

**THE EFFECT OF MOTHER’S TONGUE INTERFERENCE IN THE STUDY
OF PHYSICS IN TERTIARY INSTITUTION: A CASE STUDY OF FEDERAL
COLLEGE OF EDUCATION, ABEOKUTA**

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Abstract

This study was carried out to examine mother’s tongue interference in the study of physics in Federal College of Education, Abeokuta. Specifically, the study aims to examine whether there will be improvement in students’ attitude towards Physics when mother tongue is used as supplementary medium of instruction, find out whether mother tongue hinder effective communication among students in class, investigate whether the academic achievement of students will improve when mother tongue is used as a supplementary medium of instruction in Physics, assess whether mother tongue hinder students from mastering the codes and grammar in physics. The study employed the survey descriptive research design. A total of 100 responses were validated from the survey through questionnaire. From the responses obtained and analyzed, the findings revealed that mother tongue does not hinder effective communication among students in class. Also, the academic achievement of students will improve when mother tongue is used as a supplementary medium of instruction in Physics. The study thereby recommends that mother tongue should be introduced as a supplementary medium of instruction in Physics. Also, publishers and author of Physics textbooks should venture into writing contents in the mother tongue. Furthermore, seminars and workshops should be organized by the local and state governments to induct the teachers on the positive effect of using mother tongue as a supplementary medium of instruction in Physics.

Keywords: Mothers tongue, Interference, Physics, Tertiary institution.

Introduction

The concept “**Mother tongue**” is a traditional term for a person's native language meaning, a language learned from birth. Mother tongue also called the first language, native tongue and so on. The concept of “mother tongue” denotes not only the language one learns from one's mother, but also the speaker's dominant and home language, i.e not only the first language according to the time of acquisition, but the first with regard to its importance and the speaker's ability to master its linguistic and communicative aspects. The role of language in teaching and learning is germane as it constitutes the channel of instruction. However, in most of the developing countries, Nigeria inclusive, the language of the earlier colonial masters before independence, otherwise referred to as the “Lingual franca” has been the officially accepted medium of instruction in the schools, not minding the dialectical language of the learners. Every child grows first into the native language of his/her parents, and hence, has a grab of the concepts of his/her milieu and phenomena. The entrance of the native child into the formal school setting with its attendant foreign language often poses threats to the learners and to overcome this constitutes the maiden challenge of such a child.

English language during classroom interaction in Physics, hence, the reason for this study English is valued highly in society with a lot of prestige being attached to the language. A lot of time and energy is dedicated to teach or learn English in Nigerian schools. Despite this, not much attention is given to enhance the speaking skill in the average Nigerian classroom. That the learner will pick up the skill from general classroom activities and instructions over a period of time is a false assumption made. As a result, the learners are not able to develop this skill and hence lack confidence while conversing in English as it relates to other subjects especially Physics.

Physics as a science subject finds its application in all areas of technology and national development. For a developing country like Nigeria to develop technologically, there must be need for qualitative teaching of Physics in tertiary Institution. The teaching and learning of Physics which is a practical course requires the use of qualified Physics teachers trained with adequate teaching experience and can explain to learners in his mother's tongue to be more efficient. The few ones that have credit pass in Physics rather choose career courses like engineering and medicine, reason being traced to unattractiveness of the teaching profession (Akpan, 2014). Communication is a key factor in the teaching and learning of Physics. Language are the life wire of any qualitative and quantitative education. The success of any school system largely depends on the attitude of the teachers towards the learners. If teachers have no commitment to the teaching of Physics and exhibit truancy, their students are bound to copy them. (Korau, 2006).

The hatred students have for Physics is as a result of the hatred they have for English and Mathematics since Physics and Mathematics are related (Okeke 2012, Busari 2018). As a result of this, some refuse to improve on their interest. Some found themselves offering Physics because they are compelled to do so by their parents/guardians. Many variables have been implicated as being responsible for the poor performance of students in Physics. These are government related variables, examination body related variables, home related variables (Popoola, 2010). Amazigbo (2000), identified specific variables, such as lack of incentives for teachers, lack of interest in the part of students, students not interested in hard work, incompetent teachers, lack of conducive classroom, etc. A lack of understanding of mathematical skills leads to inadequate comprehension of Physics. Also, inadequate mastery of mathematical process, fundamental concepts, and skills in mathematics are probably the causes of the difficulties in solving Physics problems.

To further this, though articulation of individual sounds while teaching this language is addressed, the teaching of pronunciation is not given much importance either. In regular Nigerian classrooms, the importance of a native-like accent is not given due to stress. One strong reason that could be attributed to this could be that number of dialects found is so large that it is practically impossible to address all the accents in a classroom. This is a serious challenge in Nigerian classrooms. The areas of sound relating to spoken English and to pronunciation in the Nigerian context needs to be consciously addressed to counter this challenge and to make a native-like accent in Nigerian learners more plausible.

The impact of science and technology is universally significant in contemporary society as it manifests in every sphere of human endeavour and engagement. Physics is a science subject that provides most of the fundamental concepts, facts and principles that are central to the technological discoveries. Despite the relevance of physics to technological advancement, the absolute use of foreign language as the medium of instruction has

hindered the performance of the learners in the subject and has adversely impeded the anticipated growth of technology in Nigeria. There is need therefore to attempt the use of the learner's native language to supplement

It is observed among West-Africa communities that the mother tongue of the learners inhibits the acquisition of the pronunciation and sound system of the second language. The state of interference of the mother tongue and learning of English language has been a concern to the researcher and Educational stakeholders. Ogun State is known to have a tonal language which affects their speaking capability in terms of sentences and word stress, vowels and supra-segmental pitch. The above observations lead the researcher to ask if there is any significant interference of mother tongue in learning of Physics in Federal College of Education, Abeokuta, Ogun State.

Objective of the Study

The purpose of this study is to investigate the effect of using mother tongue in teaching and learning of Physics in Ogun state. It also examines the effect of mother tongue as a supplementary medium of instruction on students' attitude towards Physics. The concern of the study is to find out if there is any relationship between the performance of students and the medium of instruction in Physics.

Research Questions

The questions generated to guide the study are:

1. Will the performance of students improve when mother tongue is used as a supplementary medium of instruction in Physics?
2. Will there be any improvement in students' attitude towards Physics when mother tongue is used as supplementary medium of instruction?
3. Will there be any difference between the main performance of student taught with mothers' tongue and those thought in English and mothers' tongue?

Literature Review

The Concept of Mother Tongue

The Cambridge dictionary defines mother tongue as the first language that you can learn when you are a baby, rather than a language learnt at school as an adult. Mother tongue has been defined in different perspectives. Mother tongue could be viewed as a language that a person identifies with for the first time. Bucki (2021) views mother tongue as a language a child learns before any other language or languages. Thus, it is a language that a person uses often and through which someone establishes first verbal contacts. Mother tongue can therefore be considered as a language linked to ones' ancestral background. Abidogun (2022) describes it as the language- speaking population into which the child is born and grows up with. In an attempt to support this school of thought, UNESCO (2007) considers mother tongue as the language that a child acquires from birth and which becomes his\her natural tool of linguist interaction. Mother tongue in summary is the language of immediate environment that the child is exposed to.

Historical background of mother tongue in Nigeria education

The vast majority of Nigerian language were not put into writing until the 18th century and earlier studies on these languages were carried out by missionaries from Europe, whose aims were to translate religious materials into some African languages and design school books as painted out by Hair (1960). Between 1817, 1845 Hanna Killham suggested that Africa should read and write their own languages. She was one of the earliest Europeans to collect African language materials on which to base school books. She proposed a linguistic institute to be

established in England, where selected Africans could study their languages develop a writing system for them and prepare translations of religious materials.

The Importance of Mother Tongue as a Medium of Instruction

The relevance of language in teaching and learning processes is germane for a worthwhile classroom engagement. However, when the mother tongue is employed, the comprehension level of the learners is enhanced. It gives room for better communication among teachers and the learners, thereby facilitating better teaching and learning experience. The use of mother tongue in teaching serves as a link between the language spoken at school and the one spoken at home which consequently creates a good transition from home to school. There is a boost in the learner's self esteem and personal identity when taught in his/her native language.

The Impact of Language on the Teaching and Learning of Physics

Education plays a fundamental role in all round of human development, either social or economic. Education has been identified as one of the principal activities that contributes to peace co-existence, poverty eradication, lasting development and inter-cultural dialogue (UNESCO, 2008). These aims are global in perspective but localized in approach. The localization approach is known to bring significant effects on sustainability. For sustainable education however, UNESCO (2018) expressed preservation of indigenous knowledge in the education of the young. These and other thematic sustainable development priorities of the organization are extensions of their initial projects that include Literacy for All (LFA) in 2000 which highlights scientific and technological literacy for all (Torres, 2020). Mothers' tongue-based instruction emphasizes the ethnic group's native language as the mode of communication, mode of instruction and the language of the curriculum materials that must be used by the students. Research reports (Agnihotri, 2018) reveal that the longer a child is taught in his home language, the higher is his academic achievement in school subjects, physics inclusive. Students' cultural perspectives influence how they construct knowledge while cultural background influences cognitive style and motivation.

Controversy Over Choice/ Negative Attitude Towards Mother Tongue. The use of mother tongue as a medium of instruction in education as generated a serious controversy in Nigeria. Some assume that, it is not practical and anti-nationalistic and divertive. They lose their contention on social political factors. For instance, the linguistics tell us that we have (300) different languages (excluding dialect) in Nigeria, and that if each linguistic groups insist on giving educational instruction in their mother tongue, the objective of primary education in Nigeria will become unattainable.

However Ogunba (2021), says, "assumption that a child learns better or easily when instructions is given out in his mother tongue can only be true in a basically monolingual environment". Our argument now is that, in an environment where there are competing languages, (for instance Nigeria), it may be difficult in the mother tongue than the so-called foreign tongue. Mother tongue does not make it necessarily easier to grasps. Fafunwa (2018), now assures that the necessary books and teaching aids can be publish in Nigeria languages in subject like Mathematics, Science, Agriculture and science to suit our need. Furthermore, in negative views towards mother tongue, most factors discussed earlier may be regarded as beyond the control of speakers of language; the question of attitude is squarely within the power of those who own the language. One would have expected speakers of an African language to be proud of their language, but quite often, one encounter negative altitude. The most common of such altitude is that the elite who refer education in the imported language for their children. Taking their cues

from elites, it is not surprising that parents belonging to lower social groups also want similar education for their children. For instance, in Nigeria, it is amazing to find the large number of English medium private nursery and primary schools offering education to young children. Patronage of such schools comes not only from well-to-do parents, but also from lowly paid blue-collar workers, who believes that they are making a great sacrifice for their children's future, Bamgbose (2021).

The Behaviourist Theory

The first coherent theory of learning was the behaviourist theory based on the work of Pavlov in the Soviet Union and of Skinner in the United States (Tom-Hutchinson et al,2000). A great deal of language learning and teaching in the 1950s and 1960s was influenced by the tenets of behaviourism (Campbell, 1995). Behaviourism was based on the view that all learning including language learning occurs through a process of imitation, practice, reinforcement and habit formation. Behaviourist claimed that when learners correctly produce language that approximates what they are exposed to in the input, and these efforts receive positive reinforcement, habits are formed.

The Cognitive Theory

In recent year's cognitive psychologists have begun to challenge the basic tenets of behaviourist theories of learning. Their theories rest upon neuropsychological bases of thought and language, and as such are said by mentalist. Learning is not viewed as an array of conditioned responses to previously met stimuli, as the acquisition and storage of knowledge. Behaviourist psychologist focus on the individual's response while cognitive physiologist emphasized the mental process underlying that response (Tom Hutchinson et al,2000) The main alternative to the behaviourist approach sees as central the role of cognitive factors in language learning. In this view, learners are credited with using their cognitive abilities in a creative way to work out hypothesis about the structure of the F.L. They construct rules, try them out, and alter them if they prove to be inadequate.

Empirical Framework

Onike Rahaman (2019) carried out a research on mother tongue interference on the Yoruba learners of English and he found out that 'a Yoruba – English bilingual stresses every syllable in the utterances he produces in English, e.g. cha | ra | cher instead of character or malry instead of Mary. At the level of intonation, because all the syllables are stressed, a carryover effect from the dialects of Yoruba language, it becomes difficult to understand what part of an utterance a Yoruba – English bilingual is trying to emphasize. In the areas of syntactic and discourse problems of Yoruba learner of English, he states that "the syntax of English and Yoruba language has recognized problem areas such as the nominal system (such as number, quantifiers, pronoun) gender, embedded structures relative pronouns, complements) and the expression of passives. According to him, "the discourse level is 'more pronounced at the level of greeting. For instance, the system of greeting in Yoruba differs considerably from that of English. And a Yoruba English bilingual transfers the system of greeting in Yoruba into English. The system of greetings is also observed via the production of language greetings in place of casual greetings which characterize the English discourse. (Online Wikipedia encyclopedia).

Methodology

In this study, the researcher employed the survey research design. This is due to the nature of the study whereby the opinion and views of people are sampled. As it is often used to describe and explore human behaviour, surveys are therefore frequently used in social and psychological research.

Area of the Study

This study was carried out on mother's tongue and student's achievement in physics in secondary schools using Federal College of Education, Abeokuta, as a case study.

Population of the Study

The population of the Study consist of 100 respondents in the department of Physics and Mathematics from 100 level to 300 Leven in Federal College of Education, Abeokuta.

Sample Size Selection Technique and Procedure

In this study, the researcher adopted a stratified random sampling technique to determine the sample size. Out of all the entire population of students in the Department of Mathematics and Physics in Federal College of Education, Abeokuta. The researcher conveniently selected 100 out of the overall population as the sample size for this study. According to Terty (2021), a sample of convenience is the terminology used to describe a sample in which elements have been selected from the target population on the basis of their accessibility or convenience to the researcher.

Research Instrument and Administration

The research instrument used in this study is the questionnaire. A survey containing series of questions were administered to the enrolled participants. The questionnaire was divided into two sections, the first section enquired about the response's demographic or personal data while the second sections were in line with the study objectives, aimed at providing answers to the research questions. Participants were required to pick from four parameter; Strongly Agree, Agree, Disagree, Strongly Disagree

It consists of fifteen item and one hundred copies were made and distributed to the respondents.

Validation of Instrument

To ensure validity of the instrument, a draft of the self-developed questionnaire was presented to the research's supervisor and other experts in the related field of study. Comments and suggestion from the experts were carefully followed in order to improve the quality of the instrument.

Methods of Data Collection

Copies of questionnaire were administered by the researcher, to the respondents. The researcher waited for the respondents to complete the questionnaire and collected them back immediately. So as to have a hundred percent return rate of the questionnaire that were later used for data analysis.

Methods of Data Analysis

The data collected were analysed using simple percentage and standard deviation.

Results and Discussion

Data Presentation

Table 4.1: Demographic profile of the respondents

Section A

Demographic information	Frequency	Percent
Gender		
Male	47	47%
Female	53	53%
Age		
Below 18	24	24%
19-25	72	72%
26 +	4	4%
Department		
Physics	69	69%
Mathematics	31	31%

Level		
100	7	7%
200	19	19%
300	74	74%
Age		
Below 18	24	24%
19-25	72	72%
26 +	4	4%
	100	100%

Source: Field Survey, Hungbo 2023

The table above shows that there were 100 respondents in the Department of Physics/Mathematics responded to the questionnaire. Among the respondents 74% are in 300 Level, 19% in 200 Level and 7% in 100 Level. This shows that majority of the respondents were in 300 Level. The frequency of gender shows that 47% male and 53% female administered the question, majority of the respondents were female. It also reveals that 24% of the respondents were below the age of 18, 72% were between the age of 19-25, while 4% were above the age of

Section B

Demographic information	Frequency	Percent
Ethnicity		
Yoruba	77	77%
Igbo	19	19%
Hausa	4	4%
	100	100%

Source: Field Survey, Hungbo 2023

This tables shows the demographic information as regard to the respondents' ethnicity. The result shows that 77% were yourba, 19% Igbo while 4% from the Hausa Tribe. This shows that majority were from Yoruba tribe.

Section C**GRADE IN SSCE RESULT**

SUBJECT	A1	B2	B3	C4	C5	C6	D7	E8	F9	TOTAL
English	29%	27%	20%	11%	2%	10%	1%	0%	0%	100%
Mathematics	38%	29%	13%	8%	3%	9%	0%	0%	0%	100%
Physics	28%	18%	20%	14%	5%	14%	1%	0%	0%	100%
Chemistry	24%	25%	19%	16%	8%	5%	1%	1%	1%	100%
Biology	12%	18%	16%	25%	14%	12%	2%	0%	1%	100%
Civic	23%	20%	6%	12%	15%	8%	12%	3%	1%	100%
Geography	13%	28%	12%	14%	12%	13%	8%	1%	1%	100%
Agric Sci.	21%	27%	18%	9%	7%	14%	2%	1%	1%	100%
Economics	21%	21%	24%	12%	8%	9%	3%	1%	1%	100%

Source: Field Survey, Hungbo 2023

From this grade table we can see that 21% of the respondents scored A1 across all subject, 21% B2, 24% B3, 12% C4, 8% C5, 9% C6, 3% D7, while 1% both in E8 & F9. According to this data its shown that the major grade scored across all subject is B3

Section D

Demographic information	Frequency	percent
Language Used (JS1-SS3)		
English only	23	23%
English and Mothers Tongue	77	77%
Mothers tongue only	0	0%
	100	100%

Source: Field Survey, Hungbo 2023

This table shows language used by teachers in teaching the respondents in their earlier class (JSS 1- SSS3). According to this table 23% of the respondents were taught using English only, 77% were taught using English and mothers' tongues, while none was taught using mothers' tongue only. Majority of the respondents were taught using English and mothers' tongue while none of them is taught using mothers' tongue alone

Section E

Mode of Instruction	Frequency	percent
English only	14	14%
English and other tongue	86	86%
Other tongue only	0	0%
	100	100%

Source: Field Survey, Hungbo 2023

This table show mode of instruction for the respondents. 14% of respondents are used to English only as a mode on instruction, 86% English and none uses other tongues only. Majority of the respondents uses English and other tongue.

Research Question 1: Will the performance of students improve when mother tongue is used as a supplementary medium of instruction in Physics?

S/N	ITEMS	SA (4)	A (3)	SD (2)	D (1)	FX	X	REMARK
1	Use of mother tongue affect the retention ability of student during and after lecture	40	33	23	4	290	2.90	Agree
2	Use of mother tongue affect student pronunciation during teaching	35	47	16	2	301	3.01	Agree
3	Mother's tongue interference causes low academic performance	34	29			251	2.51	Agree
4	Student use of mother tongue has no effect on academic performance	28	51	13	8	294	4	Agree
5	Use of mother tongue in teaching give student a better idea of the topic	50	30	2	12	334	3.34	Agree

N= 100 Decision Rule = 2.50 Weighted Mean = 2.94

The table above shows the mean rating of the respondents based on the research question one. The respondents agreed with a mean score of 2.94 indicating the performance of students improve when mother tongue is used as a supplementary medium of instruction in Physics.

Table 1: Show the performance of students improve when mother tongue is used as a supplementary medium of instruction in Physics.

Research Question 2: Will there be any improvement in students' attitude towards Physics when mother tongue is used as supplementary medium of instruction?

S/N	ITEMS	SA (4)	A (3)	SD (2)	D (1)	FX	REMARK
6	Mother tongue interference makes students to take teaching and learning with levity	50	28	3	19	325	3.25 Agree
7	Student that do not understand mother tongue effective cannot understand the studies very well	27	50	19	4	258	2.58 Agree
8	Mother tongue interference affects communication in the study of physics	32	50	10	8	272	2.72 Agree
9	We use English and mother tongue to communicate in the lecture room.	40	48	9	3	279	2.79 Agree
10	Mother tongue interference makes teaching and learning more difficult	21	32	28	19	225	2.25 Agree

N= 100 Decision Rule = 2.50 Weighted Mean = 2.72

The table above shows the mean rating of the respondents based on the research question one. The respondents agreed with a mean score of 2.72 indicating the performance of students improve when mother tongue is used as a supplementary medium of instruction in Physics.

Table 2: Showing the improvement in students' attitude towards Physics when mother tongue is used as supplementary medium of instruction.

Question 3: Will there be any difference between the main performance of student taught with mothers' tongue and those thought in English and mothers' tongue

S/N	ITEMS	SA (4)	A (3)	SD (2)	D (1)	FX	X	REMARK
11	Instructional materials such as textbooks, video tape is determinant of effective study of physics and mathematics	63	15	14	8	327		3.27 Agree
12	Giving students physics textbooks and hand-out enhances the study of physics and mathematics	43	45	7	5	324		3.24 Agree
13	Demonstration and practical method		49	7	1	328	3.28	Agree
	not affect the use of mother tongue in the study of physics and mathematics							
14	Use the mother tongue while explaining physics gives more meaning to the study of physics and mathematics	34	49	14	3	303	3.03	Agree
15	Use of teaching materials and various activities affect the study of physics and mathematics and not the use of mother tongue.	39	41	13	7	306	3.06	Agree

N= 100 Decision Rule = 2.50 Weighted Mean = 3.18

The table above shows the mean rating of the respondents based on the research question one. The respondents agreed with a mean score of 3.18 indicating the main performance of student taught with mothers' tongue and those thought in English and mothers' tongue.

Table 3: Showing the difference between the main performance of student taught with mothers' tongue and those thought in English and mothers' tongue.

Summary

In this study, our focus was to examine the effect of mother's tongue interference in the study of physics and mathematics students in Federal College of Education, Abeokuta. The study specifically was aimed to examine whether there will be improvement in students' attitude towards Physics when mother tongue is used as supplementary medium of instruction, find out whether mother tongue hinder effective communication among students in class, investigate whether the academic achievement of students will improve when mother tongue is used as a supplementary medium of instruction in Physics and

assess whether mother tongue hinder students from mastering the codes and grammar in physics. A total of 100 responses were validated from the enrolled participants where all respondent is drawn from students in the department of Mathematics and Physics in Federal College of Education, Abeokuta. The study hereby concludes that there will be improvement in students' attitude towards Physics when mother tongue is used as supplementary medium of instruction, mother tongue hinders effective communication among students in class, the academic achievement of students improves when mother tongue is used as a supplementary medium of instruction in Physics and mathematics.

Conclusion

The findings of the study established the the effect of mother's tongue interference in the study of physics and mathematics students in Federal College of Education. From the result and findings from the study, we deduce that Mother tongue interference makes students to take teaching and learning with levity, Student that do not understand mother tongue effective cannot understand the studies very well, mother tongue interference affects communication in the study of physics. This is so because demonstration and practical method do not affect the use of mother tongue in the study of physics and mathematics, using mother tongue while explaining physics gives more meaning to the study of physics and mathematics.

Recommendation

Based on the responses obtained, the researcher proffers the following recommendations:

- i. Mother tongue should be introduced as a supplementary medium of instruction in Physics.
- ii. Publishers and author of Physics textbooks should venture into writing contents in the mother tongue.
- iii. Seminars and workshops should be organized by the local and state governments to induct the teachers on the positive effect of using mother tongue as a supplementary medium of instruction in Physics
- iv. Government should enact the use of mother tongue as a supplementary medium of instruction as education law in the national education policy.

References

- Abidogun, A. (2022). Empowering African languages: Rethinking the strategies. *The Journal of African Studies*, 2(3), 14-32
- Agnihotri, S. (2018). A field study of selected student teacher perspectives towards social studies. *Theory and Research in Social Education*, 12(1), 13-30.
- Babalola, J.O. (2015). Students' attitude to language of wider communication (LWC) in a multi lingual speechcommunity. *International Journal of Innovative Research and Development*, 4(1), 101-106.
- Bucki, K. (2021). Topics in Ghanaian language education (unpublished). *A paper presented at the public lecture on language.*
- Dada, S. A. (2020). A demographic analysis of language shift in a Yoruba suburban town, Southwestern Nigeria. *Sociolinguistic Studies*, 3(3), 425-449.

- Davition, M. (2017). The Effect of the Language of Instruction on the Performance of the TSOGA (Shangani) Speaking Grade Seven Pupils in Zimbabwe. A Thesis Submitted to the Faculty of Education University of Zimbabwe. In Partial fulfillment of Doctorate degree.
- Fafunwa, A., Macauley, J. & Soyinka, (eds) (2018) Education in Mother Tongue. *The Ife Primary Education Research Project (1970-1978)*. Ibadan: University Press.
- Gimson, B. (ed) (2020) *Ethnologue: Languages of the World*. 14th ed. Dallas: SIL International. www.ethnologue.com/web.asp
- Gogoi, A. (2015). U.S. Patent. Washington, DC: U.S. *Patent and Trademark Office*.
- Igbojin, W. (2015). Globalisation and problems and prospects of teaching and learning of Yoruba as a second language in Colleges of Education in Nigeria.
- Koseoglu, Y. (2015). Self-efficacy and academic achievement: A case from Turkey. *Journal of Education and practice*, 6(29), 131-141. Retrieved from <http://files.eric.ed.gov/fulltext/EJ1081281.pdf>
- Lado, R. (2017). *Linguistics across cultures. Applied linguistics for language teachers*. Ann Arbor: *Michigan University Press*.
- Makinde, S. (2015). *Languages, culture and teaching: Critical perspectives* (2nd ed.). New York: Nigerian Educational Research and Development Council (2007). *Primary School Curriculum: 9-years basic education curriculum. Yoruba language for primaries 1- 3*. NERDC.
- Malone, S. (2022). Language Education Activities for early Grades in Mother Tongue-Based Multilingual Education Programs.
- Mathooko, A.M. (2019). Curriculum perspectives in the heritage language context. *Assessing Culture and Identity*, 22(2), 157-174.
- Oladipo, A. (2019). Trends in the Performance of Students in Yoruba Language at SSCE Unpublished M.Ed. project, Department of Teacher Education, *University of Ibadan*.
- Olarewaju, A.O (2016). Remedying students under achievement in science through the mother tongue as a language of instruction: An experimental approach. *Nigeria Journal of Curriculum Studies*, 6(2), 41-49
- Salami, L. O. (2018). It is still “double take”: Mother tongue education and bilingual classroom practice in Nigeria. *Journal of Language, Identity, and Education*, 7(2), 91-112.
- Singh, N., & Mishra, R. K. (2015). Second language proficiency modulates conflict monitoring in an oculomotor Stroop task: *Evidence from Hindi-English bilinguals*. *Frontiers in psychology*, 4(1), 322-332.
- Torres, O. (2020). *Language minority students in the mainstream classroom* (2nd ed.). Applied Linguistics. Jo Taylor, *Mary Washington College, Fredericksburg, Virginia*.
- UNICEF. (2017). *A Human Rights-Based Approach to Education for All—A Framework for the Realization of Children’s Right to Education and Rights within Education*.
- United Nations Educational Scientific and Cultural Organization (2018). *Mother tongue instruction in early childhood education: A selected bibliography*. Paris: UNESCO
- Wilmot, E.M. (2016). Who gains when policy fails? Implications of the suspension of Ghana’s school language policy. Paper presented at the CIES – Mid-West conference. Centre for Intensive English Studies. *Florida State University, Miami: Florida institution*, August 14: