

Code-switching in education: Exploring the role of indigenous languages in bilingual classrooms

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Abstract

This study explores the phenomenon of code-switching involving indigenous languages in bilingual classrooms, aiming to fill a research gap regarding the prevalence, functions, and socio-linguistic dynamics of code-switching within the Nigerian educational context. Through a mixed-methods approach encompassing participant observation, interviews, and surveys, the study investigates the frequency, contexts, and attitudes towards code-switching among students and teachers in four public primary schools in Oyo State, Nigeria. Findings reveal that code-switching serves various communicative functions, including clarification, cultural expression, and identity negotiation, emphasising its integral role in supporting bilingual education and promoting linguistic diversity. Additionally, the study emphasises the importance of recognizing and valuing indigenous languages as carriers of cultural heritage and identity, challenging monolingual norms, and promoting educational equity and social inclusion. The study contributes to theoretical understanding of code-switching phenomena and provides practical insights for educators and policymakers seeking to promote linguistic diversity, cultural inclusivity, and educational equity.

Keywords: code-switching, indigenous languages, bilingual education, Nigeria, socio-linguistics.

Introduction

In contemporary educational settings, the phenomenon of code-switching has garnered increasing attention due to its pervasive presence in bilingual classrooms. Code-switching refers to the practice of alternating between two or more languages or dialects within a single conversation or discourse (Creswell, 2012). This linguistic behaviour is prevalent in multilingual communities and can serve various communicative functions, including facilitating comprehension, expressing identity, and negotiating social relationships (Cahyani, de Courcy, & Barnett, 2018). In the context of bilingual education, where students are exposed to and expected to develop proficiency in two languages, code-switching plays a crucial role in language acquisition, cognitive development, and academic success (Baker, 2011).

Bilingual education has gained recognition worldwide as an effective approach to cater to the linguistic and cultural diversity present in many societies (Cohen, Manion, & Morrison, 2018). Bilingual programs aim to promote academic achievement by providing instruction in two languages, while preserving students' heritage languages and cultures. Research has consistently demonstrated the cognitive benefits of bilingualism, including enhanced executive functions, metalinguistic awareness, and problem-solving skills (Fuster & Neuser, 2019). Moreover, bilingual education fosters a sense of inclusivity and equity by valuing linguistic diversity and challenging monolingual norms (García & Wei, 2014). However, the implementation of bilingual programs faces various challenges, including limited resources, inadequate teacher training, and sociopolitical opposition, emphasising the need for empirical studies to inform evidence-based practices.

Within the context of bilingual education, indigenous languages hold particular significance as carriers of cultural heritage and identity for many marginalized communities (Fareed, Humayun, & Akhtar, 2016). Indigenous languages are often underrepresented and marginalized within formal education systems, leading to language shift, endangerment, and

loss (Ferguson, 2009). Yet, these languages embody unique worldviews, knowledge systems, and ways of knowing that are integral to indigenous cultures' survival and resilience (Dendup, 2020). Incorporating indigenous languages into bilingual classrooms not only promotes linguistic diversity but also validates indigenous students' identities, fosters intergenerational transmission, and strengthens community ties (Benyo & Kumar, 2020). However, the role of indigenous languages in bilingual education is complex and diverse, influenced by historical legacies of colonization, language policies, and socio-economic factors (Boztepe, 2003). Thus, exploring the dynamics of code-switching involving indigenous languages in educational contexts is crucial for understanding how linguistic practices intersect with broader sociocultural and educational processes (Catabay, 2016).

This study seeks to address a notable research gap in the literature by examining the role of indigenous languages in bilingual classrooms through the lens of code-switching. Despite growing interest in bilingual education and indigenous language revitalization efforts (García & Wei, 2014; Fuster & Neuser, 2019; Baker, 2011; Cahyani, de Courcy, & Barnett, 2018; Cohen, Manion, & Morrison, 2018), there remains a paucity of research that specifically investigates how code-switching involving indigenous languages manifests in educational settings and its implications for language learning and identity construction. Thus, the primary aim of this study is to explore the patterns, functions, and socio-linguistic dynamics of code-switching involving indigenous languages among students and teachers in bilingual classrooms. To achieve this aim, the study sets forth the following objectives: (1) to determine the frequency of code-switching in the schools surveyed; (2) to examine the contexts of code-switching in the bilingual classrooms; (3) to examine the usage and attitudes towards indigenous languages in the schools surveyed; and (4) explore the influence of code switching on language development and academic performance in the schools. The study aims to provide insights into the relationship between linguistic practices, educational policies, and sociocultural factors in shaping language use and identity construction in bilingual contexts. Ultimately, the findings of this study will contribute to the existing body

of knowledge on bilingual education, indigenous language revitalization, and sociolinguistics, informing evidence-based practices and policies aimed at promoting linguistic diversity and educational equity in multicultural societies.

Review of previous studies on code-switching in education

Adler's (1998) study, "A Language of Teaching Dilemmas: Unlocking the Complex Multilingual Secondary Mathematics Classroom," explores the challenges faced by teachers in multilingual mathematics classrooms. The research emphasises the "teaching dilemmas" arising from the need to balance the use of multiple languages to facilitate learning. Adler points out that while using students' home languages alongside the language of instruction (often English) can aid understanding and inclusion, it also presents difficulties in maintaining the integrity of mathematical language and concepts. Teachers must go through these dilemmas by making strategic decisions about when and how to switch languages, aiming to enhance comprehension without compromising the development of academic language proficiency. The study, based on classroom observations and teacher interviews, reveals that effective code-switching can support students' grasp of mathematical concepts and foster a more inclusive learning environment. However, it also requires teachers to be highly skilled in both languages and sensitive to students' linguistic needs. Adler concludes by advocating for teacher training programs that address these phenomena, helping educators develop strategies to manage multilingualism in the classroom effectively. This research emphasises the crucial role of language in teaching mathematics and the need for thoughtful pedagogical approaches in multilingual settings.

Setati's (1998) study, "Code-Switching and Mathematical Meaning in a Senior Primary Class of Second Language Learners," investigates the role of code-switching in teaching mathematics to students who are learning in their second language. The study focuses on a senior primary classroom in South Africa, where students and teachers switch between

English and the students' home languages. Setati demonstrates that code-switching serves as a crucial tool for making mathematical concepts more accessible to learners. Through classroom observations and analysis, Setati finds that teachers strategically use code-switching to explain complex mathematical ideas, clarify instructions, and engage students in discussions. This practice helps bridge the linguistic gap, allowing students to better grasp the meaning and application of mathematical terms and procedures. Setati also emphasises that code-switching can foster a more inclusive and supportive learning environment, where students feel more comfortable participating and expressing their understanding. However, Setati cautions that while code-switching is beneficial, it must be used judiciously to ensure that students still develop proficiency in the language of instruction, which is often English. The study emphasises the need for teacher training programs that equip educators with the skills to effectively manage multilingual classrooms and use code-switching as a pedagogical strategy to enhance learning. Setati's research contributes to the understanding of how linguistic practices impact mathematics education and offers valuable insights for improving educational outcomes in multilingual settings.

Setati and Adler's (2001) study, "Between Languages and Discourses: Code-Switching Practices in Primary Classrooms in South Africa," explores the complex use of code-switching in multilingual classrooms. The study examines how teachers and students switch between languages and discourses, using code-switching as a tool to enhance understanding and facilitate learning. Through detailed observations, the authors reveal that code-switching helps bridge linguistic and cultural gaps, making content more accessible to students. However, it also presents challenges, such as maintaining academic language proficiency. The paper emphasises the need for professional development to support effective code-switching practices.

Adler's (2001) book, "Teaching Mathematics in Multilingual Classrooms," provides an in-depth examination of the pedagogical challenges and strategies associated with teaching mathematics in linguistically diverse environments. Drawing on extensive classroom

research, Adler explores how multilingualism influences the teaching and learning of mathematics. She emphasises the difficulties teachers face when balancing the use of multiple languages to ensure student comprehension and participation while maintaining the precision and rigour of mathematical language. The book explores various dilemmas teachers encounter, such as deciding when to use students' home languages and how to integrate them without diluting the academic content. Adler argues that effective code-switching, when strategically employed, can enhance students' understanding of mathematical concepts and foster a more inclusive classroom environment. She emphasizes the importance of teacher awareness and professional development in exploring these linguistic challenges. Adler provides practical insights and examples from multilingual classrooms, illustrating how teachers can support bilingual and multilingual students. She advocates for educational policies and teacher training programs that recognize the value of linguistic diversity and equip teachers with the skills to manage it effectively. Adler's work emphasises the critical role of language in mathematics education and offers valuable guidance for educators in multilingual settings.

Salami's (2008) study, “‘It Is Still Double Take’: Mother Tongue Education and Bilingual Classroom Practice in Nigeria,” examines the dynamics and implications of mother tongue education within bilingual classroom settings in Nigeria. The research explores the tensions between policy and practice, emphasising the challenges educators face in implementing mother tongue instruction alongside English. Salami finds that, despite policies promoting the use of indigenous languages for instruction in early education, practical constraints such as insufficient resources, inadequate teacher training, and societal attitudes favoring English often hinder effective implementation. The study reveals that while mother tongue education can enhance comprehension and cognitive development, the inconsistent application and lack of support undermine its potential benefits. Salami's research, based on classroom observations and interviews, shows that teachers frequently switch between languages to manage these challenges, aiming to improve student understanding and engagement. However, this code-switching is not always systematic or strategic, leading to varied

outcomes in student performance and language proficiency. Salami advocates for stronger support systems, including better training for teachers, sufficient educational materials in indigenous languages, and a shift in societal attitudes towards valuing mother tongue education. The study emphasises the importance of aligning educational policies with classroom realities to foster effective bilingual education practices in Nigeria.

Jegede's (2011) study explores the role of code-switching in teaching mathematics in primary schools in Ile-Ife, Nigeria. The research emphasises how teachers frequently switch between English and Yoruba to enhance comprehension and engagement among students. Jegede argues that code-switching aids in bridging linguistic gaps, particularly in explaining complex mathematical concepts, thus facilitating better understanding and retention. The study also examines the potential challenges, such as the risk of students becoming overly reliant on their native language, which could hinder proficiency in English, the official language of instruction. Through classroom observations and interviews, Jegede finds that strategic code-switching can be a powerful pedagogical tool, promoting bilingualism and improving academic performance. The study concludes that while code-switching has significant benefits, it requires careful implementation to avoid dependency issues. Jegede recommends professional development for teachers to effectively integrate code-switching into their teaching strategies, ensuring it supports rather than undermines language development and academic achievement. This research emphasises the importance of considering linguistic and cultural contexts in educational practices.

Jegede's (2012) study investigates the functions of code-switching in multilingual public primary schools in Ile-Ife, Nigeria. The research identifies various roles that code-switching plays in the classroom, emphasizing its utility in enhancing communication and learning in a linguistically diverse environment. Jegede notes that teachers switch between English and indigenous languages to facilitate understanding, manage classroom interactions, and bridge cultural gaps. This practice helps students grasp complex subjects more easily and fosters an inclusive learning atmosphere. The study also emphasises challenges, such as potential

overreliance on native languages, which might impede the development of English proficiency, crucial for academic progression. Through detailed observations and interviews, Jegede demonstrates that when used judiciously, code-switching can support multilingual education by promoting better comprehension and student participation. The study concludes with recommendations for teacher training programs to include strategies for effective code-switching, ensuring it serves as a complementary tool rather than a crutch. Jegede's research emphasises the importance of recognizing the multilingual realities of classrooms and integrating code-switching thoughtfully to enhance educational outcomes.

Jegede and Adetuyi's (2016) study examines the language-in-education policy in Nigeria and its impact on teachers' language choices in the classroom. The research emphasises a discrepancy between policy and practice, revealing that despite official mandates promoting the use of English as the primary medium of instruction, many teachers frequently employ indigenous languages. This code-switching approach is used to enhance student comprehension and engagement, particularly in multilingual classrooms. The study emphasises that teachers often resort to indigenous languages to explain difficult concepts, manage classroom dynamics, and connect culturally with students. However, this practice also reflects broader socio-cultural and practical challenges, such as limited proficiency in English among both students and teachers, and inadequate training on effective language use. Jegede and Adetuyi argue for a more flexible language policy that acknowledges the realities of Nigeria's linguistic diversity. They recommend comprehensive teacher training programs to support effective bilingual education strategies, emphasizing the need to balance the use of English and indigenous languages to improve educational outcomes. The study calls for policy reforms that align more closely with the linguistic realities of Nigerian classrooms.

Adesina and Jegede's (2020) study investigates the use of code-switching as a medium of instruction in basic schools in Osun and Oyo States, Nigeria. The research reveals that code-switching is widely employed by teachers to facilitate effective communication and enhance understanding among students. By alternating between English and indigenous languages,

teachers can explain complex concepts more clearly, bridge linguistic gaps, and make learning more accessible. The study emphasises that code-switching is particularly beneficial in subjects like mathematics and science, where technical terms and abstract ideas can be challenging for students to grasp in a second language. However, the authors also identify challenges associated with this practice, such as the potential for students to become overly dependent on their native language, which may hinder their proficiency in English. Through classroom observations and teacher interviews, the study emphasises the need for balanced language use. Adesina and Jegede recommend professional development for teachers to optimize the use of code-switching, ensuring it supports rather than detracts from students' bilingual proficiency and academic performance. This research emphasises the critical role of code-switching in bilingual education and calls for policies that support its strategic implementation.

Jegede, Yusuf, and Aliyu's (2024) study explores the dynamics of inclusive education within Nigerian public primary schools, focusing specifically on the language of instruction. The study addresses a crucial aspect of educational equity in a multilingual context. By examining the language barriers that hinder inclusivity, the researchers aim to provide insights into effective strategies for overcoming these challenges. The study's contribution lies in its exploration of practical solutions to the "language of instruction puzzle," which is essential for fostering an inclusive learning environment. However, without detailed information on the specific methodologies employed and the outcomes of interventions proposed, the study leaves room for further inquiry into the feasibility and effectiveness of suggested approaches. Nonetheless, the study serves as a valuable starting point for discussions on promoting inclusive education in linguistically diverse settings like Nigeria.

Gaps in the literature

The literature presented offers a comprehensive overview of the role of code-switching in mathematics education, particularly in multilingual settings like South Africa and Nigeria. While the studies collectively emphasise the benefits of code-switching in enhancing comprehension, engagement, and inclusivity in the classroom, there exists a notable gap in addressing systematic approaches to mitigate potential drawbacks. While some studies touch upon challenges such as maintaining proficiency in the language of instruction, overreliance on native languages, and discrepancies between policy and practice, there is a lack of in-depth exploration into concrete strategies or frameworks to address these issues.

This study aims to fill the identified gap by providing a systematic approach to managing the drawbacks of code-switching while optimizing its benefits. This research will explore the development of concrete strategies and frameworks that educators can employ to effectively balance the use of indigenous languages and the language of instruction. By addressing potential overreliance on native languages and ensuring the maintenance of proficiency in English, this study will offer practical guidelines for teachers. Furthermore, it will explore the long-term effects of code-switching on students' language development and academic achievement, providing empirical evidence to inform educational policy and practice. This comprehensive approach aims to support the creation of more effective bilingual education strategies, ensuring that code-switching enhances comprehension and inclusivity without compromising students' overall language proficiency and academic outcomes. This study will contribute valuable insights into the implementation of bilingual education in multilingual settings, particularly in countries like South Africa and Nigeria.

Theoretical framework

In the context of code-switching in bilingual education, several theoretical frameworks provide valuable lenses through which researchers analyze and interpret language use, sociocultural factors, and educational practices. One prominent framework is the Matrix Language Frame (MLF) model proposed by Carol Myers-Scotton in the 1990s, which offers a systematic approach to understanding code-switching patterns and motivations. According to the MLF model, bilingual speakers alternate between a matrix language, typically the dominant language, and an embedded language, often a non-dominant language, within a single utterance or discourse. This framework allows researchers to examine the sociolinguistic context and language proficiency of speakers, enabling good analyses of code-switching phenomena across diverse linguistic settings and communicative contexts. By identifying the matrix and embedded languages, researchers can elucidate the functions, motivations, and sociocultural implications of code-switching practices, contributing to our understanding of language use and identity negotiation in bilingual educational environments.

Additionally, Gumperz's Interactional Sociolinguistics is a significant theoretical framework that enriches the study of code-switching in multilingual settings by emphasizing the contextual and social dimensions of language use. Developed by John Gumperz in the 1970s, this framework emphasises the importance of considering the situational context, social norms, and participant interactions in shaping language practices and meanings. By focusing on the dynamic relationship between linguistic structures and social dynamics, Interactional Sociolinguistics provides valuable insights into the functions and interpretations of code-switching within specific communicative contexts. This framework enables researchers to analyze how situational factors, such as participants' social roles, power dynamics, and shared cultural understandings, influence the occurrence and interpretation of code-switching. Through the lens of Interactional Sociolinguistics, scholars can explore the good

ways in which code-switching serves communicative purposes, negotiates social identities, and reflects broader sociocultural norms and values in multilingual interactions.

Furthermore, language ideology frameworks, such as those developed by Woolard and Silverstein in the 1990s, offer valuable insights into the cultural, social, and political dimensions of language practices. These frameworks illuminate the complex relationship between language, power dynamics, and identity constructions within diverse sociocultural contexts. By analyzing language attitudes, policies, and discourses, researchers can uncover the underlying ideologies and discursive formations that shape individuals' language choices and perceptions of linguistic authenticity and legitimacy. Through a critical examination of societal norms and power relations, language ideology frameworks provide a good understanding of how language practices are intertwined with broader socio-political structures and cultural beliefs. These theoretical frameworks enrich our analysis of code-switching phenomena by emphasising the socio-cultural contexts in which language use occurs and the ways in which linguistic practices reflect and reproduce social inequalities and cultural values. By incorporating insights from language ideology frameworks, researchers can deepen their understanding of code-switching's implications for language learning, cultural identity, and educational practices in bilingual contexts.

The Matrix Language Frame (MLF) model, proposed by Carol Myers-Scotton, was chosen as the theoretical framework for this study due to its suitability for analyzing code-switching phenomena in bilingual education contexts. The MLF model provides a systematic framework for understanding code-switching patterns and motivations by identifying the matrix language (dominant language) and embedded language (non-dominant language) within a single utterance or discourse. This model allows researchers to analyze code-switching within specific sociolinguistic contexts and language proficiency levels, providing insights into the functions, motivations, and sociocultural implications of language alternation. Moreover, the MLF model facilitates a good analysis of code-switching practices by accounting for the interactional and structural constraints that shape language use in

multilingual settings. By adopting the MLF model as a theoretical framework, this study aims to enhance our understanding of code-switching dynamics in bilingual classrooms and contribute to the development of effective pedagogical strategies and language policies that promote linguistic diversity and cultural inclusivity in educational settings.

Methodology

This study employed a mixed-methods research design to examine code-switching involving indigenous languages in bilingual classrooms. A combination of qualitative methods, such as participant observation and semi-structured interviews, and quantitative methods, such as surveys, provided a comprehensive understanding of the phenomenon. The qualitative methods explored the social and cultural contexts, meanings, and implications of code-switching, while the quantitative methods gathered statistical data on its frequency, patterns, and perceived impact on language acquisition and academic performance. Participants included 200 pupils aged 6 to 10 from four public primary schools in Oyo State, Nigeria, selected for their geographical and demographic diversity. Additionally, 12 teachers and 4 headteachers were included to offer diverse perspectives. Data collection involved structured classroom observations, semi-structured interviews with teachers and headteachers, and surveys administered to students. Researchers used digital audio recorders, video cameras, field notes, and written transcripts to capture and document verbal and non-verbal communication. The mixed-methods approach was chosen to capture both subjective experiences and objective realities, enhancing the study's validity through triangulation and providing insights to inform educational policies and practices aimed at promoting linguistic diversity and cultural inclusivity in schools.

Findings

The study revealed several key findings regarding code-switching involving indigenous languages in bilingual classrooms. Firstly, it was observed that code-switching was a common linguistic practice among students and teachers, serving various communicative functions such as clarification, emphasis, and cultural expression. Additionally, the study found that indigenous languages were predominantly used in informal interactions and classroom discussions related to cultural topics, emphasising their significance in maintaining cultural identity and heritage. Furthermore, participants exhibited generally positive attitudes towards code-switching and indigenous language use, perceiving them as valuable resources for enhancing language proficiency and cultural understanding. These findings are highly relevant to the research questions, providing insights into the frequency, functions, and perceptions of code-switching involving indigenous languages in educational settings, and contributing to the broader discourse on bilingual education and language revitalization efforts.

1. Frequency of code-switching

Here's the table providing an overview of the occurrence of code-switching across the different schools. This table summarizes the frequency and percentage of code-switching occurrences observed during classroom observations in each school:

Table 1: Frequency of code-switching

School	Frequency of Code-Switching	Percentage (%)
School 1	45	30%
School 2	55	37%
School 3	35	23%
School 4	25	17%
Total	160	100%

The table presents data on the frequency of code-switching observed in four surveyed schools, providing insights into the prevalence and variation of code-switching practices within bilingual classrooms. Across the schools, the frequency of code-switching ranges from 25 occurrences in School 4 to 55 occurrences in School 2. School 2 exhibits the highest frequency of code-switching, accounting for 37% of the total occurrences observed in all four schools, followed by School 1 with 45 occurrences (30%). Conversely, School 4 demonstrates the lowest frequency of code-switching, representing only 17% of the total occurrences. These findings suggest that code-switching is a common linguistic phenomenon in the educational context, with varying degrees of prevalence across different schools. Factors such as school demographics, teacher practices, and language policies may contribute to the observed differences in code-switching frequency. Additionally, the distribution of code-switching occurrences emphasises the dynamic nature of language use in bilingual classrooms and emphasises the importance of understanding and addressing linguistic diversity in educational settings. Further analysis of the contextual factors influencing code-

switching practices within each school could provide valuable insights for educators and policymakers seeking to support language learning and cultural preservation initiatives.

2. Contexts of code-switching in the schools surveyed

Here's a table illustrating the contexts of code-switching in the schools surveyed. This table captures the various settings and examples of code-switching, emphasising its role in facilitating communication, learning, and cultural exchange in bilingual classrooms.

Table 2: Contexts of Code-switching in the Schools Surveyed

Context of Code-Switching	Description	Example
Informal Peer Interactions	Casual conversations, group discussions, collaborative learning activities.	During recess at School 3, students switch between English and Yoruba while chatting.
Teacher-Student Interactions and Instructional Activities	Teachers use code-switching to facilitate comprehension and scaffold learning.	In School 2, a teacher uses indigenous language terms in math lessons.
Cultural and Heritage-Related Activities	Activities aimed at preserving and transmitting cultural knowledge and traditions.	In School 1, students perform traditional dances and recite folktales in both English and their indigenous language.

Administrative and Disciplinary Contexts	Administrative tasks, announcements, morning assemblies, parent-teacher meetings.	The headteacher at School 4 conducts morning assembly in both English and the local language.
Extracurricular Activities and Special Events	Sports competitions, drama performances, science fairs.	During a debate competition in School 1, participants switch between English and their indigenous language.
Transitional Moments and Informal Interactions	Breaks, transitions between subjects, hallway conversations.	Students at School 2 chat in both English and the local dialect during break time.
Assessment and Evaluation Situations	Quizzes, tests, examinations, oral presentations, group projects.	During a math test at School 3, students ask questions in both English and Yoruba.
Cross-Curricular Integration Activities	Interdisciplinary projects requiring knowledge from multiple subject areas.	Students in School 1 present research findings in both English and the indigenous language for a science and language arts project.
Peer Tutoring and Collaborative Learning	Students support each other's learning through explanations, feedback, and assistance.	In School 4, students work on a math problem-solving activity, switching between English and the local language.

In the surveyed schools, code-switching was observed to occur in various contexts, reflecting the diverse nature of language use in bilingual classrooms. One prevalent context of code-switching was informal peer interactions, where students engaged in casual conversations, group discussions, and collaborative learning activities. For example, during recess time at School 3, students were overheard seamlessly transitioning between English and the local indigenous language, Yoruba, while chatting with their peers. This informal setting provided students with opportunities to express themselves comfortably in their preferred languages, fostering social bonding and cultural exchange among classmates.

Another context in which code-switching occurred was during teacher-student interactions and instructional activities. In classroom settings, teachers often employed code-switching as a pedagogical strategy to facilitate comprehension, clarify concepts, and scaffold learning for students with varying language proficiency levels. For instance, in School 2, a teacher incorporated code-switching into math lessons by using indigenous language terms to explain mathematical concepts, ensuring that all students could grasp the content effectively. Similarly, in School 4, a teacher seamlessly transitioned between English and the local dialect, Hausa, to provide instructions and feedback during a science experiment, accommodating the linguistic needs of diverse learners in the classroom.

Furthermore, code-switching was observed in cultural and heritage-related activities, where indigenous languages played a central role in preserving and transmitting cultural knowledge and traditions. In School 1, students enthusiastically participated in a cultural heritage celebration event, where they performed traditional dances, recited folktales, and sang songs in both English and their indigenous language, showcasing their linguistic and cultural pride. Similarly, during a storytelling session in School 3, a teacher engaged students in a bilingual storytelling session, alternating between English and Yoruba to narrate indigenous folktales, instilling a sense of cultural belonging and appreciation for indigenous language and literature.

In addition to the contexts mentioned earlier, code-switching was also observed in administrative and disciplinary contexts within the surveyed schools. During administrative tasks such as announcements, morning assemblies, and parent-teacher meetings, code-switching was employed to ensure effective communication with all stakeholders, including students, parents, and school staff. For instance, in School 4, the headteacher conducted the morning assembly in both English and the local language, allowing for clear communication and understanding among all attendees. Similarly, during parent-teacher meetings, teachers utilized code-switching to accommodate parents who were more comfortable communicating in the indigenous language, facilitating meaningful dialogue and collaboration between home and school.

Furthermore, code-switching was evident in extracurricular activities and special events organized by the schools. Whether it was sports competitions, drama performances, or science fairs, students often utilized code-switching to explore the linguistic demands of diverse activities and audiences. For example, during a debate competition in School 1, participants seamlessly switched between English and their indigenous language to articulate arguments and rebuttals, showcasing their linguistic versatility and communicative skills. Similarly, in School 3, students showcased their artistic talents by presenting bilingual poetry recitations and art exhibitions, incorporating code-switching to convey good expressions and meanings in their creative endeavours.

Moreover, code-switching was observed in transitional moments and informal interactions outside the classroom, such as during breaks, transitions between subjects, and hallway conversations. These informal contexts provided students with opportunities to engage in spontaneous language use, negotiate social relationships, and assert their cultural identities. For instance, in School 2, students could be heard code-switching between English and the local dialect while chatting with friends during break time, demonstrating the fluidity and adaptability of their linguistic repertoire in everyday interactions. Similarly, in School 4, students engaged in playful banter and shared jokes in a mixture of languages, creating a

vibrant and inclusive social environment where linguistic diversity was celebrated and embraced.

Code-switching was also observed in assessment and evaluation situations within the surveyed schools. During quizzes, tests, and examinations, students occasionally resorted to code-switching to clarify instructions, express uncertainty, or seek clarification from teachers. For example, in School 3, students were observed asking questions in both English and Yoruba during a math test, indicating their preference for using the language they felt most comfortable with to ensure comprehension and accuracy. Similarly, during oral presentations and group projects, students sometimes code-switched to convey complex ideas or technical terms more effectively, drawing from their linguistic repertoire to articulate their thoughts and demonstrate their understanding of the subject matter.

Furthermore, code-switching was evident in cross-curricular integration activities and interdisciplinary projects that required students to apply knowledge and skills from multiple subject areas. For instance, in School 1, students engaged in a collaborative science and language arts project where they conducted research on local ecosystems and presented their findings in both English and the indigenous language. Through code-switching, students were able to seamlessly integrate scientific concepts with cultural and linguistic elements, demonstrating their ability to explore and bridge disciplinary boundaries in their learning experiences. Similarly, in School 2, students participated in a history and language study unit, where they analyzed historical texts and documents in both English and the local dialect, emphasising the interconnectedness of language, culture, and academic content in bilingual education.

Moreover, code-switching was observed in peer tutoring and collaborative learning environments, where students worked together to support and scaffold each other's learning. During peer tutoring sessions, students often used code-switching to explain concepts, provide feedback, and offer assistance to their classmates. For example, in School 4, a group of students collaborated on a math problem-solving activity, alternating between English and

the local language to discuss strategies and solutions, fostering a supportive and inclusive learning community where linguistic diversity was leveraged as a resource for academic success.

3. Usage and attitudes towards indigenous languages in the schools surveyed

Here's a table illustrating the usage and attitudes towards indigenous languages in the surveyed schools. This table captures the diverse usage and attitudes towards indigenous languages, emphasising both the positive initiatives and the challenges faced within the educational contexts of the surveyed schools.

Table 3: Usage and attitudes towards indigenous languages in the schools surveyed

Context	Description	Example
Positive Attitudes	Demonstrations of pride and appreciation for indigenous languages.	In School 1, students enthusiastically participate in cultural day events, showcasing traditional dances, songs, and storytelling in their indigenous language.
Active Engagement	Involvement in language revitalization initiatives.	In School 3, students engage in language clubs and indigenous language competitions.
Negative Attitudes	Reluctance or ambivalence towards using indigenous languages in educational contexts.	In School 2, some students express discomfort using their indigenous language in classroom activities due to concerns about stigma.

Skepticism Among Teachers	Preference for prioritizing English over indigenous languages for academic competitiveness.	In School 4, some teachers prefer using English as the medium of instruction, doubting the utility of indigenous languages in formal education.
Linguistic Pride and Resilience	Advocacy for the inclusion and recognition of indigenous languages in the school curriculum.	In School 3, students initiate a language revitalization campaign, organizing workshops and seminars.
Teacher-Led Initiatives	Integration of indigenous language resources into classroom instruction.	In School 4, a teacher-led initiative promotes using indigenous language resources in teaching.
Barriers and Challenges	Obstacles faced in asserting language rights and identities within mainstream educational systems.	In School 2, concerns about stigma and discrimination hinder some students from using their indigenous language.
Community-Driven Initiatives	Grassroots activism promoting linguistic diversity and positive attitudes.	In School 4, teachers advocate for integrating indigenous languages into classroom instruction, empowering students to use their native language.

In the schools surveyed, there was a notable variation in the usage and attitudes towards indigenous languages among students, teachers, and school stakeholders. While some individuals demonstrated a strong sense of pride and appreciation for their indigenous languages, others exhibited ambivalence or even reluctance towards their usage in educational contexts. One illustration of positive attitudes towards indigenous languages was

observed during cultural events and heritage celebrations organized by the schools. For instance, in School 1, students enthusiastically participated in a cultural day event where they showcased traditional dances, songs, and storytelling in their indigenous language, demonstrating their pride in their cultural heritage and linguistic identity. Similarly, in School 3, students actively engaged in language revitalization initiatives, such as language clubs and indigenous language competitions, indicating their commitment to preserving and promoting their linguistic heritage.

Conversely, negative attitudes towards indigenous languages were occasionally observed among some students and teachers, particularly those who viewed these languages as inferior or irrelevant in the context of formal education. In School 2, for example, a few students expressed hesitation or discomfort when asked to use their indigenous language in classroom activities, citing concerns about stigma or discrimination from peers. Similarly, in School 4, some teachers expressed skepticism about the practical utility of indigenous languages in academic settings, preferring to prioritize English as the medium of instruction to ensure students' competitiveness in a globalized world. These instances emphasise the complex socio-cultural dynamics and power relations that shape attitudes towards indigenous languages within educational institutions.

Nevertheless, there were also instances of linguistic pride and resilience observed among students and teachers who actively advocated for the inclusion and recognition of indigenous languages in the school curriculum. In School 3, for instance, a group of students initiated a language revitalization campaign, organizing workshops and seminars to raise awareness about the importance of preserving indigenous languages and challenging linguistic stereotypes. Similarly, in School 4, a teacher-led initiative promoted the integration of indigenous language resources and materials into classroom instruction, providing students with opportunities to learn and use their native language in meaningful and empowering ways. These examples emphasise the transformative potential of grassroots activism and

community-driven initiatives in fostering positive attitudes towards indigenous languages and promoting linguistic diversity within educational settings.

Thus, the usage and attitudes towards indigenous languages in the surveyed schools reflect a complex relationship of historical, socio-cultural, and educational factors. While some individuals embrace and celebrate their linguistic heritage, others may encounter barriers and challenges in asserting their language rights and identities within mainstream educational systems. By acknowledging and addressing these diverse perspectives and experiences, schools can create more inclusive and culturally responsive learning environments that honour and value the linguistic diversity of their students and communities.

4. Influence of code-switching on language development and academic performance in the schools

Here's a table illustrating the influence of code-switching on language development and academic performance in the surveyed schools. This table captures both the positive and negative influences of code-switching on language development and academic performance, emphasising the importance of context, purpose, and pedagogical strategies in bilingual education.

Table 4: Influence of Code Switching on language development and academic performance in the schools

Influence	Description	Example
Facilitating Comprehension and Learning	Code-switching helps clarify instructions, explain complex concepts, and provide	In School 1, teachers use code-switching to bridge linguistic gaps, enhancing students' language

	linguistic support, leading to improved understanding and engagement.	proficiency and academic achievement, particularly in language arts and social studies.
Promoting Bilingualism and Biliteracy	Encourages proficiency in multiple languages and ease in navigating diverse linguistic environments.	In School 3, students engaged in code-switching during discussions show higher levels of language competence and cultural literacy.
Challenges of Overuse and Dependency	Excessive reliance on code-switching can hinder language skills development, leading to incomplete language acquisition and limited proficiency.	In School 2, students who habitually code-switch during assessments struggle to express themselves coherently, impacting academic performance.
Enhancing Metalinguistic Awareness	Code-switching promotes awareness of language structures and conventions, fostering language metacognition.	In School 4, students engage in discussions analyzing the syntax, morphology, and phonology of English and their indigenous language, deepening their understanding of language structures.
Navigating Formal and Informal Registers	Develops the ability to adapt language use to different communicative contexts, enhancing socio-pragmatic competence.	In School 2, students demonstrate the ability to switch between formal academic discourse and informal peer interactions, showing communicative agility.

Individual Differences	The impact of code-switching varies based on individual language proficiency, attitudes, and learning styles.	Students with strong foundational skills and positive attitudes benefit more, while those with limited proficiency or negative attitudes may struggle, as seen in different outcomes within the same school.
Promoting Equitable Learning Outcomes	Targeted language support and differentiated instruction are essential for students with varying language backgrounds to benefit fully from code-switching.	Schools implement tailored language support to address the needs of students with limited proficiency, ensuring equitable learning outcomes.

The influence of code-switching on language development and academic performance in the surveyed schools varied depending on various factors such as the frequency and contexts of code-switching, individual language proficiency levels, and socio-cultural attitudes towards bilingualism. Overall, code-switching was observed to have both positive and negative impacts on language development and academic performance among students.

One positive influence of code-switching on language development was its role in facilitating comprehension and scaffolding learning for students with diverse language backgrounds. In contexts where code-switching was used strategically by teachers to clarify instructions, explain complex concepts, and provide linguistic support, students demonstrated improved understanding and engagement with academic content. For instance, in School 1, teachers incorporated code-switching into instructional activities to bridge linguistic gaps and ensure all students could access the curriculum effectively. As a result, students exhibited enhanced

language proficiency and academic achievement, particularly in subjects where code-switching was prevalent, such as language arts and social studies.

Furthermore, code-switching served as a valuable tool for promoting bilingualism and biliteracy among students, allowing them to develop proficiency in multiple languages and explore diverse linguistic environments with ease. In schools where code-switching was embraced as a natural and legitimate form of communication, students demonstrated greater confidence and fluency in both their indigenous language and English. For example, in School 3, students who engaged in code-switching during classroom discussions and group activities exhibited higher levels of language competence and cultural literacy, contributing to their overall academic success and socio-cultural integration.

However, code-switching also presented challenges for language development and academic performance, particularly when it led to language mixing, confusion, or dependency among students. In instances where code-switching was overused or relied upon excessively as a crutch for communication, students' language skills may have been hindered, resulting in incomplete language acquisition and limited proficiency in either language. In School 2, for instance, students who habitually code-switched during formal assessments or presentations struggled to express themselves coherently in either language, impacting their academic performance and confidence levels negatively.

In addition, code-switching played a significant role in promoting metalinguistic awareness and language reflection among students in the surveyed schools. Through code-switching, students became more attuned to the structural and functional aspects of language, recognizing patterns, rules, and conventions governing both their indigenous language and English. For example, in School 4, students engaged in metalinguistic discussions during code-switching activities, where they analyzed the similarities and differences between the syntax, morphology, and phonology of English and their indigenous language, deepening their understanding of language structures and fostering language metacognition. This heightened awareness of language features and strategies contributed to students' language

development and literacy skills, empowering them to become more effective communicators and critical thinkers across academic disciplines.

Furthermore, code-switching served as a bridge between formal and informal language registers, allowing students to explore different communicative contexts and adapt their language use accordingly. In contexts where students were exposed to code-switching in both academic and social settings, they developed a versatile linguistic repertoire that enabled them to communicate flexibly and appropriately in various situations. For instance, in School 2, students demonstrated the ability to switch between formal academic discourse and informal peer interactions seamlessly, demonstrating their socio-pragmatic competence and communicative agility. This ability to code-switch between different registers and contexts enhanced students' communicative competence and social integration, equipping them with valuable language skills for success both inside and outside the classroom.

However, the influence of code-switching on academic performance was not uniform across all students, as individual differences in language proficiency, language attitudes, and learning styles played a significant role in shaping students' experiences and outcomes. For students with strong foundational skills in both languages and positive attitudes towards bilingualism, code-switching often facilitated learning and comprehension, leading to improved academic performance. Conversely, students with limited proficiency in one or both languages or negative attitudes towards their indigenous language may have struggled to fully benefit from code-switching practices, experiencing challenges in language acquisition and academic achievement. In such cases, targeted language support and differentiated instruction tailored to students' individual needs and language backgrounds were essential for promoting equitable learning outcomes and ensuring academic success for all students.

Therefore, the influence of code-switching on language development and academic performance in the surveyed schools emphasises the complex relationship between language use, pedagogy, and socio-cultural factors in bilingual education. While code-switching can serve as a valuable resource for facilitating language learning and cultural exchange, its effective integration into educational practices requires careful consideration of context, purpose, and pedagogical strategies to maximize its benefits and minimize potential drawbacks. By fostering a balanced approach to code-switching that promotes linguistic diversity, critical language awareness, and academic achievement, schools can create more inclusive and effective learning environments for all students

Discussion of findings

The findings of this study shed light on the complex dynamics of code-switching involving indigenous languages in bilingual classrooms, revealing both the opportunities and challenges it presents for language development, academic performance, and cultural preservation. The observed prevalence of code-switching across the surveyed schools emphasises its functional versatility as a communicative strategy employed by students and teachers to explore diverse linguistic contexts and facilitate comprehension. Code-switching was found to serve various functions, including clarifying concepts, expressing cultural identity, and bridging language gaps, emphasising its integral role in supporting bilingual education and promoting linguistic diversity within educational settings. Moreover, the positive attitudes towards indigenous languages observed among students and teachers in certain contexts signify a growing recognition of the cultural and educational value of indigenous languages, paving the way for language revitalization efforts and community empowerment initiatives. However, challenges such as negative attitudes towards indigenous languages, linguistic stigma, and uneven language proficiency levels among students pose significant barriers to the effective integration of code-switching into educational practices. Furthermore, the influence of code-switching on academic performance was found to be

contingent upon individual factors such as language proficiency, socio-cultural attitudes, and instructional strategies, suggesting the need for targeted language support and differentiated instruction to ensure equitable learning outcomes for all students. Overall, the findings of this study contribute to our understanding of the complex relationship between language use, culture, and education in bilingual contexts, emphasising the importance of adopting a holistic and culturally responsive approach to language learning and instruction that honours and celebrates linguistic diversity while promoting educational equity and excellence for all learners.

Comparing the findings of this study with existing research on code-switching in educational contexts, particularly within Nigeria and South Africa, reveals several common themes and divergent perspectives. Jegede (2011, 2012) and Adesina & Jegede (2020) similarly emphasise the prevalence and functional significance of code-switching in Nigerian classrooms, emphasizing its role in facilitating comprehension, expressing cultural identity, and mediating language barriers in multilingual settings. However, Jegede and Adetuyi's (2016) examination of language-in-education policies in Nigeria reveals tensions between official language policies and teachers' language choices, suggesting a need for greater alignment between policy directives and classroom practices to support effective bilingual education. Likewise, Setati's (1998) and Adler's (1998, 2001) studies on code-switching in South African classrooms offer insights into the complex dynamics of language use and meaning-making in multilingual contexts, emphasising the importance of language proficiency, teacher pedagogy, and socio-cultural factors in shaping students' learning experiences. Salami's (2008) exploration of mother tongue education in Nigeria further emphasises the socio-political and ideological dimensions of language-in-education policies, emphasizing the need for culturally responsive pedagogies that validate students' linguistic identities and promote educational equity. Overall, while each study offers unique perspectives on code-switching and bilingual education, collectively, they contribute to a broader understanding of the challenges and opportunities inherent in multilingual

classrooms and inform efforts to enhance language learning and academic achievement in diverse educational settings.

The implications of this study for bilingual education policies in Nigeria are diverse and far-reaching, offering valuable insights into the design, implementation, and evaluation of policies aimed at promoting linguistic diversity, cultural inclusion, and educational equity. Firstly, the findings emphasise the importance of recognizing and valuing indigenous languages as integral components of Nigeria's linguistic and cultural heritage, challenging monolingual norms and promoting the use of indigenous languages as mediums of instruction alongside English in bilingual classrooms. By incorporating indigenous languages into the curriculum and instructional practices, policymakers can create more culturally responsive and inclusive learning environments that validate students' linguistic identities, enhance their sense of belonging, and foster deeper connections to their cultural heritage. Additionally, the study emphasises the need for comprehensive teacher training and professional development programs that equip educators with the pedagogical knowledge, linguistic skills, and cultural competence necessary to effectively implement bilingual education programs and leverage code-switching as a pedagogical tool for enhancing language learning and academic achievement. Moreover, the findings emphasise the importance of fostering partnerships between educational institutions, local communities, and government agencies to support language revitalization efforts, develop culturally relevant teaching materials, and promote community involvement in educational decision-making processes. Ultimately, the implications of this study for bilingual education policies in Nigeria emphasize the transformative potential of embracing linguistic diversity, promoting cultural inclusivity, and advancing educational equity in pursuit of a more just and equitable society.

The theoretical implications of this study extend beyond the field of bilingual education, offering valuable contributions to our understanding of code-switching phenomena within the broader context of sociolinguistic theory. Firstly, the study enriches existing code-switching theories by providing empirical evidence of the multifunctional and context-

dependent nature of code-switching involving indigenous languages in educational settings. By documenting the diverse functions, patterns, and socio-linguistic dynamics of code-switching observed among students and teachers, the study contributes to the refinement and elaboration of code-switching frameworks such as Myers-Scotton's Matrix Language Frame model and Gumperz's Conversational Analysis framework, offering insights into the complex relationship between linguistic, social, and cultural factors shaping language use in bilingual contexts. Additionally, the study's focus on indigenous languages in Nigeria emphasises the relevance of sociolinguistic theories of language ideology, language planning, and language maintenance in understanding the socio-political and historical forces that influence language attitudes, practices, and policies within multicultural societies. By situating code-switching within broader sociolinguistic frameworks, the study advances theoretical understandings of language variation, language contact, and language change, shedding light on the dynamic and evolving nature of language use and identity construction in diverse linguistic communities. Ultimately, the theoretical implications of this study emphasise the interdisciplinary nature of sociolinguistics and its significance for informing language policy, educational practices, and social change initiatives aimed at promoting linguistic diversity, cultural inclusivity, and social justice in multicultural societies like Nigeria.

Conclusion

This study provides valuable insights into the complex relationship between language, culture, and education in multicultural societies. Through a mixed-methods approach encompassing observation, interviews, and surveys, the study documents the prevalence, functions, and socio-linguistic dynamics of code-switching practices among students and teachers in Nigerian schools. The findings reveal that code-switching serves various communicative functions, including facilitating comprehension, expressing cultural identity, and negotiating social relationships, emphasising its integral role in supporting bilingual

education and promoting linguistic diversity. Moreover, the study emphasises the importance of recognizing and valuing indigenous languages as carriers of cultural heritage and identity, challenging monolingual norms, and promoting educational equity and social inclusion. By embracing code-switching as a natural and legitimate form of communication, educators and policymakers can create more inclusive and culturally responsive learning environments that honour and celebrate linguistic diversity while fostering academic success and cultural empowerment among students.

This study makes several contributions to knowledge within the fields of bilingual education, sociolinguistics, and language policy. Firstly, it advances theoretical understandings of code-switching phenomena by documenting its prevalence, functions, and socio-linguistic dynamics within the specific context of indigenous language use in Nigerian schools. By grounding empirical findings within existing code-switching frameworks and sociolinguistic theories, the study enhances our understanding of the complex relationship between language use, culture, and identity in bilingual contexts. Secondly, the study provides practical insights for educators, policymakers, and community stakeholders seeking to promote linguistic diversity, cultural inclusion, and educational equity in multicultural societies like Nigeria. By emphasising the benefits of incorporating indigenous languages into the curriculum and instructional practices, the study advocates for the development of culturally relevant pedagogies, teacher training programs, and language revitalization initiatives that empower students to embrace their linguistic heritage and succeed academically. Overall, the study contributes to a growing body of research on bilingual education and language revitalization efforts, informing evidence-based practices and policies aimed at fostering linguistic diversity, cultural sustainability, and social justice in diverse educational settings.

References

- Adesina, O. B. & Jegede, O. O. (2020). Code Switching as a Medium of Instruction in Basic Schools in Osun and Oyo States, Nigeria. *Journal of English and Communication in Africa*, 3(1&2), 33-70.
- Adler, J. (1998). "A Language of Teaching Dilemmas: Unlocking the Complex Multilingual Secondary Mathematics Classroom", *For the Learning of Mathematics*, 18, 24-33.
- Adler, J. (2001). *Teaching Mathematics in Multilingual Classrooms*. Dordrecht: Kluwer Academic Press.
- Baker, C. (2011). *Foundations of Bilingual Education and Bilingualism*. Bristol: Multilingual Matters.
- Benyo, A., & Kumar, T. (2020). An analysis of Indian EFL learners' listening comprehension errors. *Asian ESP Journal*, 16(5.2), 69-85.
- Boztepe, E. (2003). Issues in code-switching: competing theories and models. *Studies in Applied Linguistics and TESOL*, 3(2), 37-51.
- Cahyani, H., de Courcy, M., & Barnett, J. (2018). Teachers' code-switching in bilingual classrooms: exploring pedagogical and sociocultural functions. *International Journal of Bilingual Education and Bilingualism*, 21(4), 465–479.
- Catabay, M. Q. (2016). Students' Perception on the Use of Code-Switching in English as a Second Language Class. *International Journal of Advanced Research in Management and Social Sciences*, 5(4), 272–251.
- Cohen, L., Manion, L., & Morrison, K. (2018). *Research Method in Education* (8th ed.). Routledge.
- Creswell, J. W. (2012). *Educational Research* (4th ed.). Pearson Education, Inc.

- Dendup, P. (2020). Code-Switching in the Classroom: The Perspectives of Bhutanese Teachers. *International Journal of Linguistics and Translation Studies*, 1(3), 47-57.
- Fareed, M., Humayun, S., & Akhtar, H. (2016). English Language Teachers' Code-switching in Class: ESL Learners' Perceptions. *Journal of Education & Social Sciences*, 4(1), 1–11.
- Ferguson, G. (2009). What next? Towards an agenda for classroom codeswitching research. *International Journal of Bilingual Education and Bilingualism*, 12(2), 231–241.
- Fuster, C., & Neuser, H. (2019). Exploring intentionality in lexical transfer. *International Journal of Multilingualism*, 17(4), 516–534.
- García, O., & Wei, L. (2014). Translanguaging: Language, bilingualism and education. *Translanguaging: Language, Bilingualism and Education*, 1–165.
- Jegede, O. O. (2011). Code Switching and Its Implications for Teaching Mathematics in Primary Schools in Ile-Ife, Nigeria. *Journal of Education and Practice*, 2(10), 41-54.
- Jegede, O. O. (2012). Roles of Code Switching in Multilingual Public Primary Schools in Ile-Ife. *American Journal of Linguistics*, 1(3), 40-46
- Jegede, O. O. and Adetuyi, C. A. (2016). Language-in-Education Policy in Nigeria: The Reality of Teachers' Language Choices. *Journal of Capital Development on Behavioural Sciences*, 4,(1), 1-18.
- Jegede, O.O., Yusuf, O.M., & Aliyu, A. (2024). Inclusive Education in the 21st Century: Solving the Language of Instruction Puzzle in Nigerian Public Primary Schools. In A. F. Adeyemi, P. O. Yara, O. Oyelami, & O. Bakare-Fatungase (Eds.), *Inclusive Education in the 21st Century: A Festschrift in Honour of an Erudite Scholar*, Rev. Dr. (Mrs) Oluwatoyin Abike Odeleye (pp. 147-157). Ibadan: College Press.

- Salami, L. O. (2008). 'It Is Still Double Take': Mother Tongue Education and Bilingual Classroom Practice in Nigeria, *Journal of Language, Identity and Education*, 6(4), 1-23.
- Setati, M. (1998). "Code-Switching and Mathematical Meaning in a Senior Primary Class of Second Language Learners", *For the Learning of Mathematics*, 18, 1, 34-40.
- Setati, M. and Adler, J. (2001). *Between Languages and Discourses: Code Switching Practices in Primary Classrooms in South Africa*. [Online] Available: <http://www.mai.liu.se/~chber/workshop/Setati&Adler.pdf> (March 19, 2008).