In addition, the school offers a two-year Vocational Training Course for learners who achieved an average of 55% or more in Grade 7 at the school and not learners coming from other schools. The following trades are offered: Motor Mechanics, Bricklaying and Plastering, Woodwork, Plumbing and Welding and Technical Drawing. All these trades are offered in a fully equipped workshop with qualified instructors.

3.3 Research Instruments

Research instruments are the measurement tools used by researchers to collect data on topics of their interest from the participants and/or respondents (Annum, 2015). A semi-structured interview guide and observation checklist were the research instruments that were deployed to gather data from the participants on the use of code-switching in teaching orthographic drawing in four Grade 8 Technical Drawing classes in the Khomas region. This means that the data were collected using the following methods.

3.3.1 Observation schedule

Observation is a process of watching someone closely and carefully in an attempt to find out how they are executing a certain task or carrying out an activity (Mudzielwana, 2012). According to Bertram and Christiansen (2014), the researcher should go to the classroom and observe what is taking place; therefore, the researcher is a non-participant observer (Creswell, 2014). In this study, I acquainted myself with how teachers code-switch in teaching orthographic drawing and then I probed and discussed the lessons with teachers based on what I experienced and observed related to code-switching strategies that teachers used in the teaching and learning process. For this study, observation was guided by the observation schedule in which any occurrence of code-switching was recorded and interviews followed thereafter.

During lesson observations, I focused on the occurrence of code-switching strategies, the language that dominated the conversation in all six lessons and occurrences of code-switching at syntactic structure (arrangement of words and phrases to create well formed sentences in a language). I also observed the verbal interactions among the learners in the classrooms and between the learners and the teachers. I further examined which languages formed the matrix language and embedded language during classroom conversation and observed and listened to how teachers gave instructions, how they code-switched if learners did not understand the subject content and/or new concepts and how learners reacted to such utterances by the teachers (Simasiku, 2014).

3.3.1.1 Reasons for using observations

I used classroom observations to observe the use of code-switching by teachers in orthographic classes. Through observation, I was able to also see how learners responded to the information being conveyed by the teacher, their reaction to code-switching and how these students might use code-switching amongst themselves in order to receive clarity in their learning.

Jacobson and Faltis (1990) presents several reasons for observing participants. Firstly, it allows for the collection of data and information where an event is occurring and at the specific time it is occurring. Observations also allow the observer to see

what participants are doing rather than relying on what participants say (Jacobson& Faltis, 1990). Mulhall (2003) echoes these sentiments by saying that “the primary reasons for using observational methods are to check whether what people say they do is the same as what they actually do” (p. 12). Thus, observations as a data gathering tool were extremely useful as they brought about an unfiltered way of witnessing the issue of code-switching.

3.3.2 Semi-structured interview

An interview is a planned and organised oral question and answer session between a researcher (interviewer) and an individual respondent (interviewee) from whom information is sought for the purpose of generating new knowledge (Gay et al., 2011). According to Bertram and Christiansen (2014), an interview is a “conversation between the researcher and the respondent” (p. 80). For this study, the main purpose of the research was explained to the participants. I went into the field with only a few structured questions while the rest were not predetermined in advance in order to fully explore teachers’ perceptions on code-switching and also the effects of code-switching in teaching orthographic drawing.

3.3.2.1 Reasons for using interviews

I conducted interviews to collect information in the participants’ (teachers) own words. The interviews assisted the perceptions and ideas that teachers had of code-switching when teaching the subject. Thus, interviews provided a source of data that would allow for the interpretation of what I observed during the classes. Interviews therefore provided the bridge to understanding the motives behind teachers using code-switching and their views of whether this practice was helpful in the teaching and learning process.

3.3.2.2 Advantages of using interviews

According to Patton and Cochran (2002), “interviews generate much information that can be used to provide insight of participants responses and they encourage respondents to talk freely” (p. 16). The interviews generated the information through the interactions between myself and research participants. The interview method provided the ability to elicit rich and broad descriptions. Denscombe (1998) states that

“interviews produce data rich in-depth and detail and is a flexible data collection technique” (p. 166). There was direct contact between myself and the research participants – this meant that accuracy and relevance could be checked immediately from the research participants, thus resulting in high validity.

3.4 Data Collection Procedure

Data collection is the process by which the researcher collects the information needed to answer the research questions or problems (Awaisu, 2013). In this research, before the data collection resumed, I sought permission from the relevant authorities to get access to the participants and the main purpose of the study was then explained to them. I used two research instruments, namely a semi-structured interview guide and observation schedule to collect data which I designed and compiled. I also traveled to the selected schools to collect data. For ethical purpose, the two schools have been called school A and school B with Teacher X and Teacher Y respectively.

At both schools A and B, I observed three lessons (one lesson per day) per class of 40 minutes long; this brought the grand total of observed lessons to three lessons for each teacher. Since there were two participants, six lessons were observed in total. During the free periods, the teacher and I used about 30 minutes to discuss and reflect on what I had observed and noted during the lesson taught on orthographic drawing using code-switching. This meant that for the first lesson, the teachers planned the lesson themselves and taught while I observed them and recorded and took notes. After the lesson, I then discussed the lesson with the teachers reflecting on what was noted during observations. This pattern was followed until the third lesson when the evaluation of lessons one and two was carried out to see if the code-switching strategies that were discussed were incorporated into the teaching and learning process. A video recorder was also used for the purpose of triangulation by capturing teachers’ teaching of orthographic drawing where code-switching was used.

I then conducted a 20–25 minutes face-to-face interview with two teachers who were purposefully selected. The interviews were tape-recorded with the participants’ permission, to explore how and why teachers use code-switching. The interviews also solicited more information, to find out the effects of code-switching in teaching

orthographic drawing. During the interview process, field notes were made to ensure that I captured the interviewees' responses as accurately as possible.

3.5 Ethical Considerations

The approval to carry out this research study was obtained from Rhodes University's Ethical Clearance Committee; the office of the Executive Director and Khomas Education Director – Ministry of Education, Arts and Culture, Namibia.

Ethics are the guiding rules or standards for conducting research and guide researchers on what is right and what is not. According to Bertram and Christiansen (2014), "ethics has to do with behaviour that is considered right or wrong and it is therefore, an important consideration in research" (p. 65). Ethics helps the researcher to determine the difference between acceptable and unacceptable conduct. Ethical standards prevent and discourage the falsifying of information and hence promote the quest of knowledge which is the main aim of any research. The purpose of the ethical principles is to encourage an environment of trust, responsibility and respect among researchers and respondents.

The participants were visited in person to engage in discussions and negotiations, and this is how their consent was obtained. At each selected school, I provided the participants with informed consent forms and thoroughly explained the significance of these forms in relation to privacy, protection, agreement, and confidentiality. To ensure confidentiality, the participants were reassured that under no circumstances would their identities be revealed or appear on any document. Additionally, they were informed that the information they provided would not be discussed or shared with others.

In this study, I explained the purpose of the study to the participants at the selected schools. All participants were duly informed that their participation was voluntary, and they retained the right to withdraw from taking part in the study without any fear of reprisal. The nature of this study did not anticipate any injury or harm to the participants in any way. In other words, I had familiarised myself with Rhodes University's code on research ethics as expressed in the RUESC, and I have fully complied with it.

Different educational stakeholders may benefit in one way or another from the study. These stakeholders may include, but are not limited to, teachers, learners, and policy implementers. For teachers, the study can help them understand the importance of code-switching in teaching orthographic drawing and assisting learners in mastering the concepts and content of orthographic drawing through both English and their home language(s).

Learners themselves are the direct recipients of the research findings, as it has the potential to improve their cognitive, creative, and innovative skills. Furthermore, the study's outcomes can also enhance classroom communication between learners and teachers, leading to improved mastery of orthographic drawing. It enables teachers to be more strategic and thoughtful when planning and implementing instructions during the teaching and learning process.

Considering that teachers are responsible for implementing policies, including the choice of language of instruction in classrooms, this study can benefit them by enabling them to effectively transfer their knowledge and experience to learners through code-switching. By incorporating code-switching strategies, teachers can better support their students' learning and ensure that language barriers do not hinder the transfer of knowledge.

Overall, this study has the potential to positively impact various educational stakeholders, empowering teachers, enhancing learners' skills, and facilitating effective instruction and communication in the classroom.

3.6 Data Analysis

Data analysis is defined by Marshall and Rossman (cited in Vosloo, 2014) as the process of bringing order, structure and meaning to the mass of collected data. According to Creswell (2014), data analysis is a process of making sense and meaning of the raw data as well as interpreting data.

The notes taken during observations on the interactions of code-switching were analysed to find out if code-switching between English and other vernacular languages

was used, and “if used which code-switching patterns are used to fill linguistic gaps for communication purposes” (Aukongo, 2015, p. 74). The data collected using the observation schedule were coded to create sub-categories. Then, these sub-categories were grouped together to form themes. Once the themes were identified, then thematic data analysis was used to determine participants’ practices of code-switching in the teaching and learning process of orthographic drawing. In other words, data from the field notes and observation checklist were narratively transcribed.

The data from recorded semi-structured interviews that were video-recorded were transcribed verbatim and then analysed. I analysed the data by coding the main themes to check the similarities and differences in themes. In addition, I wanted to find out if I could find the answers to the questions of what role code-switching plays and the effects of code-switching in teaching and learning of orthographic drawing in Grade 8 Technical Drawing classrooms. Thereafter, the analysed data were shown to the teachers for verification to increase the trustworthiness of the data (Sikolia et al., 2013).

I used the MLF Model to analyse the data specifically from the observation schedule to observe the occurrence of code-switching in the matrix language (dominant) and also in the embedded language (guest/mother tongue). The model was also used to analyse the frequency of presenting concepts on the topic of orthographic drawing through the matrix-embedded language and also to identify themes (such as awareness, understanding, implementation, effects and barriers) on teachers’ perceptions on the use of code-switching in Technical Drawing classrooms.

3.7 Measures of trustworthiness

3.7.1 Credibility

Credibility can be defined as the quality of being reliable and trustworthy, according to Lincoln and Guba's definition in 1985. Qualitative researchers employ credibility as a means to ascertain the trustworthiness of their study. This involves scrutinising the data, data analysis, and conclusions to determine the accuracy and correctness of the research. This study focuses on establishing credibility by using a method called triangulation of data, which involves collecting information from various sources. I

employed interviews, and classroom observations to gather data. Audio recordings of interviews and classroom observations were collected as evidence to support data analysis and interpretation. I also made an effort to seek clarification and further explanations from teachers during interviews to ensure accurate understanding of their intended messages.

3.7.2 Confirmability

Confirmability pertains to the impartiality of the analysis and the provision of adequate data for others to assess the extent to which the findings align with the collected information (Lincoln & Guba, 1985). This study achieved confirmability through a systematic approach, employing an audit trail that incorporated raw data, including electronically recorded materials, interviews, and classroom observations. I aimed to maintain neutrality during teacher interviews and reporting of findings. Data was collected from two teachers, and direct quotations from interviews and classroom observations were included to support the results. Triangulation, involving the use of multiple methods and types of data, was employed to enhance the study's confirmability. The potential limitations affecting data quality and authenticity were also discussed.

3.7.3 Dependability

Dependability is frequently associated with qualitative research methods (Matthews and Ross, 2010), and it is exemplified by the transparency of the research process and the protocols followed for data analysis. Two data collection instruments were employed in this study to ensure the dependability of the gathered data, facilitating a comparison of the results and findings. Furthermore, the dependability of this study was bolstered by the peer review of the analyses and interpretations of the results and findings, along with the comments provided by my supervisor.

3.6.2 Transferability

Matthews and Ross (2010) assert that in qualitative research, transferability pertains to the degree to which the research findings maintain relevance and validity when applied in a diverse context. The potential for transferability in this study is facilitated by providing comprehensive information about the demographics and research

context, encompassing the environment, participants and the methods employed for data collection.

3.8 Limitations of the Study

The time investment required for data extraction was a significant limitation of this qualitative study. Due to the time demand of this study, particularly in class observation sessions, I only managed to observe and interview two teachers from two different schools. There is a likelihood that other schools may show different patterns; however, the overall picture presented by the literature on the capabilities of Namibian learners in English can provide some sort of assurance that the patterns observed in these two classes is a reflection of the majority of schools in Namibia.

Overall, the study was extremely time intensive; this was due to the dual nature of the data collection which included carrying out interviews and class observation sessions. Despite the taxing nature of these data collection tools, I was able to accumulate broad insights into the subject matter. The broadness of the insights emanated from the perceptions of the teachers on code-switching found through the interviews, and the practices of code-switching during lessons through class observations.

3.9 Summary of chapter

This chapter discussed the study design and the methods that were used to collect the data. The research site was described, the population was provided as well as the sample size and the sampling procedures. The MLF Model was also described because of its relevance to the analysis of the qualitative data. The design of the research instruments (semi-structured interviews guide and observations schedule) and the how the data collection instruments where piloted was also explained. Ethical considerations during the research project were described. Finally the measures of trustworthiness and limitations of the study were also briefly explained. In the next chapter, the presentation and discussions of the research findings are undertaken.

CHAPTER FOUR: DATA ANALYSIS AND DISCUSSIONS

4.1 Introduction

In the previous chapter, the research methodology and instruments that were used to explore Grade 8 teachers' code-switching when teaching orthographic drawing in the Khomas educational region were presented and discussed. This chapter focuses on the presentation and analysis as well as interpretation of the data collected from semi-structured interviews and lesson observations. The chapter begins by mentioning the objectives of the study, the research questions and how the data generated attempted to answer the research questions.

4.2 Research questions

Data for this study was collected to address the following research questions:

1. How do the Grade 8 Technical Drawing teachers code-switch when teaching orthographic drawing in the Khomas educational region?
2. What role does code-switching play when teaching orthographic drawing in Grade 8 Technical Drawing classes?
3. What are the perceptions of the Grade 8 Technical Drawing teachers in the Khomas educational region regarding code-switching when teaching orthographic drawing?

4.3 Research objectives

The main objectives of the study were:

- To explore how Grade 8 Technical Drawing teachers in the Khomas educational region code-switch when teaching orthographic drawing.
- To explain the role of code-switching when teaching orthographic drawing in Grade 8 Technical Drawing classes in the Khomas educational region.

- To understand the perceptions of the Grade 8 Technical Drawing teachers in the Khomas educational region regarding code-switching when teaching orthographic drawing.

4.3.1 Research participants' details

The Grade 8 Technical Drawing teachers were requested to fill in a short demographic questionnaire (see Appendix A) consisting of 17 questions. The aim of the demographic questionnaire was to obtain certain information about the interviewee participants, specifically focusing on their language proficiency and teaching experience.

Table 4.1: Participants' profiles

Participant	Position at school	Qualification	Years of teaching	Mother tongue	Age group	Gender
Teacher Y	Teacher	N4 Certificate	6–10 years	Afrikaans	51–60 years	Male
Teacher X	Head of department	Bachelor's degree	More than 10 years	Damara Nama	41–50 years	Male

4.4 Data Analysis: Forms of Matrix Language and Embedded Language

In line with the theoretical framework of the study, the MLF is used to analyse the data noted in the classes. The researcher observed that code-switching was prevalent in classes. In the most prevalent cases, different dialects were used but as stand-alone sentences which did not include the L2. The failure of a sentence to have both the L1 and L2 in a single sentence fails the standards of the ML+EL formula which requires more than one language within the same sentence (Myers-Scotton, 1993).

Intra-sentential and inter-sentential are the two most common types of code-switching. When inter-sentential switching, a person speaks by switching from one language to another language between different sentences, while when intra-sentential switching,

individuals code-switch from one language to another language within the same sentence (Kebeya, 2013). This section analyses the code-switching, the ML+EL formula and the context in which code-switching occurred.

4.4.1 Lesson observations

The following tables 3–8 present the forms of ML+EL in code-switching in a multilingual classroom during lesson presentations, that is, at two schools A and B by two teachers X and Y, in Windhoek, Namibia where learners come from four language backgrounds. The lessons were observed within the frame of Myers-Scotton's MLF as explained in Section 4.3.2 which was applied to identifiy the matrix and embedded languages.

4.4.1.1 Teacher X lesson 1

Table 4.2: Data and languages used in teacher X's lesson 1

Data	**Languages involved**	**Form of ML+EL formula**
"Take out your *Xoaxurub* not *Xoa!ammi"* (Take out your pencils not your pens)	English/ Khoekhoegowab	Intra-sentential switching (Myers-Scotton, 1993)
"Kuume ano o front view *oyini mpano"* (My friend which one is a front view here)	Oshiwambo/English	
"Before I show you the next example, *gee my uitveer"* (Before I show you the next example, give me an eraser)	English /Afrikaans	Inter-sentential switching (Myers-Scotton, 1993)
"Someone *ndjipa wo a 45 set square"* (Someone give me a 45 set square)	English / Otjiherero	
"Sorry sir I find it hard to *verstaan"*	English/Afrikaans	

(Sorry sir I find it hard to understand)		

4.4.1.2 Teacher Y lesson 1

Table 4.3: Data and languages used in teacher Y's lesson 1

Data	**Languages involved**	**Form of ML+EL formula**
"Look here, *wat is daai"* (Look here, what is that)	English/Afrikaans	Inter-sentential switching (Myers-Scotton, 1993)
"Kan jy meet, anyone knows how om die dimensies te *meet"* (Can you measure, anyone knows how to measure these dimensions)	Afrikaans/English	Intra-sentential switching (Myers-Scotton, 1993)
"Hello hello, *gee aandag"* (Hello hello, pay attention)	English/Afrikaans	

The first lesson of Teacher X shows significant code-switching between different languages. Inter-sentential switching was observed three times in this lesson, whereas intra-sentential switching was observed twice. In inter-sentential switching, a person speaks by switching from one language to another language between different sentences (Kebeya, 2013). This denotes that when the speaker's course of conversation is separated into sentences, one sentence would be in one language and the other sentence would be in a completely different language, while when intra-sentential switching, individuals code-switch from one language to another language within the same sentence (Kebeya, 2013).

The difference between inter-sentential and intra-sentential switching is that in the latter, switches occur within sentences and the former, switches occur interspersed in sentences. The use of different languages was due to the diversity of the learners in the classroom and the diverse background of the teacher. Most of the dialogue was to

give instructions concerning the subject and for classroom management. The code-switch by the learner of "*Kuume ano o* frond view *oyini mpano?" (My friend which one is the front view here?)* was for the purpose of asking/providing clarity to a learner who could not grasp understanding in English – the use of code-switching in this instance was as a tool to provide clarity to fellow learners in their native language. In addition, code-switching in this class was mostly casual switches rather than those aimed at providing clarity with regard to the subject matter. In lesson 1 of Teacher Y, intra-sentential switching was observed once and inter-sentential switching was observed twice.

Teacher Y, unlike Teacher X, was only proficient in Afrikaans; therefore, their code-switching was purely between English and Afrikaans. In the three instances where code-switching occurred, two of these times were casual with the teacher in one instance stating, "Look here, *wat is dai?"* and *"hello hello, gee aandag"* (*Look here, what is that?"* and *hello hello, pay attention).* The other instance where code-switching occured was when the teacher was asking something related to the subject, "*Kan jy meet?* Anyone knows how om die dimensies te meet?*" (Can you measure? Anyone knows how to measure these dimensions?)*; however, in all instances, the code-switching was not for the purpose of clarifying an unknown concept to learners but appeared more as a casual form of code-switching for class management.

4.4.1.3 Teacher X lesson 2

Table 4.4: Data and languages used in teacher X's lesson 2

Data	**Languages involved**	**Form of ML+EL formula**
"Meneer moet ek my werk ingee " (Sir must I hand in my work) "What is die verskil?" (What is the difference?)	Afrikaans/English	Inter-sentential switching (Myers-Scotton, 1993)
"It's called *otjindimbu".* (It's called a block)	English/Otjiherero	

"It's called *Ominda vitatu Mbiatuuakumue"* (It's called isometric view)	English/Otjiherero	
"Is he talking about *Uule* or Omutamo?*"* (Is he talking about the height or width?)	English/Oshiwambo	Intra-sentential switching (Myers-Scotton, 1993)

4.4.1.4 Teacher Y lesson 2

Table 4.5: Data and languages used in teacher Y's lesson 2

Data	**Languages involved**	**Form of ML + EL formula**
"Wiee is klaar? Tyd raak klaar". (Who is done? Time is running out) "Wie is klaar?'' Bring jou paper vorentoe". (Who is done? Bring your paper in front). "My God, nee". (My God, no).	Afrikaans /English	Inter-sentential switching (Myers-Scotton, 1993)
"Well done *ouens,* this is *goeie werk".* (Well done guys, this is great work)	English/Afrikaans	Intra-sentential switching (Myers-Scotton, 1993)
"Let's keep *vokus* and hou aan *verbeter".* (Let's keep *focus* and keep *improving)*	English/Afrikaans	

In the second lesson of Teacher X, inter-sentential switching was observed three times and intra-sentential only once. Unlike the first lesson, the second lesson comprised more code-switching that was used for educational purposes. The elements of the subject were described using Oshiwambo once and Otjiherero twice. In this instance,

one of the learners code-switched and asked another learner: “Is he talking about *Uule* or Omutamo?*” (Is he talking about height or width?)* – here the learner was asking if the teacher was referring to height or width. It was seen in this class that even though the teacher was quite familiar with several languages, there were some that they were not well versed in, therefore learners had to seek clarity from each other. Some of the subject concepts such as “isometric view” were difficult for learners, therefore the teacher had to code-switch to Otjiherero saying “*ominda vitatu mbiatuuakumue” (isometric view).*

In the second lesson of Teacher Y, intra-sentential switching was observed twice and inter-sentential switching was observed only once. Just like the first lesson, the code-switching that occurred in lesson two was purely for class management purposes rather than clarifying any subject conceptual issues like Teacher Y. Canagarajah (1995) outlines the micro-functions of classroom code-switching which is to aid classroom management and the transmission of knowledge. Given that the native tongue of the teacher was Afrikaans, any form of code-switching might be because of habit, rather than intentional means to achieve any connection or class management as the nature of the code-switching appeared to be less instructional and more casual as mentioned earlier.

4.4.1.5 Teacher X lesson 3

Table 4.6: Data and languages used in teacher X’s lesson 3

Data	**Languages involved**	**Form of ML+EL formula**
“*Ek is baie gelukkig”.* (I am happy very much)	Afrikaans/English	Inter-sentential switching (Myers-Scotton, 1993)
‘’This part is the *≠am!nãb”.* (This part is the top view)	English/ Khoekhoegowab	
“Guys can you draw the *boonste aansig* of this block”.	English/Afrikaans	Intra-sentential switching

(Guys can you draw the top side of this block)		(Myers-Scotton, 1993)
"When you draw the ariel view of this block, make sure you put the measurements of the *diepte* ok?" (When you draw the ariel view of this block, make sure you put the measurements of the depth ok)	English/Afrikaans	

4.4.1.6 Teacher Y lesson 3

Table 4.7: Data and languages used in teacher Y's lesson 3

Data	**Languages involved**	**Form of ML + EL formula**
''We are learning about Orthographic view or Ortografies, verstaan julle''. (We are learning orthographic view, does anyone understand)	English/Afrikaans	Inter-sentential switching (Myers-Scotton, 1993)
"When measuring a block, measure die *hoogte, breedte en die diepte".* (When measuring a block measure the height, width and depth)	English/Afrikaans	
"In most cases the measurements van die *voorste aansig* is dieselfde as die *agterste aangesig".* *(In most case the measurements of the front view are the same as the back view)*	English/Afrikaans	Intra-sentential switching (Myers-Scotton, 1993)
"Ouens, lets carry this on tomorrow. We will focus op *hout en metaal voorwerpe".* (Guys, lets carry this on tomorrow. Will focus on wood and metal objects)	Afrikaans/English	

In the third lesson of Teacher X, inter-sentential switching was observed twice and intra-sentential was also observed twice. In this class, the teacher used code-switching between two languages, Afrikaans and Khoekhoegowab. While different languages were used to describe certain objects, it was rare for these words to be used within sentences to qualify for the ML+EL formula. Of the four times that code-switching was used in sentences, three times involved subject content issues that were meant to provide clarity on concepts to confused learners (lesson 3 observation, data). Words such as “deipte, linker aansig and ≠am!nᾶb” (depth, top side and top view) were used to explain to learners in the related languages, respectively.

In the third lesson of Teacher Y, inter-sentential switching in the lesson was observed twice and intra-sentential switching was also observed twice. The code-switching that occurred in this lesson was all somehow related to the subject matter. We are learning about the “orthographic view or *ortografies, verstaan iemand?”* (we are learning orthographic view, does anyone understand?); learners’ voices: *“Yes Meneer ons verstaan” (Yes Sir we understand)*. In the first use of code-switching, the teacher talks about the orthographic view in English and then translates it to Afrikaans with the question – do you understand? Raman and Yigitoglu (2015) list some functions of code-switching in classrooms, such as to elicit the answer and sometimes to guide the students to find the answer and also to promote participation and understanding in the classroom. Adendorff’s study (1993) also views code-switching as a means of guiding the learners to comprehend the academic objectives along with learner interpretation of their social relationships in class. The second instance of code-switching involves the calculation of the measurement of blocks, here, the actual elements that go into the calculation were all described in Afrikaans – these elements included *hoogte*, *breedte en diepte*, referring to height, width and depth. Unlike Teacher X, the use of code-switching here does not seem as much for clarification but more of habit as the syntax of the sentence does not suggest guidance of clarification.

In the next instance of code-switching as like the previous one, the teacher describes measurement issues using Afrikaans: “In most cases the measurements of *voorste aangesig* is the same as the *agterste aangesig*” (In most cases the measurements of the front view are the same as the back view); learners’ voices: “Yes *Meneeer ons sien*” (Yes Sir we see) with *voorste aangesig* and *agterste aangesig* referring to front

view and back view – this was the description that the back view and the front view measurements are the same. This entence was said without any questions or feedback by the learners thus suggesting that the code-switching was not for the purpose of clarification or guidance but one that comes naturally because the teacher's L1 is Afrikaans.

4.5 Themes: Lesson Observations

Three lessons per school were presented and observed over four days as presented in Table 4.8. I observed the lessons to explore how Grade 8 Technical Drawing teachers were code-switching when teaching orthographic drawing and the following categories and themes emerged.

Table 4.8: Lessons presented per school for a period of four days

Day	**School A: Teacher X**		**School B: Teacher Y**	
	Lesson presented	**Time**	Lesson presented	**Time**
1	1st	07h30-08h15	1st	08h15-08h50
2	2nd	09h15-09h50	2nd	10h45-11h30
3	3rd	07h30-08h15	3rd	07h30-08h15
4	Lesson evaluation	08h00-11h00	Lesson evaluation	08h00-11h00

4.5.1 Theme one: Classroom management

Amalgamated under this theme are three categories as identified below:

- Category 1: Classroom Management
- Category 8: Classroom Interaction
- Category 9: Flattering

Observations showed that classroom management was better handled with the infusion of intermittent code-switching. For instance, under category 1, the teacher merely instructed: “Take out your *Xoaxurub* not *Xoa!ammi”* (take out your pencils not your pens) undoubtedly, a handful of the learners would have taken out their pens instead and that would have resulted in the disruption of valuable learning time as the teacher would explain in various English terms and gestures for all to understand. Similarly, when making dialogue as evidenced under category 8 where the teacher asked: *“Wie se beurt is dit om die vensters toe te maak en die klas te sluit?”* (Whose turn is it to close the windows and lock the classroom) or when the learner enquired from the other learners during a lesson: *“Wat se die Meneer?”* (What is the teacher saying?), no learning time was disrupted, instruction was understood, and order was maintained. More so, under category 9, when the teacher says: *“Ohoo!”* (Yes, aha!), and the learners’ voices are heard saying: *“*Yes *Meneer”* (Yes Sir), there is a synchronisation of comprehension and there is also mutual respect and understanding.

“Translanguaging is a method of learning, where learners are required to produce an output of their learning in a language different to that of instruction” (Beres n.d., p. 1). According to García (2011), translanguaging varies in code-switching as it is not merely switching in and out of different monolingual codes and combines two languages in unison to achieve effective communication. The integration of code-switching and translanguaging in the classroom seems to be a way of providing a scaffolding approach to the instruction in which the bilingual learners engage to make sense of the subject content (Rivera & Mazak, 2016). According to Kretzer (2019), teachers who speak more than one language might start a sentence in English then switch to the learners’ mother tongues. This practice is known as code-switching which forms part of the translanguaging process. Maluleke (2019) argues that code-switching is a strategy that teachers use to pass on the knowledge to the learners in bilingual and/or multilingual classrooms.

Here, “translanguaging posits that bilinguals have one linguistic repertoire from which they select features strategically to communicate effectively” (García, 2011, p. 1). In this light, the focus of translanguaging is more on observable communicative practices (García, 2011). This means that teachers incorporate translanguaging in their

classrooms not only to improve the classroom management but also to help individual learners to enhance the understanding of the concepts which are taught to them.

Some theories suggest that classroom management is one of the reasons for having code-switching (Canagarajah, 1995) as it makes all things manageable during teaching and learning time. Research postulates that a school is a special social space where education, training and personality development of learners who are a society's future assets are founded and run by proper teaching methods, appropriate physical spaces and favourable psychological environments (Raccoon gang, 2018). This is buttressed by the vibrant Namibian Learning Policy which places emphasis on the importance of educating the nation. However, the policy is observed to have a closed-door policy whereby there is no room for alternative means to impart knowledge, skills and ideas in a flexible manner, such as code-switching, but through teaching and learning in the English language (MBESC, 2003). The dominating language in this theme for teachers' and learners' voices was Afrikaans and Oshiwambo was used once or twice. When the teachers' voices gave instructions, complemented or exchanged ideas with the learners, there was more coordination and order in the classroom which fostered a good learning environment. The Language Policy for Schools in Namibia states that:

> Grades 1-3 will be taught either through the mother tongue or a predominant local language. If parents or the school wish to use English as the medium of instruction in the lower primary phase, permission must be granted from the Namibian Ministry of Basic Education and Culture with well-grounded, convincing motivation, Grade 4 will be a transitional year, (meaning that learners will learn the rest of the subjects in English with home language as a second language). In addition, English will be a medium of instruction in senior primary phase (grades 5-7). The mother tongue will only be used in a supportive role and continue to be taught as a subject. Grades 8-12 will be taught through the medium of English and the mother tongue will continue to be taught as a subject (Ministry of Basic Education and Culure, 2003, p. 4)

However, as helpful as it is in the comprehension of the curriculum, the approach of code-switching is not validated by the Namibian educational policy. I observed that the dominant language in the code-switching was Afrikaans, a widely spoken language in Namibia. Mgqwashu (2006) emphasises that human beings learn best in their own vernaculars, the vernaculars they inherit from their fathers and mothers, a language in which they can become more creative and innovative.

Code-switching is a practice that everyone should embrace to take learners' academic performance to the next level. Once children learn in their mother tongue, it does not only stimulate interest in learning but also maximises their abilities to acquire knowledge with understanding.

4.5.2 Theme Two: Knowledge transmission with understanding

This covers the extraction of data for knowledge transmission with understanding and the categories are:

- Category 2: Content Transmission
- Category 4: Facilitate Comprehension
- Category 6: Guiding Strategy

As observed, content was transmitted via words in different languages and dialects. In category 2, one of the teacher's voices gave a directive: "Before I show you the next example, *gee my uitveer*" (Before I show you the next example, give me an eraser) and a learner's voice responded: *"Meneer hier is the uitveer"* (Sir here is an eraser). The use of code-switching helped the teacher and learner to comprehend each other, and the teacher was enabled to guide his teaching strategy. The same was seen when the teacher's voice transmitted knowledge: "When measuring a block, measure the *hoogte, breedte en diepte*" (When measuring a block measure the height, width, and depth). A learner then asked the other learners: "Is he talking about *Uule* or *Omutamo?*" (Is he talking about the height or width?). Knowledge was transmitted and comprehension facilitated. Category 4 shows how code-switching facilitated comprehension: "We are learning about orthographic view or *Ortografies, verstaan iemand*?" (We are learning orthographic view, does anyone understand?). The learners' voices responded: "Yes *Meneer ons verstaan*" (Yes Sir we understand). The

same example in category 4 was used to synthesise the theme of guiding strategy, in which code-switching helped in guiding a teaching strategy in the classroom.

During the first lesson observations at school A and B, the language of instruction used was English throughout. Both teachers gave a short introduction of what orthographic drawing meant and how it was different from isometric drawing. Throughout the lessons, learners did not answer questions satisfactory, and most of the learners appeared to be confused as they were seen and heard talking to one another asking questions in their home languages. Then, Teacher Y said to the learners "*Verstaan julle neh*?" (Do you understand?). The learners' responded: "Yes *Meneer ons verstaan*" (Yes sir we do understand) (category 6). The code-switching in this context is in line with the views by Adendorff (1993), who sees code-switching as a means of guiding the learners to comprehend the academic objectives along with learner interpretation of their social relationships in class. Through small group activities, it is not only the content transmission that is facilitated but also learners learn cooperation, friendship and respect for each other. For example, Teacher X divided learners into smaller groups where learners could explain to each other in their vernaculars. The teacher was observed asking learners: "Guys can you draw the *boonste aansig* of this block?" (Can you draw the top side of this block?). Learners' voices responded: "Yes *Meneer ons kan*" (Yes sir we can) (category 2). Similarly, Martin (1996) found that code-switching is a useful strategy to help both the teachers and the learners to cope with the curriculum.

Research stipulates that teachers use code-switching for reinforcement, expression of authority and to bring clarity (Baker, 2011) as evidenced in the instances of code-switching scenarios in the observations. Lin (1996) asserts that code-switching can be used to explain textbook terms for better comprehension. Learners are guided to comprehend academic objectives and have an enhanced leaner interpretation of their social relationships in class by way of code-switching (Adendorff, 1993). In theory, knowledge transmission is tabularised as one of the code-switching functions (Canagarajah, 1995). By infusing code-switching, learners are enabled to understand, participate and comprehend as it is a function used to elicit answers and guide learners to find answers (Raman & Yigitoglu, 2015).

More so, Martin (1996) states that code-switching is a useful strategy that helps both the teacher and learners to cope with the educational curriculum through inter-sentential or intra-sentential switching. Mouton (2007) points out that “code-switching in the classroom had useful teaching functions such as transmitting of knowledge, clarifying concepts or meaning, and assisting learners who have a deficiency in the competence of the English language” (p. 42). This is a clear indication that once learners learn the meaning of the main concepts and terminologies in their mother tongues or in the dominant language, it does not only stimulate interest in learning but also maximises their ability to acquire knowledge with understanding.

4.5.3 Theme Three: Harmonising home and school environment

Found under this theme are the following categories:

- Category 3: Interpersonal Relations in the Classroom
- Category 7: Expressing Dissatisfaction/Discipline
- Category 5: Harmonising Home and School Environment

During the second lesson observation, the lessons were planned based on shortcomings observed in the first lessons. In these lessons, learners were introduced to the key terminologies used in the language of Technical Drawing as shown in Table 4.9 below.

Table 4.9: Key terminologies in the languages used in lesson two

English	**Oshiwambo**	**Otjiherero**	**Afrikaans**	**Khoekhoegowab**
Orthographic view	Oombinga ndatu dhatopoka	Ominda vitatu pekepeke	Ortografies	Igam kǒxa Ikhᾶb
Isometric view • Front view • Top view	Oombinga ndatu dhilikumwe • Ombinga yo komesho • Ombinga yo pombanda • Ombinga	Ominda vitatu mbiatuuakumue • Omunda wokomurungu • Omunda wo mbanda	Isometries • Voorste aangesig • Boonste aangesig	Iguiti kǒxa Iguiti • Ais Ikhᾶb • ≠am!nᾶb

• Left view	yo kolumosho	• Omunda wo komamaho	• Linker aangesig	• Ilare Ikhãb
Dimensions • Height • Width • Depth	Eemeta • Uule • Omutamo • Uunene	Omeetera • Oure • Oupapi • Ounene	Dimensies • Hoogte • Breedte • Diepte	kőxa IInőxa • Igapisib/ Igawib • Harasib/ ≠hawab • !gamsib
Blocks (Objects) of • Wood • Iron • Plastic	Oshipambu sho- • Oshiti • Oshitenda • Oplastica	Otjindimbu • Tjorukune • Otjitenda • Tjoplastika	Blokke • Hout • Metaal • Plastiek	Blokdi • !naodi • Metal-i • Plastik-i

Source: Researcher

During observations, the harmonisation of the school/home environment was evident when in lesson 2, both Teacher X and Y explained the terms used in orthographic drawing such as **isometric views** (see Table 4.10). Three-dimensional objects in three dimensions were explained in Oshiwambo, *"Oombinga ndatu dhilipamwe"*, while orthographic views describe three-dimensional objects in two dimensions, *"Oombinga ndatu dhatopoka"*. In Afrikaans, Isometric views means, "*Isometries"*, while orthographic views mean, *"ortografies"*. In Khoekhoegowab, Isometric views means *"guiti kőxa Iguit"*, while orthographic views means, *"Igam kőxa Ikhãb"*. In Otjiherero Isometric views means, *"Ominda vitatu mbiatuuakumue"*, while orthographic views means, *"Ominda vitatu pekepeke"*. The learners' voices are also heard saying, "Someone *ndjipa wo o* 45 degree set square" (Someone give me a 45-set square), or "It's called *otjindimbu*" (It's called a block).

According to Baker (2008), borrowing indicates the loan of foreign phrases or words that are not part of the spoken language and have become an integral element of the recipient language. This is the inclusion of lexical items which are not a part of the ML (the dominant language in code-switching) but are included to convey a specific meaning. Lexical is a single word, a part of a word, or a chain of words that forms the basic elements of a language's vocabulary (https://en.wikipedia.org). Lexical items were noted as demonstrated and observed by Teacher X at School A and Teacher Y at school B during the second lesson when they explained the translated terms that are used in Technical Drawing to the learners (see Table 4.10). This is an indication that bilingualism and multilingualism are portrayed at both school and home environments. Baker (2008) states that without these borrowings, particular concepts cannot be conveyed. It is, therefore, a natural process for foreign words to be borrowed when teachers encounter a different language. The learners are enabled to grasp what they are learning through using their home language.

When a learner provided an incorrect answer, Teacher Y at school B disapproved by saying "*nee nee*" (no no) which is a disagreement word in Afrikaans (one of the dominant vernacular languages). Some learners could not even complete classroom activities that were assigned to them and Teacher X expressed his dissatisfaction by saying "*Here Jesus my Vader"* (Jesus Christ my Lord) (Category 5). This was an indication that EMI during the teaching and learning process did not help learners fully understand the subject content. This meant that there was an element of code-switching when teachers at both schools expressed their dissatisfaction, mostly in Afrikaans, when learners made mistakes. Both these above instances confirm the assertion by Rollnick and Rutherford (1996) who found code-switching occurring in classes when another response was required as the correct answer by the teacher.

In category 3, code-switching was used for building interpersonal relations in the classroom. As was observed, one teacher said: "Well done *ouens*, this is *goeie werk*" (Well done guys, this is great work). The learners' voices responded: "You are welcome *Meneer*" (You are welcome, Sir). According to Chayani and de Courcy (2016), translanguaging within the classrooms occurs when two languages are used in a coherent and integrated way to manage and enable the mental process of learning, either by teachers or learners.

These terminologies were translated into four home languages namely: Oshiwambo, Otjiherero, Khoekhoegowab and Afrikaans. Teacher X at School A was only conversant in Khoekhoegowab, Afrikaans and English (multilingual) while Teacher Y at school B was only conversant in Afrikaans and English (bilingual). However, with the help of fellow educators, I had to make sure that the meaning and pronunciation of terms in the other languages that the teachers were not unfamiliar with were handled before the lesson began. Baker (2012) states that translanguaging is strategic in that the teacher and learners can use two languages for both the inputs and outputs. Here, the emphasis of classroom translanguaging is more focused on function rather than the form of the language, and largely on the bilingual learning process rather than the outcomes or outputs (Lewis et al., 2012). The strategy of incorporating the translated terms and models into the vernaculars worked better. Hence, learners became more active during classroom interactions because they realised that their background experiences were linked to the classroom environment. The teaching and learning process is meaningful when teachers link new knowledge and skills to learners' culture and experiences.

Thus, real objects found within their home environments were not available in the classroom for them to see and touch to make a connection and have their background experiences harmonised at school. This phenomena of using code-switching to define drawing concepts in the L1 language is in line with the assertions by Ferguson (2003), who indicates that the first function of code-switching is for constructing and imparting knowledge. In the instance that a lesson is carried out in a language in which learners have limited proficiency, then there is great difficulty for learners in comprehending texts or what the teacher may say in the class (Ferguson, 2003). This includes explaining pivotal L2 technical terms and explaining the meaning of L2 textbooks. With this, code-switching is an essential means that teachers can use to explain written texts and the instructions in a language that learners are familiar with.

The greater interest shown by learners when objects were described in L1 confirms the assertion that code-switching does elicit learner participation. The identification of the cultural relevance of these objects that were described and the enthusiasm of learners is aligned to one of the functions of code-switching outlined by Canagarajah (1995) who states that code-switching is useful for clarifying cultural relevance.

Research has shown that a combination of home language with school language helps to encourage and elicit learner participation (Martin, 1999), thereby fostering a harmonised environment. Also, it is used to elicit the correct answers from the learners (Rollnick & Rutherford, 1996). Hamid (2016) implies that code-switching is intended to create humorous situations to reduce the learners' tension and unpleasant feelings. Concurringly and theoretically, Mouton (2007) postulates that the teacher uses home language to instil discipline because it makes the learner relaxed. On another note, Caranagajah (1995) asserts that there is an identification of cultural relevance of objects and clarity of the same by way of harmonising home and school environments. To illuminate, Cahyami (2016) purports that code-switching used for interpersonal relations humanises the classroom. Similarly, it humanises the aspects of accepting cultural relevance, expressions of dissatisfaction and instilling of discipline.

While the Namibian Education Policy upholds the significance of culture, discipline and interpersonal relations in a learning environment, it neglects the inclusion of code-switching, which is an excellent aid to smoothen the harmonisation of home and school environments. The languages used in the harmonisation are mostly home languages such as Otjiherero, Oshiwambo, Afrikaans and Khoekhoegowab.

The third and final lesson was planned using various teaching aids (real objects) such as lunch boxes, shoe boxes, wooden and plastic chopping blocks and match boxes that learners were asked to bring to class. A recap on the previous lessons was done, where teachers again explained the key terminologies used in the language of teaching and learning Technical Drawing. Both teachers then took the lead as facilitators by placing the learners into smaller groups where they had to identify and explain the key terminologies to their peers in the dominant language which was Afrikaans (Afrikaans is the most spoken language in and around Windhoek by most of the inhabitants especially children irrespective of their different language backgrounds which makes them bilingual or multilingual). Bilingualism is the phenomenon of speaking and understanding two languages. Meanwhile, multilingualism is the use of more than two languages either by an individual speaker or a community of speakers (Jayanath, 2021). The moment learners were in groups they automatically switched to Afrikaans irrespective of their diverse home languages – this promoted bilingualism in those who could only speak English and Afrikaans

and multilingualism in those who could speak English, Afrikaans and either Otjiherero, Oshiwambo or Khoekhoegowab.

Furthermore, both drawing teachers demonstrated to the learners how the objects identified should be drawn in the orthographic view. At both schools for class activities, learners were provided with all the drawing equipment and various objects that they brought to class earlier. They were then instructed to decide freely which object and drawing equipment were necessary to complete a given drawing activity which required them to draw an object in the orthographic views. Learners were observed as they were debating among themselves and motivating why certain equipment was suitable to draw which object. Both teachers encouraged learners to code-switch in their home languages if they needed more clarity for better understanding. Hence, I observed the following benefits of code-switching during lesson observations:

- Most learners, if not all, had an opportunity to take part in tasks and activities in the class with confidence.
- Code-switching allowed learners to be active members during lesson presentations.
- Learners were able to explain their schoolwork to parents without fear and foster trust.
- Code-switching led to learners' better understanding and improved their performance.

In addition to the above-mentioned benefits of code-switching, I also observed that teachers' code-switching helped learners to understand the difficult terminologies that most learners were struggling to comprehend and find meaning. Moreover, teachers were observed code-switching to contextualise their teaching and make it clear to the learners. Similarly, learners were also seen and heard communicating with each other in their home languages and teachers had to pause to find out what learners were busy talking about. In most cases, learners were found asking each other questions for example: "*Wat se die Meneer?"* (What is the teacher saying?). This was an indication that learners did not understand and the teachers had to revert and translate whatever hindered learners' comprehension.

After the lesson presentations and observations, I evaluated the lessons and the results are presented and discussed in the next section. The context of the students' code-switching amongst themselves served two functions as per Canagarajah (1995) – both functions involved content transmission and the function of seeking clarification and unofficial student collaboration. Given the complexity of orthographic drawing and its terms, it was difficult for learners to easily grasp the tools and shapes being taught as these are largely specific to the subject alone. In this case, it was seen that code-switching among students was frequent as they tried to make sense of some of these terms and tools in class. It was observed that students managed to understand further as they communicated with each other as they code-switched. This confirms multiple studies that support code-switching, especially in extremely technical subjects such as orthographic drawing. Macaro (1997) initially indicates that discouraging L1 use in classrooms is impractical and further deprives pupils of an essential tool for learning language. The assertion by Macaro (1997) is quite apparent in this context – if code-switching was outrightly prohibited in these classes, then learners would not have been able to sufficiently translate for each other what the teacher was conveying.

Speaking about technical subjects such as orthographic drawing, Rollnick and Rutherford (1996) propose that the use of code-switching in technical classes communication provides crucial functions, such as clarifying concepts, presenting alternative conceptions, formulating ideas and eliminating misconceptions. Considering the complexity of conveying concepts such as isometric projection, dimetric projection and trimetric projection, which are terms in orthographic drawing, some students may fail to entirely grasp them in the English language. Some studies have suggested that Namibian learners prefer to learn in L1.

Harris (2011) found that learners' attitudes towards English as the medium of instruction are not positive. The study by Harris (2011) on "Languages in schools in Namibia", showed that 83% of learners preferred to learn in their home language and 87% responded that they wanted to speak to their teachers in their native language. Learners in this study made it quite clear that they did not entirely comprehend their teachers or the subject matter whenever they are taught in English (Harris, 2011). Lastly, in the same study, it was seen that 61% of Namibian learners struggled with English as the LOLT.

The inclusion of the study by Harris (2011) provides the context of why it is likely that learners were seen to be code-switching among themselves and why code-switching is essential in orthographic drawing. This was observed in the classroom of Teacher Y, lesson 1, when a learner asked another learner: "*Kuume o front view oyini mpano?*" *(My friend which one is a front view here?).* In addition, towards the end of the first lesson, Teacher Y asked the class: *''Wie sal die klas pata''?* (Who will lock the class?) "*Pata"* is an Oshiwambo word which means (*lock)*. At that moment, another learner was observed asking his classmates: "*Wat se die Meneer?"* (What is the teacher saying?). The Namibian language policy should embrace the aspect of code-switching which will see teachers being trained to effectively implement code-switching as a tool for teaching and learning.

4.6 Lesson Evaluation Results

Seemingly, the final lesson worked well as I observed an improvement as far as learners' understanding of key models and terminologies were concerned. There was an improvement in learners' class work as learners had spent less time on drawing activities compared to previous lessons. For example, during the first lesson at school A. only four learners out of 20 finished their drawing activities within the time allocation compared to the third lesson, where 17 learners out of 20 completed their drawing activities successfully on time. However, Teacher X could not give feedback since he spent more time supporting the rest of the class that was struggling to comprehend what he was explaining. Even though Teacher Y at school B spent more time giving feedback to individual learners, he was pleased that 85% of learners completed classroom activities on time but kept on urging learners to ask questions where they did not understand in a language they were comfortable with.

Given that considerable progress was made by most students and the teachers were openly recommending code-switching to classes, indicates that it was seen as an effective pedagogical tool by the teachers. This phenomenon was outlined by Canagarajah (1995), who saw code-switching as a means of teacher encouragement, explanations, directing the class and providing clarity. The general trend towards broader understanding by learners is in line with the study by Harris (2011), where Namibian high school learners actually preferred to be taught in L1 rather than English as the medium of instruction – of course the complexity here would mean it was likely

that in some languages, there are no equivalents for some concepts and terms that are present in orthographic drawing, and this naturally makes it more difficult for those students with L1s that have no equivalents.

Therefore, when both drawing teachers introduced code-switching in their teaching, the classrooms' interaction improved and learners could relate new knowledge to their background experiences (Promnath, 2016). The literature indicates that code-switching in classroom environments is a worthwhile teaching and learning tool. As observed during lesson 3, Teacher X asked the learners: "Guys can you draw the boonste *aansig* of this block?" (Can you draw the top side of this block?), whereby learners replied enthusiastically: "Yes Meneer *ons kan"* (Yes Sir we can). Domalewska (2015) and Promnath (2016) maintain that code-switching has a positive effect as it enhances learners' understanding, clears up teachers' explanations and makes the classroom environment more effective and manageable. According to Cahyani et al. (2016), teachers typically switch from English to home languages to ensure that learners can understand their explanations more easily, bridging the knowledge gap as effectively and efficiently as they can. Furthermore, in prompting teachers' reflections on their classroom experiences, Probyn (2010) noticed that the most remarkable approach that teachers used was code-switching to achieve several communicative conclusions. This lesson worked to a great extent since learners could recall the terms and objects (that they drew) in their home languages which led to better understanding.

During the last activity where learners had to use their own judgement to choose which drawing equipment was suitable to draw their chosen object(s), the learners were activity motivated to take learning into their own hands where they crafted their own understanding. Setati et al. (2002) attests that education in science classrooms found the use of learners' home languages to be a teachers' prevailing resource that assists learners to explore their ideas. It has been maintained that in the absence of code-switching, some learners alternate ideas would remain unexposed (Mitch, 2016). This highlights that the classroom environment should be a space where teaching tools that are familiar to the learners are made accessible. It is through this accessibility that learners are inspired to construct their own understanding of what they have observed and interacted with (Setati et al., 2002).

During classroom interactions, I observed that code-switching saved time and learners felt more self-assured and contented. Their self-assurance and contentment must have emanated from their greater confidence in the L1; this also probably indicated a greater clarity of the information being received or it was through the practise of code-switching that learners with lesser performance were able to keep up with the flow of the lessons way better than when English was the only spoken language in the classroom. It was further observed that code-switching reduced learners' stress as they did not have to worry about what to say because they could switch to their vernacular languages when they did not understand the concepts in English. According to Domalewska (2015):

> When code-switching is used, it is based on the processes of assimilation, accommodation, developing meaningful cognitive arrangements (i.e., forming logical connection and organisation in the material), and using advanced organisers (i.e., general concepts that help the learner to organise and comprehend new material). Meaningful learning allows the information to be retained for a longer period; the information may be retrieved faster; furthermore, the student's cognitive structure is developed. (p. 7)

Cahyani et al. (2016) highlights that teachers do not only use code-switching for comprehension purposes but also for interpersonal relations to improve the classroom atmosphere, such as using humour, lightening the mood to reduce learners' nervousness and giving compliments. These all demonstrate a connection between teachers and learners to build a supportive classroom atmosphere and to show appreciation for learners as individuals.

4.7 Interview schedule and interviews

Below is a detailed table of the questions derived from the interview schedule. In brief, the supporting quotes based on the responses from the participant interviewees have been provided. The discussion illustrates what it disclosed about the participant interviewees regarding code-switching.

Table 4.10: Interview reponses

Theme	Interview questions	Supporting quotes
1. Code-switching a teaching and learning enhancer	7. What is your general view on the issue of using mother tongue or any language other than English in the Technical Drawing lessons?	1. 'Absolutely important'; 'It is obvious'. 2. (App. A 7.1) 3. (1.1, l 4)
	8. In your view, should code-switching be allowed to be exercised in Technical Drawing classroom? Explain why.	4 . Yes (all) 5. (App. A 8.1)
	9. What would you say are the advantages of code-switching in Technical Drawing lessons?	6. (App. A 14.1)
	10. What would you say are the disadvantages of code-switching in Technical Drawing lessons?	7. 'Discouraging', 'not conversant in all home languages 8. (App. A 10.1)
	11. Percentage wise, to what an extent do you rate code-switching usage in your Technical Drawing classrooms?	9. '50/50', '20% using Afrikaans if there are learners who do not understand.
	12. What do you think are the reasons for the occurrence of code-switching in your Technical Drawing lessons? Explain why.	11. 'Linking learning to background experiences', 'take charge of their own learning', 'when you
	13. What do you think as the main causes for the learners to use mother tongue in Technical Drawing lessons?	13. 'Limited ability to express in English', 'Not all parents communicate in English'
	14. Do you think that code-switching should be used every day during teaching and learning process? Yes / No and motivate your answer.	15. Yes (all) 16. (App. A 14.1)
	15. In your opinion, do you agree that teachers use code-switching when they wish to praise or tell learners off? Elaborate your answer.	17. Yes (all) 18. (App. A 15.1)
	16. Does code-switching occurs frequently amongst teachers who share the same mother tongue as the learners in the classroom? Yes/ No and support your answer.	19. Yes (all) 20. (App. A 16.1)

	17.	21.
	18. Do you think that a teacher may switch from one language to another if he/she wishes to exclude other learners from the conversation. Yes/ No and substantiate your answer.	22. No (all) 23. (App. A 17.1)

4.7.1 Theme four: Code-switching – a teaching and learning enhancer

In tackling questions 7 to 9, all participants revealed the importance of code-switching in teaching Technical Drawing since it helps learners to get a clear understanding of terminologies used and it is obvious any learner would understand when taught in their mother tongue (App. A 7.1). This is due to the fact that many learners are not fluent in English and most of them come from Windhoek primary schools where home languages such as Afrikaans, Otjiherero, Khoekhoegowab and Oshiwambo are used as the medium of instruction (App. A 8.1). This was asserted by Mouton (2007), that a "lack of understanding by learners in the classroom required the teachers to code-switch from English to other home language(s), to improve comprehension" (p. 42). It makes it much easier for children to learn and saves time as it does not take as long to explain terms, it encourages active participation in the classroom and encourages parents to get involved in their children's schoolwork, hence, this leads to better academic performance.

Question 10 associated with disadvantages of code-switching in Technical Drawing lessons. The interviewees highlighted that when learners get used to the teacher's code-switching, it discourages them to enrich their English vocabularies and they will not develop a culture of reading (App. A 10.1). Furthermore, they noted that assessments are set in English so if there is too much code-switching, learners might expect the same approach during assessments which may affect their performance. In addition, they confirmed that not all teachers are conversant in all home languages that the learners speak and some can only speak Afrikaans and English. This means that learners who speak home languages such as Oshiwambo, Khoekhoegowab and Otjiherero are disadvantaged. These responses by teachers confirmed the assertion

by Setati et al. (2002) who states that in as much as teachers may be permitted to explain the concept in learners' mother tongue, learners are still expected to present the content in English during formal examinations. In light of this, the practice of code-switching may affect learners' ability to answer questions and respond in English.

However, if the language policy is reviewed and becomes responsive to teaching and learning interventions such as code-switching and translanguaging in their bilingual or multilingual environments, teachers will be trained on how to use code-switching effectively in their classrooms. Learners' morale and interest will be lifted and aroused since they will understand the benefits of home language towards academic performance. According to Jayanath (2021), being bilingual or multilingual not only makes it easier to communicate with people who are not from one's background or gain access to the competitive global village but also improves the brain with a vast amount of psycholinguistic and intellectual benefits for learners. It has been found that a bilingual speaker's two languages are activated during language use, both semantically and phonologically. Jayanath (2021) went on to assert that even when the speaker is speaking using their dominant language (L1), the less dominant language (L2) is activated.

Regarding question 11 relating to the degree (% wise) that teachers rate code-switching, one participant indicated that he spoke more in English, however, after being introduced to code-switching, from now on, he would code-switch 50/50 between English and home language(s), while the other teacher preferred to code-switch 20% in Afrikaans and the rest in English (App. A 11.1).

Questions 12 and 13 were associated with the reasons of occurrence of code-switching and main causes for the learners to use their mother tongues in Technical Drawing lessons. The interviewees stated that when they code-switch, it helps learners link the drawing skills and terminologies to their everyday activities. "Code-Switching is viewed as a bilingual/multilingual practice that is used not only as a conversational tool, but also as a way to establish, maintain and delineate ethnic boundaries and identities" (Jayanath, 2021, p. 61). One participant noted: *''Most of the times when you know something in your home language it is easy to translate it into another language which ensures understanding''* (App. A 12.1). It has been stressed that "there has been a

general conviction that one only learns within the familiar habits of thought, experience and expression suggested by one's traditional culture" (Kadeghe, 2003 cited in Mgqwashu, 2006, p. 305). It can be argued that when learners' traditions and norms are valued through their home languages within the classroom, learners will find meaning in the activities planned for them, hence, learning with understanding will be guaranteed.

One teacher stated that a learner's limited ability to express themselves in English could be the cause of them wanting to code-switch. The other participant highlighted that not all parents communicate in English when assisting their children with homework, therefore learners may code-switch in class because of their home environment (App. A 13.1). Effective teaching and learning with understanding takes place when background experiences that learners bring to the classrooms are valued. They should not only be valued but also used as building blocks to new knowledge and code-switching could be the catalyst to harmonise home practices with the school environment (Simasiku, 2014).

Question 14 intended to find out whether code-switching should be an everyday practice during teaching. Participants felt that in content subject lessons code-switching should be used. One participant noted: *"Since learners are doing Technical Drawing for the first time, these learners are not familiar with the terminologies used in drawing so switching into home languages can improve comprehension"* (App. A 14.1). Another participant agreed and stated that "*code-switching is happening almost at every school why can't it be used formalised? It influences the teaching process of Technical Drawing in a positive way"* (App. A 14.1). According to Rovira (2008) "educational programs that build on learner's strengths, especially the language in which they communicate best, benefit all students" (p. 73). Academic progression can be achieved to a great extent when children are instructed through the language of their ancestors. Tötemeyer points out that "formal teaching in the schools should harmonise culture with socialisation in the home and neighbourhood" (2010, p. 72). The teaching and learning process takes place successfully in an environment that enables learners to gain an understanding of themselves, fellow learners and the environment they live in.

In question 15, participants revealed that they praised learners which they do as a token of motivation for them to do better. *''Yes, it has been happening already for example in my class when I am praising learners for good deeds or highlighting an important point I usually do it in Afrikaans as a motivating strategy for the learners''* (App. A 15.1).

In addressing research questions 16 and 17, both participants revealed that they code-switch to ensure learners' understanding of what is taught, to make learners feel at ease and to make them (the teachers) more approachable (App. A 16.1). Participants went on to say that code-switching is done for the benefit of all learners regardless of their home languages and that they always approach colleagues that are not from the same home languages for translations. *"I usually ask my colleagues to translate common terminologies for example, in Oshiwambo or Otjiherero in order to enhance the understanding and accommodate those learners from such languages background"* (App. A 17.1). Guaranteeing the learners' better comprehension was substantiated as the fundamental rationale given by the Technical Drawing teachers as to why they used code-switching (Cahyani et al., 2016).

4.8 The Main Findings from Observations and Semi-structured Interviews

The main findings of this study were twofold: first, the role that code-switching plays when teaching orthographic drawing, and teachers' perceptions regarding code-switching when teaching orthographic drawing in Grade 8 Technical Drawing classrooms.

4.8.1 The role that code-switching plays when teaching orthographic drawing

(i) To enhance learners' understanding

Guaranteeing learners' better comprehension was substantiated as the fundamental rationale given by the Technical Drawing teachers as to why they were using code-switching (Cahyani et al., 2016). Participants specified in the interview that there are times when there were little or no other alternatives at hand and they had to switch to the dominant language or mother tongue in order to give clarifications that would be

comprehended by the learners. The Technical Drawing teachers agreed that they used code-switching (interviews).

Afrikaans is the dominant language in most towns in Namibia including Windhoek. However, Teacher X does not speak fluent Oshiwambo or Otjiherero, but he understood and can say few words in these languages. Teacher Y, whose home language background is Afrikaans, was of the opinion that switching to a dominant language, in this case Afrikaans, improves comprehension of the subject content which eventually improves academic performance. This was asserted by Mouton (2007), that "lack of understanding by learners in the classroom required the teachers to code-switch from English to other home language(s), to improve comprehension" (p. 42). This means that for a teacher to convey the message effectively to the learners, they need to switch languages to facilitate learners' understanding of the lesson.

(ii) To explain models and terminologies

Both teachers indicated during the interviews that code-switching aided them to simplify and explain terminologies used in the language of teaching for Technical Drawing and made it easier for parents to help their children with homework afterwards. The teachers' interpretation indicated that the fact that learners are exposed to such technical terminologies for the first time in Grade 8 Technical Drawing classrooms, might be the reason why teachers mix English with various home languages. Both teachers said that learners found it difficult to understand and make meaning of the terminologies in English. Hence, teachers used code-switching for the learners to understand and get the meaning of what they were taught in the drawing classes. Mouton (2007) affirms that the "background of the learners also plays a big role in the use of mother tongue when explaining concepts and making instructions that are understood by the learners" (p. 42).

There is a clear indication that for a teacher to convey a communication effectively to the learners code-switching languages was needed to enhance learners' understanding of the lesson. However, the home language clarification should be consolidated by an explanation in English (Mouton, 2007). In this way, learners will not value one language over the other.

(iii) To link teaching and learning to home experiences

When teachers were asked what caused learners to use their home language during Technical Drawing lessons, they revealed during the interviews that most of the objects to be sketched or drawn could be linked to those objects found in the learners' environment. However, these objects had never been brought to class before so that learners could relate to them the way they did in a previous lesson. Therefore, the introduction of using objects that were familiar to the learners could be one of the reasons why learners were code-switching in the drawing classes. The key terminologies that were translated into various home languages connected the classroom and home experiences. Teachers specified that they had realised that learners did not understand the lesson until the models and terminologies were explained in a dominant or mother tongue. Both teachers appeared to like the idea of code-switching in their drawing classrooms which harmonised learners' cultural backgrounds with classroom experiences (interviews and observations).

During the interviews, the drawing teachers pointed out that learners came from a community were English was not spoken and this had a large influence on learners' learning. They communicated in their mother tongue at home and the moment they were in class everything was in English, which compromised learning with understanding. Learners' backgrounds play an important role in so far as learning with understanding is concerned. It has been stressed that "there has been a general conviction that one only learns within the familiar habits of thought, experience and expression suggested by one's traditional culture" (Kadeghe, 2003 cited in Mgqwashu, 2006, p. 305). It can be argued that when learners' traditions and norms are valued through their home languages within the classroom, learners will find meaning in the activities planned for them, hence, learning with understanding will be guaranteed.

Code-switching can be an implement/tool to build a bridge from what is known in the mother tongue to what is unknown in an alien language (in this case, the English language) (Sert, 2005). The above statement is in line with Brown (2017), when he stated that "learners construct knowledge through their experience in the world, where they act on objects" (p. 52). For example, learners interact with (known) objects on a

daily basis, such as cutting wooden or metal objects with a saw at school to make projects or they could be asked by parents at home to slice a loaf of bread or vegetables in half using a knife. These are all experiences that learners go through which they bring to the drawing class when they are introduced to (unknown experience) Isometric and Orthographic drawings.

The above given example is in line with the assertion by Simasiku (2014) when he highlighted that:

> It is not possible to assimilate new knowledge without having some structure developed from previous knowledge to build on. The more we know, the more we can learn. Therefore, any effort to teach should be connected to the learner's previous knowledge to provide a path into the new knowledge. (p. 16)

Effective teaching and learning with understanding takes place when background experiences that learners bring to the classrooms are valued. They are not only valued but also used as building blocks for new knowledge and code-switching could be a catalyst to harmonise home practices with the school environment (Simasiku, 2014).

(iv) The advantages of code-switching

During interviews, a set of questions regarding the advantages of code-switching were arranged which helped in collecting the necessary data. The participants mentioned the following advantages of code-switching:

- It contributes to better understanding
- It enhances cooperation amongst learners
- It promotes unity in the classroom
- It arouses learners' interest in Technical Drawing
- It encourages parents to get involved in their children's schoolwork
- It leads to better academic performance
- It encourages active participation in the classroom
- It improves classroom activities; and
- It makes learning drawing fun.

In addition, both participants went on to say that code-switching was constructive, and it helped learners to understand Technical Drawing better because models and terminologies were clarified and simplified. These findings are also supported by Mouton (2007) who points out that “code-switching in the classroom had useful teaching functions such as transmitting of knowledge, clarifying concepts or meaning, and assisting learners who have a deficiency in the competence of the English language” (p. 42). This is a clear indication that once learners learn the meaning of the main concepts and terminologies in their mother tongues or in the dominant language it does not only stimulate interest in learning but also maximises their ability to acquire knowledge with understanding. The teaching and learning process is meaningful when teachers link new knowledge and skills to learners’ culture and experiences (interviews).

(v) The disadvantages of code-switching

Participants were also asked to mention the disadvantages of code-switching whereby they narrated that they were not conversant in all home languages learners spoke and that when learners got used to the teacher’s code-switching, it discouraged them to enrich their English vocabularies especially by reading. One teacher felt that examinations are set in English, meaning the questions would be asked in English, so if they code-switch too much in the class then learners might expect the same approach during exams which may affect their performance (interviews).

However, if the language policy is reviewed to accommodate code-switching during the teaching and learning process, this might not be the case since the policy will make provision for teachers to be trained on how to use code-switching effectively in their classrooms. Learners’ morale and interest will be lifted and aroused since they will understand the benefit of home languages for academic performance. According to Jayanath (2021), being bilingual or multilingual not only makes it easier to communicate with the people that are not from one’s background or for access into the competitive global village but it also improves the brain with a vast amount of psycholinguistic and intellectual benefits for learners.

I also observed that at some points, teachers were avoiding some learners who continuously spoke in their vernaculars in class. This appeared to be a deliberate move by those learners to encourage the use of home languages frequently in class. However, teachers were avoiding such a practice because they did not want learners to use their home languages frequently in class as this could lead to laziness (interviews).

4.8.2 Teachers' perceptions regarding code-switching in teaching orthographic drawing

I wanted to establish how the Technical Drawing teachers viewed the phenomenon of code-switching in their classes. The aim was to solicit the teachers' views on whether code-switching should be allowed and/or exercised in the drawing classes or not. Participants were also allowed to give a general overview on the issue of using code-switching in the drawing classes.

Both participants agreed that code-switching should be allowed in Technical Drawing classrooms to guarantee learners' comprehension of knowledge and skills that teachers impart to them. In fact, teachers stressed that using learners' home languages during lesson presentations was such a beneficial tool to the learners as it helped them to understand and find meaning in the subject content that they were learning. In both the interviews, it was stressed that learners' understanding is constructed by learners themselves and from what is logical to them and that learners should not just get knowledge from foreign sources (Schunk, 2000). Languages play a vital role in learning and it is through languages that people think and make sense out of what happens around them.

According to Rovira (2008), "educational programs that build on learner's strengths, especially the language in which they communicate best, benefit all learners" (p. 73). A home language is the vernacular language in which an individual thinks, reflects, lives, eats and dreams – any flaw in that area would have a negative influence on learning with understand. Therefore, to improve cognitive development in our learners, the teaching and learning process needs to be relevant and recognise the learners' background knowledge and home language (Rovira, 2008). Similarly, both teachers stressed that even though it was very important to teach Technical Drawing in EMI, it

was always necessary to code-switch to simplify the subject content. In addition, these teachers perceived code-switching to be a contributory factor in simplifying models and terminologies for the learners during Technical Drawing lessons (interviews and observations).

Furthermore, code-switching was viewed by both participants during interviews as a strategy to improve the understanding of key terminologies and models amongst learners. Both participants stressed that code-switching should be allowed in teaching content subjects such as Technical Drawing. However, they cautioned that it should only be practised to the extent that it helped learners to understand the content better. It should be noted that code-switching should only be exercised if there are certain concepts that are difficult to explain or when there is a misunderstanding amongst learners. The prime insights that emerged from participants' interviews and classroom observations are presented and discussed below.

4.8.2.1 Insight one: Awareness about the use of code-switching in the classes

During the teachers' interviews, I inquired into whether teachers and learners were aware that they were code-switching during teaching and learning of orthographic drawing in Grade 8 Technical Drawing classes. This was done by inquiring into different situations that might have demanded the Technical Drawing teachers to code-switch and eventually detect the reasons that prompted teachers to practice code-switching. The participants showed they were aware of the following reasons of why they were code-switching:

1. To grab the learners' attention during the drawing lessons
2. To clarify key drawing models and terms
3. To encourage dialogue and active participation between learners in class
4. To highlight key points in drawing
5. For general communiqué
6. To express the way the teacher feels when it comes to various activities taking place in class
7. To discipline learners in class

Apart from the above-mentioned reasons of why teachers were code-switching, teachers were also aware that code-switching kept learners attentive and focused. Furthermore, both participants were aware that for some learners, code-switching was perceived as a way of mocking, teasing and making jokes with the learners. For instance, when Teacher Y shouted to the learners: *"Wie is klaar''? ''Bring jou papier vorentoe''* (Who is done? Bring your paper to the front) (Lesson 2), this captured learners' attention and concentration in the class and the teacher seemed to be amused as he was in control of the class. Teacher X also code-switched when he commended the learners. For instance, when one learner who was sitting far at the back decided to answer after a long silence, the teacher then responded: *"Baie dankie ndangi tjinene* (Thank you very much, for coming to our rescue). From the two examples given, teachers were aware of when and where to use code-switching in their classes. There is an old proverb that says that the true meaning of expressing sounds better when it is done in the indigenous languages. This certainly seemed to be the motive behind Teacher X switching from English to Afrikaans and Otjiherero.

Both drawing teachers were observed code-switching purposefully as a way of communicating their sentiments and reactions to the learners during classroom activities. Different words, other than in English, were expressed to indicate that teachers were amused, taken by surprise or dissatisfied with the learners' verbal responses or working drawings. During lesson observations, some expressions were heard in Afrikaans when Teacher Y said: *"My God, nee"* (My God, no) (Lesson 2). This expression is normally used to express surprise, shock and/or dissatisfaction. It has been pointed out that a speaker may not be able to express their feelings in one language and have to switch to the other languages to compensate for the deficiency (Crystal, 1987 cited in Skiba, 1997, para. 3). Furthermore, Skiba (1997) emphasises that this type of code-switching tends to occur when the speaker is shocked, upset, tired or distracted in some way. In many cases, the speaker is aware of when to code-switch into other languages even it is not often and only for a while. If the teacher is aware, they would also know what and what not to say in the learners' mother tongues.

4.8.2.2 Insight two: Understanding of the context of code-switching in bilingual and multilingual environments

One of the main reasons why drawing teachers were code-switching was that they wanted to clarify drawing models and terminologies to make the drawings understandable to the learners. Since both drawing teachers found themselves teaching in a bilingual and multilingual environment, they both started to teach some Technical Drawing terminologies in Khoekhoegowab and Afrikaans then proceeded to explain the same terminologies in English. Code-switching is viewed as a bilingual/multilingual practice that is used as a dialogue tool between people from different home languages. Jayanath (2021) explains bilingualism as the phenomenon of speaking and understanding two languages and multilingualism as the use of more than two languages either by an individual speaker or a group of speakers. When learners were placed in groups they switched to Afrikaans irrespective of their diverse home languages which helped promotes bilingualism in those who could only speak English and Afrikaans and multilingualism in those who could speak English, Afrikaans and either Otjiherero, Oshiwambo or Khoekhoegowab.

When it came to the objects that can be drawn in the orthographic view, teachers gave an example of how the block of wood could be projected from isometric view into the orthographic view. At school B, there was a certain learner in Teacher X's class who did not know the difference between isometric and orthographic views, and he asked a fellow learner in Oshiwambo: "*Eeyooloko olili peni*"? then he asked in a dominant vernacular, which is Afrikaans "*What is die verskil'"*? (What is the difference?) (Lesson 2). Then, the fellow learner shook his head in confirmation that he did not know either. The teacher responded by translating it into Afrikaans: "*Isometries*" (Isometric), "*ortografies*" (orthographic). Some learners yelled: "*Ohoo*!" (Yes, Aha!). This was an indication that many learners did not understand until the teacher code-switched into the dominant language.

The researcher also observed that after Teacher X explained in English, he then asked the learners who had some knowledge of the models and terminologies to explain to a fellow learner in their mother tongue or dominant language such as Afrikaans (see Table 4.9). This concurs with Mgqwashu's (2006) observation that "quite often the

teacher would switch to Afrikaans in order to clarify some concepts, with learners doing the same thing" (p. 316). The code-switching practices by teachers or learners is purely meant for the learners to get a deeper understanding of concepts taught because the schools are in a bilingual environment. In other words, this practice of code-switching into home languages arouses and enhances creativity and understanding in learners and makes it possible for them to finish their practical activities within the allocated time.

4.8.2.3 Insight three: Implementing code-switching in the multilingual classrooms

During the second lesson observation, both teachers were code-switching and learners were actively participating far more than in the first lesson in which the teachers also code-switched. It seemed that the drawing teachers took notice of this practice (code-switching) because when the class became silent, they would immediately code-switch to ignite active classroom interaction. In other words, implementing code-switching in multilingual classrooms is not a matter of concern but a practice to enhance learners' participation. Harris (2011) highlights that English is a second language to most Namibians and teachers and learners in Namibian schools are no exception as their home languages are also not English. In Namibia for instance, one may have noticed on the streets that people usually talk with each other in their mother tongues or dominant languages and only communicate in English with people who do not share the same home language. Hence, both teachers suggested that schools should be allowed to code-switch but only to a certain degree. The reason being is that when code-switching is used without limits it might affect the teaching and learning process where both teachers and learners would want to teach and speak more in their home languages even where the models and terms are self-explanatory.

4.8.2.4 Insight four: Effects of code-switching on learners' participation

The researcher observed that the drawing teachers were code-switching when they were explaining the key concepts and terminologies or when they wanted to get learners' attention. Both teachers code-switched to emphasise certain facts about isometric and orthographic views and to warn learners against misinterpretations. By doing so, it had a positive effect on the learners' participation. For instance, Teacher

X was highlighting the fact that isometric views describe three-dimensional objects in three dimensions, while orthographic views describe three-dimensional objects in two dimensions and used Khoekhoegowab *“guiti kőxa Iguiti” (*Isometric view) and *“Igam kőxa Ikhãb”* (orthographic view). In response, most of the learners yelled: *“Yes!”* which denotes that learners indeed understood the terminologies being taught. During the participants’ interviews, teachers stated that they recognised code-switching as an effective practice in simplifying models and terminologies for the learners.

4.8.2.5 Insight five: Code-switching is not a barrier to learning

Teacher Y was observed code-switching occasionally from English to Afrikaans during general communication. He used a dominant language to communicate things that were directly or not directly part of the drawing content. For instance, towards the end of the last period Teacher Y code-switched to Afrikaans to ask the learners whose turn it was to close the windows and lock the classroom: *“Wie se beurt is dit om die vensters toe te maak en die klas te sluit?”* (Whose turn is it to close the windows and lock the classroom). Although the teacher was not fluent in Oshiwambo, he further asked: “*Wie sal die klas pata’’? ‘’Pata’’* is an Oshiwambo word which means to clock. In another occurrence when a learner handed his drawing task to Teacher X for feedback, upon receiving it, Teacher X got annoyed by the work that the learner produced. He asked the learner: “*Oh, hoe het jy geteken*?” (Oh, how did you draw?). The drawing teacher expressed his discontent with the poor quality of the drawing that the learner had produced.

The researcher had also observed that sometimes, drawing teachers only used code-switching to enforce and maintain discipline in the classroom and not to overcome learning barriers. For instance, when learners were busy getting themselves into groups according to their respective home languages to do class activities, learners started to behave in a disorderly and unruly manner. Teacher Y told learners in one group to organise themselves quietly in Afrikaans: *“Bly stil asseblief”* (Keep quiet please). This concurs with Mouton (2007), who indicates that to discipline a learner, a teacher should speak in the learner’s home language as it makes them quiet and relaxed. In addition, towards the end of the lesson, one of the gifted learners finished his work far before the end of the period and started disturbing the others. Teacher X

shouted loudly at him in Afrikaans *“Hey jy manetjie hou op!”* (Hey you small boy stop it!) to call him to order.

The drawing teachers discovered that code-switching as a tool enhanced the teaching and learning process and was not a barrier to learning. Code-switching encouraged classroom interactions. Therefore, learners’ concentration levels improved as they understood better when code-switching was employed. In addition, teachers stressed that code-switching is a process meant for imparting learners with drawing skills of the Technical Drawing subject and is viewed as fruitful. This is supported by the assertion that, “Africans learn best in their own languages, the languages they know from their parents - from home. It is in those languages that Africans became the best creative and innovative” (Mgqwashu, 2006, p. 305).

The results from interviews and observations indicated that code-switching should be used in the Technical Drawing classrooms as it enhances the teaching and learning process and should not to be perceived as a barrier to learning. Teachers and learners’ attitudes during classroom interactions showed that when a teacher code-switched the teaching and learning process became interesting and learners’ participation improved. This practice assisted teachers to better clarify difficult models and terminologies during the drawing lessons. This meant that learners showed a positive outlook regarding code-switching and code-switching simplified learning.

Overall, the results of the study proved that most teachers and learners who took part in the study developed a positive outlook when it came to code-switching. This is in line with Abad (2010), who emphasises that the use of code-switching in classes is a good strategy as it assists teachers to better explain unfamiliar models and terminologies.

4.9 Summary of Chapter

This chapter presented and discussed the findings of the study as it explored Grade 8 teachers’ code-switching when teaching orthographic drawing in the Khomas educational region. The study revealed that the use of code-switching as a strategy by the Technical Drawing teachers during drawing lessons was an effective approach as it helped learners to better understand what was taught. The role of code-switching during the Technical Drawing teaching and learning was to simplify technical models

and terminologies to ensure that learners comprehended the drawing skills and knowledge. Code-switching also linked technical models and terms to learners' background experiences and traditions and it encouraged active classroom participation and interaction. The overall findings from the primary data are aligned to the literature that was reviewed earlier, the explicit assertions by literature that are confirmed by the primary data include the following:

1. Namibian learners prefer code-switching and find it extremely useful.
2. Namibian learners find certain concepts in English difficult.
3. Code-switching is an effective tool to manage the classroom.
4. Code-switching is an effective tool in conveying knowledge.
5. Code-switching can be used to make learners more comfortable.

Frydman (2011) points out that, given a multilingual nation like Namibia, there is a clear indication that a monolingual policy is not suitable for the Namibian context. It is against this background that language policy planners should take cognisance of the indigenous languages spoken in Namibia and promote a bilingual approach to the language policy. This approach will benefit children academically, for example, parents' involvement in their childrens' schoolwork is maximised since homework is in the language that is widely understood and spoken at home, school and within the community at large. The classroom environment will harmonise cultural values and practices since the learning materials will be in the inherent language which is familiar and communicated in the most by learners.

Therefore, the Namibian language policy should be reviewed to accommodate code-switching as an enabling tool in the teaching and learning process. The policy will advocate teachers to be trained on how to effectively implement code-switching in their classrooms. Learners' morale and interest in learning will be impacted in a positive way which will lead to better academic performance.

The next chapter presents the conclusion and recommendations that emanated from the findings of the study.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

In the previous chapter, the findings were presented and discussed. In this chapter, the summary of findings and some limitations are provided. The conclusion and recommendations that emerged from the study are also presented.

5.2 Synthesis of the Study

Chapter One introduced the study topic, the study's background and the statement of the problem. The theoretical framework that underpinned this study was presented and discussed. In this chapter,the aim of study, the research questions and objectives were also provided. The significance of the study and the outlining of chapters were discussed as well.

Chapter Two discussed the literature on the subject matter in relation to the Namibian language policy and other related issues relevant to the research topic and the objectives of the research.

Chapter Three focused on the research design and methodologies used in this study. This chapter also explained the procedures for selecting the sample from the population. The use of appropriate research instruments and techniques of data collection were also discussed. The chapter also presented the participants' demographic information. The analysis and interpretation of data were discussed. The issue of ethical considerations, Measures of trustworthiness and limitations were also explained in this chapter.

Chapter Four presented and discussed data analysed from lesson observations and semi-structured interviews and how they related to the literature. The themes that emerged from observing lesson presentations and teachers' interviews were also presented and discussed.

Last, **Chapter Five** presents an overview of the whole thesis such as its summary, limitations, conclusion and recommendations for further study.

5.3 Summary of Findings

This section summarises the major findings according to the following three research questions.

5.3.1 Research question 1:

How do the Grade 8 Technical Drawing teachers code-switch when teaching orthographic drawing in the Khomas educational region?

Both the teachers that were involved in this study used different teaching aids (real objects) such as lunch boxes, shoe boxes, wooden and plastic chopping blocks and matchboxes in their lessons. Both teachers facilitated their teaching by placing learners into smaller groups. In groups, learners had to identify and explain the key terminologies to their peers in the dominant language which is Afrikaans. Both drawing teachers explained the key terminologies and also demonstrated to the learners how the objects identified should be drawn in the orthographic view – in between, teachers code-switched as they were demonstrating. At the same time in the process, learners were also observed code-switching as they debated about which equipment was suitable to draw and for which object. In fact, both teachers encouraged learners to code-switch in their home languages if they needed more clarity for better understanding. During lesson observations, the researcher noted that code-switching benefited learners in these ways:

- Most of the learners, if not all, had an opportunity to take part in tasks and activities in the class with confidence.
- Code-switching allowed learners to be active members during lesson presentations.
- Code-switching led to learners' better understanding and improved their performance.

The Grade 8 Technical Drawing teachers were not only code-switching when teaching orthographic drawing for the above-mentioned benefits, but most importantly to help learners better understand the difficult terminologies and models in Technical Drawing.

5.3.2 Research question 2:

What role does code-switching play when teaching orthographic drawing in Grade 8 Technical Drawing classes?

Findings from the study revealed that most learners communicated most of the time in their mother tongues and only used English as a second language in the classroom. It was revealed that learners in Grade 8 school A and B had difficulties in understanding models and terminologies in the Technical Drawing subject which is taught using English as the medium of instruction. This is an indication that code-switching is inevitable, since English is the only endorsed language of instruction at the schools. Nevertheless, English is an alien language for most learners and as the only medium of instruction in the Technical Drawing classrooms would not improve learners' learning with understanding.

With regard to the findings, the results illustrated that the Technical Drawing teachers used English and local languages such as Afrikaans and Khoekhoegowab during Technical Drawing discourses in the classroom. Grounded on the analysis of data acquired from the subjects who participated in this study, the outcomes exposed various motives for technical teachers to code-switch during their teachings. These motives included: to reinforce demands or understanding, to clarify questions and concepts, to show pleasant and unpleasant feelings, repetition used for clarification and/or reiteration of a message, to give guidance or instruction, to crack a joke or create a sense of humour. Code-switching from English to Afrikaans or other vernaculars can also be used as communication approaches in English dialogue classrooms. The Technical Drawing teachers used code-switching to reduce either learners' difficulties in understanding of the subject matter presented to them or miscomprehension on the lesson content that is delivered in the foreign language. These findings confirmed the multiple roles that code-switching has been seen to play in different countries by different researchers, where code-switching can be used for class management, with constituents of class management being teacher

encouragement, encouraging learner participation and teacher instruction, only to name a few and the other purpose being conveyance of information/knowledge with the constituents being providing definitions, providing clarification and providing cultural relevance/connection, among others.

5.3.3 Research question 3:

What are the perceptions of the Grade 8 Technical Drawing teachers in the Khomas educational region regarding code-switching in teaching orthographic drawing?

Both teachers considered code-switching as an effective tool in teaching Technical Drawing in the Grade 8 lessons at both schools. According to the teachers, code-switching clarifies models and terminologies to guarantee learners' understanding of the drawing subject content; enhances learners' general communiqué; grabs learners' attention; can be used for expressing feelings and attitudes when it comes to different activities taking place in the class and to discipline learners and keep order in the classroom; links new knowledge to background experiences; and encourages dialogue and active participation among the learners in the classes.

Even though both teachers advocated for code-switching to be employed in teaching Technical Drawing in schools, teachers also cautioned that code-switching might negatively affect learners. Learners might be affected to the extent that they end up using their respective home languages in tests and examinations.

In the literature that was aligned with the assertions by the teachers, it was seen that excessive use of code-switching may hinder learners as they may be unable to answer questions in the examinations where responses are required in English. This was what was seen as the chief problem with code-switching; however, the literature and responses from the respondents showed that code-switching has multiple benefits and may need only to be managed in order to avoid the risk that learners frequently revert to their L1.

5.4 Limitations of the Study

Like many research projects, this study had some limitations. One of the greatest limitations of this qualitative study was the amount of time investment that was required to extract data. Due to the time demand of this study, particularly in class observation sessions, I only managed to observe and interview two teachers from two different schools. There is a likelihood that other schools may show different patterns; however, the overall picture presented by the literature on the capabilities of Namibian learners in English can provide some sort of assurance that the patterns observed in these two classes is a reflection of the majority of schools in Namibia.

Overall, the study was extremely time intensive; this was due to the dual nature of the data collection which included carrying out interviews and class observation sessions. Despite the taxing nature of these data collection tools, I was able to accumulate broad insights into the subject matter. The broadness of the insights emanated from the perceptions of the teachers on code-switching found through the interviews, and the practices of code-switching during lessons through class observations.

5.5 Recommendations

The following recommendations emanated from the findings and discussions reported earlier in Chapter Four.

To improve the understanding of models and terminologies, this study recommends that an appropriate intervention strategy such as code-switching should be introduced in the teaching and learning of Technical Drawing. Code-switching is a tool that enhances learners' comprehension of difficult models and terminologies. It facilitates classroom interaction which leads to knowledge with understanding. The study also recommends that the MEAC should make funds available for teachers' in-service training in order to upgrade their language abilities and proficiencies. It is further suggested that language policy planners should take cognisance of the indigenous languages spoken in Namibia in order to promote a bilingual/multilingual approach in the language policy. This study was only conducted at two schools in the Khomas region and therefore such findings cannot be generalised. It is, therefore, recommended that similar studies be conducted in other regions in Namibia in order

to understand how Grade 8 teachers' code-switch when teaching orthographic drawing in the Technical Drawing classes countrywide.

Seeing that teachers in the study indicated using regular day-to-day objects, such as lunchboxes or balls, to describe certain concepts to learners, it may be prudent to avail study material which has a list of day-to-day objects as illustrations of some of the shapes used in Technical Drawing. This would assist the teacher to have a source where a greater number of shapes can be illustrated, so that the learning and teaching process moves towards visualisation and reduces the need for teachers to explain the shapes to students.

Videos can also be recorded showing students how to carry out certain tasks in the subject – these videos can be translated into local languages. This is realistically possible as Owen-Smith (2017) found that the typical local language in South Africa had an estimate of 85% of the words that appeared in a typical undergraduate programme. If this holds true to the Namibian context, much content, especially illustrating how to draw certain shapes, can be shown on videos that have translations.

5.6 Conclusion

This chapter concluded the study by presenting a summary of the research findings in relation to the three research questions and the research limitations. The limitations that were outlined are specific to qualitative studies which normally require manual analysis of data rather than automated analysis like most quantitative studies. Due to the manual means of data analysis, the study was extremely time and labour intensive. In addition to carrying out the analysis using manual means, the dual nature of the data collection required additional time and labour – including class observations and administering interviews. To conclude the chapter, recommendations were provided. These recommendations are meant to improve the teaching and learning process and ensure that despite the benefits of code-switching, learners will not lose the ability to communicate subject concepts in English.

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APPENDICES

APPENDIX A: Observation Schedules

School A

Teacher X

Section A

Part 1:

Date: 14 October 2021

Grade: 8

Part 2:

Demographic information

Respondent	1. Position at school	2. Teacher qualification	3. Years teaching	4. Mother tongue	5. Respondent's age group	6. Gender
Teacher X	Head of department	Bachelor's degree	More than 10 years	Khoekhoegowab	41 – 50 years	Male
Learners' home language(s): Afrikaans, Khoekhoegowab, Otjiherero and Oshiwambo. Boys						

Section B

Observer: What language is used in teaching orthographic drawing? 1

Observed: English 1.1

Observer: Does the teacher use any other language in teaching orthographic drawing? 2

Observed: No 2.2

Observer: Does the classroom environment harmonise learners' background experiences?3

Observed: No to such extend 3.1

Observer: What is the teaching strategy(s) used by the teacher to improve learners' comprehension in Technical Drawing class? 4

Observed: Making use of learners' physical image as example in teaching orthographic views e.g front,side,and back views 4.1

Observer: In terms of percentage, to what degree does the drawing teacher use code-switching? 5

Observed: 5.1

0-30%	X
40-60%	
60-80%	
80-100%	

Observer: The motive why teachers are using code-switching in the drawing classroom: 6

Observed: 6.1

Motive		Sometimes	A lot of time
i.	To clasp the learners' attention during the drawing lesson		X
ii.	To clarify key drawing concepts and terms		X
iii.	To encourage dialogue and active participation between learners in class	X	
iv.	To highlight key points in drawing		X
v.	To use for general communiqué		X
vi.	To express the way, they feel when it comes to various activities taking place in class	X	
vii.	To discipline learners in class	X	
Others			

Part 2: Comments 7

Observed: Although the teacher is only conversant in English, Afrikaans and Khoekhoegowab he was observed asking instructing other learners to point at the drawing and say the name of the orthographic views in their vernaculars such as Otjiherero and Oshiwambo that the teacher is not conversant in.

Observation Schedule

School B

Teacher Y

Section A

Part 1:

Date: 23 September 2021

Grade: 8

Part 2:

Demographic information

Respondent	1. Position at school	2. Teacher qualification	3. Years teaching	4. Mother tongue	5. Respondent's age group	6. Gender
Teacher Y	Teacher	N4 Certificate	6 – 10 years	Afrikaans	51 – 60 years	Male
Learners' home language(s): Afrikaans, Khoekhoegowab, Otjiherero and Oshiwambo. Boys and Girls						

Section B

Part 1:

Observer: What language is used in teaching orthographic drawing? 1

Observed: English 1.1

Observer: Does the teacher use any other language in teaching orthographic drawing? 2

Observed: Yes Afrikaans 2.2

Observer: Does the classroom environment harmonise learners' background experiences? 3

Observed: Yes, a bit when the teacher few words to teas learners in their home languages. 3.1

Observer: What is the teaching strategy(s) used by the teacher to improve learners' comprehension in Technical Drawing class? 4

Observed: The teacher walks around the classroom giving attention to every learner asking questions. *"Jy ken nie" you do not know"*. 4.1

Observer: In terms of percentage, to what degree does the drawing teacher use code-switching? 5

Observed: 5.1

0-30%	
40-60%	
60-80%	X
80-100%	

Observer: The motive why teachers are using code-switching in the drawing classroom: 6

Observed: 6.1

Motive		Sometimes	A lot of time
i.	To clasp the learners' attention during the drawing lesson	X	
ii.	To clarify key drawing concepts and terms		X
iii.	To encourage dialogue and active participation between learners in class		X
iv.	To highlight key points in drawing		X
v.	To use for general communiqué	X	
vi.	To express the way, they feel when it comes to various activities taking place in class		X
vii.	To discipline learners in class		X
Others The teacher could also be heard saying *"Ek se"* an exclamation of shock by what he saw learners doing			X

Part 2: Comments 7

Observed: The teacher uses at times words like "Wat teken jy? What are you drawing? or "Wat is daai"? What is that? "Jy kan nie" You cannot. He was also observed saying to one learner "Dit lyk baie" that is too much measurements. Hoe se jy? What are you saying? "Verstaan julle? Do you understand?".

At the end of the lesson the teacher was observed saying to the learners "Kan jy meet"? Can you measure? "Wie as klaar" Who is done? Bring jou papier vorentoe " Bring your paper in front.

APPENDIX B: Interview Schedules

School A

Teacher X

Grade 8

Section A

Biographical information

1. Position at school	2. Teacher qualification	3. Years teaching	4. Mother tongue	5. Respondent's age group	6. Gender
Head of department	Bachelor's degree	More than 10 years	Khoekhoegowab	41 – 50 years	Male

SECTION B

Interviews

Interviewer: What is your general view on the issue of using mother tongue or any language other than English in the Technical Drawing lessons? 7

Participant: It is absolutely important and vital in teaching Technical Drawing. It helps learners to get clear understanding of terms we use. Many learners are not fluent in English and the majority of them are coming from Afrikaans primary schools. Therefore, I change to Khoekhoegowab or to Afrikaans for the learners to understand better 7.1

Interviewer: In your view, should code-switching be allowed to be exercised in Technical Drawing classroom? Explain why. 8

Participant: Yes, it should be allowed since our learners came from Windhoek primary schools were home languages such as Afrikaans, Otjiherero,

Khoekhoegowab and Oshiwambo used as medium of instructions. None of these learners are coming from English background so by code-switching from English to these home languages enhances the understanding in learners.

It makes much easier for kids, it saves time since you do not take long to explain terms. 8.1

Interviewer: What would you say are the advantages of code-switching in Technical Drawing lessons? 9

Participant: Learners take active part in class, build learners confidence, and enhance Understanding. CS contributes to better understanding, it enhances cooperation amongst learners, promotes unity in the classroom and arouses learners' interest in Technical Drawing

9.1

Interviewer: What would you say are the disadvantages of code-switching in Technical Drawing lessons? 10

Participant: Initially it takes time but in the long run it saves time and learners learn faster. When learners get used to the teacher's code-switching, it discourages them to enrich their English vocabularies and they will not read". "Examinations are set in English, meaning question will be asked in English so if you code-switch too much in the class then learners will be expecting the same approach during exams which may affect the performance of learners in the exams. When the teacher code-switches to any of the home languages, learners have a tendency of making noise and as such they do not pay attention to the

teacher”. 10.1

Interviewer: In percentage wise, to what an extent do you rate code-switching usage in your Technical Drawing classrooms? 11

Participant: In the past I spoke more English but from now on I will do it 50/50 code-switching. 11.1

Interviewer: What do you think are the reasons for the occurrence of code-switching in your Technical Drawing lessons? Explain why. 12

Participant: When you code-switched, you also help learners link the drawing skills and terminologies to their everyday activities for example when they cut a loaf of bread or chopping wood, they can visualise different views and refer to what they learn in Technical Drawing class when they draw various objects from Isometric to Orthographic views. Objects that are locally found within the environment and have names or translated into home languages can enhance understand amongst the learners. We want learners to understand, feel comfortable and take charge of their own learning. 12.1

Interviewer: What do you think as the main causes for the learners to use mother tongue in Technical Drawing lessons? 13

Participant: Limited ability to express in English. 13.1

Interviewer: Do you think that code-switching should be used every day during teaching and learning process? Yes / No and motivate your answer. 14

Participant: Yes, in content subjects lessons it must be used. Since learners are doing Technical Drawing for the first time, these learners are not familiar with the terminologies used in drawing so switching into home languages can help. 14.1

Interviewer: In your opinion, do you agree that teachers use code-switching when they wish to praise or tell learners off? Elaborate on your answer. 15

Participant: Yes, in especially when learners did good in drawing activities. 15.1

Interviewer: Is code-switching occurs frequently amongst teachers who share the same mother tongue as the learners in the classroom? Yes/ No and support your answer. 16

Participant: Yes, for the sake of understanding and feel at easy and it makes the teacher approachable. 16.1

Interviewer: Do you think that a teacher may switch from one language to another if he/she wishes to exclude other learners from the conversation. Yes/ No and substantiate your answer. 17

Participant: No I do not think so, switching is done to the benefit of all learners regardless of their home languages. I can only speak Khoekhoegowab, Afrikaans and English and for those learners that are not coming from the same home or dominant language as me, I usually ask my colleagues to translate common terminologies for example, in Oshiwambo or Otjiherero in order to enhance the understanding and accommodate those learners

from such languages background 17.1

School B

Teacher Y

Grade 8

SECTION A

Biographical information

1. Position at school	2. Teacher qualification	3. Years teaching	4. Mother tongue	5. Respondent's age group	6. Gender
Teacher	N4 Certificate	6 – 10 years	Afrikaans	51 – 60 years	Male

SECTION B

Interviews

Interviewer: What is your general view on the issue of using mother tongue or any language other than English in the Technical Drawing lessons? 7

Participant: It is obvious any learner would understand when taught in mother tongue. 7.1

Interviewer: In your view, should code-switching be allowed to be exercised in Technical Drawing classroom? Explain why. 8

Participant: Yes, there is no problem since learners understand better code-switching is an inspirational strategy for learners because it provides s carefree classroom atmosphere and ability of learner's comprehension. Switching into learners' home languages during lessons makes it easier for parents to help their children with homework afterwards. 8.1

Interviewer: What would you say are the advantages of code-switching in Technical Drawing lessons? 9

Participant: No delay in teaching. Easy for child to ask any question that will enhance Understanding. It encourages parents to get involved in their children's schoolwork, it leads to better academic performance, encourages active participation in the classroom, improves classroom activities; and makes learning drawing fun. 9.1

Interviewer: What would you say are the disadvantages of code-switching in Technical Drawing lessons? 10

Participant: I am not conversant in all home languages that my learners speak, I can only speak Afrikaans and English. This means that learners who speak home languages such as Oshiwambo, Khoekhoegowab, Otjiherero are disadvantaged. Code-switching can be time wasting since the teacher must repeat himself a bit to translate to those who do not understand in the vernacular languages.

I fear as learners might become lazy and wouldn't want to read more to enrich their English vocabularies since they know that what they do not know, surely the teacher will translate. 10.1

Interviewer: In percentage wise, to what an extent do you rate code-switching usage in your Technical Drawing classrooms? 11

Participant: 20% using Afrikaans if there are learners who do not understand. 11.1

Interviewer: What do you think are the reasons for the occurrence of code-switching in your Technical Drawing lessons? Explain why. 12

Participant: Most of the times when you know something in your home language it is easy to translate it into another language which ensures understanding. Afrikaans is a dominant language in most homes and in streets even in hostels. 12.1

Interviewer: What do you think as the main causes for the learners to use mother tongue in Technical Drawing lessons? 13

Not all parents are communicating in English therefore it makes it easier for parents to help their children with schoolwork in their mother tongue. 13.1

Interviewer: Do you think that code-switching should be used every day during teaching and learning process? Yes / No and motivate your answer. 14

Participant Yes, it is happening almost at every school why can't it be used. Code-switching influences the teaching process of Technical Drawing in a positive way 14.1

Interviewer: In your opinion, do you agree that teachers use code-switching when they wish to praise or tell learners off? Elaborate on your answer. 15

Participant Yes, when a learner does good the teacher praises them to motivate them to do better. Yes, it has been happening already for example in my class when I am praising learners for good deeds or highlighting an important point I usually do it in Afrikaans. Code-switching should be formalised and allowed in lesson presentations to ensure knowledge with understanding. Code-switching as a motivating strategy for the learners because it provides a care-free classroom atmosphere and capability of learners' comprehension. 15.1

Interviewer: Is code-switching occurs frequently amongst teachers who share the same

mother tongue as the learners in the classroom? Yes/ No and support your answer. 16

Participant: Yes, in most cases teachers speak Afrikaans among themselves which is taken to classes. 16.1

Interviewer: Do you think that a teacher may switch from one language to another if he/she wishes to exclude other learners from the conversation. Yes/ No and substantiate your answer. 17

Participant: No not at all this does not encourage learning and it should not be happening unless it for reprimanding purposes. 17.1

APPENDIX C : Ethics approval

RHODES UNIVERSITY
Where leaders learn

Rhodes University, Education Faculty
Research Ethics Committee
PO Box 94, Makhanda, 6140, South Africa
Tel: +27 (0) 46 603 8393
Fax: +27 (0) 46 603 8028
email: e.rosenberg@ru.ac.za

https://www.ru.ac.za/researchgateway/ethics/

09/08/2021

Gabriel Iita

Education Department

g17i8200@campus.ru.ac.za

Dear Gabriel Iita and Dr Rethabile Mawela

Re: EXPLORING GRADE 8 TEACHERS' CODE-SWITCHING IN TEACHING ORTHOGRAPHIC DRAWING IN THE KHOMAS EDUCATIONAL REGION, NAMIBIA.

APPLICATION NUMBER: 2021-4881-6020

This letter confirms that your research ethics application has been reviewed and **APPROVED** by the Education Faculty Research Ethics Committee (EF-REC). Your permission letter(s) where applicable have been received and you are free to proceed with your study.

Approval is granted for 1 year. An annual progress report is required in order to renew approval for an additional period. You will receive an email notifying you when the progress report is due.

Should any substantive change(s) be made during the research process, that may have ethical implications, you should notify the Education Faculty REC Chair via email. This includes changes in investigators. The REC Chair will advise as to whether a new application is necessary.

Do keep this clearance letter secure and accessible throughout your study and after its completion. It will be needed when a thesis is examined and when publications are submitted to journals.

Please also submit a brief report to the REC Chair on the completion of the research. This can be done via email. The purpose of this report is to indicate whether the research was conducted successfully and whether any ethics-related matters arose that the committee should be aware of, in order to guide future studies.

Sincerely,

E Rosenberg

Prof Eureta Rosenberg

Chair: Education Faculty Research Ethics Committee

APPENDIX D: MEAC permission to carry out study

REPUBLIC OF NAMIBIA

MINISTRY OF EDUCATION, ARTS AND CULTURE

Enquiries: Mr. G. Munene
Tel: +264 61 -2933202 2
Fax: +264 61- 293392
Email: Gibson.Munene@moe.gov.na
File no: 13/2/9/1

Luther Street, Govt. Office Park
Private Bag 13186
Windhoek
Namibia

Mr. Gabriel Iita
P. O. Box 26045
Windhoek

Dear Mr. Iita,

SUBJECT: PERMISSION TO CONDUCT ACADEMIC RESEARCH IN KHOMAS REGION

The Ministry wishes to acknowledge receipt of your email dated 22 June 2021 seeking for permission to conduct academic research at schools for your Masters studies which is focusing on: "*Exploring Grade 8 Teachers' Code-Switching in Teaching Orthographic Drawing in the Khomas Region.*"

Permission has been granted to you. However, you have to seek for further clearance from the Khomas Regional Director of Education, Arts and Culture in the regions to ensure that:

- the school principals are aware of your presence;
- teaching and learning should not be interrupted;
- participation is voluntary;
- you obtain consent from parents of learners under 16 years old.

Furthermore, you are kindly requested to share your research findings with the Ministry after completion of the research project. You may contact Mr G. Munene on the above provided contacts at the Directorate: Programmes and Quality Assurance (PQA) for submission of your research findings at the above indicated details.

We wish you the best in conducting your research and the Ministry looks forward to hearing from you upon completion of your studies.

Yours sincerely,

Sanet L. Steenkamp
EXECUTIVE DIRECTOR

29.6.2021

Ministry of Education, Arts and Culture
Office of the Executive Director
JUN 2021
Tel: 061-293 3523/4
Fax: 061 253671
Private Bag 13186, Windhoek, Namibia

All official correspondence must be addressed to the Executive Director

APPENDIX E: Khomas Regional Council Permission to Conduct Interviews at Schools

REPUBLIC OF NAMIBIA

KHOMAS REGIONAL COUNCIL
DIRECTORATE OF EDUCATION, ARTS AND CULTURE

Tel: [09 264 61] 293 4356
Fax: [09 264 61] 231 367/248 251

Private Bag 13236
WINDHOEK

02 July 2021

P. O. Box 26045
Windhoek
Namibia

For Attention: Mr Gabriel Iita

REQUEST FOR PERMISSION TO CONDUCT RESEARCH INTERVIEWS WITH SELECTED SCHOOLS IN KHOMAS REGION

Your letter dated 02 July 2021 on the above topic is hereby acknowledged.

Permission is hereby granted to you to conduct research on "Exploring Grade 8 teachers' code – switching in teaching orthographic drawing" at Windhoek Technical High School and Pionier Boys' School in Khomas Region under the following conditions:

- The Principal of the selected school to be visited must be contacted in advance and agreement should be reached between you and the Principal.
- The school programme should not be interrupted.
- The teachers and students who will take part in this exercise will do so voluntarily.
- The Directorate of Education, Arts and Culture should be provided with a copy of your thesis/ findings.

We wish you success in your research.

Yours sincerely

MINISTRY OF EDUCATION
ARTS AND CULTURE
PRIVATE BAG 13236 WINDHOEK
02/07/2021- 2021
DIRECTOR
KHOMAS REGION

Paulus D. Nghikembua
Director of Education, Arts and Culture

APPENDIX F: Schools' Permission to Conduct Interviews

WINDHOEK TECHNICAL HIGH SCHOOL

Private Bag 12014, Ausspannplatz, Windhoek: Tel. 242451/Fax. 242406 Sport: Fax. 242442

05 August 2021

P.O. Box 26045
Windhoek
Namibia

Attention: Mr. Gabriel Iita

Dear Sir.

REF: REQUEST TO CONDUCT AN Med RESEARCH STUDY

It is the pleasure of the Management of Windhoek Technical High School to grant approval of your request to conduct a research study at our institution. The technical field of studies in our school is at its infancy stage of implementation whereby appreciation of enhanced scientific developmental research from knowledgeable persons and institutions will be welcomed. This approach will enhance the technical skills of our learners and improve the industry throughout the country.

I thank you

Yours in Education

Mr. C Christoph
Principal

MINISTRY OF EDUCATION, ARTS AND CULTURE
Khomas Regional Council
PRINCIPAL 5/8/21
WHK TECHNICAL HIGH SCHOOL
PRIVATE BAG 12014
AUSSPANNPLATZ • WHK

APPENDIX G: Request letter to Executive Director Ministry of Education

RHODES UNIVERSITY
Where leaders learn
Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822
s.manqele@ru.ac.za

P.O. Box 26045
Windhoek
NAMIBIA

30 March 2021

The Executive Director
Ministry of Education, Arts and Culture
Private Bag 13236
WINDHOEK

Dear Mrs Sanet L Steenkamp

RE: REQUEST TO CONDUCT AN MEd RESEARCH STUDY

I am Gabriel Iita, a Senior Superintendent at the Namibia Correctional Services in the Ministry of Safety and Security, Faculty of Educational and Vocational Services. I am currently pursuing a Masters (MEd) in Education with Rhodes University and my student number is: 17i8200.

This communiqué serves to request your permission to conduct a study in two (2) secondary schools in the Khomas Region. The schools are: Windhoek Technical high school and Pionier Boys' school. The research forms a critical part of the MEd course and it is to be conducted from **May** to **November 2021**, targeting only one Technical drawing teacher and two Grade 8 classes per selected school. The approval to carry out this research study is granted from Rhodes University's Ethical Clearance Committee.

The topic of the research is ***"Exploring Grade 8 teachers' code-switching in teaching orthographic drawing in the Khomas educational region, Namibia"*** under the supervision of Dr Rethabile Mawela. The findings of this study will be shared with the participants, the schools and the Ministry of Education, Arts and Culture. At each school, I will personally collect the data as a non-participant observer and conduct an interview with one teacher per school. A video recorder will also be used for the purpose of triangulation by capturing teacher's teaching of orthographic drawing where code-switching will be used. The video recording will focus on the teacher and not on learners as this study will focus on teacher language practices during teaching. And parents/guardians permission will be sought in case learners are to be recorded.

I would like to assure you that I will strictly adhere to research ethics and all the information received from participants will be treated with utmost confidentiality and will entirely be used for the educational purposes. I look forward to receiving your favourable response.

Yours faithfully,

Mr. Gabriel Iita
Cell: +264 81 249 8317 / E-mail: gabesiita@gmail.com
Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822 s.manqele@ru.ac.za

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APPENDIX H: Request letter to Director Khomas Region

RHODES UNIVERSITY
Where Leaders Learn

Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822 s.manqele@ru.ac.za

P.O. Box 26045
Windhoek
NAMIBIA

30 March 2021

The Regional Director
Khomas Education Region
Ministry of Education, Arts and Culture
Private Bag 13236
WINDHOEK

Dear Mr Paulus D. Nghikembua

RE: REQUEST TO CONDUCT AN MEd RESEARCH STUDY

I am Gabriel Iita, a Senior Superintendent at the Namibia Correctional Services in the Ministry of Safety and Security, Faculty of Educational and Vocational Services, I am currently pursuing a Masters (MEd) in Education with Rhodes University and my student number is: 17i8200.

This communiqué serves to request your permission to conduct a study in two (2) secondary schools in the Khomas Region. The schools are: Windhoek Technical high school and Pionier Boys' school. The research forms a critical part of the MEd course and it is to be conducted from **May** to **November 2021**, targeting only one Technical drawing teacher and two Grade 8 classes per selected school. The approval to carry out this research study is granted from Rhodes University's Ethical Clearance Committee and the office of the Executive Director – Ministry of Education, Arts and Culture.

The topic of the research is ***"Exploring Grade 8 teachers' code-switching in teaching orthographic drawing in the Khomas educational region, Namibia"*** under the supervision of Dr Rethabile Mawela. The findings of this study will be shared with the participants, the schools and the Ministry of Education, Arts and Culture. At each school, I will personally collect the data as a non-participant observer and conduct an interview with one teacher per school. A video recorder will also be used for the purpose of triangulation by capturing teacher's teaching of orthographic drawing where code-switching will be used. The video recording will focus on the teacher and not on the learners as this study will focus on teacher language practices during teaching. And parents/guardians permission will be sought in case learners are to be recoded as well.

I would like to assure you that I will strictly adhere to research ethics and all the information received from participants will be treated with utmost confidentiality and will entirely be used for the educational purposes. I look forward to receiving your favourable response.

Yours faithfully,

Mr. Gabriel Iita
Cell: +264 81 249 8317 / E-mail: gabesiita@gmail.com
Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822 s.manqele@ru.ac.za

APPENDIX I: Request letter to Pionier Boys' School

RHODES UNIVERSITY
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Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822
s.manqele@ru.ac.za

P.O. Box 26045
Windhoek
NAMIBIA

30 March 2021

The School Principal
Pionier Boys' School
Private Bag 12002
Windhoek

Attention: Mr. O. Van Wyk

Dear Sir/Madam,

RE: REQUEST TO CONDUCT AN MEd RESEARCH STUDY

I am Gabriel Iita, a Senior Superintendent at the Namibia Correctional Services in the Ministry of Safety and Security, Faculty of Educational and Vocational Services. I am currently pursuing a Masters (MEd) in Education with Rhodes University and my student number is: 17i8200.

This communiqué serves to request your permission to conduct a study at your school. The research forms a critical part of the MEd course and it is to be conducted from **May** to **November 2021**, targeting only one Technical drawing teacher and two Grade 8 classes. The approval to carry out this research study is granted from Rhodes University's Ethical Clearance Committee; the office of the Executive Director and Khomas Education Director – Ministry of Education, Arts and Culture.

The topic of the research is ***"Exploring Grade 8 teachers' code-switching in teaching orthographic drawing in the Khomas educational region, Namibia"*** under the supervision of Dr Rethabile Mawela. The findings of this study will be shared with the participants, the schools and the Ministry of Education, Arts and Culture. At your school, I will personally collect the data as a non-participant observer and conduct an interview with one teacher. A video recorder will also be used for the purpose of triangulation by capturing teacher's teaching of orthographic drawing where code-switching will be used. The video recording will focus on the teacher and not on learners as this study will focus on teacher language practices during teaching. And parents/guardians permission will be sought in case learners are to be recorded.

I would like to assure you that I will strictly adhere to research ethics and all the information received from participants will be treated with utmost confidentiality and will entirely be used for the educational purposes. I look forward to receiving your favourable response.

Yours faithfully,

Mr. Gabriel Iita
Cell: +264 81 249 8317 / E-mail: gabesiita@gmail.com
Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822 s.manqele@ru.ac.za

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APPENDIX J: Request letter to Windhoek Technical High School

RHODES UNIVERSITY
Where leaders learn

Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822 s.manqele@ru.ac.za

P.O. Box 26045
Windhoek
NAMIBIA

30 March 2021

The School Principal
Windhoek Technical High School
Private Bag 12014
Windhoek

Attention: Mr. C Christoph

Dear Sir/Madam,

RE: REQUEST TO CONDUCT AN MEd RESEARCH STUDY

I am Gabriel Iita, a Senior Superintendent at the Namibia Correctional Services in the Ministry of Safety and Security, Faculty of Educational and Vocational Services. I am currently pursuing a Masters (MEd) in Education with Rhodes University and my student number is: 17i8200.

This communiqué serves to request your permission to conduct a study at your school. The research forms a critical part of the MEd course and it is to be conducted from **May** to **November 2021**, targeting only one Technical drawing teacher and two Grade 8 classes. The approval to carry out this research study is granted from Rhodes University's Ethical Clearance Committee; the office of the Executive Director and Khomas Education Director – Ministry of Education, Arts and Culture.

The topic of the research is ***"Exploring Grade 8 teachers' code-switching in teaching orthographic drawing in the Khomas educational region, Namibia"*** under the supervision of Dr Rethabile Mawela. The findings of this study will be shared with the participants, the schools and the Ministry of Education, Arts and Culture. At your school, I will personally collect the data as a non-participant observer and conduct an interview with one teacher. A video recorder will also be used for the purpose of triangulation by capturing teacher's teaching of orthographic drawing where code-switching will be used. The video recording will focus on the teacher and not on learners as this study will focus on teacher language practices during teaching. And parents/guardians permission will be sought in case learners are to be recorded.

I would like to assure you that I will strictly adhere to research ethics and all the information received from participants will be treated with utmost confidentiality and will entirely be used for the educational purposes. I look forward to receiving your favourable response.

Yours faithfully,

Mr. Gabriel Iita
Cell: +264 81 249 8317 / E-mail: gabesiita@gmail.com
Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822 s.manqele@ru.ac.za

APPENDIX K: Request letter to Parents/Guardians

RHODES UNIVERSITY
Where knowledge starts

Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822 s.manqele@ru.ac.za

P.O. Box 26045
Windhoek
NAMIBIA

30 March 2021

Enquiries: Mr. Gabriel Iita
Cell: +264 81 249 8317 / +264 61 284 6540
E-mail: gabesiita@gmail.com

Dear Parent/Guardian,

RE: REQUEST YOUR PERMISSION FOR YOUR CHILD'S PARTICIPATION IN AN MEd RESEARCH STUDY

I am Gabriel Iita, a Senior Superintendent at the Namibia Correctional Services in the Ministry of Safety and Security, Faculty of Educational and Vocational Services. I am currently pursuing a Masters (MEd) in Education with Rhodes University and my student number is: 17i8200.

This communiqué serves to request your permission for your child to participate in a research study that I will be conducting in the school where your child is schooling. The research forms a critical part of the MEd course and it is to be conducted from **May** to **November 2021**. The approval to carry out this research study is granted from Rhodes University's Ethical Clearance Committee, the office of the Executive Director – Ministry of Education, Arts and Culture and your child's school principal.

The topic of the research is ***"Exploring Grade 8 teachers' code-switching in teaching orthographic drawing in the Khomas educational region, Namibia"*** under the supervision of Dr Rethabile Mawela. The findings of this study will be shared with the school and the Ministry of Education, Arts and Culture. During data collection, I will visit (three times) your child's class as a non-participant observer observing how the teacher teaches orthographic drawing and then discuss the lessons with the teacher. A video recorder will also be used for the purpose of triangulation by capturing teacher's teaching of orthographic drawing where code-switching will be used. The video recording will focus on the teacher and not on learners as this study will focus on teacher language practices during teaching. However, your permission is hereby sought in case your child will be recorded. Even though the research does not involve your child's direct participation, the lesson observation will be conducted in your child's classroom during teaching and learning process. Therefore, I am requesting your permission in this regard. No pictures of learners' faces will be captured neither will their names be taken during the research study.

Your child reserves the right to withdraw from this study at any time after its commencement. I would like to assure you that I will strictly adhere to research ethics and all the information received from your child will be treated with utmost confidentiality and will entirely be used for the educational purposes. I look forward to receiving your favourable response.

PARENT/GUARDIAN'S INFORMED CONSENT

In terms and conditions of the ethical requirements of the Rhodes University and Namibian Ministry of Education, Arts and Culture, you are now requested to sign this form to declare yourself.

I ..... (parent/guardian's name), understand the contents of this letter and I grant/withhold permission for my child to take part in this research study during lesson observation. I understand that my child can withdraw from the study at any time and that her/his identity will not be revealed anywhere.

Parent/guardian's Signature: _____ ***Date:*** _____

Researcher's Signature: _____ ***Date:*** _____

APPENDIX M: Request letter to Teachers

RHODES UNIVERSITY
Ethics Coordinator: Mr Siyanda Manqele Tel: 046 603 7727 Fax: 603 8822 s.manqele@ru.ac.za

P.O. Box 26045
Windhoek
NAMIBIA

30 March 2021

Enquiries: Mr. Gabriel Iita
Cell: +264 81 249 8317 / +264 61 2846540
E-mail: gabesiita@gmail.com

Dear Teacher,

RE: REQUEST YOUR PERMISSION FOR PARTICIPATION IN AN MEd RESEARCH STUDY

I am Gabriel Iita, a Senior Superintendent at the Namibia Correctional Services in the Ministry of Safety and Security, Faculty of Educational and Vocational Services. I am currently pursuing a Masters (MEd) in Education with Rhodes University and my student number is: 17i8200.

This communiqué serves to request your permission to participate in a research study that I will be conducting in your school. The research forms a critical part of the MEd course and it is to be conducted from **May** to **November 2021**. The approval to carry out this research study is granted from Rhodes University's Ethical Clearance Committee, the office of the Executive Director – Ministry of Education, Arts and Culture and your school principal.

The topic of the research is ***'Exploring Grade 8 teachers' code-switching in teaching orthographic drawing in the Khomas educational region, Namibia'*** under the supervision of Dr Rethabile Mawela. The findings of this study will be shared with you, the school and the Ministry of Education, Arts and Culture. During data collection, I will visit (three times) your class as a non-participant observer observing how you teach orthographic drawing and then discuss the lessons with you. A video recorder will also be used for the purpose of triangulation by capturing your teaching of orthographic drawing where code-switching will be used. The video recording will focus on you and not on learners as this study will focus on teacher language practices during teaching. And parents/guardians permission will be sought in case learners are to be recorded. In addition, I will conduct an interview with you for 20–25 minutes to solicit more information on the relationship between code-switching and learning in orthographic drawing in Grade 8 Technical Drawing classrooms.

You reserve the right to withdraw from the study at any time after its commencement. I would like to assure you that I will strictly adhere to research ethics and all the information received from you will be treated with utmost confidentiality and will entirely be used for the educational purposes. I look forward to receiving your favourable response.

INFORMED CONSENT AGREEMENT TO PARTICIPATE IN THIS STUDY

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

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

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

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

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

I agree to the recording of about 20-30 minutes of semi-structured interview and three times lessons/class observations of 40 minutes.

I, the undersigned hereby agree to participate in the research study and grant permission to the researcher to use the photos taken and videos recorded for the purpose of the study.

Participant Name & Surname (please print) _____

_____ _____
Participant Signature Date

Researcher's Name & Surname (please print): GABRIEL IITA

_____ _____
Researcher's signature Date