

The Nexus Between Geography Teachers' Code-switching Perceptions and Practices: A Case Study



Abstract: The study investigated the intersection between teachers' perceptions of code-switching and their actual codeswitching practices. The research focused on four Grade 10-12 Geography teachers who were selected purposefully based on their qualifications, teaching experience, fluency in, or familiarity with, the two languages involved, and the grade level they taught. Following the interpretive paradigm and qualitative approach, the study employed semi-structured interviews to gather the participants' perceptions of codeswitching as a teaching practice, as well as their implementation of it in the classroom. Additionally, classroom observations were conducted to observe the teachers' actual code-switching practices during Geography lessons. The study then compared the teachers' perceptions and practices to determine the extent of their intersection. Thematic data analysis was used to analyse the data. The results revealed a discrepancy between the teachers' perceptions and practices, particularly in terms of the purposes, types, and frequency of code-switching, among other aspects. The study concludes that classroom code-switching was not a deliberate and conscious activity guided by a well-informed and equally conscious understanding of the practice, but rather a largely habitual

behaviour. As a recommendation, the study suggests conducting in-service workshops to enhance teachers' comprehension of code-switching and provide them with effective strategies for its application in the classroom.

Keywords: Code-switching practice, multilingualism; teachers' perceptions, teachers' practices, Geography teachers.

1. Introduction

Language is crucial for learning, and proficiency in the Language of Learning and Teaching (LoLT) is essential for all learners. Despite South Africa having 11 official languages, English is used as the LoLT from Grade 4 onwards, even though it is often a second or third language for nearly 80% of the students. Learning in a second language is challenging for most students, so teachers often resort to code-switching (Steyn, 2017). Navigating language use in a multilingual classroom can be precarious. Despite English being taught as a subject from Grade R and used as the LoLT from Grade 4, learners who speak African languages still struggle with English proficiency, even in the Further Education and Training (FET) Phase (Grade 10-12). This is why code-switching is prevalent at all levels of Basic Education (Grades R-12), as it helps mitigate the limited proficiency in the LoLT (Maluleke, 2019, p. 13). According to Sibanda (2017, p. 4), there are concerns about whether teachers are adequately supporting learners in navigating the language challenges of the classroom, as seen in the literature on classroom teaching practices. To understand the reasons behind teachers' language practices, this study aimed to determine the extent to which teachers' perceptions of the most commonly used language alternation practice (code-switching) align with their actual practice. In-service staff development interventions often focus on theory and aim to change teachers' perceptions of their practices without considering whether these changes actually lead to changes in their teaching. The premise of this study was that code-switching is an integral part of South Africa's sociolinguistic

landscape, and effective teaching is influenced by teachers' perceptions of their own practices. Although the use of language in the classroom has evolved to include more recent phenomena, such as translanguaging, this study focused on code-switching, which is more widely known and can be discussed by teachers.

This study is based on the assumption that code-switching is common in the classroom (Zainil & Arsyad, 2021). The Department of Basic Education (2012) Curriculum Assessment Policy Statement (CAPS) does not address the practice of code-switching, which means that it is left unregulated and up to the teacher to decide how to implement it (Songxaba et al., 2017). The lack of specific guidelines for code-switching makes it difficult to ensure consistent implementation. The absence of guidance on code-switching in curriculum documents raises questions about whether teachers have a solid understanding of the practice. Zainil and Arsyad (2021) recognise the limited research on teachers' awareness of their own code-switching practices. Therefore, this study aimed to explore teachers' perspectives and practices regarding code-switching. Instead of focusing on teachers' theoretical knowledge of code-switching, as most studies do (Mawela & Mahlambi, 2021), we observed their actual code-switching practices and asked about their perceptions of those practices. The study specifically focused on Geography teaching at the FET level (Grades 10-12). While code-switching can occur in any subject, we chose Geography because of its technical language, which cannot be translated into Setswana, the African language under investigation. Additionally, one of the researchers taught Geography at the FET level and spoke Setswana, making the choice of subject, language, and educational phase a natural fit. In order to address this problem, this study focused on the following research question:

• How do FET Geography teachers at the selected school perceive and practice code-switching in the classroom?

1.1 Literature review

Code-switching is when two or more linguistic varieties are used in the same conversation (Mabule, 2015). According to Sibanda (2021, p. 28), it is "the momentary switching into alternate language(s) and back to the base form." The code being switched is a language, and the assumption is that both or all parties in the communication are conversant in two languages or codes. Code-switching serves specific functions. Sibanda (2021, p. 28) suggests that in some cases, code-switching is used by learners for "pedestrian non-pedagogical functions like bonding with learners, which explains its generous use in class management functions, where the stakes are low." It is typically employed spontaneously and briefly within a largely monolingual context (p. 29).

Code-switching in the classroom can serve academic, social, and managerial purposes. Academically, code-switching is used to explain and clarify content to students who struggle with the Language of Learning and Teaching (LoLT). "Teachers often code-switch to increase student understanding of the subject matter and to help students with low levels of English proficiency..." (Chen & Maarof, 2017, p. 31) and to encourage student participation. Pedagogically, teachers use code-switching to give instructions for different projects and tasks (Rehman et al., 2020). Some examples of code-switching for academic purposes include translation, providing feedback, checking comprehension, repeating and elaborating on concepts, and asking questions (Yulandari, 2018).

Social reasons for code-switching, as identified by Rehman et al. (2020), include establishing unity between participants and creating a sense of group membership. For instance, teachers may use code-switching to make jokes in class, as humour can make teaching more enjoyable. Nazri and Kassim (2023, p. 12) note that "code-switching functions to establish distinct in-group language identity" and bridge the gap between the home and host cultures. Teachers also code-switch to maintain discipline in the classroom (Rehman et al., 2020). Typically, teachers reprimand students in their native languages. Another reason for code-switching in the South African context, as stated by Diko (2023),

is the multilingual nature of the country, with two colonial languages and a mosaic of nine indigenous languages. It was important to examine, not only what teachers perceived as the purposes of code-switching and the types they utilised, but also the types manifest in their practices.

Code-switching practice can be classified into three main types: intersentential, intrasentential, and extrasentential (Mabule, 2015). Intersentential code-switching refers to the mixing of two languages in separate sentences within a single utterance (Rahmat et al., 2019) or switching between sentences or sentence boundaries. According to Diko (2023, p. 4), it "occurs between clauses or sentences, where each clause or sentence is in one language and the following clause is in another language." This type of code-switching is intentional, and our study aimed to explore its deliberate application in the classroom. Intrasentential code-switching, on the other hand, occurs within sentences (Rahmat et al., 2019) or within a single utterance when switching from one language to another (Koban, 2013). It is often accidental and happens when one does not know the exact word in the base or target code (Terveen, 2013). This type of code-switching is more common in cognate languages or those belonging to the same linguistic group (van der Westhuizen & Niesler, 2018), such as Sesotho and Setswana (both Sotho languages) or IsiZulu and IsiXhosa (both belonging to the Bantu language group). However, in our study, the languages involved, Setswana and English, are linguistically unrelated. Finally, extrasentential or emblematic code-switching involves inserting tags like exclamations, formulaic expressions, or set phrases from the alternate code into an utterance in the base form (Alegado et al., 2021; Diko, 2023). Mabule (2015) provides examples where Setswana is the base form, and English is the alternate form, such as "Bana ba gompieno ga ba na mekgwa, right?" or "Ke tla go nokelela tšhelete ka pankeng, okay?" In these cases, English words are inserted into a monolingual discourse. However, the inclusion of the English parts does not enhance the understanding of the exemplified utterance.

We were interested in understanding the types of code-switching that teachers claimed to use, as well as the types they actually employed in their practices. Additionally, we felt it was important to place our study within the context of previous related studies. Chen and Maarof's (2017) study showed that Malaysian teachers code-switched to improve their understanding of subjects for learners with low levels of English proficiency. Horasan (2014) found that Turkish university students and lecturers code-switched to foster solidarity between individuals of different or the same ethnic groups. Rehman et al. (2020) discovered that Pakistani English teachers primarily codeswitched to maintain discipline. Gwagwara and Gloria's (2019) study on code-switching in Mathematics in Zimbabwean secondary schools revealed that teachers code-switched to clarify and explain key mathematical concepts. In a study, Shinga and Pillay (2021) investigated the reasons for code-switching used by First Additional Language teachers in four rural high schools in KwaZulu-Natal, South Africa. They found that the main motivations were concept clarification and ensuring learner engagement. While these four studies focus on teachers' code-switching, they are set in different contexts, at different levels, and involve different languages. Furthermore, there is a scarcity of studies on the types of code-switching employed by teachers. Even a basic Google search using the keywords "Geography," "code-switching," and "South Africa" did not yield any relevant hits. Combined with a lack of known South African studies on teachers' code-switching perceptions and practices, the urgency to conduct the present study was evident.

1.2 Theoretical Framework

Studies on types of code-switching are scarce. However, Mabule's (2015) study found that UNISA students employed different types of code-switching depending on the context. To better understand code-switching, we used the Markedness model as the theoretical framework for this study. Myers-Scotton's (1993) Markedness Model provided a lens for exploring nuanced forms of code-switching that are useful in observing and analysing code-switching practices. In this section, we discuss the three categories of the model.

As a sequence of unmarked choices, code-switching is referred to by Myers-Scotton (1993) as an accustomed type of code-switching. "A sequence of unmarked code-switching is the normal, expected type of code-switching, the type one would expect for a particular situation" (Uys & van Dulm, 2010, p. 16). It is deliberate because it occurs when the speaker is cognizant of sharing the same linguistic community with the listener(s). In addition, Myers-Scotton states that "this type of code-switching is triggered by a change in situational factors within the conversation" (Myers-Scotton, 1993, p. 14). An example is when learners already know that the teacher is going to switch codes in the lesson because it is habitual for them to do so. Code-switching, as the unmarked choice, does not depend on situational change but on the context (Mabule, 2015) in terms of formality, the relationship between the interactants, and social circumstances, among others. Code-switching, as a marked choice, is a code choice that is not expected by both interlocutors (Myers-Scotton, 1993). It is accidental because it is unplanned. It is employed when speakers notice that their listeners do not understand the code they are currently using. An example is a teacher switching from English to Setswana when learners have comprehension difficulties. In that case, Setswana is considered the marked choice because it was chosen over English.

Myers-Scotton's (1993) code-switching as an exploratory choice occurs when strangers seek to find each other's language preferences. We do not explore this type of code-switching further because the study participants are not strangers in the present study context. Knowing these code-switching types influenced the observation of code-switching practices and their analysis in the present study. The framework implies that a range of factors determines markedness, some of which are the relations of interactants—whether symmetrical or distant—the context of communication and the subject of communication, and teachers should be conversant with such factors when employing code-switching.

2. Methodology

This study utilised the interpretivism paradigm to examine code-switching from teachers' subjective perspectives within their natural environments. As Kivunja and Kuyini (2017) described, the interpretive paradigm posits that social reality is subjective and influenced by individuals' experiences and contexts. Consistent with this paradigm, the goal was not to predict or control social phenomena but rather to gain understanding from the viewpoints of those involved. Qualitative research methods were employed to gather non-numerical data, including written, visual, and spoken words from the participants (Silverman, 2020), as the focus was on teachers' perceptions and practices. This approach allowed for a comprehensive exploration of code-switching with detailed descriptions.

A case study design was utilised to investigate the code-switching perceptions and practices of four Geography teachers, in accordance with the definition of a case study as a detailed study of a specific subject, such as a person, group, place, event, organisation or phenomenon (McCombes, 2019). The case study method enables thorough, multifaceted exploration of complex issues within real-life settings (Crowe et al., 2011). In this study, we gained an in-depth understanding of code-switching through observations and semi-structured interviews. Teacher perceptions were ascertained through the semi-structured interviews, while their code-switching practices were observed during lessons. The case study design facilitated the analysis of code-switching, a contemporary phenomenon, within the authentic context of the FET Geography classroom. The case in question involved the four FET teachers.

2.1 Participants

Convenience sampling was utilised to select a school for the present study, with the main researcher (first author) teaching there. Purposive sampling was then employed to select participants based on the researchers' judgment of their ability to provide data for the study (Jehan et al., 2020). The

selection criteria included Grade 10-12 Geography teachers with a minimum of 5 years of teaching experience at the chosen school. It was assumed that teachers with more experience would have developed a better understanding of the phenomenon being studied over the years. Additionally, proficiency in both English and Setswana was required to allow for code-switching among the teachers, as the study was conducted at a selected rural school. It was anticipated that teachers and learners from rural schools would engage in code-switching more frequently compared to those in urban public or private schools, who presumably have greater and more consistent exposure to the LoLT (Songxaba et al., 2017). The participants were also chosen based on their diverse professional qualifications.

Although the sample size of four teachers was small, the selected participants possessed characteristics that made them valuable sources of information for the study, while also being representative of teachers in similar contexts. The small sample size was in line with the qualitative case study methodology, which emphasises in-depth analysis of a limited number of cases.

2.2 Data collection tools

Face-to-face semi-structured interviews were conducted with the four participants at their convenience to gather their perceptions. The same teachers were observed while teaching Geography to determine their code-switching practices. Although the teachers were observed teaching four times each, the first three instances were intended to allow the teachers and learners to become accustomed to the presence of the researcher and behave as naturally as possible during the actual observations. This also helped to refine the observation schedule. The 40-minute observations provided sufficient data to draw conclusions about a participating teacher's code-switching practices. With the participants' permission, the observed lessons were audio-recorded and observation schedules were completed to document the participants' teaching practices. Care was taken to avoid causing disruption by sitting at the back, away from the learners' attention.

2.3 Data analysis

The study utilised thematic data analysis to analyse both the interview and observation data. Braun and Clarke's (2014) six-step process was followed, including becoming familiar with the data set through reading, re-reading, and transcribing the data. Coding was then done to identify and label relevant sections and keywords, as well as apply codes or colour highlights. Next, the data was grouped based on similar codes or colour highlights. Initial themes were generated by identifying emerging patterns where two or more codes were similar enough to form a theme. The significance of codes or keywords was determined by their repetition. The themes were then reviewed to ensure completeness in addressing the data and their alignment with the data set. Finally, the findings were written up. Thematic data analysis allowed for a comparison of teachers' perceptions and practices to determine congruency.

2.4 Ethics and trustworthiness

Trustworthiness was employed consistently with the qualitative nature of the study. Ahmed (2024, p. 1) observes that "researchers develop credibility by engaging over extended periods, observing persistently, and using triangulation." In the present study, the researcher (main author) sat in the classes selected for lesson observations for two weeks before conducting the actual observation. This allowed learners and the teacher to become accustomed to his presence and behave naturally. The fact that he taught at the same school made it easier for teachers and learners (as secondary participants) to get used to him. Methodological triangulation of interview and observation data helped to "cross-verify findings" (Ahmed, 2024, p. 2) and eliminate bias. The thick description of findings and contextual information enhanced the study's transferability to other contexts. The equally thorough documentation of the methodological processes ensured the study's dependability.

Confirmability was achieved through member checking, where participants confirmed the accuracy of their interview data.

The study was granted ethical clearance by the university where the main author studied (as the present study is part of a larger study for an academic qualification). Informed consent was obtained from the Department of Education, the School Governing body, the school principal, and the participating teachers. Assigning identification codes to participants helped protect their identity and respect their anonymity. Recorded data was kept safe on a personal encrypted password-protected online Google Drive account. The audio recording of data ensured accurate analysis. Participation was voluntary, and participants were informed that they could withdraw from the study without facing any consequences.

3. Presentation of Findings

This section presents the findings based on the identified themes. The thematic analysis revealed that the themes closely aligned with the interview questions. The four main themes included:

- Reasons for code-switching.
- Planned or spontaneous nature of teachers' code-switching.
- Level at which code-switching occurred.
- Frequency of code-switching.

Data is presented and discussed under each of these four themes in the subsequent subheadings and headings, respectively.

3.1 Reasons for code-switching

Items 1, 2, 3, 4, and 5 in the interview schedule all contributed to this theme. All participants agreed that code-switching should be practised in the classroom, and they all practised it. This is an example of teacher perceptions aligning with their practices. Regarding the purposes code-switching served, the following responses were gathered:

"I code-switch to make sure that my learners don't leave the class confused." Participant A

"To familiarise them with the concepts/topics using a medium they understand." "To close the gaps between the mother language and LoLT." Participant B

"So that I can accommodate all learners as learners are not of the same cognitive levels in class." Participant C

"When I feel they are not grasping it properly in English." Participant D

Although there were slight variations in the reasons for code-switching advancement, they all were academic reasons at the expense of the other reasons reviewed in the literature. This is presumably because the participants lack understanding of the broad range of purposes that code-switching serves in the classroom. While instances of academic code-switching were evident in the study (such as "To subside means to go ya kwa tlase. Kwa di pole'ong moya o ya fologa unlike at the Equator. At the equator moya o ya tlhatloga" Participant A), instances of code-switching serving other purposes were also abundant, as seen in the utterances below:

"Ha lo sa batle go dula mo class'ing yaka lo tswele kontle, go nale bana ba ba batlang go ithuta." Which translates as; "if you do not want to be in my class you must go outside, there are learners who want to learn." Participant A code-switching for classroom management reasons reprimands learners for making noise.

"Lo itse go ja rice ka tlhapi ka di ruler tsewa mara lo palelwa ke go di dirisa ha re mejara ka tsone", translated "You guys only know how to eat rice and fish with those rulers but now you fail to measure with them." Participant B code-switched for social reasons and introduced a lighter moment to the learning.

"Lo dira modumo. Ke senya nako ka go tlhola ke lo raya kere lo dira modumo." translated "You are making noise. I'm wasting time by always telling you to keep quiet." Participant B code-switching for classroom management reasons.

"The kind of weather ere buang ka yone fa does not refer to the temperature, this one strictly refers to the breaking down of rocks, go thubega ga matlapa." Participant C code-switching for social reasons.

"Ema mo pele mo o tsholetse matsogo a gago, o tswale matlho" commanding a learner to stand at the front and close his eyes with his hands raised, and "Ka break o tla go fiela class o le mongwe" which translates; "During break time you are going to sweep the class alone" Participant D's classroom management code-switching.

The word 'akere?', the equivalent of 'Isn't that so?' was used habitually used by most teacher participants. The most employed reason for code-switching was academic reason, followed by classroom management, and the least employed was social reason.

The most commonly mentioned reason for code-switching was to improve learner understanding. When asked about whether code-switching should be permitted in the classroom, Participant A responded,

"I say it should, the reason being some learners don't understand English (which is the language we use) so by code-switching to their home language (Setswana) it does help."

Participant A said she would code-switch "if I realise that they are confused." The difference between participant A and C's responses was that, for Participant A, code-switching served a broader purpose of enhancing learner understanding of the English language, whereas for Participant C, it had a more localised function of enhancing the understanding of "a few English terms". One would then expect Participant A to code-switch at the sentence and beyond the sentence level and Participant C to only code-switch at the word and at most, phrasal level. Participant C intimated that code-switching only needed to be practised when learners did not understand a particular term; she code-switched whole sentences, even when learners understood what she was teaching. In one of her code-switching instances, she said:

"Topography associated with horizontally layered sedimentary rocks *ke dithaba tse di ikadileng di bakilwe ke* Sedimentary rocks or soft rocks *tse e leng gore* di parallel to the horizon."

In their actual code-switching practices, both participants code-switched at different levels: the word, the phrase, the sentence and beyond the sentence level, suggesting that, for both, code-switching served both micro and macro understanding of communication.

In terms of the grade levels at which code-switching was a necessity, participants B and D opined that more code-switching was needed at earlier stages of the school system and cited the FET phase as needing minimal, if any, code-switching. They both taught in this phase (Grade 10 and Grade 12, respectively), and they were deemed as needing limited code-switching, but in practice, they employed it much.

Participant A, who had not limited her acknowledgement of code-switching relevance to a phase or chunk of language, practised much code-switching to the point of mixing English and Setswana in a single utterance, as in:

"Akere lo a itse gore fa re bua ka Topography Associated with Massive Igneous Rocks re bua ka eng?" or "Topography Associated with massive igneous rocks refers to makhubu a eleng gore a bakilwe ke di volcano, fa volcano e diragala go tswa Magma, when magma reaches the Earth's surface it becomes lava and then form a basaltic plateau."

The lack of specificity in her response ensured that her response was not at variance with her practice.

Although there was consensus on the need to code-switch, the given reasons showed both commonalities and variations. The four participants were asked when they code-switched, and the following responses came up:

"Like I said, if I realise that they are confused..." Participant A

"When the learner struggles to understand some particular concepts." Participant C

"When I feel they are not grasping it properly in English." Participant D

"I code switch when learners fail to understand what I am trying to express in English..." Participant B

All participants claimed to use code-switching reactively as a strategy to fix misunderstandings, rather than proactively to enhance understanding from the beginning. However, teacher practices showed that code-switching was habitually used even when there was little chance of communication being misunderstood in the target or base language. The many instances of teachers using code-switching for social reasons and classroom management are enlightening in this regard.

Participant D stated that he used code-switching to help learners understand concepts. For example, when a learner asked him what contour lines meant, he responded, "Contour lines are those brown lines you see on maps." He also explained spur ridges in another instance:

"spur ridge ke go hologela ga dithaba" which translates, "a lateral ridge of land descending from a hill."

However, in addition to using code-switching to enhance learners' understanding of concepts, he frequently employed code-switching for other purposes as well. One such example occurred when he made a joke in the following utterance, saying:

"The spur that we are talking about here is not a restaurant, lo rata dijo nyena" which translates to "You love food." Another example is when he reprimanded one learner saying, "Ka break o tla go fiela class o le mongwe" which translates to, "During break time you are going to sweep the class alone."

The participants all claimed that code-switching serves a reactive repair function, but not all of their code-switching practices were actually characterised by this function. During the class, Participant B asked the students to differentiate between an Orthophoto map and a Topographic map. One student gave the correct answer in English, and the teacher acknowledged the student for the accurate response. Without any other students displaying any confusion, she then elaborated on the student's answer:

"... Orthophoto map can be recognised through vertical aerial images, fa rere sengwe ke vertical aerial image it's when something se tsewa setshwantsho go tloga ko godimo."

This disconnect between the stated intention of repairing and reacting to the use of code-switching, and its continuous use even when no misunderstanding was evident, was observed among all teachers. This raised the question of whether teachers intentionally planned their code-switching or not. Planning would help explain situations in which code-switching was used regardless of the absence of learner confusion.

3.2 Whether teachers' code-switching was planned or spontaneous.

Only interview item 3 was relevant to this theme, as it asked participants about the nature of their code-switching - whether it was planned, spontaneous, or habitual. All participants indicated that

their code-switching was a result of the dynamics of their teaching, thereby confirming their perspective that code-switching is a reactive practice.

Participant A stated "It is something that happens, more especially when I realise that there are certain words I said, made them confused. First, I will look for a synonym of that word, then if they are still confused, I will code switch to check if they still don't understand."

In her teaching, she employed code-switching as an unmarked choice by reading out a chunk from the CAPS document and summarising it in Setswana, thus;

"Today, we are going to do identification of batholiths, laccoliths, lopoliths, dykes, sills and characteristics and processes associated with the development of granite domes and tors. Now, lo seke lo a ikopisa ditlhogo, dilo tse tsotlhe di bua ka dithaba, ke hela gore we give them different names according to their shape and structure".

During the interview, she claimed that code switching was a response to learner misunderstanding. However, in the example from her practice above, there was no evidence of learner misunderstanding before the switch to Setswana. This practice would have been an example of planned code-switching, where the teacher would plan the sections to present in the secondary form. A real reactive application of code-switching was evident in Participant C's practice, where she used code-switching as the default choice when learners were unaware that "Rock Strata" and "Sedimentary rocks" meant the same thing. He stated, "Rock Strata e tshwana le Sedimentary Rocks, actually ke selo se se one." While these examples are only illustrative, all four participants' code-switching practices were largely unplanned. Although they denied that their code-switching was habitual, some terms, like 'akere' observed earlier, were habitually used.

3.3 Level at which code-switching occurred.

Participants were asked how much they imported the Home Language into their classroom communication. The responses were as follows:

"I just drop a word in Setswana. I mean the word or words they don't understand, I try to say it in Setswana." Participant A.

"I just drop a word in a sentence that I think learners don't understand its meaning." Participant C.

"I mix languages in the same sentence and in explanations." Participant D.

"I use phrases most but at times I use a single word. I mix the languages because learners also struggle with their home language therefore, I use more informal language." Participant B.

What emerged from the responses was that participants perceived their code-switching as mainly occurring at the word and sentence level, with no instances beyond the sentence level. Participants A, B, and C reported code-switching at the word and phrase level, while only Participant D mentioned the sentence level. However, upon observation, code-switching was found to take place not only at the word and clause level but also at the sentence level and even beyond. This discrepancy indicates a disconnect between the participants' claims and their actual practices. For instance, Participant A's earlier example, where she used English and then summarised it in Setswana, demonstrates code-switching beyond the sentence level, despite her assertion that her code-switching is limited to the word level. Additionally, she also employed intrasentential code-switching, such as when she said:

"To subside means go ya kwa tlase. Kwa di pole'ong moya o ya fologa unlike at the Equator. At the equator moya o ya tlhatloga."

Participant B employed intersentential and intrasentential code-switching:

"True North is Bokone in Setswana." and "When you measure distance on your map you take your ruler and then you place it between the two points and then o bo sheba gore ke bokae, se sengwe gape o netefatse gore o beile ruler ya gago sentle mo diplekeng tse o di measure'ang" respectively.

Participant C's intrasentential code-switching example was when she said;

"Scarp retreat and back wasting ke selo se se ngwe."

An example of Participant D's intrasentential code-switching was

"Contour lines ke ditsela tse di brown tse o di bonang mo map'eng tsewa" and

"We can use spotheight, benchmark and trig beacons go bontsha di value tsa dithaba if re a di itse."

3.4 Code-switching frequency

Item 9 asked participants how often they code-switched. Three participants indicated that they only code-switched when necessary, supporting the idea that code-switching is an unplanned reactive practice. Participant A mentioned that she used code-switching sparingly, saying "Not much, here and there." However, despite her claim, she actually code-switched twenty times during a 40-minute lesson, which is not a sparing use of the practice. Participant B, who previously stated that code-switching should be used less in the FET phase, actually code-switched most of the time in her lessons. Some of the switches were out of habit rather than for the sake of clear communication. She even used whole chunks of the Home Language in her FET class, as seen in utterances like:

"When you measure distance on your map you take your ruler and then you place it between the two points and then o bo sheba gore ke bokae, se sengwe gape o netefatse gore o beile ruler ya gago sentle mo diplekeng tse o di measure'ang."

Participant C indicated that she only code-switched when it was necessary to do so,

"Only when learners don't understand a particular term in a sentence."

In practice, her lesson was Setswana dominated. Only Participant D switched codes sparingly, but a misunderstanding with the learner did not always necessitate it.

5. Discussion of Findings

In relation to the first theme regarding the reasons for code-switching in the classroom, the study discovered that while all participants claimed to use code-switching for academic purposes such as improving comprehension, clarifying misunderstandings, promoting conceptual development, and catering to the diverse abilities of learners, among others, the actual practice in their classrooms revealed that code-switching served more as a means of managing the classroom and fostering social interactions, rather than purely academic purposes. This finding supports Sibanda's (2021) argument that code-switching is extensively used for non-essential class management functions. The literature review by Rehman et al. (2020) also highlights the social functions of code-switching, including the introduction of humour in the classroom, which was frequently observed in the teaching practices of the participants. Diko (2023) further suggests that code-switching has become a customary social phenomenon driven by conversational needs. The negative perception of code-switching as a result of the assumption that it is not an ideal but a last-resort communication repair or compensatory strategy due to learners' limited linguistic competence was strongly evident among the participants. This finding aligns with Chen and Maarof's (2017) findings on Malaysian teachers who reported using code-switching to improve understanding of content for learners with low English proficiency. Similarly, Rehman et al.'s (2020) discovery of code-switching among Pakistani teachers for classroom management is consistent with the practices of the participants in this study but not with their perceptions.

The second theme examined whether participants' code-switching was planned or spontaneous, and it was evident from both their perceptions and practices that the practice was more spontaneous in nature. Given the participants' apparent deficit view, it can be assumed that they believed it was difficult to predict beforehand when communication repair would be necessary. Therefore, Myers-Scotton's (1993) concept of code-switching as a sequence of unmarked choices was not applicable, as accidental or unplanned code-switching as a marked choice was observed in both the perceptions and practices of the participants.

The third theme of the study focused on the extent to which code-switching occurred among the participants. The findings revealed a predominant use of intrasentential code-switching in both the participants' practices and perceptions. Participants reported code-switching at both the lexical and clausal levels, which was confirmed by their actual language use. According to Diko (2023), the majority of code-switching instances occurred within a clause or sentence boundary. Intrasentential code-switching was observed despite the fact that the languages involved, Setswana and English, are not considered cognate languages that typically facilitate intrasentential code-switching, as highlighted by van der Westhuizen and Niesler (2018). Additionally, emblematic switching of codes, defined as the insertion of tags, exclamations, and set phrases from one language into an utterance predominantly in another language, was also observed (Diko, 2023). The exclusive reliance on these two levels of code-switching indicated a tendency for quick alternations between languages, which arguably hindered the development of literacy and competence in either language. Sibanda (2021) referred to this pattern as the pedestrian use of Home Languages, suggesting a superficial engagement with language switching.

The final theme aimed to determine the frequency of code-switching in the participants' practices. Although participants denied regular code-switching in the classroom, their pedagogical practices provided evidence to the contrary. Some lessons were characterised by what Han, Li, and Filippi (2022) termed a "dense code-switching context". This highlighted the inevitable nature of code-switching, even in higher grades of the basic education schooling system, as reflected in both teachers' perceptions and practices. Habitual code-switching manifested as extrasentential switches, where monosyllabic tags and fillers were used for pragmatic purposes within discourse. Despite participants' claims of employing code-switching solely for academic purposes, the study revealed that all categories of code-switching purposes were evident in their practices. This suggested that code-switching was regularly used for various functions beyond purely academic reasons.

4. Conclusion and Recommendations

The findings revealed that the participating teachers' understanding and application of code-switching were sometimes consistent and sometimes inconsistent with their actual code-switching practices. The common ground among them was the recognition that code-switching was necessary and a characteristic of their classroom practices, often done spontaneously or on the spot. However, there were discrepancies between how they perceived their code-switching and how they actually implemented it, particularly in terms of the purposes and frequency with which it occurred. Moreover, participants displayed mixed views and practices regarding code-switching at the sentence level, while their practices also revealed code-switching beyond the sentence level, which they did not acknowledge in their perceptions. The research questions were addressed by examining both the participants' perceptions and practices and analysing and discussing their intersection. The study findings suggested that, in most cases, teachers' code-switching practices were not guided by their beliefs, perceptions, or thoughts, raising doubts about their awareness of their own beliefs and perceptions.

Based on the findings made, the study recommends that:

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- Conversations and workshops on languaging in the classroom should be held with in-service teachers so that they consciously develop languaging perceptions that would influence their classroom practice.
- Future studies will establish teacher code-switching perceptions and practices, conduct an intervention on research-based best practices, and conduct post-workshop classroom observations.

5. Declarations

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