EFFECT OF CODE-MIXING AND CODE-SWITCHING ON PRIMARY SCHOOL PUPILS' ACADEMIC PERFORMANCE AND RETENTION IN ENGLISH LANGUAGE IN KANO STATE, NIGERIA

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Abstract
The study assessed the effect of code-mixing and code-switching on primary school pupils' academic performance and retention in English language in Kano state, Nigeria. Three objectives and their corresponding hypotheses guided the study. The study employed a quasi-experimental research design. The population of the study was six hundred and eighty-six thousand, seven hundred and nineteen (686,719) primary four pupils in Kano state. Four hundred and thirteen pupils (413) were sampled through purposive sampling technique. The instrument used for data collection was "Code-Mixing and Code-Switching Academic Achievement Test (CMCSAAT)". Using Pearson Product Moment Correlation, the instrument yielded reliability coefficient of 0.84. The hypotheses were tested using independent samples t-test at 0.05 level of` significance. The findings revealed that code-mixing and code-switching (Hausa to English and vice versa) are effective in teaching English language curriculum at primary school level. The findings also revealed that pupils retained learning experience when taught using code-mixing and code-switching. The study concluded that code-mixing and code-switching enhances primary school pupils' academic performance and retention in English language. The study recommended that language of instruction at primary school level in Kano state should be code alternation between first language (Hausa) and the English language.
Keywords: Code-Mixing, Code-Switching, Academic Performance, Retention, English Language.

Introduction
The quest for students' academic performance has been the limelight of every educational policy in Nigeria. The teachers that implements the policies at classroom are faced with difficulties while trying to attain a particular behavioral objective. Lopez-Perez et al. (2011) in

Alenezi (2019) argued that achieving such objectives requires a change in the way teacher offer instructions. Jibrin and Zayum (2012) observes that no matter how expertly the learning experience is selected, the mode of delivery plays a dominant role in imparting knowledge. Teachers at all levels are expected to explore more creative and innovative methods, strategies or approaches in order to achieve desired instructional objective, which includes code-mixing and code-mixing that facilitates active learning. Human beings communicate using codes, which can be verbal, non-verbal, paralanguage and discourse. Code are vehicles of transmission of meaning that is determined by socio-cultural and linguistic contexts. Language is one of the most important codes in transmitting meaning and according to Jummai (2012), language holds the key to the success of the teaching and learning process. Nigerians communicate in the indigenous languages or in foreign language (mostly English) depending on the sociolinguistic context. Wardaugh (1986:87) in Ezeh, Umeh, and Anyanwu (2022), defines code as a system used for communication between two or more parties used on any occasion. It is therefore refers to the system by which communication takes place. The major codes are the mother tongue (MT) in other term called 'first language' (L1) and the second language. In Nigeria, English is the second language and the official language.

According to Ogbodo et al. (2015), the first language is the language a person acquires from his first contact with his environment, which is usually the mother and that is why it is called mother tongue. It is the only language a monolingual person usually acquires in his native environment. L1 or MT is used to refer to the first language, since it is assumed that a child acquires this language from the parents who give the child his or her first social contact. The second language (L2) on the other hand, is the language learnt after L1 (Ogbodo et al. 2015; Schmitt (2010) in Ezeh, Umeh, and Anyanwu, 2022).

Nigeria is a multilingual and pluralistic nation. According to the sociolinguistic survey of language diversity and language use in Nigeria, five hundred and forty (540) languages are spoken in Nigeria (FGN, 2022). The co-existence of the English language with indigenous Nigerian languages has produced some socio-linguistic consequences such as alternation, interference, code-mixing and code-switching. The phenomena of code switching and code mixing are as old as the culture of bilingualism and multilingualism. They are viewed differently in certain areas of linguistic studies and commonly studied as elements of spoken language, involving the alternation of codes. According to Goldrick, Putnam and Schwarz (2016) in Spice (2018), code-mixing is the fluent integration of two languages within a single utterance. On the other hand, Gonzalez (2017) in Memory, Nkengbeza and Liswaniso (2018), code-switching refers to the practice of alternating between two or more languages or varieties of languages in a conversation. Most of the studies agree in their conclusion that code-mixing involves two or more languages or codes in a single utterance or sentence while, code-switching is the juxtaposing of two languages in a spoken discourse. According to Matrix Language Frame (MLF) model of Carol Myers-Scotton (1993) in Nteziyaremye, et al. (2024), bilingual speakers have a range of linguistic systems, which are activated according to contextual factors. According to MLF model, code-switching is a communicative approach through which bilingual speakers negotiate social and language identities, manage power

relations, and convey complex meanings that may not be easily conveyed in one language. By shifting between languages within the confines of the matrix language frame, bilingual speakers could strategically combine linguistic resources from different languages to achieve their communication goals. Some decades ago, code-switching was viewed negatively as a sign of language deficiency of the user, but recent researches in this area have countered this assumption; establishing code mixing and switching with positive results. The primary aim of switching and mixing codes amongst multilingual speakers are effective strategies to ease communication in simple and fastest manner. According to Casielles-Suarez (2017), alternation between different codes can effectively be used to add humor, emphasize and enhance meaning.

Educational sector is not left out in these socio-linguistic phenomena. This is because implementers of curriculum at classroom as observed by Kumari (2024), mixes first language (L1) of the learners with their second language (L2). To ensure effective delivery of instructions in the 9-year basic education, the federal government of Nigeria, categorized the different stages at which the indigenous language and the English language would be used in classrooms. According to FGN (2022), from the Early childhood care education (pre-primary) up to lower basic education (primary 1-3), the language of instruction shall be the mother tongue or the language of the immediate community. Subsequently, English shall be used as the medium of instruction in middle basic education (primary 3-6) and upper basic education (junior secondary education). Therefore, pupils start to receive instruction in English at first year of middle basic education (primary-4). This may create difficulty for the teachers and the pupils.

Code-mixing or switching at that year (basic education-4) may help to lay foundation for second and third year of the middle basic education (primary 5 & 6). No wonder, Ezeh, Umeh, and Anyanwu (2022) posited that practice of code-switching and mixing add great value to language learning. Mixing or switching code makes the teaching and learning process easier and more understandable in teaching English language curriculum contents that are complex, abstract and difficult to understand. This increase pupils' engagement and participation in the lesson. Even though instructional materials supplement and complement the teacher (Yusuf, 2018), in some cases, are not enough; it has to be combined with too much verbal explanation which could have been shortened using code-mixing or switching. Sometimes it is difficult for the teacher to provide to the class the instructional material that best suits the behavioral objective such as abstract and difficult concepts. In this case, code-mixing can help the teacher to deliver the lesson. Promnath and Tayjasa (2016) in Memory, Nkengbeza and Liswaniso (2018), showed that code-switching was beneficial for the students' understanding. Mixing and switching code provide advantageous chances for the teacher to exploit students' previous learning experiences as entry behavior to impart new learning experiences in the L2. This pave the way from the known to the unknown for the students (Ogbodo et al.,2015). The teachers build on their existing knowledge by recalling their previous knowledge on the subject matter, using familiar words in their L1 that correspond and capture the ideas in the L2. It is against this background that this paper examined the effect of code-mixing and code-switching on

pupils' academic performance and retention in the implementation of English language curriculum in primary schools in Kano state, Nigeria.

Statement of the Problem

The national language policy in Nigeria mandates that the mother tongue or the language of the immediate environment be used as the language of instruction at lower basic education (primary 1 to 3), after which pupils undergoes transition to English as the medium of instruction from Basic Education-4 (Primary-4) upward. While this policy aims to support foundational learning in familiar languages, the abrupt transition to English in basic education-4 often creates linguistic and academic challenges for many pupils who have become accustomed to learning exclusively in their mother tongue during the early years of schooling. This research aimed to investigate the effect of code mixing and code switching on academic performance during this critical transition stage. As pupils enter basic education-4, many struggles to understand subject content delivered entirely in English. This difficulty can lead to reduced participation, lower comprehension, and poor academic performance. Teachers, in response, frequently resort to code-mixing and code switching to bridge the linguistic gap and facilitate understanding. The study examined whether these language strategies enhance academic performance and retention in English language.

Objectives of the Study

The study was guided by the following objectives:

1. ascertain the effect of code-mixing and code-switching on students' academic performance in English language in primary schools in Kano state, Nigeria.
2. wxamine the academic performance of students taught English language using code-mixing and code-switching with that taught using English language only in primary schools in Kano state, Nigeria.
3. determine the effect of code-mixing and code-switching on students' retention ability in English language in primary schools in Kano state, Nigeria.

Hypotheses

The data obtained from this experiment was used in testing the following null hypotheses at 0.05 level of significant:

Ho_1: There is no significant difference between the pre-test and post-test performances of pupils taught English language using code-mixing and code-switching in middle basic education in Kano state, Nigeria.

Ho_2: There is no significant difference between the post-test scores of pupils taught English using code-mixing and code-switching and post-test scores of pupils taught using English language only in Kano state, Nigeria.

Ho_3: There is no significant difference between the post-test and retention test performances of pupils taught English using code-mixing and code-switching in middle basic education in Kano state, Nigeria.

Methodology

Quasi-experimental using pre-test post-test was the design for this study. Two primary schools were selected as experimental and control groups respectively. The experimental group was

taught using code-mixing and code switching while, the control group was taught using English throughout. The subjects were selected non-randomized using intact class. The difference found between the pre-test, post-test and retention test scores in this experiment were linked to the difference in language of instruction for each used.

The population of the study is six hundred and eighty-six thousand, seven hundred and nineteen (686,719) pupils in primary four in Kano state, out of which four hundred and thirteen (413) pupils were sampled for this experiment. The study applied purposive sampling technique to select the school (Noor et al., 2022) and used the entire subjects found in the intact classes of each school. The choice of the schools was because they possessed the characteristics of the population hence, the suspected extraneous variables of this research such as environment, tribe and culture would not be strong enough to influence the result of this experiment. The instrument used for data collection was Code-Mixing and Code-Switching Academic Achievement Test (CMCSAAT). The instrument was validated by two English language education experts. Pearson Product Moment Correlation was used and a reliability coefficient of 0.84 was obtained through a test-retest analysis of inquiry. It takes the study twelve (12) weeks of second term of 2022/2023 session to complete this experiment. CMCSAAT instrument was administered at the first week for pre-test; followed by classroom instruction for eight (8) weeks and administrating of CMCSAAT instrument for post-test at week ten. After two weeks (2) Post-Post-test was conducted using the same instrument. The statistical tool of t-test at 0.05 level of` significance was used for the analysis of the three hypotheses.

Results

Hypothesis One: There is no significant difference between the pre-test and post-test performances of pupils taught English language using code-mixing and code-switching in primary schools in Kano state, Nigeria.

Table 1: t-test of pre-test and post-test scores for pupils taught English language using code-mixing and code-switching

Test	N	Mean	SD	Mean Difference	t	df	α	Sig. (2 tailed)	Decision
Pre -Test	194	5.01	0.23						
				54.90	79	132	.05	0.000	Rejected
Post-Test	194	59.91	11.06						

The mean difference between post-test and pre-test average scores were 54.90. The chosen significant level $\alpha = 0.05$ was greater than the Sign. (2-tailed) value: $p = .000$. This showed there is significant difference between post-test and the pre-test ($t_{132} = 79$, $p = .000 < .05$). Consequently, hypothesis one which states there is no significant difference between the pre-test and post-test performances of pupils taught English language using code-mixing and code-switching in middle basic education in Kano state, Nigeria is rejected. This meant code-mixing and code-switching was effective for teaching English Language curriculum in primary school.

Hypothesis Two: There is no significant difference between the post-test scores of pupils taught English using code-mixing and code-switching and post-test scores of pupils taught using English language only in Kano state, Nigeria.

Table 2: T-test for post-test scores for students taught English using code-mixing and code-switching with that of those taught using English only

Group	n	Mean	SD	Mean Difference	t	df	α	Sig. (2 tailed)	Decision
Experimental	194	59.91	7.55						
				23.17	87	125	.05	0.000	Rejected
Control	219	36.74	8.04						

The mean difference between the post-test average scores of experimental group and control group was 23.17. The chosen significant level α = 0.05 was greater than the Sign. (2-tailed) value: p = .000. This showed there is significant difference between the post-test scores of pupils taught English Language using code mixing and switching Hausa/English and that of those taught using English only (t_{125}= 87, p = .000 < .05). The hypothesis two which states there is no significant difference between the post-test scores of pupils taught English using code-mixing and code-switching and post-test scores of pupils taught using English language only in Kano state, Nigeria is rejected. This meant that code-mixing and switching Hausa and English in teaching English Language curriculum was found more effective than teaching using English only.

Hypothesis Three: There is no significant difference between the post-test and retention test performances of pupils taught English using code-mixing and code-switching in middle basic education in Kano state, Nigeria.

Table 3: t-test of retention test for students taught English using code-mixing and code-switching

Test	n	Mean	SD	Mean Difference	t	df	α	Sig. (2 tailed)	Decision
Post-Test	194	59.91	7.55						
				8.08	92	112	.05	0.222	Retained
Post- Post Test	194	51.11	9.09						

The average mean score difference between the post-test and post-posttest was just 8.08 and the chosen significant level α = 0.05 was less than the Sign. (2-tailed) value: p = .222. This showed there is no significant difference between the post-test and retention test scores of pupils taught English using code-mixing and code-switching (t_{112}= 92, p = .222 > .05). This difference was not significant hence, hypothesis three that states there is no significant difference between the post-test and retention test performances of pupils taught English using code-mixing and code-switching in middle basic education in Kano state, Nigeria is hereby retained. This meant learning is retained when English teachers combined Hausa and English while implementing the English Language curriculum at primary school.

Discussion of Findings

The student t-test result on hypothesis one, bring to light that the combination of code-mixing and code-switching are effective in teaching English language at primary school. This discovery was in line with Kumari (2024), who discovered that code-mixing and code-switching are effective for enhancing students' understanding and engagement with the course material. The finding also corroborates Simasiku (2015), who found code-switching as a resource that helps learners to understand and comprehend their lessons, which improves their performance during examinations.

The tested hypothesis two showed that combining Hausa and English in teaching English Language curriculum was found more effective than teaching the subject using English only. This finding confirms Anyadiegwu (2015), who posited that neither the mother tongue nor the English language is adequate as the only medium of instruction for lower basic education but combining the two, improved pupil's academic performance.

The analysis on hypothesis three showed that there was no significant difference between the post-test and post posttest. Therefore, the hypothesis was retained, which meant learning is retained when English teachers combined Hausa and English while making class instruction. This also agree with Kumari (2024), who posited that combination of mother tongue and second language, increased students' confidence, participation, and the development of permanent proficiency in English.

Conclusion

The study concluded that code-mixing and code-switching (Hausa and English and vice-versa) are effective in teaching English at primary school and is better than using English alone. Furthermore, pupils retained learning when English teachers code-mix and code-switch Hausa and English.

Recommendations

The study made some recommendation as follows:

1. Language of instruction at primary school level should be code alternation between Hausa and English.
2. Ministry of Education should engage in sensitization programs through colloquium and mass media for English teachers on the relevance of code alternation in teaching at primary schools level.

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