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Learners' and teachers' perspectives on the use of code switching in Geography teaching and learning

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ABSTRACT

Language of instruction stands as a crucial element in fostering learners' comprehension of any subject matter. Prior studies indicate that learners' limited proficiency in the English language is among the factors influencing their performance in Geography. The present study delved into the impact of code switching in the domain of Lesotho's geography education, drawing insights from both learners' and teachers' viewpoints. Drawing on Hoffmann's theory of code switching, the study employed explanatory sequential mixed method research design, which involved classroom observations, focus-group interviews as well as in-depth interviews with grade 10 learners and teachers respectively. Findings indicate that code switching in geography education improves learners' comprehension by improving their proficiency in subject-specific terminology. However, an over-reliance on code switching must be avoided as learners can lose their ability to employ geography vocabulary. This study suggests that the Lesotho Education Language Policy could be revised to include the selective use of mother tongues in teaching and learning.

Keywords: Geography, Code switching, Perception, Academic performance, English language proficiency

INTRODUCTION

Geography is the study of interrelationships between humans and the environment and is concerned with understanding the outcome of human–environment interactions (Strahler, 2013). The pedagogy of this subject is predominantly learner-centred and inquiry-based, with instructional techniques such as field work, case studies and research taking centre stage (Opoku et al., 2021). Like many other curricular subjects, global research indicates that various factors contribute to poor academic performance in Geography. To cite examples, key factors include insufficient teaching resources, learners' weak mathematical literacy, and deficits in learners' English language proficiency (Mwesiga, 2017). The latter is under-addressed in the literature although research indicates a direct link between learners' poor academic performance in Geography and their proficiency in English as the language of instruction (Mwesiga, 2017). For instance, Namibian National Junior Certificate examination reports for 2012 and 2015 consistently attribute learners' poor performance in Geography to their limited command of the English language (Shilongo, 2017). Similar situations emerge in Zimbabwe, where learners with limited proficiency in English fail to adequately address questions in Geography examinations (Opoku et al., 2021). With English being the primary medium of instruction in many southern African countries including Lesotho, this concern holds significance and calls for intervention.

There is research evidence that learners struggle in Geography lessons as a result of their deficits in the English language. They struggle to answer questions both during lessons and examinations. Further, they struggle with some terminology of the subject (Mwesiga, 2017; Maluleke, 2019). This is due to the fact that English is the second language to many learners in African countries, such as Lesotho. The same challenge is consistently highlighted in Lesotho General Certificate of Secondary Education (LGCSE) geography examiners' reports of 2018, 2019, 2021 and 2022. In these reports, teachers are advised to help learners in mastering specialised Geography terminology (Moea, 2022). According to Nyoni et al. (2019), Geography involves terms infrequently used in learners' daily lives, potentially hindering their understanding and academic performance. This warrants careful language usage by teachers to effectively convey content to learners (Chikiwa & Schäfer, 2019), particularly in Geography which has specialised technical language. The support needed could involve code switching between English and Sesotho which is the mother tongue for the majority of learners in Lesotho secondary schools. As stated in the new Lesotho Basic Education Curriculum Policy, there is the expectation that learners should access the curriculum without language barriers (Ministry of Education and Training, 2021). This stresses the need for teacher to be innovative enough to ensure that learners access content of lessons without language deficit hindrance. However, learners' failure to comprehend Geography content due to limited proficiency in the English language could be attributed to the Lesotho Education Language Policy (LELP) of 2019. As the directive policy, LELP stresses that Sesotho should be used as a medium of instruction from grades 1 up to 3 while lessons should be run in English from grade 4 onwards. In effect, learners

could reach higher grades with insufficient English language background, thus may struggle to comprehend Geography content and other curricular subjects.

Globally, code switching is recognised and viewed as a tool in education and is perceived as a technique that can enhance mutual understanding between learners and teachers (Stromvig, 2018; Suganda et al., 2018). In Oman, teachers opt for code switching when learners face difficulties related to content subjects (Albakri, 2017). In South Africa, code switching has been utilised in subjects such as mathematics and has yielded success (Chikiwa & Schäfer, 2019). Similar results could be achieved in Lesotho's Geography education, where there is a paucity of research on the utilisation of code switching. As such, the aim of this study is to investigate learners' and teachers' perspectives on the impact of code switching in Lesotho Geography education. This article reports research findings of a broader study on perspectives of learners and teachers on the use of code switching in Lesotho Geography lessons.

The theoretical concept of code switching

This study is underpinned by Hoffman's theoretical concept of code-switching. For Hoffman (1991), code switching is the alternating utilisation of two languages in the same conversation, within and between grammatical boundaries. In this case, each sentence or clause is in a different language. Code switching should be situational (Hoffman, 1991; Mabule, 2015; Suganda et al., 2018: Holmes & Wilson, 2022). Additionally, Auer (1998, p. iii) describe code switching as the 'alternating use of two or more languages during the course of a conversation'. Among the varieties of code switching, this study aligns itself with inter-sentential and intra-sentential. As outlined by Hoffman (1991) and Khalil & Firda (2018), the former takes place between sentence boundaries, with each sentence composed in a distinct language, where the initial sentence is articulated in the primary language (L1), succeeded by the subsequent one in the secondary language (L2). Essentially, this transpires within different yet cohesive sentences within the same utterance. In the context of Geography teaching and learning, the initial sentence might be in English, followed by a sentence in Sesotho, aiming to cater for learners with lower English language proficiency.

Furthermore, another category of code switching is intra-sentential. In accordance with Hoffman (1991), this type of code switching arises when the speaker integrates a word from another language within a sentence or clause. As indicated by Muthusamy et al. (2020), the employment of intra-sentential code switching is motivated by the necessity to underscore points and convey content clearly to listeners. In this context, a geography teacher might inject a phrase or term from Sesotho, isiXhosa or Phuthi to replace English phrases or words that learners find challenging to understand. Subsequently, as learners exhibit mastery over initially challenging Geography concepts, the reliance on code switching may diminish.

Moreover, the choice of language is influenced by the linguistic attributes of the

speakers and listeners. For example, the selection of a particular code may depend on whether those participating in the conversation (such as Geography teachers and learners in this context) understand the chosen language or code. This is why Inuwa et al. (2014) emphasise the importance of ensuring that all participants comprehend the language when considering a switch in codes. This principle holds true within Geography teaching and learning efforts. Languages used in a conversation may change based on the circumstances in which the participants find themselves. In this context, different languages are employed in different situations, while the core topic remains constant (Holmes & Wilson, 2022). For instance, within the context of this study, situations could arise when Geography teachers recognise the necessity to clarify content due to learners struggling to grasp concepts owing to language barriers. This implies that English, as the medium of instruction in Lesotho's education system, can be utilised during Geography instruction when learners are capable of comprehending concepts, and then the mother tongue can be employed when teachers intend to overcome language barriers.

Drawing from Hoffman (1991), code switching performs various functions, with this study aligning itself with clarification and repetition. A clarification function occurs when the speaker (i.e. the Geography teacher) wants to be better understood by the listener (the learner) (Hoffman, 1991; Sinaga & Hutahaean, 2020). In effect, this would make the content of a Geography lesson more comprehensible to learners. In terms of repetition, code switching occurs when the speaker utilises two languages to elucidate their speech. Other functions include providing emphasis about certain issues to ease comprehension by the listener. This occurs when there is adequate utilisation of more than one language for listeners to have full grasp of the speech's content (Hoffman, 1991). This allows for reinforcement of important points.

METHODOLOGY

This study was conducted in two Maseru secondary schools in Lesotho and is situated in the philosophical lenses of pragmatic constructivism. For this perspective, people construct their knowledge and understanding of the world around them based on their experiences and reflections (Fadul, 2019). Therefore, people create, utilise and share their experiences to contribute to their understanding. Grounded in pragmatic beliefs, the study acknowledges that participants' experiences and beliefs shape their viewpoints on the impact of code switching in geography education. Pragmatism argues that perspectives should be grounded in the outcomes of actions, which in this case pertains to the use of code (Creswell & Creswell, 2018). In other words, learners' and teachers' perceptions on the impact of code switching can be better understood when illuminated in relation to their varied lived experiences.

In this study, the population of interest comprises 112 participants from two schools. The sample size from this population totalled 29 participants, including 26 learners aged between 18 and 24 as well as three geography teachers, and was systematically selected. The eligibility criterion, which outlines the prerequisites that qualified individuals to be selected as research participants, was that Geography teachers must have taught for at least five years.

The assumption is that they have enough teaching experience to be able to inform on the use of code switching in Geography teaching and learning. The methods of data generation used in this study were non-participant structured classroom observations in conjunction with field notes. A total of eight Geography lessons were observed in a period of two weeks. This data generation method was able to capture participants' non-verbal behaviours (Cohen et al., 2018). The overarching goal of the structured classroom observation was to scrutinise whether code switching had a tangible impact on teacher–learner interactions. Further, focus groups (with learners) and in-depth interviews (with teachers) were used for the qualitative phase. Semi-structured questions were used. The length of interviews with teachers ranged between 40 to 50 minutes while grade 10 learners were interviewed for 40 minutes. In accordance with Adom et al. (2016) and Cohen et al. (2018), focus groups were used to enable learners to share their individual and collective viewpoints. The combination of these methods of data generation contributed to validity, trustworthiness and reliability of the findings.

Data were analysed using thematic content analysis, which involves identification of emerging themes or patterns from the datasets (Braun & Clarke, 2006; Stranges et al., 2014). In particular, inductive coding was used where codes and themes stem from the generated qualitative dataset, as outlined by Adom et al. (2016). Atlas.ti data analysis software was used to generate codes and themes. These were developed after the phrases and terms used in participants' responses, thus giving voice to the datasets. For the quantitative data, deductive coding entails a predetermined set of themes derived from the study's theoretical framework and literature (Linneberg & Korsgaard, 2019). This was coupled with verbatim quotations, where direct quotations from both learners and teachers were incorporated into the analysis as recommended by Phaswana (2010). Since then it has been a legal requirement to establish representative councils of learners (RCL).

Ethics statement

The letter of introduction for obtaining permission was submitted with the ethical clearance certificate (Ref#:DEM/IIT/000) to the two schools concerned. Participation was voluntary and a consent form was issued prior to data collection to explain the purpose and duration of the study as well as potential risks. The learners' age group ranged from 18 to 24 years. Parental consent was obtained if the learners were minors. Participants' real names were substituted with pseudonyms when reporting the findings to ensure confidentiality and anonymity.

RESULTS

This section reports the findings of the study according to the following themes: learners' proficiency in English language and ability to learn Geography; learners' and teachers' understanding of code switching; topics requiring the use of code switching; and impacts of code switching.

Learners' low English language proficiency and their ability to learn Geography

Classroom observations showed that learners grapple with comprehending certain geographical terms and concepts due to their limited proficiency in English. This difficulty stems from their reliance on their teachers' explanations and clarifications, facilitated by code switching between English and Sesotho. A total of 11 terms were identified as challenging for learners due to their English language deficits. Ten of these terms were associated with the topic of river processes at school A, while the remaining term emerged within the context of tourism at school B. The terms identified were 'tributary', 'meandering river', 'drainage', 'river bank', 'confluence', 'vertical erosion', 'headward erosion', 'lateral erosion', 'boulders' and 'suspension'. At school B, the term 'tourist destination' on the topic of tourism posed challenges for learners. Among these 11 terms, two – lateral erosion and tributaries – stood out as particularly challenging due to English language limitations.

It was apparent that learners possessing limited proficiency in English encountered difficulties in Geography lessons. This is illustrated in Figure 1. Their struggles extend to effectively participating in classroom discussions, which subsequently appeared to impact their grasp of geographical concepts. Furthermore, this carries consequences for their academic achievements, as underscored by the observations of teacher X (school A). This, in turn, influences their performance during assessments and examinations.

> *'Learners face challenges is expressing themselves in English, especially in a geography class when they are attempting to answer a question. The other challenges are when writing. If they cannot express themselves very clearly, in English, then it becomes a problem when they have to put a pen on the paper' (Teacher X, school A).*

Along similar lines, Teacher Y (school A) explained that, *'they are not able to express themselves until I emphasise in Sesotho'.* Teacher Z (school B) stated that *'the major challenge is that I come across a situation where learners want to attempt the questions in Sesotho because they cannot express themselves clearly'.*
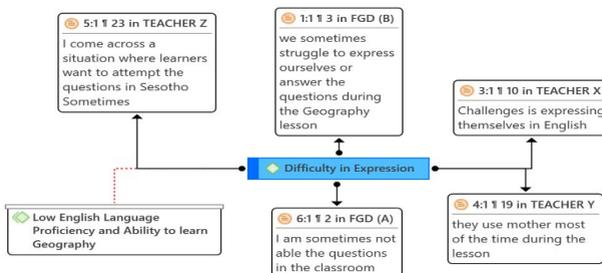

Figure 1. Illustration of low English language proficiency and learners' ability to learn Geography.

The analysis revealed that the challenge of struggling with expression was consistently evident in the responses of all participating teachers. This perspective was corroborated by the viewpoints of learners from school A. This challenge was acknowledged by 10 out of 29 participants (34%), encompassing all three teachers and seven learners across the two schools.

Learners also struggle to understand some geography terms due to deficits in the English language. This challenge manifests in some topics like marine and river processes as indicated by respondents 1A and 2A. This could translate into performing poorly in not only those topics of the syllabus but many others.

> *'I struggle to understand some geography concepts or terms such as in the topic of marine process'* (respondent 1A).
> *'I get affected such that I do not understand some geography terms such as lateral erosion. Again, this affects my performance in topics such as in marine process and river processes'* (respondent 2A).
> *'I always struggle to understand geography terms such as lateral erosion. I also struggle in topics like in marine processes, thermal and wind power and plate tectonics'* (respondent 3A).
> *'I am sometimes not able the questions in the classroom or understand what the teachers is saying to us'* (respondent 1B).
> *'It affects so much and there are some geography terms that challenge me like in the topics weathering, river processes'* (respondent 2B).

A common thread of similarity exists within the responses of learners from school A. Their shared challenge revolves around the impact of their limited English proficiency, which serves as the medium of instruction, on their capacity to comprehend Geography. Consequently, they encounter difficulties in grasping certain terms and subjects. The majority of topics and concepts mentioned (river processes, marine processes, lateral erosion, plate tectonics) are from section A of the geography syllabus (Elements of Physical Geography). Additionally, two of the topics mentioned (thermal power and wind power) are from the section B of the syllabus (Economic Geography).

Geography learners' and teachers' understanding of the concept of code switching

At the beginning of the interview, Geography teachers were asked about their understanding of the concept of code switching. This inquiry aimed to determine their level of familiarity with the concept. Example responses are:
'I understand the concept code switching in a notion that sometimes when concepts are too difficult for learners to understand when I teacher in English, I could switch between English and Sesotho so that they can better understand the concept and some geography terms'. (Teacher X, school A). Teacher Y (school A) expounded that *'code switching is when*

I use English and Sesotho in the geography classroom while teaching with the intention of making the lesson easily understood by learners because not all of them understand English very well'. Moreover, Teacher Z (school B) indicated that *'for me, code switching is using both English and Sesotho here and there to make content of geography to be easier for learners to understand'.*

These responses illustrate that the teachers participating in this study comprehend the concept of code switching as the practice of utilising both English and Sesotho languages during Geography lessons. The interviews further revealed that Geography teachers possess an awareness of code switching and recognise its significance in the realm of geography education. They perceive it as a supplementary instructional strategy, employing it to facilitate learners' understanding of specific terms. Notably, teacher X employs code switching from English to Sesotho and vice versa as a means of clarifying potentially intricate concepts.

Learners also shared their understanding of the concept code switching: *'I understand code switching as the situation when our teachers speak in English and Sesotho (it) help (sic) us understand geography content.'* (Respondent 1A)*; 'Code switching is when we are taught in English and Sesotho so that we understand better."* (Respondent 3B)*; 'Code switching is when our geography teacher speaks in English and Sesotho when we do not understand when he is teaching in English alone.'* (Respondent 2B)*; 'It is when we are taught in English and Sesotho so that we understand geography content better.'* (Respondent 4A).

Situations or appropriate times when code switching can be used in geography lessons

This study also intended to establish circumstances that could warrant or provide impetus for the use of code switching in geography lessons. Table 1 shows that both learners and teachers possess an awareness of code switching within Geography classes. The majority (62% of participants, comprising 15 learners and 3 teachers) hold the view that code switching can be effectively employed for purposes of illustration and clarification.

For example, one learner said *'I think my geography teacher should code switch when giving examples so that the lesson becomes relatable but it should not be all the time because we use English during examination'* (Respondent 1A). Furthermore, teachers had a similar perspective. Teacher X from school A stated that *'I think one of the situations that requires the use of code switching is when I mentioned examples so that learners can relate and understand what I am teaching.'*

Moreover, three participants, consisting of two teachers and one learner, view that code

Table 1. Learners' and teachers' views on circumstances when the application of code switching can be used in Geography teaching.

Opinions	F (N=29)	Percentage (%)
For illustration and clarification	18	62%
When introducing a new topic	3	10%
When experiencing difficulty in expression	21	72%
During fieldwork	3	10%
When explaining diagrams and pictures	2	7%

switching can be effectively utilised during fieldwork. Fieldwork constitutes a fundamental component of Geography pedagogy. This approach facilitates better comprehension and relatability for learners. Teacher Y from school A stated that *'for the years I have been teaching geography, code switching can be useful when I take learners for fieldwork so that they see the content like diagrams and processes in reality. It improves their understanding in that situation.'* Teacher Z (school B) indicated that *'code switching can be used during fieldwork like I use it when I take (learners) to rivers. It improves their understanding.'*

Learners and teachers view code switching as suitable for explaining structures and diagrams, an approach could prove beneficial since geographical concepts and exams frequently necessitate learners to draw and understand labelled diagrams. For example, *'I think when our teacher is supposed to use English and Sesotho when explaining diagrams and structures.'* (Respondent 3A). Teacher X explained that *'I use both languages when explaining diagrams and when using teaching aids to help them understand better.'*

Geography topics that favour the use of code switching

During the interviews with Geography teachers, one of the questions pertained to the topics in which they believe code switching could be utilised, drawing from their teaching experience. In total, code switching was identified as beneficial in 10 different topics. Half of geography topics and concepts in which code switching proves advantageous are drawn from section A of the syllabus (Elements of Physical Geography) and these are river process, map reading, weather and climate, weathering, and marine processes. A single concept was mentioned from section C (Settlement, Population, and Migration), specifically population pyramids. Both participant learners and teachers also cited map reading and interpretation skills from section D (Basic Techniques and Inquiry Skills). Learners also mentioned the topics of thermal and wind power from section B (Economic Geography) of the syllabus. Teacher X said: *'I think there are many topics in the geography syllabus that requires teachers to use both Sesotho and English when teaching them. Topics such as marine processes because in Lesotho we have no access to the sea so you find that topics is* [sic] *not familiar to learners.'*

Impacts of code switching in teaching and learning during structured lesson observations

This study found that code switching is beneficial in numerous ways when employed in Geography lessons. During classrooms, code switching was utilised to perform a number of functions during classroom observations (Figure 2).

Based on the aforementioned results, Geography teachers are conscious of the opportunity to incorporate code switching into their instructional methods in order to include all learners in a discussion. Code switching was employed more frequently for various functions at school A compared to school B (Figure 2). This could be because the topics taught during classroom observations varied between the two schools. School A was teaching river processes at the time, and school B was teaching tourism. Consequently, the situations that warrant the use of code switching might differ from one topic to another.
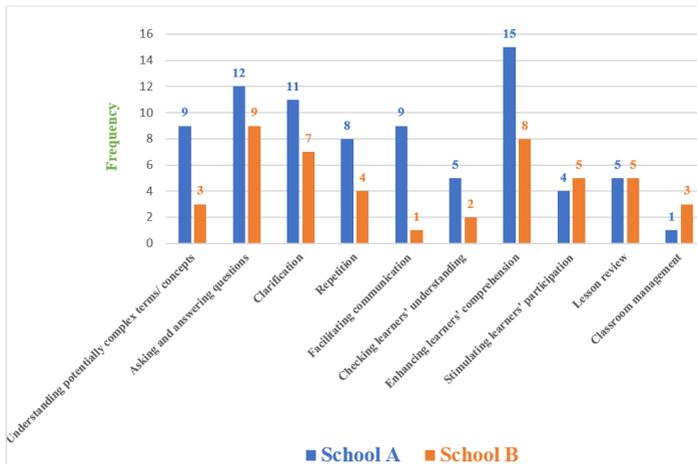

Figure 2. Code switching functions during Geography lessons at schools A and B.

In an effort to enhance learner comprehension, teachers employed code switching to elaborate on concepts and render the lesson content more accessible. Lateral erosion was one such concept. For example, teacher X said *'Lateral erosion happens on the river's banks and widens the river. E etsahala mabopong a noka, o tla bona noka ea rona e ba sephara.'* The latter sentence means 'it happens on the river banks and the river becomes wider as a result.' Likewise, teacher Y employed code switching (intra-sentential level) to clarify geographical terminology, particularly focusing on the topic of river processes and the concept of confluence. This instructional approach rendered the lesson content relatable to learners. For instance, one learner provided an example of Roma valley joining Phuthiatsana river, as these are rivers in close proximity. The fact that learners

mentioned nearby rivers as examples after the teacher explain the idea of confluence in both languages signifies that code switching makes the concept more understandable.

IMPACTS OF CODE SWITCHING FROM LEARNERS' AND TEACHERS' PERSPECTIVES

Improved comprehension

The employment of code switching emerged as a strategy to aid learners in comprehending and engaging with the lessons. This viewpoint was shared by two (one teacher from each of the two schools) out of the six participant teachers. Furthermore, learners from both schools conveyed that the integration of code switching enhances their grasp of the subject's content. In particular, it helps learners to be conversant with geographical terminology and also brings clarity when dealing with diagrammatic content and practical components of the subject especially on the topic of map reading and interpretation skills. For instance, teacher Z said: *'…switching helps a lot when dealing with practical activities, especially in the topic of map reading and interpretation. When I switch languages, they understand the calculations in that topic very well, like actual ground distance calculation, 4 and 6 grid reference.'* Learners also share the same observation, for example, *'I understand better when our geography teacher is explaining diagrams and structures in English and Sesotho. It also helps slow learners—they understand quickly'* (Respondent 5B).

In terms of mastery of geographical terminology, respondent 1A said: *'It helps us understand some geography terms that we struggle with in terms of their meaning. There are geography terms that we understand when our teacher elaborates in Sesotho.'* Hence, as per the presented evidence, code switching assists learners in grasping concepts that they might otherwise struggle with due to their limited command of the English language.

Improved learners' participation and collaboration

Incorporating code switching in instruction enhances learners' participation, which serves as a way for teachers to gauge their comprehension and can act as an indicator of successful content delivery. Teacher X from school A said: *'When I code switch they better understand and you will see some of them especially the slow learners, they are active in class, they participate.'* Learners also hold the view that the utilisation of code switching in Geography lessons improves their participation. Respondent 1B said: *'when our geography teachers use both Sesotho and English during the geography class, that is when I understand the content better and I am also able to participate during the lesson.'*

Based on the aforementioned evidence, it can be concluded that code switching education provides learners with an opportunity to participate in discussions and better express themselves. This was also evident during the observed classroom sessions. This can aid teachers in identifying gaps in learners' knowledge and adjusting their teaching approach accordingly.

Improved academic performance

The use of code switching enhances learners' academic performance in Geography, resulting in improved outcomes in tests and examinations. Teacher Y said: *'Yes, you find that when they write tests or examinations, learners perform well. Indeed, you find they pass with good grades.'* Likewise, learners from both schools said that incorporating both English and Sesotho in instruction enhances their academic performance. Respondent 2A said that *'when my teacher speaks in English and Sesotho, this increases our understanding and this also increases our performance in examinations.'* Respondent 3B said that *'when our teacher speaks in English and Sesotho, it helps us understand the lesson well and we perform better in examinations.'* This shows that employing code switching (English and Sesotho) in Geography education could lead to enhanced performance and better grades.

However, learners and teachers also considered that code switching comes with some drawbacks if used excessively. They agree that code switching should be employed only when necessary to avoid challenges during examinations. Teacher Y said, *'I think code switching should be used in a geography class only when making emphasis on some concepts or trying to clarify so that learners can understand better. Otherwise, lessons should be conducted in English so that learners do not struggle to answer questions in an examination.'*

Learners also emphasised that while code switching has benefits when used in Geography classes as examinations are conducted in English. Respondent 1B said: *'We may be tempted to speak Sesotho throughout the lesson. So, code switching should not be used all the time.'* Similarly, teacher Z said: *"Question papers are not provided in Sesotho even though code switching is helpful to us as geography teachers. I advise all geography teachers to teach in English most of the time and use Sesotho where necessary.'*

As evidenced above, all learners and teachers from both schools agree that code switching should be used in Geography classes when it is deemed necessary. This could involve clarifying, emphasising, or reiterating concepts that learners might find challenging due to their English language deficiencies. This approach can help them learn Geography more effectively.

DISCUSSION

Geography teachers and learners in this study perceive code switching as marrying English and Sesotho with an intention of making complex concepts easily understandable. From their responses, they view code switching as the incorporation of both English and Sesotho in Geography classes with the goal of facilitating an understanding of the subject matter. As per Hoffman's theory, teachers conceive of code switching as a strategy to make speech content intelligible to the listener, which in this case pertains to Geography learners. As indicated by Muthusamy et al. (2020), the employment of intra-sentential code switching is motivated by the necessity to underscore points and convey

content clearly to learners. Therefore, code switching is essential in geography lessons in circumstances when learners struggle to grasp some concepts.

Moreover, analysis of both qualitative and quantitative results reveals that utilising code switching improves learners' comprehension in numerous ways. It improves their familiarity and mastery of geographical terminology hence this pedagogic technique could be a solution to the problem highlighted in LGCSE geography examination reports that learners should be helped to be conversant with terminology. Code switching also improves their comprehension during field work as well as during practical activities like map reading and interpretation. Likewise, Chikiwa & Schäfer (2019) and Nhi & Nhung (2020) found that teachers view code switching as a means to elucidate new subject-specific vocabulary, thereby enhancing comprehension. This suggests that code switching contributes to learners' mastery of terminology (Simasiku et al., 2015). Chikiwa & Schäfer (2019) found that in South Africa, mathematics teachers perceive code switching as helpful during practical activities. Code switching in Lesotho Geography education could enhance learners' geo-numeral literacy.

This study also found that code switching in geography education is useful in lessons that involve diagrams. This is in congruence with Maluleke (2019) that code switching aids teachers in clarifying complex concepts and encourages active participation among learners. It can also be used for reformulation purposes as well as for clarification and interpretation (Suganda et al., 2018). Analysis also revealed that utilisation of code switching can improve learners' academic performance and active engagement during geography lessons. Maluleke (2019) asserts that code switching aids teachers in clarifying complex concepts and encourages active participation. When learners are active participants in the classroom, this maximises their chances of grasping subject matter.

However, findings also point out that if over-used, code switching could decrease learners' knowledge of terminology. This is because learners may fail to understand some geography terms when explained in English alone. This resonates with Dema & Dorji (2021) that code switching should be done selectively to avoid losing subject-specific vocabulary. Tahir et al. (2022) found that excessive use of code switching could potentially hinder the development of critical thinking skills. Consequently, teachers should exercise caution and refrain from relying on it extensively. Horasan (2014) and Kamal & Ramly (2022) caution against excessive reliance on code switching, as it could potentially impede learners' proficiency in the language relevant to the subject being taught. This underscores the need to moderate the use of code switching, gradually reducing its application as learners enhance their English proficiency and conquer initially challenging content.

CONCLUSIONS

Geography teachers and learners in Lesotho perceive code switching in Geography lessons as a strategy with ample pedagogic benefits. They view it as an instructional technique that improves learners' comprehension of geographical content in various

ways. For instance, it supports learners during teaching and learning of diagrammatic content and practical activities and this could increase learners' performance during examinations. However, although code switching is useful in terms of removing language barriers, we caution that it should be used with care to avoid compromising learners' ability to acquire disciplinary language. Teachers should not allow learners to code switch as and when they please. Teachers should resort to code switching only under certain circumstances, such as when learners struggle with geographical terminology and when dealing with content that appears new to learners. This will ensure a balanced utilisation of code switching. To this end, this study could inform curriculum decision makers in Lesotho on the importance of code switching between English and mother tongues in the teaching of school subjects such as Geography. Therefore, we recommend that the Lesotho Education Language Policy (LELP) could be revised to incorporate the situational use of both English and Sesotho (code switching) as evidence highlights that this has pedagogical relevance. This policy could be modified such that it emphasises the use of English as a medium of instruction from grade 1 onwards so that learners grow up with a strong foundation in the English language from the grass-roots level. Teacher training institutions could adjust their curricula to incorporate code switching, with a clear focus on how and when to employ it in teaching and learning.

REFERENCES

Adom, D., Attah, A. Y., & Ankrah, K. (2016). Constructivism Philosophical Paradigm: Implication for Research, Teaching and Learning. *Global Journal of Arts Humanities and Social Sciences,* 4(10), 1–9.

Albakri, S. (2017). *Effects of English medium instruction on students' learning experiences and quality of education in content courses in a public college in Oman.* Unpublished PhD thesis, University of Exeter.

Auer, P. (ed) (1998). *Code-Switching in Conversation: Language, Interaction and Identity.* London: Routledge.

Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology,* 3(2), 77-101.

Chikiwa, C., & Schäfer, M. (2019). Teachers' use of verbal language to evoke visualizations in multilingual mathematics classes. *Perspectives in Education,* 37(2), 124–140.

Cohen, L., Manion, L., & Morrison, K. (2018). *Research Methods in Education, 8th ed.* London: Routledge.

Creswell, W. J., & Creswell, J. D. (2018). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. Sage: Los Angeles.

Dema, D., & Dorji, U. (2021). Learners' Preference: A Reason to Use Code-Switching in Teaching and Learning Short Stories in Grade X English. *Educational Innovation and Practice,* 5, 36–60.

Fadul. F, M. (2019). Constructivism Philosophical Paradigm: Implications For Reserch, Teaching And Learning. *Global Journal of Arts Humanities and Social Sciences,* 4(10), 1–9.

Hoffman, C. (1991). *An Introduction to Bilingualism.* London: Longman.

Holmes, J., & Wilson, N. (2022). *An Introduction to Sociolinguistics, 6th Ed.* Routledge: Los Angeles.

Horasan, S. (2014). Code-switching in EFL classrooms and the perceptions of the students and teachers. *Journal of Language and Linguistic Studies,* 10(1), 31–45.

Inuwa, Y. N., Christopher, A. A., & Bakrin, H. B. (2014). Factors Motivating Code Switching Within the Social Contact of Hausa Bilinguals. *IOSR Journal of Humanities and Social Science,* 19(3), 43–49.

Khalil, S., & Firda, M. S. Z. (2018). Inter-Sentential and Intra-Sentential Code Switching in Parliamentary Debate. *International Journal of Modern Languages and Applied Linguistics,* 2(4), 29-35.

Kamal, M. A., & Ramly, B. (2022). The Effects of Code Switching in English Language Classroom during Online Distance Learning and its Effects on Executive Function Performance. *International Journal of Academic Research in Progressive Education and Development,* 11(3), 1563–1583

Linneberg, M., & Korsgaard, S. (2019). Coding qualitative data: a synthesis guiding the novice. *Qualitative Research Journal,* 19(3), 259–270.

Mabule, D. R. (2015). What is this? Is It Code Switching, Code Mixing or Language Alternating? *Journal of Educational and Social Research,* 5(1), 339–350.

Maluleke, M. J. (2019). Using code-switching as an empowerment strategy in teaching mathematics to learners with limited proficiency in English in South African schools. *South African Journal of Education,* 39(3), 1–9.

Ministry of Education and Training (2021). *Lesotho Basic Education Curriculum Policy.* Maseru: Government of Lesotho.

Moea, K. (2022). Problems Faced by Lesotho Piloting High School Teachers in Implementing the 2009 Curriculum and Assessment Policy. *Merit Research Journal of Education and Review,* 10(4), 69-73.

Muthusamy, P., Muniandy, R., Kandasamy, S. S., Hussin, O. H., Subramaniam, M., & Farashaiyan, A. (2020). Factors of code-switching among bilingual international students in Malaysia. *International Journal of Higher Education,* 9(4), 332–338.

Mwesiga, F. (2017). *Factors Influencing Students' Poor Performance in Geography Subject in Tanzania: the Case of Community Secondary Schools in Morogoro.* Unpublished MA dissertation, Mzumbe University.

Nhi, D. N. L., & Nhung, P. T. H. (2020). Primary Teachers' Code-Switching in EFL Classrooms. *European Journal of Foreign Language Teaching,* 75(2), 72–93.

Nyoni, E., Manyike, V., & Lemmer, E. (2019). Difficulties in Geography teaching and learning in the ESL classroom in Zimbabwe. *Per Linguam,* 35(2), 74–87.

Opoku, F., Serbeh, R., & Amoah, E. G. (2021). Geography education in perspective: an enquiry into Ghanaian senior high school students' positive and negative attitudes towards geography. *International Research in Geographical and Environmental Education,* 30(1), 39–53.

Phaswana, E. (2010). Learner councillors' perspectives on learner participation. *South*

African Journal of Education, 30(1), 105–122.

Racca, R. M. A. B., & Lasaten, R. C. S. (2016). English Language Proficiency and Academic Performance of Philippine Science High School Students. *International Journal of Languages, Literature and Linguistics,* 2(2), 44–49.

Shilongo, E. (2017). *An Investigation of Code switching in Secondary Junior Schools.* Unpublished MEd dissertation, University of Namibia.

Simasiku, L., Kasanda, C., & Smit, T. (2015). Can code switching enhance learners' academic achievement? *English Language Teaching,* 8(2), 70–77.

Sinaga, C. R., & Hutahaean, D. T. (2020). An Analysis of Code Switching Used by Reza Arap on Deddy Corbuzier's Youtube Channel. *Journal of English Teaching as a Foreign Language,* 6(3), 31–47.

Strahler, A. (2013). *Introduction to Physical Geography, 5th ed.* New York: John Wiley & Sons.

Stranges, M. K. W., Ul Haq, S., & Dunn, D. G. (2014). Black-out test versus UV camera for corona inspection of HV motor stator endwindings. *IEEE Transactions on Industry Applications,* 50(5), 3135–3140.

Stromvig, H. (2018). *The functions of teacher code switching in classrooms , and teachers ' perceptions towards this practice : A case study of siSwati-English interactions in a semi-urban high school in Eswatini.* Unpublished Masters dissertation, Stellenbosch University.

Suganda, L. A., Loeneto, B. A., & Zuraida, Z. (2018). Teachers' Use of Code Switching in An English as a Foreign Language Context in Indonesia. *Script Journal: Journal of Linguistic and English Teaching,* 3(2), https://doi.org/10.24903/sj.v3i2.202.

Tahir, A., Fatima, I., & Abuzar, N. (2022). Teachers' and Students' Attitude Toward Code Alternation in Pakistani English Classrooms. *JEELS (Journal of English Education and Linguistics Studies)*, 3(1), 85–108.