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Editorial

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EFFECT OF CLASSROOM INTERACTION PATTERNS ON SENIOR SECONDARY TWO STUDENT'S LEARNING OUTCOME IN ORAL ENGLISH IN APA LOCAL GOVERNMENT AREA, BENUE STATE

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Abstract

The study investigated the effect of classroom interaction patterns on students' learning outcomes in oral English at Senior Secondary Two students in Apa Local Area of Benue state. The study also examined the differential effect of classroom interaction patterns on male and female attitude to oral English. Two research questions and two hypotheses formulated to guide the study. The sample for the study was made up of 234 senior secondary two students from six schools across the three districts in the local government area. The study adopted pretest and post -test quasi experimental design. Intact classes were assigned to the experimental and control groups using purposive sampling technique. Data were collected using Oral English Language Performance Test (OELPT). The OELPT was validated while Cronbach's Alpha statistics was used to analyse its reliability which yielded $r=0.85$. Descriptive statistics of mean and standard deviations were used to answer all research questions while Analysis of Covariance (ANCOVA) was used to test all the hypotheses formulated at 0.05 level of significance. The study revealed that students exposed to classroom interaction patterns had significantly performed higher than those in the form-based approach. However, there was no significant gender difference in the attitude of students in classroom interaction patterns. Based on the findings of this study it was recommended among other things that English language teachers should be encouraged to adopt classroom interaction patterns most especially in the teaching of oral English lessons. In similar vein, there should be proper orientation for practicing English language teachers on how to improve on their classroom interaction patterns.

Keywords: effect, classroom interaction, students' attitude, learning outcomes, oral English

Introduction

The essential role of language, in this case, English in education, communication, and national development cannot be overemphasized. This necessitates the need to teach and learn English language effectively. Effective language teaching and learning are aimed at the mastery of the four basic language skills of listening, speaking, reading and writing. As a second and national language, English is the language that aids learners' comprehension of knowledge taught in school; classroom interactions between teacher and students; among learners and the wider society or life after school. It is important to note that most of these interactions are done orally. Language is first of all oral therefore, there is the urgent need for the proper teaching of all aspects of oral English which may lead to proficiency in English (Ojobor, Udu & Achor, 2024).

Classroom interaction is the inter-personal transaction between the teacher and students which occurs at different levels. This encompasses a lesson situation during which the teacher and students through their verbal and non-verbal actions have reciprocal influence on each other (Muodumogu & Yusuf, 2018). These include the teacher's solicitation of students-talk through questions or recitation request to which students respond or fail to respond and then the teacher reacts by praising the students, accepting and using their ideas or rejecting them and criticizing their ideas or behaviour (Eboikpomwe, 2019). Classroom interaction optimally has a four-dimensional character, involving interaction between teacher and students, students and student, teacher and materials and students and materials (Muodumogu & Ibrahim, 2018).

Teacher and student interaction is understood to be an important issue in education, and teacher- student interaction is beneficial for students' learning. Flanders (1970) cited in Liu, Lin, Liou, Feng and Hou (2023) developed an analytical system for teacher-student interaction and identified seven categories of teachers' behaviours: clarifying feelings, praising, using students' ideas, asking questions, lecturing, giving directions, and criticizing. Teachers could help to develop students' ideas by asking questions. When teachers asked specific questions or asked for students' help, they (students) felt more confident and secure (Liu & Elicker, 2023). Two roles can be identified among teachers and students: parallel and inclination. When teachers and students perform parallel roles, they have equal status. When teachers and students perform inclination roles, they interact as educators and the educated (Liu & Elicker, 2023). For teachers, behaviours such as playing with students and expressing their experiences were related to the parallel role, and behaviours such as directing and asking questions were related to the inclination role. During teacher- student

interactions, teachers can use strategies such as denomination, correction, and expansion to reconceptualize the information provided by the students (Rosemberg & Silva, 2019). Chi, Siler, Jeong, Yamauchi and Hausmann (2021) suggest that in a one-to-one context, instructors could provide suitable support according to students' needs, thereby enhancing students' motivation and learning performance.

Student and student interaction, according to Dempsey (2019) means that the students interact on what they have learned, and be able to share what they have gained for discussion. Classes where students have opportunities to communicate with one another help them to effectively construct their knowledge. Under this pattern of interaction, students share responsibility for learning with each other, discuss divergent understandings, and shape the direction of the class. This type of class is characterized with a more student focused class and provides multiple opportunities for students to discuss ideas in small groups and may support a whole class discussion (National Association of Geoscience Teachers, 2014). During student-students interaction, the teacher plays two key roles: facilitator (making sure the students are able to speak) and evaluator (assessing students' progress with the task and also assessing the language they are producing) (Languages International, 2015).

Of the two patterns of interaction, there are a number of ways in which they differ, each with its own strengths and weaknesses (Weinstein, Tomlinson-Clarke, & Curran, 2023). First, there is a difference in the two on how the students work. Considering the teacher-students interaction pattern which is a teacher-centred approach, the students do their work alone where they do exercises related to the teacher's presentation during or after the lesson while on the other hand, in the student-student interaction pattern which is a student-centred approach, the students work together in groups or pairs as per the demand and purpose of the activity. This way, teaching and learning becomes an enjoyable and friendly active and rewarding activity hence making it easier for the students to understand the lesson since they are actively involved in the learning. Secondly, the teacher-student interaction pattern portrays students as basically passive while the teacher is active. The teacher is the main focus in this pattern of interaction which is considered sensible since the teacher is familiar with the language which the students are not. In this case, the students are less engaged during the learning process. However, with the student-students interaction, the teacher and the student are both active participants since they share the learning responsibility of the learner, helping to identify how the students should use the language (Ibrahim & Muodumogu, 2018).

In the teacher-students interaction pattern, there is separation of the process of teaching from that of assessing or testing. In this approach, teaching occurs first then assessment comes later as a way of finding out whether the students grabbed the knowledge passed on to them by the teachers. Unlike the teacher-student interaction pattern, the student-student interaction pattern has both the teaching and

assessment being done together. As teaching continues, the students do exercises in pairs or groups (Al-Zu'be, 2023).

The form-based approach is referred to as a traditional method of teaching and learning because knowledge is taken from a general reference or source; then the information is readily made available (Gyapong, 2023). The usual flow of information begins with the introduction and presentation of the concept followed by activities (International Teachers Training Organization, 2016; Gyapong, 2023). According to Oxford University Press (2025), a form-based approach (rule driven) starts with the presentation of a rule and is followed by examples in which this is applied. Information is based on facts, statements, and pre-determined logic. The approach is easy to apply, leaves little room for mistakes, and information is valid. There is also a clear and defined scope and requires little preparation for the teacher (Gyapong, 2023). The form-based approach also has its disadvantages which include a very structural and predictable flow. This approach also leaves little interaction. It is most effective for large number of students. In terms of application in language, the form-based can also be useful in explaining a literary work (Gyapong, 2023).

Student learning occurs primarily through interactions with people (teachers and peers) and instructional materials (textbooks, workbooks, instructional software, web-based content, homework, projects, quizzes, and tests) (Chingos& Whitehurst, 2022). Instructional materials, when properly harnessed by teacher and students, enhance students' learning outcome based on findings from several studies conducted in the past (Oladeji, Olsunde, Ojebisi& Isola, 2021). English is a second language, but because of the many important roles it plays in the Nigerian society, it is being given a special place. For instance, it serves as an official language (the language of administration and education at some level), the language of relevance for unifying the nation (Yusuf, 2022). Socially, the social linguistic situation in Nigeria has often seen the social network and other activities being conducted in English. In a nutshell, English language is widely spoken and occupies a prominent place at the workplace, in the media and as a medium of instruction in schools (Danladi, 2023).

A critical step in making the learning of English meaningful in schools is to first develop in the children the ability to understand and speak English. Although speaking is the second skill to be developed, in primary language instruction, it is given prime attention and is among the expressive concepts of language. It is usually interwoven with the listening skill, because by nature, the language skills are not separate from each other (Oyetunde & Muodumogu, 2025). Oracy skill serves as the foundation or basis for a child's academic achievement and proficiency in the other aspects of language, because children need English first of all to communicate orally in it. That is, to understand it when it is spoken to them, and to express their feelings and experiences in it in a way that is intelligible and convincing. Secondly, reading and writing are built on Oral language foundation. Students will learn to read and write English easily if their oracy skills in the language have been adequately

developed. English learning will have meaning and relevance to children if this fact is observed in its instruction (Oyetunde & Muodumogu, 2025).

The persistent problem of poor performance of students in English Language at the senior secondary school level of education has been attributed to students' deficiencies in various aspects of the language (Fakeye, 2022). Even though English language is the language of instruction in the Nigerian educational system, its teaching to students for whom it is a second language continues to pose enormous challenges to teachers. Major evidence of these challenges is the high failure rate of students in the school certificate examination for English language nationwide and also the inability of these students to communicate properly using the language (Ajibola, 2020).

Poor communication resulting from mother tongue interference is also another problem that calls for urgent attention. It is a known fact that learners' first language influences the pronunciation of the target language (Iyere, 2023). Nigerian Languages are tonal and syllable-timed, while English is a stress-timed language and therefore they have a great deal of differences in stress and rhythmic patterns. The basis for rhythm in any Nigerian language is the number of syllables, and the production of every syllable virtually takes the same amount of time, while the basis for English rhythm is that of stress and the stressed syllable takes more time to pronounce. With no knowledge of this significant feature, many Nigerian students learning English in the classroom often find it difficult to clearly articulate every English syllable and word in speeches (Iyere, 2023). This results in a foreign-sounding' accent, and possibly misunderstanding.

Factors responsible for this poor learning outcome in the various aspects of English language especially Oral English, are not farfetched. The strategies employed in teaching Oral English are far from being satisfactory. The recitation script' strategy for example, places the teacher at the helm of affairs in the classroom and enables him to exercise a dominant role as the key possessor of knowledge and controller of the learning environment, thereby ignoring the parallel role which encourages students' active participation in the learning process and enhances knowledge acquisition (Muodumogu & Yusuf, 2018). The concept of teaching Oral English is downsized to mere recitation of sounds without any meaning attached to them. This translates in students' poor interest in and negative attitude to Oral English.

The uninspiring nature of these methodological strategies culminates in shaping students' perception of Oral English as a difficult, abstract and uninteresting area of study. All these aggravate students' level of frustration and heighten poor academic learning outcome, irrespective of their gender. In the light of the foregoing, the concern of this study therefore, is to determine the impact of Classroom Interaction Patterns on SSI Students' Attitude to oral English, with gender as moderator variable in Apa Local Government Area of Benue State.

Classroom interaction is a form of institutional talk which is locally managed but cooperatively constructed speech exchange system (Markee & Kasper, 2024), composed of interactions between teacher and students and among students. Classroom interaction is one of the platforms where any reality about classroom phenomena is produced and can be observed at the same time (Kharaghani, 2023). According to Papaja (2021) classroom interaction takes on an especially significant role in that it is both the medium through which learning is realized and an object of pedagogical attention. Papaja (2021) claim that it is in their interactions with each other those teachers and students work together to create the intellectual and practical activities that shape both the form and the content of the target language as well as the processes and outcomes of individual development. Interaction between the teacher and learners as well as the learners themselves is critical in the classroom (Papaja, 2021).

Classroom interaction can therefore be seen as a practice that enhances the development of the two very important language skills which are speaking and listening among learners. Effective classroom interaction enhances acquisition of oracy skills which helps the learners to be competent enough to think critically and share their views among their peers (Ghosh, 2020).

The traditional approach of teaching adopted by most of the teachers, where the learners used to be dependent only on the lecture delivered by the teacher is not ideal. They were not exposed to enough practice of speaking on their own and hence the interaction among the students in the classroom was almost absent. Ideally, teaching is not a passive process in which the teacher fills the students with knowledge, information or facts (Muodumogu, 2018). It should be an active, constructive process, in which the teacher assumes the role of a strategic planner, making decisions about the content and appropriate instructional strategies.

The term "attitude" is a transliteration of the term "aptitude" which had been used exclusively of each of a number of believes the person by painters and sculptors. Aptitude is derived from the Latin word "aptitudo" which in turn comes from "aptus", meaning suited, fitted. As soon as "aptitude" took the form of "attitude", its use became a general one (Project, 2023). An attitude is defined as a relatively enduring organization of beliefs, feelings, and behavioral tendencies towards socially significant objects, groups, events or symbols (McLeod, 2019). In other words, it is the sum total of a person's inclination and feelings, prejudices or bias, preconceived notions, ideals, fears, threats and convictions about any specific topic (Alao, 1990). An attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favor and disfavor (McLeod, 2019).

Attitudes are of interest because they often drive behaviour. That is, people tend to act favourably toward things they like and unfavourably toward things they do not

like. This implies that it is a predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object. Attitude is also viewed as predisposition or tendency to respond positively or negatively towards a certain idea, object, person or situation. Attitude influences an individual's choice of action, and responses to challenges, incentives and rewards (together called stimuli) (Business Dictionary, 2023).

The crux of the matter here is that students' attitude towards oral English should imply how they view and react to oral English teaching and learning within and outside the classroom. This underscores their positive or negative predisposition towards the subject. Students' attitude towards oral English language therefore, would be referred to as how they view and react to oral English language teaching and learning.

When all or a number of learners share the same mother-tongue, they tend to use it because it is easier for them (Tuan & Mai, 2015). Tuan & Mai (2015) suggests some reasons why students use mother-tongue in class. Firstly, when the students are asked to have a discussion about a topic that they are incapable of, if they want to say anything about the topic, they will use their own language. Another reason is that the use of mother-tongue is a natural thing to do. Consequently, if teachers frequently use the students' language, the students will feel comfortable to do it (Tuan & Mai, 2015).

Teaching methods of the teacher is another factor that can influence students' attitude towards Oral English learning (Abindin, Muhammadi, & Alzwari, 2022). Junying (2016 p.4) states that "college students' low proficiency in speaking is due to traditional teaching methods and students' attitudes towards Oral English practice play an important role in their engagement in the practice". Adoption of appropriate teaching methods by teachers and their ability to use them properly arrests the learners' attention and interest during lessons. Whereas a teacher who selects inappropriate teaching methods and with poor mastery of his/her subject will not only get the learners disinterested in his/her subject, but also, in him or her as a person.

In recent years, Oral English has been made an important part of the language curriculum in Nigeria. The efficiency of the English language in the wider Nigerian society depends largely on the English curriculum and the competence of the teacher (Soneye, 2020). In the teaching of English as an L2, the differences and similarities between the sound systems of English and that of the MT should be pointed out. For example, English has twenty vowel sounds which comprise twelve pure vowels and eight diphthongs whereas Nigerian languages have between five and ten vowels without diphthongs. There is a difference between, the English sounds /æ/ or /a:/, /C:/ and /e:/ and the Nigerian language sound /a/, /e/ and /e/ respectively. Speakers

of English in Nigeria substitute the English sounds for the indigenous language sounds. This often impedes intelligibility (Egwuogu, 2022).

The concept of gender is an important factor in the teaching-learning process that plays a vital role in determining students' attitude based on the cultural as well as social phenomena. It indicates the distinction between human beings on the basis of masculinity and femininity in relation to their expected or earmarked roles in society. Odey (2012, p.168) views gender as "a socially, ideologically and culturally defined power relation which determines a range of processes, behaviours, activities, forms of organization which are considered appropriate for men and women in a given time and place". It then implies that gender is attributed to attitudes which distinguish the female sex from the male sex.

Apa is situated in the Northern part of Benue State of Nigeria and is divided into two districts; Ochekwuand Ikobi. About 90% of the local government population is predominantly engaged in agriculture and this is due to the fertile nature of the soil. Apa Local Government Area is predominantly an Idoma speaking area with few other ethnic groups from different parts of the country. The local government has many primary and secondary schools owned voluntary agencies, individuals, community and government, with English language as the medium of instruction. Apart from the working-class population, a large majority of the people are peasant farmers living below the poverty line. This implies that most children within primary school age in this local government area are in public primary schools from where they transit to secondary schools and into the tertiary institutions. The low English language proficiency with which the majority of the students enter post primary and tertiary levels of education is a pointer to the fact that the public primary school system is unable to inculcate lasting ability to communicate effectively in English language in the learners.

This study was therefore designed to investigate the effect of classroom interaction patterns on Senior Secondary Two students' attitude to Oral English in Apa Local Government Area of Benue State. The following questions and hypotheses guided the study.

Research Questions

1. What difference is there between the mean attitude scores of students exposed to teacher-student classroom interaction patterns and those not exposed to classroom interaction patterns towards Oral English?
2. What is the effect of teacher-student interaction pattern on male and female students' mean attitude scores in Oral English?

Hypotheses

1. There is no significant difference between the mean attitude scores of students exposed to teacher-student classroom interaction pattern and those not exposed to classroom interaction pattern in Oral English.
2. Teacher-student interaction has no significant effect on male and female students' mean attitude scores in Oral English.

Methods

Two hundred and thirty-four students were involved in the study. Purposive sampling was used to select school type from the two districts of the local government area. In each of the schools, one intact class was used for the study. Two intact classes constituted the experimental group while the remaining two schools constituted the control group. Six intact classes were used in all for the study.

Oral English Attitude Survey (OEAS) was the instrument used for data collection. This instrument was adapted from Fraser (1981) Test of Science-Related Attitude (TOSRA) to measure seven different oral English language related attitudes among secondary school students. These attitudes are named Social Implication of Oral English Language (SIOEL), Normality of Oral English Language Specialists (NOELS), Attitude to Social Inquiry (ATSI), Adoption of Oral English Language Attitudes (AOELA), Enjoyment of Oral English Language Lessons (EOELL), Leisure Interest in Oral English Language (LIOEL), and Career Interest in Oral English Language (CIOEL). There are 70 items (i.e., each scale contains ten items) in the original version of TOSRA by Fraser (1981). In this present study however, the researcher employed all the seven scales, but narrowed the number of the items to 25 for the sake of convenience and ease of administration of instrument. In addition, the instrument comprises two sections. Section A comprises respondent's bio-data, while section B comprises test items.

The response pattern of OEAS required the students to state their degree of agreement with each statement on a 4-point Likert scale. These responses are Strongly Agreed (SA), Agree (A), Disagree (D), and Strongly Disagree (SD).

About half of the items in (Fraser, 1981) TOSRA were reverse-scored (Eccles, 2007 in Ali, Mohsin, & Iqbal, 2013). Hence, the present study sticks to the same method of scoring. Scoring involved allotting 4, 3, 2, 1 for the responses, SA, A, D, SD accordingly, for items designated as positive (+) and allotting 1, 2, 3, 4, for the responses SD, D, A, SA accordingly, for items designated as negative (-). The instrument was validated for appropriateness and clarity of language by two experts in the field of English Language education and one expert in test and measurement from the Department of Arts and Social Science Education, Benue State University, Makurdi.

Mean and standard deviations were used to answer the research questions while analysis of Covariance (ANCOVA) was used to test the hypotheses at 0.05 level of significance.

Results

The data collected were analyzed and presented in the tables according to the research questions and hypotheses.

Research Question 1

What difference is there between the mean attitude scores of students exposed to teacher-student classroom interaction pattern and those not exposed to teacher-student classroom interaction pattern in Oral English?

Answer to research question 1 is provided in Table 1.

Table 1: Mean and standard Deviation of Attitude Scores of Students in the Experimental and Control classrooms

Group		Pre-Test Attitude	Post-Test Attitude	Mean Gain
Student-Teacher Interaction Group	Mean	3.20	3.20	0.09
	N	196	196	
	Std. Deviation	.36	.34	
Form-Based Group	Mean	3.27	3.29	0.01
	N	182	182	
	Std. Deviation	.31	.30	
Gain Difference	-	-	-	0.08

Table 1 reveals that the mean gain in attitude for students in teacher-student classroom interaction pattern is 0.09 while those in form-based classroom has a mean of 0.01 with the mean difference of 0.08 in favour of students in teacher-students classroom interaction pattern. Therefore, students who were exposed to teacher-students interaction had slight improvement in attitude towards Oral English after treatment compared to those in non-teacher-students interaction classroom. This implies that there is a difference in the attitude of students taught Oral English using teacher-students interaction pattern and those taught the same aspect of English using the form-based approach in favour of those exposed to teacher-student interaction pattern.

Research Question 2

What is the effect of teacher-student interaction pattern on male and female students' mean attitude scores in Oral English?

Answer to research question 2 is contained in Table 2.

Table 2: Mean and standard deviation of Attitude scores of Male and Female students exposed to teacher-students interaction pattern

Group		Pre-Test Attitude	Post-Test Attitude	Mean Gain
Male	Mean	3.21	3.30	0.08
	N	111	111	
	Std. Deviation	.34	.35	
Female	Mean	3.19	3.30	0.11
	N	85	85	
	Std. Deviation	.38	.30	
Gain Difference	-	-	-	0.03

It can be seen from Table 2 that the mean gain in attitude for male students exposed to teacher- student interaction is 0.08 while that of girls exposed to the same interaction pattern is 0.11. Thus, the difference in mean attitude between males and females is 0.03 in favour of the females. This implies that girls exposed to teacher-students interaction pattern in Oral English gained higher in 0.03attitude compared to boys exposed to the same mode of instruction.

Hypothesis 1

There is no significant difference between the mean attitude scores of students exposed to teacher-students classroom interaction pattern and those not exposed to the same interaction pattern. Data for testing hypothesis 1 are contained in Table 3.

Table 3: ANCOVA test of mean Attitude pretest and posttest for Experimental and Control Groups

Source	Type III Sum of Square	Df	Mean Square	F	Sig.
Corrected Model	.46a	4	.12	1.14	.34
Intercept	35.10	1	35.10	349.78	.00
Pre Test Attitude	.50	1	.50	4.06	.05
Group	.03	1	.03	.31	.58
Gender	.04	1	.04	.40	.53
Group Gender	.04	1	.04	.35	.56
Error	37.54	373	.10		
Total	4136.48	378			
Corrected Total	37.10	377			

a. R Squared = .012 (Adjusted R Squared = .001)

Table 3 reveals that with $F_{1,377}=0.31$, $p=0.58>.05$, there is no significant difference in mean post attitude gain between students in teacher-student interaction classroom and those in the form-based group. This means that the difference in mean attitude score between students in teacher student interaction classroom and those in the

form-based approach classroom was insignificant. Thus, the null hypothesis was not rejected.

Hypothesis 2: Teacher-students interaction Data for testing hypothesis 2 are contained in pattern has no significant effect on male and female students' mean attitude scores in Oral English.

Table 4: ANCOVA test of mean attitude pre-test post-test scores for male and female students in the experimental group.

Data for testing hypothesis 2 are contained in Table 4.

Table 4: ANCOVA test of mean Attitude pretest and post test scores for male and female students in the experimental group.

Source	Type III Sum of Square	Df	Mean Square	F	Sig.
Corrected Model	.49a	2	.25	2.205	.11
Intercept	19.47	1	19.47	174.18	.00
Pre Test Attitude	.492	1	.49	4.40	.04
Gender	4.10	1	4.20	.00	.99
Error	21.58	193	.11		
Total	2153.08	196			
Corrected Total	22.07	195			

Table 4: ANCOVA test of mean attitude pretest and post test scores for male and female students in the Experimental group.

Table 4 shows that with $F_{1,195} = 0.00$, $p = 0.99 > .05$, there is no significant difference in the mean attitude score of male and female students in teacher-students interaction classroom. This means that the mean difference in attitude scores between male and female students exposed to classroom pattern was not significant. Thus, the null hypothesis was not rejected. Therefore, gender is not a factor in attitude change when an interactive strategy such as classroom interaction pattern is used as mode of instruction in Oral English.

Findings and Discussion

This study investigated the effect of classroom interaction patterns on Senior Secondary two students' attitude to oral English language. The discussion is based on the findings from the research questions and hypotheses. Both research question one and hypothesis one sought to find out if there is difference in the mean attitude scores of students exposed to classroom interaction pattern and those exposed to form-based classroom interaction pattern. Table 1 revealed that the mean difference in the scores of the students taught using teacher-student interaction pattern and those in the form-based approach classroom interaction was 0.08 in favour of students in

teacher-student classroom interaction pattern. The finding of a difference in attitude which was in favour of students in classroom interaction pattern alludes to the fact that in the teacher-student interaction pattern, the teacher negotiates with his students the content of the course, asks questions, uses students' ideas, lectures, gives directions, criticizes or justifies student talk responses. On the other hand, the students benefit by drawing on the experience of their teacher on how well to interact in the manner that is most effective (Kouicem, 2020). This by implication means that the environment of the class makes high impact on the students' desire and interest in learning and practice which in turn translates to students' positive attitude towards oral English (Guo & Wang, 2023). This also corroborates the stance of Bhaskar and Soundiraraj (2023) who mentions that positive attitudes towards the L2 and its speakers can be expected to enhance learning while negative attitudes impede it. Learner attitudes have an influence on the level of L2 proficiency achieved by individual learners. Thus, learners with positive attitudes become successful in achieving their goals whereas those with negative attitudes find it difficult to acquire the expected level of proficiency in English (Bhaskar & Soundiraraj, 2023). Besides, even the negative attitudes of the students can be changed by adopting apt approach or methods and materials that would help students acquire favourable attitude towards the target language and the culture of the native speakers of that language (Bhaskar & Soundiraraj, 2023).

Table 3 reveals that the difference in mean attitude score between students in teacher-student interaction classroom and those in form-based approach classroom was insignificant hence there was no significant difference in mean post attitude gain between the two groups. The finding of no significant difference in mean post attitude gain between the two groups agrees with that of Oyinloye and Gbenedio (2020) which found no significant effect of methods of teaching on students' attitude towards expression in essay writing while it contradicts that of Gajalakshmi (2013) which found significant difference in male students' attitude towards learning English. The variation in the results of the present study and that of Gajalakshmi (2013) was informed by the following factors: In Gajalakshmi's (2013) study, the learning of English language with respect to gender was also informed by type of management, locality of school and type of school-all influenced the male student's attitude towards the learning of English language. On the other hand, in the present study, the teaching strategies investigated may have sensitized the students about oral English. It may have happened that students paid attention to or took active part in the teaching-learning process in the course of treatment.

Both research question two and hypothesis two sought to find out the effect of teacher-students interaction pattern on male and female students' mean attitude scores in oral English. The data on Table 2 show that there was no significant gender difference in the mean attitude scores between male and female students in the teacher-students interaction classroom. This finding agrees with earlier assertion by

Bleier (1984) in Harper (2001) that 'comparable populations of males and females have the same range of test scores, the same range of abilities, and in some test situations the mean or average test scores may not differ at all, or, differ by only a few percentage points'. It also buttresses the view of Babalola and Oyinloye (2012) that there is no experimental procedure that confirms the superiority of either of the genders in acquiring or learning human language. There is no empirical evidence as to special favour to any individuals on the ground of gender as regards the language competence and language performance (Babalola & Oyinloye, 2022).

Table 4 on the other hand, reveals that there was no significant gender difference in mean attitude scores between male and female students in teacher-students classroom interaction pattern. This implies that despite the fact that the female students had a higher attitude gain; gender is not a factor in attitude change when teacher-students interaction pattern is used as a mode of instruction in oral English. The finding of no significant gender difference in students' attitude agrees with that of Fakeye (2020) which found that there was not a statistically significant difference in the attitude of male and female students in English language and maintained that students' attitude is not gender-related. The finding corroborates that of Babalola and Oyinloye (2022) which revealed that gender had no significant influence on students' ability to acquire the tools for language of communication. These tools are energy behind words, whole messages, listening and feedback (Deslauriers, 2015). The lack of gender difference could be attributed to the students' high morale during the lessons. The result of the study supports Heider's (1958) attributive theory, Blumer's (1969) symbolic interactionism and Homan's (1960s) social exchange theory. These theories are related to the classroom interaction patterns that take place between the teacher and students in the teaching-learning process as well as their influences on both the external and internal attributions of the students which shape their views or perceptions about the teacher and the subject s/he teaches (a factor that may create either positive or negative attitude in them and enhance or mar their learning outcome). The implication of this is that teachers should always have positive perception of their students and be fair in their dealings with them during the teaching-learning process. For the students would in turn reciprocate such gestures in the same way by developing positive attitude towards him/her and the subject he/she teaches.

Conclusion and Recommendations

The study investigated the effects of two patterns of classroom interaction patterns namely; teacher-students' interaction and form-based approach on the Senior Secondary two students' attitude to oral English. Based on the findings of this study it was concluded that students exposed to teacher-students' interaction gained higher mean attitude scores than those exposed to the form-based approach. It was also concluded that gender has no significant effect on the attitude of students in oral

English when they were taught using teacher-students' interaction as instructional strategy.

Based on the findings of the study, the following recommendations were made. Efforts should be made towards improving the oral English language classroom interaction aimed at improving students' attitude. This can be achieved through identifying teachers' teaching approaches which will make them aware of the type of teaching style they employ in their classrooms. This awareness can make them modify or improve on their practice.

The teacher training curriculum such as Minimum Standard should be reviewed in order to bring out teacher and students characteristics on which the interaction patterns will be anchored. This is due to their importance in ensuring improved students' attitude in the teaching-learning process.

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SELF-CONCEPT AND LOCUS OF CONTROL AS DETERMINANTS OF VOCATIONAL ASPIRATION: IMPLICATIONS FOR EDUCATIONAL GUIDANCE IN CONTEMPORARY NIGERIA

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Abstract

This paper examines the roles of self-concept and locus of control as critical psychological determinants of vocational aspiration among secondary school students, with particular focus on their implications for educational guidance in contemporary Nigeria. Drawing upon Carl Rogers' Theory of Self, Rotter's Locus of Control Theory, Bandura's Social Cognitive Theory, and Holland's Career Typology, the discussion explores how students' perceptions of themselves and their perceived agency over life outcomes can influence the clarity, ambition, and attainability of their career goals. The significance of this paper at this time was that the capacity to become lies within the being of every learner. So, strong self-belief and internal locus of control are necessary conditions that could aid the learner to make promising career decisions. In doing this, this paper made use of existential phenomenological analysis to discuss concepts, issues and attempt answers to questions raised. The paper further highlighted the interaction between these constructs (self-concept and locus of control), emphasizing their combined effect on vocational motivation and planning. The paper argued that educational guidance programmes grounded in psychological understanding can foster students' self-belief and internal motivation, enabling more purposeful career decision-making. Against this position, it was suggested among other things that counselling interventions, curriculum enrichment, and policy integration should be aimed at promoting positive self-concept and internal locus of control as tools for enhancing career development among secondary school learners.

Keywords: Educational Guidance, Locus of Control, Psychological and Environmental Factors, Self-concept, Vocational Aspiration

Introduction

Today's fast-evolving world is shaped by technological innovation, advancement and a shifting global economy. Learners face mounting pressure to make sound vocational decisions. Their career aspirations stem from both psychological and environmental influences, with self-concept and locus of control emerging as key psychological drivers. Central to these aspirations are factors such as self-efficacy, personal interests, values, and perceptions of ability. A student's belief in their competence often determines whether they aim high or settle for less. For example, those drawn to disciplines in Science, Technology, Engineering, Arts and Medicine (STEAM) may envision futures in engineering or medicine, while others passionate about the arts may pursue creative or human-centred fields like law, teaching, or design.

Family background and socioeconomic realities heavily influence students' vocational outlooks. Parental education and occupation not only shape access to opportunities but also subtly guide career preferences through exposure and encouragement. In Nigeria, a nation facing economic challenges, this dynamic is particularly evident. Students often lean towards professions seen as financially secure or prestigious – frequently driven by societal expectations. Unfortunately, limited resources and lack of awareness can restrict the learner from exploring diverse career paths, reinforcing narrow aspirations (Jeynes, 2021; Cross et al., 2018; Katosh & Sharma, 2017).

The educational environment is another powerful influence on vocational development. Schools that prioritize career guidance and practical training foster better-informed and more confident students. Access to guidance counsellors and career awareness programmes can greatly expand a student's perception of what is possible. However, when schools are under-resourced and focus solely on academic performance, vocational development may suffer. Cultural expectations, such as rigid gender roles or narrow definitions of success, also shape which careers are considered acceptable or desirable – especially in many Nigerian families where STEAM and medical fields are especially prized (Ireyefoju, 2015).

Self-concept – the mental framework through which individuals see themselves – alongside locus of control, which reflects how much control they believe they have over their lives, jointly determine the confidence and resilience students bring to career planning. Those with a strong internal locus tend to take charge of their future, making bold and proactive decisions. Within Nigeria's diverse social context, recognizing this interplay is fundamental. Educational initiatives that encourage self-belief and a sense of agency can empower students to envision wider

possibilities and pursue them confidently. This paper aims to examine these psychological and environmental factors and suggest tailored guidance interventions to help teachers, parents, and policy-makers better to support the learner's potential.

Conceptual clarifications:

Self-concept refers to the broad understanding individuals hold about themselves, including their beliefs, emotions, and attitudes toward their abilities, traits, and identity. It is cultivated over time through personal experiences, social interactions, and feedback from influential figures like family, peers, and teachers. A strong self-concept enhances a person's confidence, motivation, and ability to pursue academic, social, and career-related goals. It involves various dimensions – cognitive, affective, and behavioural – that continually influence how the individual perceive themselves and respond to life's challenges. For example, a student with a solid self-concept in mathematics is more likely to confront academic tasks with persistence and optimism, while one with a weaker self-view may avoid such challenges out of self-doubt. Self-concept is closely linked to self-esteem, the value individuals assign to themselves, and both are vital to mental health and personal development. Supportive environments that recognize students' efforts, offer encouragement, and celebrate progress play a key role in building confidence and resilience (Tandan & Kumar, 2023; Okafor & Udeagha. 2018; Yusuf, 2011).

Locus of control, first conceptualized by Julian Rotter (1966), refers to an individual's generalized expectations about the control of reinforcement. It is a psychological concept that refers to an individual's belief about the origins of their successes and failures. It explains how people interpret the causes of events in their lives. People attribute these outcomes to internal factors, such as personal efforts and abilities, or external factors, like luck, fate, or the actions of significant others. Individuals with an internal locus of control believe that they are primarily responsible for what happens to them. These are people who make decisions based on choice and bear the consequence of their choice. They perceive their actions, decisions, and efforts as the main determinants of their successes or failures. For example, a student with an internal locus of control might believe that diligent study and preparation basically would lead to good grades, motivating them to take charge of their learning process. On the other hand, those with an external locus of control tend to attribute outcomes to external influences. They might believe that luck, chance, or circumstances beyond their control dictate their experiences. This perception greatly influences behaviours and attitudes towards challenges. Those with an internal locus of control are generally more proactive, motivated, and resilient because they see their efforts as impactful. They are more likely to set goals, persist in the face of difficulties, and take responsibility for their actions. Conversely, individuals with an external locus may experience lower motivation, less effort, and more passive attitudes, believing that outcomes are out of their hands. The concept

of locus of control has significant implications for education, psychology, and personal development. For example, fostering an internal locus of control in students can lead to increased motivation and academic achievement, as they feel empowered to influence their success through effort and perseverance. Conversely, an external locus might contribute to feelings of helplessness or dependency (Yusuf, 2011; Eberhart & Keith, 1989).

Vocational aspiration denotes an individual's envisioned career path, often influenced by personal interests, values, competencies, and societal expectations. Vocational aspiration refers to an individual's desired career or occupation that they aim to pursue in the future. It embodies personal ambitions, interests, and perceived abilities, and serves as a guiding framework for educational pursuits and professional development. Vocational aspiration is shaped by a variety of factors, including personal interests, abilities, societal expectations, and environmental influences. Understanding vocational aspirations is essential because it influences how individuals plan their lives, allocate resources, and invest effort in acquiring relevant skills and knowledge. During adolescence, these aspirations are particularly flexible and susceptible to psychological and environmental factors.

In emerging economies like Nigeria, vocational aspirations are often influenced by socio-economic conditions and cultural norms. For example, in contexts where certain professions are highly esteemed or lucrative, individuals may develop aspirations to enter those fields regardless of their personal interests. Such societal valuation can significantly steer career choices, sometimes at the expense of personal fulfilment. Furthermore, education systems play a vital role in shaping vocational aspirations by providing exposure to various careers, offering career guidance, and fostering skills that align with future job markets. Students' perceptions of their abilities, often shaped by teachers and peers, also affect their confidence to pursue specific careers. A supportive environment that encourages exploration and self-discovery can broaden vocational options and help individuals set realistic and attainable goals (Tandan & Kumar, 2023; Ezeani & Ibegbunam, 2019).

In addition to external influences, psychological factors such as self-efficacy, aspirations, and personality traits considerably impact vocational goals. For instance, a student confident in their scientific abilities may aspire to become an engineer or medical doctor, whereas a highly creative individual might aim for a career in arts or design. Understanding vocational aspiration is not only important to the individual, but also for policymakers and social institutions striving to address unemployment and skill gaps.

Theoretical framework

Carl Rogers (1951) posited that self-concept is central to behaviour and motivation. He emphasized the importance of the *ideal self* and the *perceived self*, and

suggested that harmony between the two fosters psychological well-being. In the context of vocational aspiration, students with a congruent self-view are more likely to set realistic, fulfilling career goals. Julian Rotter (1966) introduced the concept of locus of control to describe how individuals interpret the cause of events in their lives. His theory suggests that individuals with an *internal locus* are more likely to take responsibility for their actions and outcomes – traits vital to ambitious vocational planning and persistence in the face of academic or career challenges. Albert Bandura's (1997) Social Cognitive Theory emphasizes the role of *self-efficacy* – a belief in one's ability to perform specific tasks – in shaping behaviour. It ties closely to both self-concept and locus of control. When students believe they can influence outcomes through their actions, they are more likely to aspire toward and work toward desirable vocations. Holland's (1997) Theory of Career Choice tagged as RIASEC Model means Realistic, Investigative, Artistic, Social, Enterprising, and Conventional. It proposed that career choice is an expression of one's personality. RIASEC Model helps explain how individual interests align with specific occupations. Self-concept plays a role in this alignment, as students often aspire toward careers they believe match who they are.

Phenomenological Analysis

Existential phenomenology was the method of investigation adopted. It is philosophical tradition developed by thinkers such as Buber, Kierkegaard, Nietzsche, Heidegger, Gadamer, de Beauvoir, Sartre, Marcel, Merleau-Ponty, and Levinas. It seeks to develop an in-depth, embodied understanding of human existence. It challenges approaches which view human beings in a reductionistic way. The methodology is a source of insight into the richness and diversity of human psychological experience. Existential phenomenology is humanistic in that it challenges the modern tendency to interpret the human condition through a set of narrow technological lenses. It engages with and appreciates the wisdom accumulated by the rich traditions of reflection on the human condition. It deepens people's understanding of the experiences and perspectives of others through its focus upon the meanings that they make in their lives and the choices that are reflected in their understandings and actions. It nourishes openness to understanding the lives and needs of others by helping them to identify and set aside theoretical, ideological prejudgments, superstition, and bias as they approach their studies as researchers. Finally, the existential-phenomenological approach is ethical in recognizing that the fundamental characteristic of being human is to be responsible to others (Johnson & Christensen, 2014).

Interactions between self-control, locus of control and vocational aspiration

Self-concept significantly influences how students envision their futures. Those with a high self-concept tend to set ambitious, achievable career goals because they believe in their abilities and potential. They are more willing to take academic

risks, engage in exploration, and align their perceived strengths with career possibilities. Conversely, a low self-concept may limit a student's aspiration range, resulting in either underachievement or disinterest in long-term career planning. Students with an internal locus of control perceive themselves as capable of influencing their future through effort, planning, and persistence. This belief tends to foster clearer vocational goals and a more proactive approach to academic and career development. In contrast, students with an external locus may feel disempowered or fatalistic, often waiting for circumstances to dictate their direction, which can result in vague or poorly developed aspirations. The constructs of self-concept and locus of control often interact synergistically. A student with a strong self-concept and an internal locus of control is likely to feel both competent and empowered – an ideal psychological state for forming and pursuing meaningful vocational goals. Understanding this interaction is critical for educational guidance, as it offers a dual pathway for intervention: building self-belief while also nurturing a sense of agency.

Challenges of vocational aspirations among Nigerian learners

Vocational aspirations among Nigerian learners are often met with a variety of challenges that hinder their ability to pursue their desired careers effectively. These obstacles are rooted in socio-economic, cultural, educational, and institutional factors, creating a complex situation that affects the career development of young Nigerians. One major challenge is poverty and economic hardship. Many Nigerian families face financial constraints that limit exposure to a wide range of career options. In such situations, parents and guardians tend to prioritize immediate financial stability over long-term vocational interests, often steering their children toward perceived safe and financially rewarding careers like medicine, law, or engineering. This economic pressure can restrict learners' ability to explore diverse vocational paths aligned with their interests and talents.

Another significant challenge is the lack of proper career guidance and counselling in many Nigerian schools. Many students lack access to professional guidance counsellors who can help them understand their strengths, interests, and suitable career options. Without proper guidance, learners often make career choices based on hearsay, societal expectations, or parental influence, which might not align with their own passions or potentials.

Cultural perceptions and gender stereotypes also pose formidable barriers. In certain Nigerian communities, specific careers are considered suitable only for one gender, such as teaching or nursing for females, and engineering or technology for males. Such stereotypes discourage learners from aspiring to careers outside traditional roles, thereby limiting their options and potential. Inadequate educational infrastructure and resources contribute to the challenges faced by learners. Many schools lack modern facilities, vocational laboratories, or exposure to practical skills training, which are essential for developing vocational interests and competencies.

As a result, students miss out on hands-on experience that could foster their aspirations and prepare them for specific careers.

The societal emphasis on academic achievements over vocational skills creates a perception that vocational careers are less prestigious or valuable. Many students and parents regard academic prowess as the primary route to success, relegating vocational skills to a secondary status. This bias discourages learners from considering vocational careers as viable and respectable options. Political instability, corruption, and lack of government support further impede the realization of vocational aspirations. Limited funding for vocational education programmes, coupled with inconsistent policies, hamper efforts to upgrade facilities, train teachers, and promote vocational training as a desirable career path.

The way forward

In the face of numerous challenges confronting Nigerian learners' vocational aspirations, psychological traits such as self-control and locus of control can serve as powerful catalysts for resilience and achievement. These traits influence how learners perceive their circumstances, set goals, and persist in the pursuit of their career ambitions despite obstacles. Self-control as an individual's ability could help to regulate impulses, delay gratification, and stay focused on long-term objectives. For learners with high self-control, distractions such as societal stereotypes, peer pressure, or financial difficulties do not easily derail their aspirations. Instead, they are able to resist immediate temptations and remain disciplined in their efforts to acquire skills, seek opportunities, and pursue their chosen careers. Developing self-control fosters persistence, hard work, and resilience – traits essential for overcoming setbacks and maintaining motivation in resource-constrained environments.

On the other hand, locus of control which is concerned with a person's perception of where the power to influence outcomes resides would make the learner to believe that their actions, decisions, and efforts significantly impact their career success. This belief motivates them to take responsibility for their vocational development, seek out opportunities, and actively work towards their goals despite societal or economic adversities. Conversely, those with an external locus of control may attribute obstacles to luck or external circumstances, which can diminish their initiative and sense of agency, leading to passivity and decreased motivation.

When learners possess a strong internal locus of control, coupled with high self-control, they are more likely to see challenges as manageable and within their power to overcome. They are motivated to seek training, acquire new skills, and persist through difficulties because they believe their efforts can influence their future. Moreover, fostering self-control and internal locus of control can significantly alter perceptions of vocational careers. Instead of viewing vocational paths as under

the influence of external forces or luck, learners begin to see their success as a result of their own efforts and choices. This shift empowers them to pursue their aspirations boldly, seek mentorship, participate in skills development programmes, and persevere in the face of societal stereotypes or resource constraints. Additionally, nurturing self-control and internal locus of control among Nigerian learners can serve as vital psychological resources. These traits would enable learners to stay focused, take responsibility for their career development, and persist despite challenges, ultimately fostering realistic and ambitious vocational aspirations.

Conclusion

This paper has explored the theoretical foundations and practical relevance of self-concept and locus of control as key determinants of vocational aspirations among students. Both constructs play a significant role in shaping how young people perceive their career possibilities and the confidence with which they pursue them. A positive self-concept fosters ambition, resilience, and clarity in career planning, while an internal locus of control empowers students to take responsibility for shaping their own futures. When these psychological traits are well developed, students are better positioned to make informed and meaningful vocational decisions.

Implications for educational guidance

The interplay between self-concept, locus of control, and vocational aspiration holds important implications for the design and delivery of educational guidance. Understanding these psychological variables would enable the teacher to provide more targeted, developmentally appropriate support to learners as they explore academic and career choices. In this context, educational institutions ought to foster an environment that authorizes students' strengths and identities by adopting the following strategies which include among other things: individualized learning that affirms student capabilities; positive reinforcement and constructive feedback; and encouraging participation in extracurricular activities that align with students' interests and talents. When students recognize their value and potential, they are more likely to envision and work toward fulfilling vocational goals (Ezeani & Ibegbunam, 2019; Super, 1990).

Guidance programmes would aim to cultivate a sense of agency in students by: teaching goal-setting and decision-making skills; providing opportunities for leadership and responsibility in school settings; and encouraging reflection on personal efforts and their consequences. These strategies help students internalize the belief that they have control over their educational and vocational outcomes. In addition, counsellors and teachers must recognize the diversity of psychological profiles among students and tailor guidance accordingly. They can adopt the following interventions: career counselling sessions that assess self-perception and

control orientation; psychometric tools to identify students with low self-concept or external locus of control; and peer mentoring programs to reinforce positive role modeling and support systems. At a systemic level, educational policymakers must incorporate constructs like self-concept and locus of control into curriculum frameworks, career guidance protocols, and teacher training. Building psychological literacy among educators ensures that interventions are intentional, evidence-based, and impactful (Ezeani & Ibegbunam, 2019).

Suggestions

In light of these discussions, several suggestions emerge. Firstly, educational guidance programmes should prioritize the development of students' psychological resources, particularly self-awareness and personal agency. Schools and teachers must adopt guidance approaches that actively reinforce students' strengths, build goal-setting skills, and promote ownership over academic and life choices.

Secondly, tailored counselling interventions should be implemented to identify and support students with low self-concept or external control orientations, offering tools that empower them to reshape their narratives.

Finally, policy frameworks should integrate psychological development as a core component of career education by placing equal emphasis on emotional intelligence and academic achievement.

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AGE AS A DETERMINANT OF PROFESSIONAL CARE DUTIES OF COACHES TOWARDS ATHLETES FROM SELECTED CLUBS IN EDO STATE

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Abstract

The study investigated the influence of a age as a determinant of the professional care duties of coaches towards athletes in Edo State. The descriptive survey research design was adopted in this study. The population comprised 187 coaches from clubs, sports commission and higher institutions in Edo State. The multistage sampling procedure was employed in drawing a sample of 100 coaches that were the respondents in this study. A Situational Judgement Test (SJT) was the instrument used in the collection of data for this study, which was validated and a reliability of 0.67 was obtained using the Crombach-Alpha statisitic. A null hypothesis was tested and analysed using the fischers exact test, at 0.05 level of significance. The Fischers exact-test gave a p-value of 0.064, leading to the conclusion that there was no significant difference between coaches age and the professional care duties of coaches. The null hypothesis was retained and it was recommended that due to the conflicting findings of the influence of age on the practices of coaches, there should be further studies about the effect of age on the various competency variables of coaching.

Key words: Coach, Coaching, Age, Professional Care Duties and Practices.

Introduction

Coaching have been generally described as an all comers affairs in Nigeria. This is because there are still no explicit legislated regulation of the entry, training and practice of the profession in Nigeria. It is therefore not unexpected that there would be an over flowing contextualization of the idea of a sports coach and coaching itself. Irrespective of the several observed contextualization, a common understanding is that a coach is someone that teaches the skills of a particular sport. In the same vein, Alla, Ajibua, and Amasiatu (2015) posited that a coach was not just a person involved in helping people learn skills, improving their performance and

helping them reach their optimum. To this extent, it is compelling to subscribe to the common understanding that for a person to be qualified as a coach, he or she must be involved in the recognition, understanding and provision of other important needs of the athlete, which are mental, social and emotional.

Consequently, the concept of a coach in sports cannot be delimited to someone who only instructs on the fundamentals of a sport, but that so-coach must also demonstrate roles that could possibly lead to the development and improvement of the physical fitness and skills of the participants for competition. This conceptual understanding of a coach is inextricable in asserting that the coach has a responsibility to take reasonable care of the athlete. It is therefore inevitable to share in the operational understanding, that the process of discharging these roles, with physical, social, emotional and financial proportions, enumerated above, is what is termed as coaching.

Coaching can be described as the process of development or training in which the coach supports the athlete in the attainment of personal or professional goals. Although, the attainment of these goals would almost be impossible for the athlete to attain alone. Coaching no doubt is germane to the stimulation of participation in sport, either for recreational or competitive purposes. The influence of coaches on the overall performance and wellbeing of athletes have been well established which confers grossly on coaches the burden to invoke practices that will guaranty or ensure sustainable participation in sports. These influences of coaches have made becoming a coach a vital and a challenging role.

The significance of coaches based on their roles to sports development cannot be overemphasized, but the state of affairs today in Nigeria, with respect to conceptualization of coaches and coaching in Nigeria, has led to great research concerns about the knowledge, and importantly, the professional practices of these coaches. There have been instances where uncertified individuals are employed as coaches to coach teams at the grassroot and elite levels in Nigeria, on the basis of being an ex-international or related to those in the corridors of power. According to Okoro (2000) the lack of knowledge in any of the course experience that have been designed for coaches, will make such a coach not to be as effective on the job. In the same vein, age has also been observed as an issue in the consideration of coaches for appointment. This has been hinged on the preconceived belief that the older the coach, the more experienced the coach will be on the job. No doubt, this development may have also become a risk factor in the upsurge of undocumented reports about the negligence of some coaches in Nigeria.

Furthermore, Dimec and Kajtna (2009) reported that there was a significant difference between older and younger coaches due to the ability of younger coaches to appreciate the culture and experience of the athletes. Although, the study revealed that older coaches were found to be both democratic and autocratic in behaviour, and

were more disposed to reporting their challenges in the management of athletes, whereas, the younger coaches were found to be more friendly, orderly, open minded and cooperative with the athletes. However, there was no significant difference in the achievement motivation and social skills between these two categories of coaches.

Furthermore, the motivational theory of Chelladurai (1990) posited that correct leadership was always adapted to the coach, athlete and the environment, thereby escalating the notion of coaching leadership in the optimum performance of the athletes. In the same vein, the study of Garland and Barry (1990) further argued that younger coaches were likely to provide the least guidance to athletes during crisis. Conversely, Looby (2021) opined that among other variables age was likely to affect coaches' confidence, and preparedness of coaches, especially during mental health related challenges of athletes.

Coaches Professional Duty of Care

According to Partington (2016) coaches are the principal supervisors of any organized physical activities and participation in sports. This places them in a position of the Greek maxim *in loco parentis*. The practice of care duties has been operationally defined in this study, to mean how coaches' carryout the items of their duty of care towards athletes. This is because of the prevalence of many foreseeable risks as a result of participation (Miles & Tong, 2013). Similarly, Jana (2016) asserted that knowledge regulates one's behavior, suggesting that practice is a behavioral construct, which is based on knowledge.

The recent ideology of winning-at-all cost of coaches, irrespective of the appropriate limitations such as age and skill of participant, has given eminence to the practice of duty of care. The practice of duty of care is somewhat synonymous with the risk management practices of coaches globally. It is perhaps more appealing, based on existing literature to the best of the knowledge of the researcher, to view the practice of duty of care within the confines of risk management or injury prevention practices of coaches. According to the definition of Fuller and Drawer (2004) risk management could be defined as any practice of a coach to ensure that risks are prevented and controlled to bring about the optimum performance of athletes. It is therefore discernable that the practice of duty of care is synonymous with risk management. This is because in both practices (risk management and practice of duty of care), reasonable foreseeability to prevent or mitigate risks is the overall goal.

Methodology

The descriptive survey research design was adopted in this study. The population of the study consisted of the 187 sports coaches across the various sports clubs and higher institutions in Edo State, Nigeria. A total of 100 coaches were selected as the sample for the study and they were drawn using the multi-stage sampling procedure. The multistage sampling procedure was employed as follows; The Knowledge of Duty of Care Questionnaire (KDCQ) developed by Mohamedinejad (2014), was adapted to collect data on the knowledge of coaches with respect to their duty of care. In the same vein, the Situational Judgement Test (SJT) developed by Persich (2016) was adapted to collect data on the practice of duty of care. SJT was used to elicit responses relating to practice of duty of care by coaches towards athletes. The SJT was employed, against the background that the practice of duty of care is Situation-based. This implies that its application is contextual and based on the knowledge of the respondents. Furthermore, because of the direct relationship of the SJT to a given profession from which simulated scenarios are drawn, it requires the application of a body of knowledge, with respect to the profession from which the scenarios are drawn to give appropriate response to the items. This confers on it, the appropriateness of its use for testing practice and competence. The ratings were as follows; Strongly Agree=4, Agree= 3, Disagree=2 and Strongly Disagree=1.

The SJT was validated by three experts from the department of Human Kinetics and Sports Science of the University of Benin, Benin City. To establish the reliability of the SJT, it was administered to twenty randomly selected coaches respectively, that participated in the 2021 Federation Cup play-off held in Benin City, Edo State, and who were not part of the sample used for this study. The data generated were analyzed using Cronbach alpha statistic and reliability coefficient 0.67 was obtained. This indicated that the internal consistency of the items in the instrument were good and the instrument was therefore considered as reliable.

Method of Data Collection

The SJT was administered by the researcher and three trained research assistants to the respondents. A duration of one week, and for some of the respondents on national assignments at the time of collecting the data for this study, a two-week duration was given by the researcher to enable the respondents complete the SJT. Upon the completion of the instruments, they were retrieved from the respondents accordingly by the researcher and the research assistants.

Hypothesis Ho: There is no significant difference in coaches age and professional care duties towards athletes
Chi-Square Tests

	Value	df	Asymptotic Significance (2-sided)	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	4.169 ^a	2	.124	.129	
Likelihood Ratio	3.606	2	.165	.156	
Fisher's Exact Test	4.393			.090	
Linear-by-Linear Association	.116 ^b	1	.734	.754	.485
N of Valid Cases	100				

a. 3 cells (50.0%) have expected count less than 5. The minimum expected count is .84.

b. The standardized statistic is -.340.

The results in table 1 shows the descriptive and Fisher's exact test of difference in coaches practice of duty of care towards athletes based on their age. However, the Fisher's exact test shows a p-value of 0.090 at 0.05 alpha level. The p-value of 0.090 is greater than the alpha level of 0.05. This reveals that there is no significant difference in coaches practice of duty of care towards athletes based on their age. Therefore, the null hypothesis is therefore retained. The findings show that all the age categories (below 30years and above 30years) poorly practiced their duty of care towards athletes. Fisher's exact test revealed that there was no significant difference in coaches' practice of duty of care based on their age.

Discussion

The findings of this study showed that there was no significant difference in coaches' practice of duty of care based on their age. It is also pertinent to note that no study within the knowledge of the researcher has been carried out to investigate the influence of age on the practice of duty of care by coaches. The finding of this study was in disagreement with the study of Dimec and Kajtna (2009) in which a significant difference between older and younger coaches was reported due to the ability of younger coaches to appreciate the culture and experience of the athletes. In the same vein, the finding of this study was also in disagreement with the findings of Garland and Barry (1990) that reported that younger coaches were likely to provide the least guidance to athletes during crisis.

Conclusion

Consequent upon the findings of this study, it was therefore concluded that age was not a determinant in the discharge of the professional duties of care by coaches towards athletes in Edo State. Based on the findings of this study, the following recommendations were made:

1. Due to the conflicting findings of the influence of age on the practices of coaches, there should be further studies about the effect of age on the various competency variables of coaching.
2. There is an emerging need for a review of the current coaching education programmes in Nigeria. The lack of difference in the practices of older and younger coaches could be reflection that the coaches are not acquiring new experiences.

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**CARBON DIOXIDE EMISSION AND ECONOMIC GROWTH
IN
NIGERIA**

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Abstract

Energy consumption is associated with a number of externalities. Fossil fuel combustion in particular leads to emission of carbon dioxide (CO₂), a greenhouse gas responsible for global climate change. The main objective of this research is to empirically investigate carbon dioxide emission (CO₂) emission and economic growth in Nigeria. This is important since the neglect of the environment has been detrimental to the global economy in general and Nigeria in particular. The period covered is between 1981 and 2017. The Co-integration model and Error Correction Model were used to analyse the data. The result of the ADF unit root test indicates that the variables become stationary after the first difference was taken. The result of the Johansson co-integration test indicates the existence of a long run equilibrium relationship among the variables. The result of the parsimonious ECM indicates that CO₂ emission and gas flaring have negative and significant impact on the level of economic growth in Nigeria. The result indicates further that the per capita income has positive but insignificant impact on the level of economic growth. The industrial production has a positive but significant impact on the level of economic growth in Nigeria. The statistical significance of the ECM shows a satisfactory speed of adjustment. Data was generated from the various issues of the Central Bank of Nigeria Statistical Bulletin and World Bank Development Indicators for Nigeria. The study concludes that the huge volume of gas flared has been detrimental to economic growth in Nigeria. The study recommends policies to curb CO₂ emission and gas flaring amongst others.

Keywords: *Economic Growth, Carbon Dioxide Emission, Energy consumption, EKC Hypothesis, Climate change*

Introduction

Man was made for the environment and the environment for man. Science has consistently highlighted this symbiotic relationship; however, man's dominance goes without saying in the way he has repeatedly used the environment as a resource to meet the necessities of life (Adeleye, 2017).

Many natural amenities and gifts of nature such as fresh air, trees, clean water, open spaces, wildlife and so on have been sacrificed as a result of man's insatiable desire to live a good life and find satisfaction. It is clearly evidence from time immemorial there have been a struggle of dominance between man and nature. While it is apparent that man has claimed the upper hand by effectively using these natural resource endowments as inputs in production process to achieve goods and services (Adeleye, 2017).

Environmental quality has become increasingly important as we witness more extreme weather changes, global warming and environmental degradation. As the world population grew, the need for more resources also increased. In order to meet the increasing demand for these resources, more industrial activities also grew around the world (Attah, 2010).

The increase in CO₂ emission is the major factor in the climate change threat. Economic growth of factors impels on extensive use of energy which results in growing CO₂ emission. So pollution is directly linked to economic growth and development.

The Neoclassical economic growth theory support the view that economic growth, greater population, and industrial activities determined carbon dioxide emissions in China (Wu et al., 2021)

The Fully Modified Ordinary Least Squares (FMOLS) confirmed similar findings in Bangladesh, India, Nepal, Pakistan and Sri Lanka from 1972 to 2017 (Khan et al., 2021)

Some scholars applied the Cobb-Douglas theoretical framework, and the result confirmed that carbon dioxide emissions had actually reduced economic growth in Iran (Oryani et al., 2021).

Overall, this study intends to investigate the nexus between economic growth, energy consumption, and carbon dioxide (CO₂) emissions in Nigeria between 1981 and 2017. It attempts to answer the following three questions: (1) Does carbon dioxide emission affect economic growth in Nigeria? (2) What is the impact of gas flaring on economic growth? (3) How does industrial waste production affect economic growth?

The main motivation for testing the relationship between carbon dioxide emission and economic growth is that it allows policy makers to judge the response of the environment to economic growth. The response of the environment to economic growth is crucial since the objective function of any economy is to maximize economic growth.

Literature Review

Nigeria remains a leading emitter of CO₂ in the Sub-Saharan region. Energy represents an essential engine of progress and economic development which directly affect our essential well-being (Mendonc et al., 2020). Increased carbon dioxide emission is the major issue in the climate change discuss. Climate change and environmental degradation influence the status of the sustainable economy, being

affected by both financial and non-financial institutions (Haigh 2011; Sullivan 2024; Ozili, 2020).

Economic growth of countries impels an extensive use of energy which results in growing CO₂ emission. So pollution is directly linked with economic growth and development. On the other hand, economic growth and development results in introduction of new energy-saving and low-carbon technologies that displace the old- and carbon-intensive ones.

The ability to consolidate environmental sustainability and manage climate stress depends in the Public agenda strategies and the entire itinerary of economic development. Economic activity and the technology influence of course the energy demand and even if energy is an essential engine of economic growth, the negative implication on well-being can be managed by reducing vulnerability and promoting the right type of growth.

The Environmental Kuznet Curve (EKC)

The Environmental Kuznets Curve (EKC) has been studied by many countries and regions of the world. It (Environmental Kuznet Curve (EKC)) initially originated from the U-shaped income curve of Simon Kuznet, known as Kuznet curve. The emergence of the EKC provoked a change in Environmental discussion focus. Before the EKC, concerns were focused on the limited capacity to absorb urban and industrial waste. With the EKC, the environmental concern changed from environmental scarcity to the inevitable necessity of income growth to deal with pollution. Rashid et al., (2018).

Evidence suggests that the very poor cause considerable environmental destruction as a result of their poverty. This implies that improving their economic status would provide an environmental windfall. However, as the income and consumption levels of everyone in the country rises, there is likely to be a net increase in environmental destruction. At one point, it was widely believed that as per capita income rose, pollution and other forms of environmental degradation would first rise, then fall in an inverted U- pattern. This idea is referred to as the Environmental Kuznet curve.

Empirical Literature

There are quite a number of literatures that have examined the EKC hypothesis in many countries and regions of the world.

Dizaji, et al., (2016) investigated the relationship between economic growth and environmental quality in D8 member countries. The study examined the relationship between economic growth and environmental quality in Bangladesh, Egypt Indonesia, Iran, Malaysia, Nigeria, Parkistan and Turkey using panel data model in the period 1975-2012. The results showed that economic growth has a positive effect on carbon dioxide emissions. However, the square GDP per capita has significant negative effect on carbon dioxide emissions. They study concludes that the Environmental Kuznets Curve hypothesis is confirmed from the studied group of countries.

Wolde (2015) aimed to study the relationship between economic growth and environmental degradation in Ethiopia by questioning the existence of Environmental Kuznets Curve (EKC). The study used time series data from 1969 to 2011 to analyse the relationship via the Vector Error Correction Model (VECM). The findings indicate the existence of EKC hypothesis in Ethiopia. The EKC curve is consistent with findings in other countries- contributing to environmental degradation at the early stage and declines with increasing economic growth in the later stages. The study attributed this to an increase in the share of service sectors in the economic growth and application of environmental law with economic activity. The author recommended that to sustain the current trend, they would have to follow the existing environmentally friendly policy.

Ominyi & Abu (2017) investigated sustainable economic development and environmental degradation in Nigeria. The study covered the period between 1986 to 2015. The study used the vector Auto regression (VAR) technique. The result revealed that increase in GDP per capital leads to a rise in CO₂ per capital denoting environmental degradation.

Hamid & Saber (2017) investigated environmental protection in Developing Countries and the challenges posed on economic growth. The study covered the period between 2001 and 2012. The study employed the ordinary least square technique analysis. The result revealed that the rate of urbanization has a negative effect on CO₂ emission in developing but major oil importing countries.

Alvarado & Toledo (2016) investigated the relationship between economic growth and environmental degradation in Ecuador. The period covered span from 1971 to 2010.

The study employed the Johansen Co-integration tests and the Error Correction Mechanism (ECM) approach. The findings revealed that there is a relationship of long term equilibrium between the first difference of real GDP, vegetal cover and the urbanization rate.

Aye & Edoja (2017) investigated the effect of economic growth on CO₂ emission in developing countries. The study employed the panel data. The results indicate that economic growth has negative effect on CO₂ emission in the low growth rate regime but positive effect on the high growth regime with the marginal effect being higher in the high growth regime.

Adeleye (2017) examined the impact of economic growth on environmental quality. The period covered was from 1998 to 2013. The study used Panel least square technique. The study revealed that there is a non- linear relationship between GDP per capita and CO₂ emission.

Abbas, et al., (2014) investigated the relationship between environmental quality, economic growth and trade in D 8 countries. The period covered was from 1970-2011. The study used the Panel Least Square and Panel analysis. The results suggest that there is a long-run relationship between the variables; economic growth and trade and the environment.

Drabo (2010) examined the link between health indicators, environmental variables and economic development. The Ordinary Least Square (OLS) technique was used. The findings revealed that environmental degradation affects negatively economic activity and reduced the ability of poor countries to reach developed ones economically.

Sepehrdous & Zumani (2017) investigated the challenges of economic growth and environmental protection in developing economies. The period covered span from 2001-2012. The panel data regression analysis was used. The findings revealed that the variables such as renewable energy, population growth and the size of internet user have negative and significant effects on CO₂ emission per unit of GDP, while the share of industrial sector value added has a positive effect on CO₂ emission par unit of GDP in all categories regions of the world.

Muftua, et al., (2014) investigated the relationship between CO₂ emission and economic growth in West Africa. The period covered was from 1970-2011. The Ordinary Least Square (OLS) technique was employed. The study revealed that the amount of CO₂ emission and consequently the level of environmental pollution or qualities in these countries are reflective of the rates of economic growth, the nature of macroeconomic policy, rapid population increases, domestic credit to private sector and trade openness.

Baz et al., (2020) applied panel co-integration approach to examine the EKC hypothesis in 10 Middle Income countries of Sub-Saharan Africa (SSA) from 1971-2017. The evidence from the study is consistent with the EKC hypothesis

3. Sample Data and Methodology

Sample

The population of the study comprises of all environment and economic growth indicators in Nigeria.

Data Collection

The study use mainly secondary data. They were sourced from Central Bank of Nigeria (CBN) Statistical Bulletin, Various Issues of World Bank Development Indicators and various local and international journals. The variables for which data was sourced include: carbon dioxide emission, total gas flared, industrial production and Gross Domestic Product (GDP) for the period from 1981 to 2017.

Model Specification

The model used for the study was drawn from the work of Ominyi and Abu (2017) who studied sustainable economic development and environmental degradation in Nigeria. The study uses two models. The first model uses the growth rate of GDP (GDPG) as the dependent variable and carbon dioxide emission, total gas flared, industrial waste production as the independent variables. The second model

uses CO₂ emission as the dependent variable while per capita income is the independent variable. The findings for this study is shown below:

MODEL I

$$\text{GDPG} = f(\text{CO}_2, \text{GF}, \text{IP}) \dots\dots\dots(1)$$

This is stated linearly as

$$\text{GDPG} = b_0 + b_1\text{CO}_2 + b_2\text{GF} + b_3\text{IP} + U \dots\dots\dots(2)$$

$$b_1, b_2 < 0, b_3 > 0$$

Where:

GDPG = Growth rate of gross Domestic Product

CO₂ = Carbon Dioxide

GF = Total Gas Flared

IP = Industrial Production

U = Error term

b₀ = Intercept

b₁, b₂, b₃ = Coefficients

MODEL II

$$\text{CO}_2 = b_0 + b_1\text{PCY} + b_2U$$

$$b_1 > 0$$

PCY = Per capita income

Apriori Expectation

b₁ < 0 implies that a negative relationship is expected between carbon dioxide emission and economic growth (the growth rate of GDP).

b₂ < 0 implies that a negative relationship is expected between gas flaring and economic growth.

b₃ > 0 implies that there is a positive relationship between industrial production and GDP growth rate.

This criterion is based on the sign of the estimated parameters of the model in relation to economic theory.

Estimation Technique

Time series analysis will be employed. The stability of properties of variables employed in the study was first examined with a view to determining their stochastic properties. Unit root test was also conducted. The test for co-integration using Johansen Fisher Panel followed the unit root test after which co-integration was examined. The existence of cointegration among a set of time series variables implies the existence of an adjustment mechanism. The adjustment was executed through the Vector Error Correction Mechanism (VECM).

The Johansen cointegration technique is used to estimate equilibrium ratio among the integrated variables 1(1). Equation are used to determine whether growth rate of GDP, carbon dioxide emission, gas flaring, industrial waste and per capita income follow a common tendency over time which contributes to verifying the hypothesis to this research.

$$\Delta \text{GDP}_t = d_0 + \sum_{i=1}^a d_1 \Delta \text{GDP}_{t-1} + \sum_{i=1}^a d_2 \Delta \text{CO}_{2t-1} + \sum_{i=1}^a d_3 \Delta \text{GDF}_{t-1} + \sum_{i=1}^a d_4 \Delta \text{IP}_{t-1} + U_t$$

$$\Delta \text{CO}_{2t} = d_4 + \sum_{i=1}^a d_5 \Delta \text{CO}_{2t-1} + \sum_{i=1}^a d_6 \Delta \text{PCY}_{t-1} + U_t$$

The symbol Δ indicates first differences of GDP. Once the first difference is obtained the equilibrium error U_t is obtained. As suggested by Azlina and Mustapha (2012), this vector can be used to estimate an error correction model (ECM) to determine the existence of short-term equilibrium (Engle and Granger 1987).

Essien (2011) said the standard Granger test is widely used as a convenient method for investigating the casual relationship between two variables. This test states that, if past values of a variable significantly contribute to forecast the value of another variable X_{t+1} then Y is said to Granger cause X and vice versa.

In this study, both the descriptive and economic technique of analysis is adopted. Graphs and tables will be used to achieve the objective of the study.

4.0. Presentation and Analysis of Data

The data was initially subjected to a unit root test (Augmented Dickey Fuller test type) to direct on the type of estimation that will be performed. The Johansen methodology of co-integration was adopted for this purpose. The Johansen co-integration test assess whether or not long run relationship exists among the variables. It was revealed that from the trace statistics that two co-integrating were present and the result of the Max=Eigen statistics indicate one co-integration equation. The result indicates a long run relationship among variables. The over parameterized ECM result indicate that the CO₂. One period GF and IP are statistically significant in explaining the changes in the GDPG. The residuals are diagnosed while a granger causality test is carried out to determine if the variables are influenced by each other in the study.

Summary of Augmented Dickey Fuller Unit Root Test

The result shows that CO₂ GF, IP and PCY are stationary at first difference.

Granger Causality Test:

This examines if the lagged values of one variable helps to predict the other variables in the model. The rule stands that if the P-value is less than 0.05 (at 5% significant level), we can say that “X” granger cause “Y”, considering the null hypothesis for the granger causality test, H_0 : X does not granger cause Y.

The results of the granger causality test indicate no causality between PCY and CO₂. This supports the static OLS result of model II for the case of Nigeria. The result indicates unidirectional causality from CO₂ to GF and not the reverse. The result indicates no causality between IP and PCY. There is indication of a unidirectional causality running from PCY to GDPG. No causality exist between GDPG and IP.

Table 4.1: ADF Unit Root Test Result

Variables	Level data	First difference	Order of integration
PCY	-0.80	-9.12	I(1)
IP	-0.27	-4.95	I(1)
GF	0.53	-5.90	I(1)
CO ₂	0.27	-5.93	I(1)
GDPG	-0.42	-8.60	I(1)

NB: (1) 1 percent critical value = -3.63
(2) Indicates significance at the 1 percent level.

Source: Author's computation

The result of the ADF unit root test indicates that all the variables were originally non stationary. Stationarity was achieved after the first difference was taken. The result indicates that all the variables were stationary at the 1 percent level. This result allows us to proceed to the next stage of the analysis which is the cointegration test.

The result of the granger causality test is shown in the table below

Table 4.3: Granger Causality Test Result

Null Hypothesis	Obs	F-Statistic	Prob.
LPCY does not Granger Cause LCO2	35	0.33421	0.7185
		2.34268	0.1134
LGF does not Granger Cause LCO2	35	2.36610	0.1111
LCO2 does not Granger Cause LGF		3.51364	0.0426
LIP does not Granger Cause LCO2	35	0.70799	0.5007
LCO2 does not Granger Cause LIP		0.00234	0.9977
GDPG does not Granger Cause LCO2	35	0.07564	0.9273
LCO2 does not Granger Cause GDPG		1.99311	0.1539
LGF does not Granger Cause LPCY	35	1.60209	0.2182
LPCY does not Granger Cause LGF		0.69350	0.5077
LIP does not Granger Cause LPCY	35	1.84006	0.1763
LPCY does not Granger Cause LIP		1.69362	0.2010
GDPG does not Granger Cause LPCY	35	0.16534	0.8484
LPCY does not Granger Cause GDPG		3.34017	0.0490
LIP does not Granger Cause LGF	35	0.31159	0.7346
LGF does not Granger Cause L IP		0.27781	0.7594
GDPG does not Granger Cause LGF	35	2.53098	0.0964

LGF does not Granger Cause GDPG		2.60014	0.0909
GDPG does not Granger Cause LIP	35	1.32602	0.2806
LIP does not Granger Cause GDPG		0.76527	0.4741

Source: Author's Computation

Summary of findings

- 1) CO₂ emissions and economic growth (negative impact): High CO₂ emission could lead to environmental degradation, health issues and economic loss.
- 2) Adverse effect of gas flaring on economic growth: Huge amount of resources could be wasted as a result of gas flaring and this could be detrimental to the environment and impact negatively on the economy.
- 3) Industrial Waste Production: this impact negatively on the economy. Poor waste management could lead to environmental pollution, health issues, and economic loss.

Nigeria Context

Nigeria faces environmental challenges including:

- 1) Oil spill and gas flaring: This causes devastating environmental impacts, including water pollution and loss of biodiversity.
- 2) Industrial waste management: Inadequate waste management, infrastructure and practices contribute to environmental degradation.

The evidence is visible around the country. A good example is the drying up of the Lake Chad which affected agricultural output in Nigeria. The flaring of gas in Nigeria has not been beneficial to the development process in Nigeria. Apart from the damage to the environment, the gas flared could be used for both domestic and industrial activities.

Conclusion

The study has investigated carbon dioxide emission and economic growth in Nigeria and economic growth from 1981 to 2017. It concluded that the gas flare could be converted into domestic (cooking gas) and industrial use such as electricity generation. In order to enhance the pace of economic growth in the country, there should be reduction in the quant

y of carbon emitted daily. This can be done through concerted efforts by the government and oil multinational firms in the country.

Recommendation

The result has important implications and relevance on the following:

- 1) Gas Utilisation Infrastructure: The huge volume of gas flared are needed for domestic and industrial production. Investing in infrastructure to utilize gas instead of flaring it can generate revenue and reduce emission.
- 2) Carbon Tax or Pricing Mechanism: The government could put in place policies to reduce CO₂ emissions in Nigeria. This could be done in collaboration with non-governmental organizations. This will reduce CO₂ emissions and thus improve the level of economic growth in Nigeria.
- 3) The government should increase sanction on gas flaring in such a way that the oil companies will be coerced to use such wasted gas for domestic and industrial purpose.
- 4) Waste Management Infrastructure: Improving waste management infrastructure and practice to reduce environmental pollution and health risks.

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THE PLACE OF DIGITAL INCLUSION TOWARDS LEVERAGING 5TH INDUSTRIAL REVOLUTION FOR SUSTAINABLE LIBRARY SERVICES IN ACADEMIC LIBRARIES IN NIGERIA

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Abstract

Digitally included environment where access, ability and affordability of digital technologies are practicable, plays key role in leveraging on the potentials the 5th industrial revolution provides for librarians and information and knowledge managers towards addressing communication challenges facing the systems using wireless devices and internet connectivity. Merging digital and human technologies could enhance well-being of staff and library users. This paper therefore draws attention to digital inclusions' place in the leveraging 5th Industrial Revolution for sustainable library tasks in academic libraries. It also highlights its potential for addressing a host of issues where 5th Industrial Revolution is dominant in academic library services. The implications of the leveraging the 5th Industrial Revolution for sustainable academic libraries tasks were established. The literature reviewed examines studies focusing on the place of digital inclusion towards leveraging the 5th industrial revolution for sustainable library services in academic libraries in Nigeria. The methodology adopted for the study was the qualitative approach using related literature. Literature analyses was done based on the objectives set for the study. At the end, it was therefore found that, academic libraries in developing countries could benefit from the interdependent connection with digital inclusion and 5th Industrial Revolution in the field of library and information science by means of digital technologies versus human technologies. Concluding, it is expected that digital inclusion's role of librarians in academic libraries can bridge the knowledge gap towards the performance of library services leveraging the 5th Industrial Revolution for sustainable library operations.

Keywords: *Digital Inclusion, 5th Industrial Revolution (5IR), Academic Libraries, Library Services.*

Introduction

Over the years, digital inclusion has impacted positively on academic libraries service delivery in Nigeria as against the over reliance of the conventional operation method of delivery information research activities which suffered severe setback as compared to the developed nations. It has become evident in the 5th industrial revolution era that conventional methods of performing library tasks can no longer hold in the education eco system in Nigeria. Therefore, academic libraries are adopting digital platforms alongside human efforts for sustainable library tasks. Digital inclusion serves as powerful tool for enhancing hands on tasks and application of online platforms in academic libraries for innovative information services. It has enabled library users have access to information and communication technologies in libraries, including helping librarians and information professionals to reach the furthest in their profession. Also, well planned technological solutions access point is required to be created with digital technology such as artificial intelligence tools and other online platforms which could help librarians perform better in the 5IR era.

Industrial revolutions are times of swift changes achieved through innovations. Globally, there is growing focus on combining innovations from all the revolution stages (first, second, third, fourth) to the present fifth industrial revolution (5IR) era into various aspects of academic library operations. The innovations occasioned by these revolutions brought transformations in the employment circles, workplace, and collaboration in the surrounding ecosphere with the advent of significant elements such as, computers, online platforms, Artificial Intelligence (AI), cognitive systems, data mining, and the Internet of Things. Academic libraries are already leveraging on this innovation due to their level of access, ability and affordability (digital Inclusion). Digital inclusion occurs when we have both the ability and the opportunity to use online technologies effectively (Barraket & Wilson, 2020). Digital inclusion is the concept that individual and communities should be afforded access to and use of emerging technologies. In addition to access, the underlying values of digital inclusion is that librarians and the library communities acquire the knowledge and skills, background content, and technological supports services necessary to use

technology (Institute of Museum and Library services, 2018). According to Reddick, et al, (2020), digital inclusion is all about access through the internet which is fundamental to bridging the digital divide. Also, digital divide has become a social issue in the developing countries considering the extent to which the internet access is provided in academic libraries for innovative services. Furthermore, the development of digital inclusion posed new challenges for library and information science professionals in information services delivery. It will be safe to say that digital inclusion has brought a new platform for innovative ideas where users have to be given access to digital information that is borne out of innovative ideas.

The Fifth Industrial Revolution (5IR) represents the latest phase of technological advancement that is reshaping industries, economies, and societies. Building upon the foundation of the 4th Industrial Revolution (4IR), which encompassed technologies like automation, AI, and Internet of a Thing, the 5IR takes these innovations further, incorporating breakthrough in areas such as biotechnology, nanotechnology, quantum computing, and more (Enakrire, et al., 2024).

This study became imperative considering the changes that have evolved in the performance of library tasks in academic libraries holding strong to the 5th law of library science (library, a growing organism), as it has become evident in the 5IR era, where librarians can now interact with technologies/machines for problem solving in course of performing library tasks. Hence this study is set out to examine the place of digital inclusion towards leveraging the 5th industrial revolution for sustainable library services in academic libraries in Nigeria.

Digital Inclusions' Place in Leveraging Fifth Industrial Revolution (5IR) for Sustainable Library Services in Academic Libraries

The 5IR is manifest with advance improvement in activities such as digital technologies artificial intelligence (AI), robotics, Internet of Things (IoT) cloud computing, big data, 3D printing. As against the need for sophisticated flexibility to support new information communication devices such as moving robots or drones (Satparthy, et al., 2020). 5IR has emerged to take dominance which includes applications of mechanical and digital machines to communication devices for information service delivery over the network. This include the IoT (Prajapati, et al., 2019). The applications of

wireless technologies such as 5G have helped to improve the flexibility and use of 4G robots to perform library tasks. To a very high extent, the 4G technologies are used to guide 5G mobile networks (5G), to gain flexibility, efficiency, QoS- and energy-aware solutions, for a sustainable economy (Hatzivasilis, et al., 2018). This provides opportunities for librarians/information professional and researchers to address the challenges facing communication systems using wireless devices, including education challenges. The present-day 5IR information communication technologies rely on wire-line technologies to connect sensors and which informs the reason why the present technological connections need to be replaced with wireless technologies to support the emergence of 5IR. In the library and information science sector, information managers can use 5IR wireless communications to enhance service provisions for their clients which in turn requires the need for further training in the specific areas where they seek information.

According to Ibinaie (2021), the 5th industrial revolution provides many opportunities for the industrial and commercial sectors, researchers, educationists, information specialists, librarians and health managers to address communication challenges facing the systems using wireless devices through 5G. The Link between 5IR and digital inclusion librarians in academic libraries must understand is the acquisition of digital skills and techniques could be jointly utilised by man and machines to improve library tasks in academic libraries. According to Chiware (2020), academic and research libraries in Africa remains an important aspect of higher education and the national systems of research and innovation. As such, leveraging of 5IR for performance of library tasks is one of the important roles.

Enakrire, et al (2024) study revealed that technological advancements have enabled paperless libraries such that on-screen reading is increasingly prevalent, rapid development support through mobile computing, software, and internet/connections/Wi-Fi, multifarious electronic information retrieval among others. Also, other findings were anchored on the relevance of paperless libraries in the 5IR and the functionality of paperless library systems, which enhanced accessibility, and inclusivity, collaboration and connectivity, and environmental impact. These can be made possible in academic libraries in developing nation like Nigeria through digital inclusion. Furthermore, one aspect that should be considered within the context of digitalinclusion in 5IR era is the enhancement of accessibility, ability and affordability. It is important to explore all approaches and actions that

implement digital technologies to dismantle obstacles in sustaining library tasks and establish a fair and inclusive atmosphere that welcomes a broad spectrum of users. According to ALA (2022), creating a future where every citizen is seamlessly connected and actively engaged in the online realm is imperative, with libraries playing a central role in this endeavor. By deploying digital technologies of 5IR and using them in academic libraries can help overcome barriers and establish a more equitable and welcoming environment for diverse users. Frank et al. (2021) investigated the undertakings of librarians from academic library, the emphasis of the study was on fostering digital equity and inclusivity, a wide-ranging scrutiny of insights and strategies shared by librarians involved in diverse library tasks and further illustrated their collective commitment to advancing digital equity and inclusion which will help sustain the gains they have made in the 5IR era. Also, the importance of utilizing assistive technologies and inclusive design principles to make digital resources accessible to individuals with disabilities were highlighted. Also, curating digital collections in multiple languages aims to cater to a global audience and enhance cross-cultural learning a collaborative initiative between UNESCO and the Norwegian Agency for Development Cooperation (Norad), is another area digital inclusion in academic libraries can help sustain library tasks in 5IR era such as online platform that offers well-crafted reading materials for early-grade learners, where opportunity is provided for digital reading or print usage (Aboelmaged et al., 2024).

Digital inclusion in academic libraries has help broaden the horizon of e-learning which seems to be more promising than before, presenting limitless prospects for acquiring knowledge on digital skills and engaging in lifelong learning in workplace towards sustainable library tasks. All these issues underscored how academic libraries can flourish thereby serving as catalysts for positive societal change, contributing to inclusivity, accessibility, and engagement for users, thereby leveraging the advantages of the 5th Industrial Revolution to provide a more versatile and equitable learning environment, by bridging the gaps, facilitate interdisciplinary consideration, and play key role in shaping a more inter connected and knowledgeable society within the context of the 5IR. The above emphasized the study of Noack (2023) which stated that the 5IR is poised to forge an even tighter and smoother connection, evoking a sense of directness and immediacy. The intelligent device people interact with through touch and voice will fade into the background, as brain-

computer interfaces step in to take their place. The obstacles and complexities of shifting towards digital environment in academic libraries provides a thorough collection of tactics to tackle and reduce these difficulties, placing emphasis on the proactive measures needed to ensure the effective adoption of digital tool of 5IR generation and enduring functionality of digital academic library systems within the context of the 5th Industrial Revolution for the sustainable library tasks. Moreover, in Reddy's (2020) study, where emphasis was placed on the emerging role of digital literacy in advancing sustainable development objectives and the role of ICT in fostering various sectors, notably education with particular reference to academic libraries. Accordingly, strategies such as digital literacy initiatives, inclusive user support, and collaboration with libraries empower users with the skills to navigate and maximize digital resources effectively.

5IR Dominance in Academic Library Services

Changes in information needs of library users

In the modern day library services, the users need information as soon as possible or now as the case may be. Thus, the provisions of free access to information resources in academic libraries require wireless technologies to enhance its usage. This is achievable when academic libraries are digitally included through the use of wireless technologies promoted in 5IR to better improve the role of librarians in information service delivery. Many libraries in developed countries have embraced the opportunities provided by new technologies to improve their library services, although in some countries such as in United States, data librarians still value the role of traditional librarians such as reference services, collection management, literature searching more than the emerging role of expertise such as data science skills, grant experience, and research impact assessment" (Reed, et al., 2020). While the under-developed countries are not maximizing the potentials of leveraging on 5IR in library operations. Successful integration of digital tools into library services no doubt requires new skills and collaboration among library staff to work with both researchers and end-users as they manage information resources going forward.

Technological Advancement

Fifth Industrial Revolution has ushered in a profound era of technological advancement and societal transformation, prompting a critical

examination of the evolving role of libraries in this digital landscape. Traditionally regarded as the custodians of knowledge, libraries must adapt to these changing dynamics of the digital world while preserving their core principles (Adigun, et al., 2024). Also, it encompasses a convergence of diverse technologies, including the Internet of Things (IoT), cloud computing, biotechnology, nanotechnology, and quantum computing, all underpinned by the currency of data. Artificial intelligence (AI) is a focal point, promising enhancements in user experiences and operational efficiency, however, it also raises critical ethical and privacy concerns that challenge fundamental library principles. The study of Green (2023) noted that librarians are recognizing the importance of aligning library services with the lifestyles and preferences of their user communities, a principle which has led to multiple changes in librarianship in recent years. The chief drivers of these changes are the rapid advancements in technology and the increasing demand for closer partnership between librarians and library users in academic libraries. It is widely acknowledged that academic libraries leveraging emerging digital technologies is likely to establish stronger connections with their communities on a global scale (Ajani et al. 2023). Accordingly, academic libraries worldwide are adopting various emerging digital technologies and methods to tailor library tasks to the specific information needs the communities they serve.

Adigun, et al., (2024) carried out a study on “the intelligent libraries: innovation for a sustainable knowledge system in the fifth (5th) industrial revolution”, the study looked into the strategic integration of advanced technologies, which aimed to redefine the mission of libraries in the face of complex challenges, the study further employed an interpretive content/document analysis approach to examine the evolving roles of libraries, considering their pivotal function in bridging the digital divide, providing equitable access to technology and digital resources, advancing research and innovation, and fostering community engagement.

Virtually almost all operations that exist in the academic libraries in the 5IR era now happen in the digital space with the support from applications (Apps). Apps add fun to mobile phones through the provision of information services in electronic form. They offer numerous benefits that contribute to improved reading, research, user experience, accessibility, and overall library services. Mobile technology holds great promise for enabling libraries to provide enhanced services. Igwela and Nsirim (2018) opined that for library users who

were in possession of high-end internet-enabled mobile devices, there is a smooth and speedy information search. Therefore, mobile apps could facilitate e-reading and research because if apps when created enhance reading and research, that makes it easier for researchers to access information resources through the app perhaps encouraging its adoption and discouraging the use of print information resources.

The study of Ibinaiye (2021), examined the prospect of the 5th industrial revolution and academic library services by exploring the role of data science in the post-pandemic period. The review analysis focused on data science, academic library services and post-pandemic recovery in the 5th industrial revolution. The study found that academic libraries in developing countries could benefit from the interdependent connection with data science and the field of information science using digital technologies. Also, research by Hatzivasilis, et al., (2018) found out that “Smart interconnected devices, including Cyber-Physical Systems (CPS), permeate our lives and are now as an integral part of our daily activities, paving the way towards the Internet of Things (IoT)”. In the academic library domain, these devices interact with their surroundings and system operators, while often also integrating cloud applications. According to Hammad (2020), the internet of thing (IoT) enable machines to be connected and communicate, whereas the Internet of Everything (IoE) makes the connection more relevant between all smart devices, machines and also people with huge data, high speed and high security. The new wireless communication technologies were proposed to solve communication problems, to meet the increasingly high demand as well as improve the performances of bandwidth connectivity (Satpathy, et. al.: Hassan, et. al & Hammad, et al). Tella and Kadri (2021) examined an aspect of data science such as big data and the importance to users in academic libraries but found out that “big data is indeed very big in academic libraries given the pieces of evidence of its adoption and best practices and use in academic libraries across the world”.

Tzanova (2020) examined some changes in academic libraries in the era of Open Science, but found out that “academic libraries face challenges regarding accommodating and providing support for open big data, the expansion of library services, and adoption of new roles and responsibilities” which includes the “development of the supporting models for research data management, providing data management plan assistance, expanding the qualifications of library personnel toward data science literacy, integration of

the library services into research and educational process and among others. Given the emerging prospects that 5IR presents in the aspects of technologies, wireless communication technologies, increase in bandwidth connectivity, Artificial Intelligence (AI), robotics, Internet of Things (IoT) cloud computing, big data, 3D printing, and digital inclusion plays a key role for full dominance of academic libraries in the 5IR.

Implications of Leveraging 5IR for Sustaining Library Services in Academic Libraries

Envision of Human-Machine Interactions

Certain challenges and mitigation strategies abound when librarians navigate this transformative state called 5IR era, the emergence of paperless academic libraries stands as a demonstration to the harmonious integration of technological skill and human aspirations. Consequently, the envision human-machine interactions has pose a threat to information professionals who are not willing to upgrade their digital skill considering the significance of AI and human-centric innovation occasioned by 5IR. Schwab (2017) stated that the 5th Industrial Revolution is a dynamic force that transcends boundaries and catalyzes innovations across multiple domains. Its transformative power has the potential to reshape industries, address global challenges, and redefine the way we live and work. The 5IR involves a scenario where humans interact with technology or machines, such that individual and organizational problems in society are solved from a broader perspective (Noble et al., 2022). The interaction process helps the individual to recognize the strengths which the technologies or machine is capable of when as an entity (Huang and Rust, 2018). The cultivation practices are the synergistic relationship between technology and humans (Huang et al., 2019), which helps in addressing certain support for tasks in the organization (Kopalle et al., 2022). The paradigm shift that serves as an enabler is in formation, communication, and AI creating a sustainable and human-centric innovation, and services (Broo et al., 2022).

Paradigm Shift in Academic Library's Services

Alex-Nmecha and Nsirim (2022) noted that the information needs and seeking behaviour of society have been influenced by the rapid development and proliferation of digital tools. In view of the foregoing, libraries' mode of service delivery has improved in the provision of access to electronic resources such as e-books, CD-ROM, and publication of digital contents,

therefore, facilitating scholarly publications. Consequently, this has reduced the use of printed books, journals, and other information resources thereby promoting paperless initiatives and upholding paperless libraries. Therefore, the changes in academic libraries tasks have affected the switch from traditional paper storage operations to cloud-based storage, which offers various advantages for the environment, including sustainability and a smaller carbon footprint. Multiple users now share information resources on the same infrastructure with cloud storage. This decreases the need for redundant facilities and hardware, resulting in better resource management and reduced electronic waste. The reduction in the use of print publications decreases the associated carbon emissions and resource consumption (Yousufi, 2023). While cloud-based storage offers environmental benefits, it is essential therefore to consider the overall impact of digital inclusion on academic library services. This includes provision of access to electronic information resources and services as well as efficient resource utilization which are critical factors in ensuring that cloud storage remains a sustainable option for data storage and processing. It is, therefore, imperative to note that digital inclusion could promote cloud-based storage and accessibility which is vital in upholding environmental sustainability.

More so, in the present 5IR era, information dissemination occurs swiftly and extensively, necessitating the discernment of accurate and inaccurate information (Correa and Limos-Galay, 2024). Therefore, the issues of digital divide that have been experienced overtime due to unequal access to technology and internet connectivity has been a fundamental issue that needs to be addressed in the developing Country such as Nigeria. As the world academic activities becomes increasingly centered around digital technologies, it behooves on the under developed countries to double their efforts in eliminating the disparity between individuals with access to emerging digital technologies with connectivity and those with equal access in order to enthrone vast transformation in sustaining quality service delivery through the support of cutting-edge technologies in the 5IR. The study of Adigun, et al., (2024) underscored the imperative to address challenges related to data privacy, digital inclusion, resource allocation, intellectual property, and sustainability. Yet, despite these challenges, libraries are poised to remain indispensable pillars of education, research, and community interaction. To do so, they must embrace technology strategically to redefine

their roles and expand their influence within evolving knowledge systems (Adigun, et al., 2024).

Approaches for enhancing digital inclusion towards leveraging 5IR for sustainable library Services

Significant progress has been made through digital inclusion and the use of artificial intelligence with Internet of Things, and has impacted so well in performing library tasks. Librarians need to blend the conventional library skills with digital skills to be able to adapt to the new normal in workplace to be able to navigate the landscapes of the information profession with wide range of digital knowledge. To effectively leverage 5IR, librarians should focus on lifelong learning, networking and digital integration. Also, librarians should upscale their skills by continuously engaging in professional development activities such as seminars, webinars, conferences etc. This can help librarians keep up to date and in pace with their global counterparts. In addition, the importance of staff training and retraining cannot be over emphasize, as the study of Eiriemiokhale and Sulyman (2023) posited that librarians are participating in conferences and workshops to raise awareness of the tools of the 5IR, thereby improving their professional development, partnership formation and collaboration skill. Also, the study of Sikadinov, et. al (2024) enumerated the importance of continuous training in the digital literacy and technology. Therefore, librarians must shift to originality, creativity and innovative driven library tasks to meet the information needs of the user's leveraging 5IR.

Similarly, Ekwueme, et al (2024), carried out a study on “empowering librarians in the fifth industrial revolution: navigating skills, challenges, and strategies for effective library services in open and distance learning” and found that, librarians exhibit collaborative and digital skills essential for working with both people and machine in delivery services to learners (users). The study further revealed that respondents acknowledge that there are challenges associated with the implementation but agreed that improved power supply, continues training to acquire the requisite skills could be a strategic factor for libraries to effectively leverage 5IR toward sustainable library tasks in academic libraries.

Discussion

Based on the literature reviewed in this paper, it could be judged that librarians need to upscale their digital skills to improve their performances of library services in order to thrive in the 5IR era, bearing in mind the paradigm shift in performing library tasks that has altered conventional library practice. The above judgement corroborates the study of Eiriemiokhale and Sulyman (2023) which posited that librarians are participating in conferences and workshops to raise awareness of the tools of the 5IR, thereby improving their professional development, partnership formation and collaboration skill. Also, it supports the study of Sikadinov, et. al (2024) which enumerated the importance of continuous training in the digital literacy and technology. Therefore, librarians must shift to originality, creativity and innovative driven library tasks to meet the information needs of the user's leveraging the 5IR.

Furthermore, it was revealed through literature reviewed that the integration of technological prowess and human aspirations envisioned through 5IR (human-machine interactions) has taken a center stage of the modern academic library functions coupled with the journey from old-style repositories of knowledge to digital harbors of information which has captured the crux of evolution made by the 5IR should not be seen as a threat. The hope for librarians in 5IR has been confirmed in the study of Adigun, et al., (2024) which underscored the imperative to address challenges related to digital inclusion and sustainability. Hitherto, x-rayed that, despite these challenges, libraries are poised to remain indispensable pillars of education, research, and community interaction. To do so, they must embrace technology strategically to redefine their roles and expand their influence within evolving knowledge systems (Adigun, et al., 2024). Also, the above assertions confirm the place of digital inclusion in the sustainability of academic library tasks in the 5IR era.

Conclusion

The digital inclusion's role of librarians in academic libraries can bridge the knowledge gap towards the performance of library services leveraging the 5IR for sustainable library tasks. This is a testament to the importance of leveraging the 5IR is evident in librarian's capacity to seamlessly blend the past with the future global competitiveness in performance of library tasks. Therefore, it is pertinent to state that the 5IR's commitment to digital

inclusiveness cannot be over emphasized in the equitable access to information resources with human ingenuity and environmental conscience of the 5IR which symbolizes a guarantee towards a sustainable library practices. This approach could save the time of the users, make queries to be served digitally or through AI, without having to visit any physical library space or building to access information resources. This is believed to bring a cost benefit exploration through digital inclusion in the era of 5IR.

Finally, librarians can connect through adaptive technologies to overcome barriers and establish a more equitable and welcoming digital/internet environment for diverse users. Also, promotes initiatives in digital space from a software application viewpoint, primarily to speedy information search through high-end internet-enabled mobile devices to be able to function optimally in the 5IR era.

Recommendations

The study recommends the following:

- i) Digital inclusion by academic libraries and its level of access, affordability and ability would fully propel librarians to face work place realities in the 5IR era;
- ii) The potentials of 5IR should be harnessed in academic libraries for sustainable library services;
- iii) The perceived implications amongst librarians in academic libraries if attentions is given to consolidating on 5IR for sustainable library tasks should not be seen as a threat rather an opportunity to improve the patterns of service delivery to better serve the changing needs of diverse patrons;
- iv) AI tools should be deployed and applied in academic libraries for improved service efficiency and effectiveness in performance of library any service;
- v) Institutions should provide infrastructural supports to academic libraries to seamlessly perform library tasks to remote users in the 5IR era;

- vi) Librarians should strongly advocate for revise in the TETFund percentage distribution ratio of academic library intervention from 70% books and 30% facilities/equipment to 70% facilities/equipment and 30% books to enable beneficiary libraries bridge the digital gap for digital inclusion in their libraries for sustainable library tasks in the 5IR era.

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**PREACHING, PERFORMATIVITY, AND PATRONAGE: INTERPRETIVE
JOURNALISTIC STUDY OF MOTOR PARK EVANGELISM
IN
ABA METROPOLIS, ABIA STATE.**

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Abstract

This study investigated the perceptions of motor park users in Aba regarding itinerant preachers, exploring motivations for financial support and the rationale behind such public evangelism, using a mixed-method, quantitatively dominant approach grounded in Erving Goffman's *Dramaturgical Theory* (1959). A structured, validated questionnaire (Cronbach's $\alpha = 0.94$) was administered to 40 intercity commuters across eight randomly selected motor parks and major terminals in Aba, Nigeria, including Milverton, Osioma, New Tarzan, and ABC Transport, using systematic interval sampling ($k = 6$) with replacement logic. Data were analyzed using univariate descriptive statistics, with $\bar{x} \geq 2.50$ as the decision threshold. Findings reveal that: (1) users generally perceive itinerant preachers positively; (2) motor park preaching is viewed as a socio-economically strategic practice; and (3) financial support depends on authenticity, emotional resonance, and preacher-performer alignment, implying a dramaturgical dynamic beyond transactional logic. The study concluded that park evangelism is not just spiritual activity but a performative negotiation of identity and survival within Nigeria's socio-religious economy. It recommends preacher training, designated evangelism zones in parks, and feedback systems for trust-building and donation transparency, positioning

this research within the broader discourse on public faith practices and commuter space sociology.

Keywords: Evangelism, Interpretive Journalism, Motor Park, Patronage, and performativity

Introduction

In an increasingly pluralistic world, religious expression in public spaces has become a dynamic form of socio-cultural performance, particularly in developing societies grappling with economic insecurity and political instability. The phenomenon of street evangelism—preaching in open spaces such as parks, streets, marketplaces, and transport terminals—has intensified globally as Christian evangelists seek alternative arenas beyond traditional ecclesiastical structures (Marshall, 2019). In megacities like Warri, Nairobi, Yaoundé, Lagos, Accra, and Rio de Janeiro, motor parks serve not merely as logistical hubs but also as stages where religion, economy, and public life intersect in fluid, often theatrical, expressions of faith (Chiluwa, 2020). These spaces become crucibles for both spiritual and material encounters, foregrounding what Judith Butler (1993) terms “performativity”—the constitutive power of speech and action in shaping identity and belief systems.

Motor Park evangelism—a growing feature of urban religiosity in Africa—exemplifies this performative religiosity, wherein preachers not only deliver messages of salvation but also enact a symbolic claim over chaotic public spaces. This mode of engagement transcends the mere transmission of doctrinal truths; it is a ritualistic occupation of space and time, blending performance with persuasion, faith with finance. Scholars such as Meyer (2018) and Ukah (2021) have noted the expansion of Pentecostal expressions in Africa’s urban margins as a response to perceived spiritual deficits and socio-economic dislocation. Yet, these expressions are not benign—they carry within them layers of intent, ranging from evangelistic zeal to economic survival. The dichotomy between divine message and material solicitation lies at the core of the tension observable in many African cities, particularly in Nigeria.

Nigeria offers a unique terrain for studying this phenomenon due to its vibrant religious pluralism, economic precarity, and socio-political anxieties. According to Pew Research (2020), Nigeria ranks among the world’s most

religious countries, with over 90% of its population claiming religious affiliation. The collapse of social safety nets, rising unemployment, systemic failure, government maladroitness and a pervasive culture of informal economies have led to a commodification of religious practice, where preaching becomes both a ministry and a market. As Ojo (2021) argues, "religion in Nigeria is not just about belief; it is an enterprise that operates within, and often mirrors, the dysfunctions of the larger political economy." In this context, preaching in motor parks is no longer a spontaneous spiritual outreach but often a calculated act of survival, especially for self-styled preachers without denominational backing.

In places like Aba, the commercial nerve centre of Abia State and a symbol of entrepreneurial resilience, this intersection is particularly evident. Known for its bustling Ariaria Market and dense network of transport terminals, Aba is fertile ground for motor park evangelism. Here, preachers' surface at dawn, strategically positioning themselves near loaded buses to deliver powerful messages punctuated with music, bodily gestures, and a climactic appeal for "support" or "offering." These appeals, though cloaked in religious language, often resemble the performative climax of theatre, generating both admiration and skepticism. Residents and travellers alike have grown accustomed to this daily ritual, which blurs the line between sacred proclamation and social hustle. It is in this blur that interpretive journalism situates its inquiry—examining not just what is said but how it is said, to whom, and to what effect.

Interpretive journalism, distinct from hard news reporting, prioritizes context, meaning, and cultural texture over mere factual narration. It seeks to decode symbols, metaphors, motives, and contradictions within social behaviour (Zelizer, 2022). When applied to motor park evangelism, interpretive journalism reveals layers of social drama, economic desperation, and theological improvisation. Through observation, interviews, and narrative immersion, journalists can portray these preachers not merely as manipulators or saints, but as complex actors within a larger system of urban struggle. Such journalistic framing gives voice to the nuances of faith in public space, where the gospel may coexist with strategic performances aimed at financial extraction.

More importantly, the performative aspect of Motor Park preaching cannot be overemphasized. Borrowing from Goffman's (1959) dramaturgical model, these evangelists perform "front-stage" roles, carefully choreographed for

audience effect. Their tone, diction, attire, even choice of scriptural texts, are adapted to resonate with the suffering commuter, the tired trader, or the wary taxi driver. They invoke familiar tropes: generational curses, breakthrough prayers, demonic attacks, and divine favour. What begins as a homiletic session often morphs into a spectacle—a spectacle that demands a transactional response from listeners. According to Ehusani (2020), the rise of performative religiosity in Nigeria is linked to a "charismatic economy" where spiritual gifts, rhetorical power, and socio-economic desperation intersect.

In Aba, as in many Nigerian cities, the relationship between audience and preacher is also shaped by unspoken patronage expectations. Park users often feel compelled to "support" the preacher either out of guilt, fear of divine retaliation, or genuine conviction. This response reinforces a spiritual economy where money and miracles trade places. It is this psychological and rhetorical economy that this study seeks to decode—quantitatively in terms of frequency and response, and interpretively in terms of motive, language, and gesture. The intention is not to dismiss the sincerity of such preachers but to interrogate the patterns and pressures that shape their ministry.⁴

Statement of the Problem

In contemporary Nigeria, particularly in highly commercial and chaotic urban centres like Aba, motor parks have become more than transportation hubs; they have evolved into arenas for religious performances. Preachers—mostly unaffiliated with formal ecclesiastical bodies—mount daily sermons in these public spaces, blending scripture with dramatic appeals and financial solicitations. While these acts may be inspired by religious fervour, the increasing frequency, structure, and economic motivation of such evangelism have prompted questions about the integrity, intent, and social implications of this practice. Yet, despite the visibility and audibility of these preachers, little scholarly attention has been given to understanding the motivations behind their activities, the responses of their audiences, or the performative strategies they deploy to elicit patronage. This study, therefore, addresses this gap through a dual-method approach, using quantitative analysis and interpretive journalism to explore Motor Park preaching in Aba, Abia State

Aim and Objectives of the Study

The major aim of this work was to explore the perceptions of motor park users regarding itinerant preachers in Aba, their motivations for supporting them financially, and the perceived rationale behind such evangelistic practices, using both quantitative measures and interpretive journalism. The specific objectives were:

1. to measure the perceptions of Motor Park users toward itinerant preachers in selected motor parks in Aba
2. to assess public perceptions of the reasons behind the preachers' choice of motor park evangelism, and
3. to investigate the audience's motivations for offering financial support to these preachers.

Research Questions

1. What are the prevailing perceptions of motor park users regarding itinerant evangelists in Aba?
2. What do motor park users perceive as the reasons why preachers choose motor parks as their platform?
3. What factors influence motor park users to financially support these preachers after their sermons?

Literature Review

Motor Park Evangelism

Motor Park evangelism refers to the practice of informal Christian preaching in busy transit spaces such as bus terminals, garages, or motor parks. It is a sub-form of what scholars broadly label "street evangelism" or "public preaching" (Ukah, 2011; Chiluwa, 2020). This form of ministry is neither sanctioned by formal religious institutions nor governed by standardized liturgical norms. Instead, it thrives within unregulated, often chaotic urban environments, where preachers engage transient audiences with brief, emotive messages (Ademowo, 2023). While some scholars view this as a response to urban alienation and spiritual insecurity (Obadare, 2018), others interpret it as an entrepreneurial survival strategy masked as spirituality

(Ajayi, 2020). The concept has not been thoroughly operationalized in academic research, particularly in terms of its audience reception and socio-cultural functions. In this study, the concept will be used to capture both the setting (motor parks) and the mode of religious engagement (spontaneous preaching with appeals for support), allowing for a systematic analysis of its content, context, and audience perceptions.

Concept of Performativity

Performativity, rooted in the works of Austin (1962) and Butler (1990), refers to the capacity of language and bodily expression to act, rather than merely describe. In religious studies, it implies that preaching is not merely a conveyance of doctrine but a ritualized enactment that seeks to produce belief, obedience, or emotional response (Meyer, 2018; Ukah, 2021). Scholars like Goffman (1959) introduced the dramaturgical model, seeing social interactions—including preaching—as staged performances with actors, audiences, props, and scripts. Motor park evangelism embodies performativity through voice modulation, bodily gestures, invocations, and the rhetorical structure of sermons (Ajayi, 2020). However, the notion is debated: critics argue it can reduce religious sincerity to theatrical manipulation (Chiluwa, 2020).

Interpretive Journalism

Interpretive journalism transcends the basic “who-what-when-where” model of reporting and instead seeks to provide contextualized, analytical, and meaning-driven narratives (Okhueigbe, 2024; Zelizer, 2022; Schudson, 2003). Unlike investigative journalism which pursues hard facts or watchdog roles, interpretive journalism seeks to understand the why and how behind phenomena—especially in sociocultural or religious contexts. It is often used in reporting marginalized realities or explaining complex issues like poverty, religion, and identity (Okhueigbe, 2025). The methodology draws from ethnography, discourse analysis, and narrative construction. In the present study, interpretive journalism serves as both method and lens—a way to report, interpret, and analyze the embedded meanings in motor park preaching, including interviews, audience narratives, and cultural codes. It

offers an ethical and explanatory framework for narrating the lived experience of both preachers and commuters beyond mere statistical analysis.

Concept of Patronage

Patronage, in this context, refers to the voluntary or compelled financial or material support given to preachers in exchange for spiritual services or religious reassurance. It derives from broader theories of reciprocity in anthropology (Mauss, 1954) and has evolved in religious economics to include tithes, offerings, and donations (Ojo, 2021; Chiluwa, 2020). Unlike formal religious contributions made in church institutions, the patronage in motor park evangelism is spontaneous, usually small-scale, and often connected to emotional or spiritual responses induced by preaching performance. Some scholars view it as “transactional religiosity” where support is exchanged for divine promises (Tijani, 2023). However, this raises questions about authenticity, consent, and manipulation. This study conceptualizes patronage not merely as financial exchange but as a relational and symbolic act that reflects spiritual economy, class dynamics, and the sociology of giving within a non-institutional religious framework.

Empirical Review

Ajayi and Ogunyemi (2021) conducted a study titled "Perceptions of Itinerant Preachers in Lagos Motor Parks: A Public Sphere Analysis." The study aimed to explore how commuters in Lagos perceive itinerant preachers who engage in public preaching and solicit funds in motor parks. The study was anchored on Reception Theory (Hall, 1980). The researchers adopted a descriptive survey design and focused on commuters in three major motor parks in Lagos. The population comprised all daily travelers within the selected parks, from which a sample of 60 respondents was drawn using purposive and accidental sampling. The findings revealed that a majority of commuters viewed these preachers as either genuine evangelists or commercial performers. Some respondents were sceptical of their intentions, while others appreciated their presence for spiritual reassurance. The study concluded that public perception of these preachers is polarized and shaped by personal spirituality and social class. The researchers recommended that religious regulatory bodies develop guidelines for informal street evangelism to balance freedom of expression with public ethics.

Ifeanyi, Uche & Alabi (2022) undertook a study titled "Spiritual Performance in Informal Spaces: Understanding the Motivation of Urban Preachers in Nigeria." The study was guided by Maslow's Hierarchy of Needs Theory (1943). The researchers used a phenomenological qualitative design and interviewed 10 self-acclaimed preachers in Jos. The population was composed of all itinerant preachers operating in motor parks, while a purposive sampling technique was employed to select those who were active and willing to participate. Findings revealed that motivations ranged from genuine evangelistic zeal to personal income generation, with many participants citing the high foot traffic in motor parks as ideal for capturing attention. Some respondents admitted to facing economic hardship, and viewed evangelism as both a calling and a coping mechanism. The study concluded that while some motor park preachers are sincerely driven by faith, others operate in response to unemployment and urban precarity. It recommended that faith-based organizations provide better welfare support for freelance preachers and spiritual training to curb abuse.

Okonkwo and Olatunji (2023) in their study titled "Faith, Trust, and Money: Exploring Religious Patronage in Nigeria's Informal Evangelism," examined why commuters and public audiences offer financial support to informal preachers. Using Social Exchange Theory (Homans, 1958) as their theoretical framework, the study investigated the exchange relationship between religious messaging and economic support. A mixed-methods design was adopted, combining survey and in-depth interviews. The population consisted of travelers in six major motor parks in Anambra and Ogun states. From this, a sample of 100 respondents was selected using stratified and accidental sampling techniques. Major findings indicated that donations were often driven by a sense of religious obligation, emotional resonance, or fear of divine retribution. Some patrons supported preachers because they felt "blessed" by their message or were moved by their oratory, while others did so to avoid guilt or embarrassment in front of fellow passengers. The study concluded that religious giving in public spaces is complex, involving emotional, spiritual, and social elements. The authors recommended more public education on the ethics of street preaching and called for media literacy campaigns to help audiences critically evaluate religious performances.

Theoretical Framework

This study is anchored on Erving Goffman's Dramaturgical Theory (1959), which conceptualizes social life as a series of performances, wherein individuals manage impressions before an audience to achieve desired outcomes. Goffman argues that in public interactions, individuals construct a "front stage" where they adopt roles, use props, and follow scripts to influence how others perceive them, while concealing less structured behaviours in the "backstage." In the context of motor park evangelism, this theory illuminates how itinerant preachers perform their religious roles—through dress, voice modulation, gestural theatrics, and scripted appeals—not only to communicate faith, but also to elicit material patronage. The theory is profoundly relevant to this study as it provides an analytical lens to decode the ritualized performativity and strategic self-presentation embedded in these public sermons, offering critical insights into how religious messages are staged, interpreted, and rewarded within transactional urban spaces.

Methodology

This study adopted a cross-sectional, mixed-method design with a quantitative-dominant convergent strategy situated within an interpretive epistemological frame. A structured and psychometrically validated questionnaire (Cronbach's $\alpha = 0.94$) was administered to a sample ($n = 40$) of intercity commuters across select motor parks in Aba, Nigeria, including Aba Main Park, New Tarzan Park, Osisioma Park, Ngwa Road Park, and Milverton Avenue Park (then undergoing relocation), alongside major terminals such as ABC Transport (Ikot Ekpene Rd.), Chisco (Milverton), Young Shall Grow, Orizu Motors, Abia Line, and Adam & Eve Motors. From the larger sampling frame—which also encompassed Ehere, Ogbor Hill, Alaoji Flyover, Cemetery, and Osisioma Ngwa Parks—eight clusters (parks) were drawn via simple random sampling (lottery method). Within each, systematic interval sampling ($k = 6$) was employed, complemented by replacement logic and convenience fallback where refusals occurred, maintaining the statistical rhythm. Data were processed using univariate descriptive statistics (percentage, mean and standard deviation), and a central tendency threshold ($\bar{x} \geq 2.50$) served as the decision rule for item interpretation. The methodological rigour was reinforced by adherence to sampling adequacy principles, instrument fidelity, and design coherence, ensuring both internal consistency and external

transferability of findings within commuter studies and public transport discourse.

Presentation of data

Table 1: Audience Perception of Motor Park Preachers (RQ1)

Item Statement	Agree (%) (SA+A)	Disagree (%) (SD+D)	Mean ($\bar{x}$)	STD (σ)	Decision	Interpretive Notes
I find the preachers at motor parks to be sincere in their messages.	61.5%	38.5%	2.84	0.81	Accepted	Moderate trust; sincerity influenced by preacher's tone and behaviour.
The preaching at motor parks positively influences my spiritual life.	58.2%	41.8%	2.73	0.88	Accepted	Spiritual impact is acknowledged but not uniformly strong.
I consider motor park preachers as authentic representatives of Christianity.	45.7%	54.3%	2.41	0.96	Rejected	Skepticism arises due to perceived lack of ecclesiastical credibility.
The style of preaching used by motor park preachers is effective in capturing attention.	66.3%	33.7%	2.90	0.75	Accepted	Public preaching often dramatized, capturing attention quickly.
I feel that some motor park preachers exaggerate or manipulate their	73.6%	26.4%	3.12	0.71	Accepted	High suspicion of manipulation; indicative of

audience for personal gain.						transactional preaching.
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Table 2: Perceived Reasons for Choosing Motor Parks (RQ2)

Item Statement	Agree (%) (SA+A)	Disagree (%) (SD+D)	Mean ($\bar{x}$)	STD (σ)	Decision	Interpretive Notes
Motor parks are ideal locations for reaching a large and diverse audience.	78.4%	21.6%	3.01	0.70	Accepted	Urban bus parks allow instant access to mixed social groups.
Preachers choose motor parks because formal church settings are less accessible to them.	65.0%	35.0%	2.88	0.79	Accepted	Evangelists likely operate outside institutional structures.
The economic challenges faced by preachers influence their choice to preach in motor parks.	71.5%	28.5%	2.97	0.76	Accepted	Financial struggle motivates informal ministry.
Motor park preaching provides preachers with opportunities for quick financial support.	82.1%	17.9%	3.14	0.69	Accepted	Preaching here is partly survivalist; charity is instantaneous.
Preaching in motor parks allows preachers	77.6%	22.4%	3.03	0.71	Accepted	Effective missionary strategy

to connect with people who may not attend church services.						targeting the unchurched.
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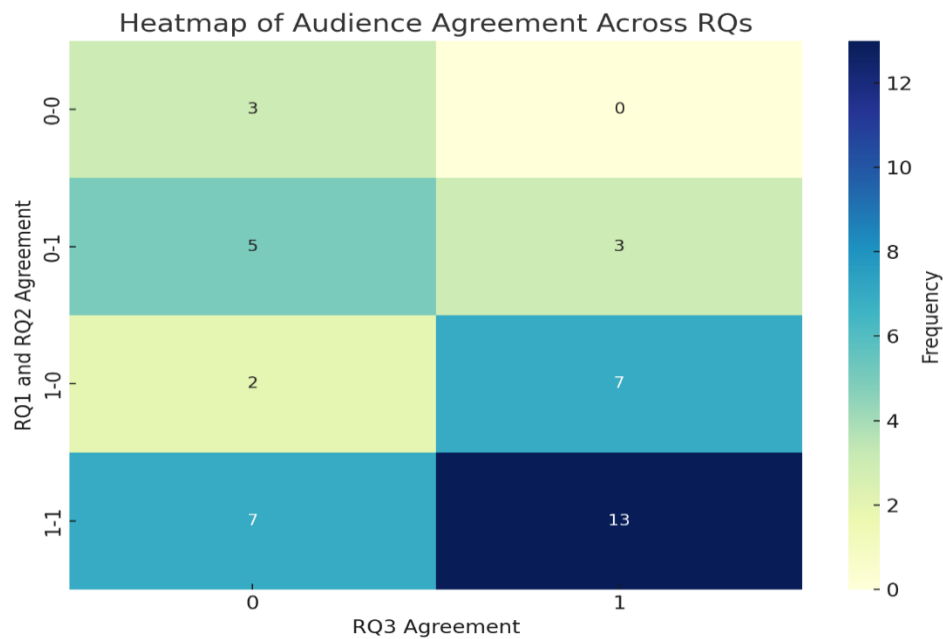
Table 3: Motivations for Financial Support (RQ3)

Item Statement	Agree (%) (SA+A)	Disagree (%) (SD+D)	Mean ($\bar{x}$)	STD (σ)	Decision	Interpretive Notes
I give financial support to motor park preachers because I believe it will bring me spiritual blessings.	68.9%	31.1%	2.89	0.77	Accepted	Spiritual reciprocity is a major driver of donations.
Emotional appeal during preaching influences my decision to donate money.	73.0%	27.0%	3.06	0.74	Accepted	Emotional persuasion is a central tool for street evangelism.
I support preachers financially to show gratitude for their spiritual guidance.	66.4%	33.6%	2.91	0.79	Accepted	Some feel obliged to reward spiritual nourishment.
Fear of divine punishment encourages me to give money to motor park preachers.	54.2%	45.8%	2.65	0.92	Accepted	Religious fear remains an operative influence in patronage.
Social pressure from other commuters	48.5%	51.5%	2.51	0.95	Accepted	Slightly above the threshold; peer presence

influences my decision to financially support preachers.						affects donations.
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Data analysis

This facilitate this analysis, a heatmap summary of the three tables above is presented below:



The heatmap above is a summary of the data presented in the three tables above. It presents a cross-tabulation of audience responses based on their agreement or disagreement with three key dimensions of the study:

- RQ1: Perception of motor park preachers
- RQ2: Reasons for choosing motor parks as preaching venues
- RQ3: Motivation behind financially supporting such preachers

Each cell in the heatmap represents the frequency of respondents who fall into a specific combination of agreement/disagreement across RQ1 and RQ2 (rows), and RQ3 (columns).

Bottom-right Cell (RQ1 = 1, RQ2 = 1, RQ3 = 1) → 13 Respondents

This is the darkest and most populated cell, indicating that 13 out of 40 respondents agree that:

- The preachers are genuine and impactful,
- The motor park setting is a strategic and practical choice for evangelism,
- And they themselves are willing to offer financial support for such efforts.

This group can be described as the "staunchly supportive cluster." Their alignment across all three axes reflects a high level of trust, religious affinity, and moral validation of the evangelism method. For interpretive journalists, this group reflects the emergent subculture of roadside religiosity—those who see faith as flexible, public, and economically participatory.

Middle Cells (Mixed Combinations) → 22 Respondents Combined

These respondents displayed partial agreement—either agreeing with one or two RQs but not all. Examples:

- 7 respondents (RQ1 = 1, RQ2 = 1, RQ3 = 0): they trust the preacher and the location strategy but are unwilling to donate—possibly skeptical of motives or suffering donation fatigue.
- 5 respondents (RQ1 = 0, RQ2 = 1, RQ3 = 0): they see the strategy as smart, but doubt the preacher's authenticity and won't contribute money.
- 7 respondents (RQ1 = 1, RQ2 = 0, RQ3 = 1): they support the preacher and give money, but question the motor park as a proper venue.

This large middle group can be labelled the "ambivalent believers" or "selective affirmers." They reveal the complexity of street religious communication in Nigeria. The responses suggest a mix of pragmatism,

fatigue, and spiritual caution—traits ripe for deep-dive interpretive journalism.

Top-left Cell (RQ1 = 0, RQ2 = 0, RQ3 = 0) → 3 Respondents

This cell contains the lowest frequency, representing respondents who fully disagree with:

- The preacher's sincerity,
- The motor park as a valid setting,
- And the act of supporting them financially.

This minority group may be categorized as “secular cynics” or “spiritual purists.” Their unanimous disapproval suggests either disbelief in public faith displays, or perhaps concern over the commercialization of religious messages in public transport contexts. This small but vocal segment could raise red flags about the credibility crisis facing public evangelists in urban Nigeria.

Summarily, the majority of respondents (65%–75%) lean toward either full or partial support of motor park preaching and the motivations behind it, there is a sociological gradient between full belief, cautious acceptance, and outright rejection and these patterns reveal underlying tensions in contemporary Nigerian Christianity: between formal pulpit religion and improvised, performative street evangelism.

Discussion of Findings

The findings from this study confirm that a significant portion of respondents in Aba perceive motor park preachers as authentic, impactful, and spiritually significant, echoing the polarization observed by Ajayi and Ogunyemi (2021), who found that Lagos commuters judged preachers based on delivery style and charisma. However, unlike Ajayi and Ogunyemi's descriptive survey that drew from a sample of 60 in Lagos using purposive and accidental sampling, this current study, grounded in a cross-sectional, quantitative design, surveyed 40 park, thereby deepening the localized sociological lens. Furthermore, while Ajayi and Ogunyemi relied on Hall's Reception Theory (1980), which emphasizes the decoding of messages by audiences, the present study is better scaffolded by Goffman's Dramaturgical Theory

(1959), which analytically explains the performative framing of motor park preaching as a “front stage” activity where preachers construct sincere identities for audience approval. This theoretical framing gives more explanatory power to the 13 respondents who consistently affirmed belief, location choice, and financial support — seeing the entire interaction as ritual performance shaped by social expectations and moral scripts.

In contrast to Ifeanyi, Uche, and Alabi (2022), whose phenomenological design and qualitative interviews emphasized the economic motivations of urban preachers in southeastern cities, this study advances the discourse by cross-referencing audience perception with preacher intent. While Ifeanyi et al. used Maslow’s Hierarchy of Needs to explore preaching as economic coping, this current work interrogates the audience’s interpretive acceptance or resistance to that intent. For instance, the heatmap reveals that 7 respondents supported preaching and gave money but questioned the motor park venue, illustrating a complex negotiation between message receptivity and spatial legitimacy. This ambience is less observable in Ifeanyi et al.’s preacher-focused study. Thus, while both studies agree that economic hardship influences the choice of venue, the present research provides an expanded dramaturgical frame, treating audience members not merely as spectators but as co-performers who reward or reject the “actor” based on perceived authenticity, spatial appropriateness, and symbolic payoff.

Similarly, while Okonkwo and Olatunji (2023) emphasize the exchange-based motivations behind financial patronage using Social Exchange Theory, this study nuances that transactional view by situating financial giving within public performance dynamics, moral scripts, and perceived divine reciprocity. This study’s cross-tabulated heatmap analysis highlights behavioral gradations, showing that only 13 out of 40 consistently supported all three propositions, while a majority exhibited selective alignment—affirming belief but withholding donations or questioning the venue. Goffman’s theory strengthens this interpretation by casting the preacher-audience interaction as a social script negotiated through performance cues, rather than a mere cost-benefit exchange. This divergence is critical: it repositions the audience as dramaturgical gatekeepers who validate spiritual legitimacy not just

through emotion or guilt (as Okonkwo and Olatunji suggest), but through publicly tested congruence between message, setting, and persona.

Conclusion

This study has unveiled the complex interplay between faith, performativity, and public perception in the vibrant yet contested space of motor park evangelism. Far from being a mere spiritual activity, the practice is a deeply layered performance of identity, survival, and persuasion, situated within Nigeria's broader religious and socio-economic realities. The roadside preacher becomes both a bearer of divine message and an actor navigating audience scrutiny, spatial legitimacy, and financial dependency. This convergence of public theology and informal economy challenges traditional assumptions about where and how evangelism should occur. For the interpretive journalist, the motor park emerges not just as a transit hub, but as a symbolic stage—where spirituality, spectacle, and survival co-exist, contend, and coalesce before a captive audience on the move.

Recommendations

- i. Church bodies should regularly train motor park preachers to improve message clarity, sincerity, and ethical conduct;
- ii. Faith groups and transport unions should establish approved, orderly zones in motor parks for regulated evangelism; and
- iii. Audience development experts and church finance committee set up simple feedback systems to track public trust and ensure transparency in donation practices.

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DEVELOPMENT OF A TEACHER TRAINING PROGRAMME FOR BASIC SCHOOLS IN NIGERIA

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Abstract

This paper advocates for a comprehensive teacher training programme to improve the quality of education in Nigeria's basic schools. The Nigerian education system faces significant challenges, including inadequate teacher training, limited resources and poor infrastructure. A well-designed training programme can equip teachers with the necessary knowledge, skills and competencies to deliver high-quality instruction and meet diverse student needs. The paper highlights the critical role of teacher training in enhancing teacher effectiveness, student learning outcomes, and educational quality. A comprehensive programme would include pedagogical training, subject matter expertise, practical experience and ongoing support. Investing in teacher training and development can have numerous benefits, including improved educational outcomes and economic growth. By prioritising teacher training, Nigeria can shape the future of its education sector and enhance citizens' prospects. The paper concludes that a comprehensive teacher training programme is essential for addressing the specific needs of teachers in Nigeria's basic schools. It suggests collaboration between stakeholders to design and implement effective training programmes. The proposed teacher training program would focus on context-specific training, ongoing support, and collaboration among teachers, administrators and policymakers. By providing teachers with the necessary skills and knowledge, Nigeria can improve student learning outcomes and promote economic development. This paper provides a framework for developing a comprehensive teacher training programme tailored to Nigeria's basic schools' needs.

Keywords: Teacher Training Programme, Basic Schools, Teacher Development, Learning outcomes, Pedagogical Training

Introduction

The quality of education in Nigeria's basic schools has been a subject of concern for stakeholders in the education sector (Adebayo, 2020). One of the critical factors contributing to this concern is the inadequate training of teachers (Oviawe, 2018). Teachers play a vital role in shaping the minds of future generations, and their effectiveness is crucial in determining student learning outcomes (Darling-Hammond, 2000).

Nigeria's education system has faced numerous challenges, including inadequate infrastructure, insufficient funding, and poor teacher quality (Federal Ministry of Education, 2019). The country's education sector is further complicated by issues such as inadequate access to education, particularly in rural areas, and a lack of resources to support teaching and learning (World Bank, 2020). These challenges may have resulted in poor student learning outcomes, with many students struggling to achieve basic literacy and numeracy skills (National Bureau of Statistics, 2020).

Teachers are the backbone of any education system, and their effectiveness is critical in determining student learning outcomes (Hanushek, 2011). Well-trained teachers are better equipped to deliver high-quality instruction, adapt to changing educational contexts, and meet the diverse needs of their students (OECD, 2018). In contrast, inadequately trained teachers may struggle to provide effective instruction, leading to poor student learning outcomes and a range of negative consequences for individuals, communities and society as a whole.

Teachers in Nigeria's basic schools face a range of challenges, including inadequate training, poor working conditions and limited access to resources (Oviawe, 2018). Many teachers in basic schools lack the necessary qualifications, training and support to deliver high-quality instruction, which can result in poor student learning outcomes (Adebayo, 2020). Furthermore, teachers in basic schools often face significant challenges in terms of classroom management, lesson planning, and assessment, which can further exacerbate the problem of poor student learning outcomes.

The purpose of this paper is to advocate that a comprehensive teacher training programme is essential for improving the quality of education in Nigeria's basic schools. This article is significant because it highlights the critical role that teacher training plays in improving the quality of education in Nigeria's basic schools. Thus, this paper argues and advocate the development of a comprehensive teacher training programme which is essential for improving the quality of education in Nigeria's basic schools.

Concept of Teacher Training Programme

A teacher training programme ms a structured educational programme designed to equip teachers with the necessary knowledge, skills and competencies to effectively teach and manage a classroom (Darling-Hammond, 2000). A teacher training programme is a structured process of preparing individuals to become effective educators. It is any pre-service or in-service teacher-training programme that is accredited or sanctioned by the relevant national education authorities or equivalent authorities (e.g. Ministry of Education or teacher training agency). A teacher training programme is designed to help teachers improve how they connect with, manage, and teach their students. These programmes focus on providing strategies and techniques that make learning more engaging and beneficial for students. When done well, teacher training can empower educators to create positive experiences for students, not only in academics but also in their overall growth.

It focuses on equipping teachers with the knowledge, skills and attitudes needed to perform their duties in the classroom, school, and community. This includes both theoretical understanding of teaching methods and pedagogical principles, as well as practical experience in real classroom settings. The programme aims to enhance teachers' pedagogical skills, subject matter expertise, and classroom management techniques, ultimately improving student learning outcomes (Hanushek, 2011). Some of the key components of a teacher training programme are:

1. **Pedagogical skills development:** Training on effective teaching methods, lesson planning and classroom management (OECD, 2018).
2. **Subject matter expertise:** Enhancing teachers' knowledge and understanding of the subject matter they teach (Ball & Forzani, 2009).

3. **Classroom management techniques:** Strategies for managing classroom behavior, creating a positive learning environment, and promoting student engagement (Emmer & Stough, 2001).
4. **Assessment and evaluation:** Training on assessing student learning, providing feedback, and evaluating teaching effectiveness (Black & Wiliam, 1998).
5. **Technology integration:** Incorporating technology into teaching practices to enhance student learning (Koehler & Mishra, 2009).

Types of Teacher Training Programmes

Teacher training programmes are essential for ensuring that educators have the necessary knowledge, skills, and competencies to effectively teach and manage a classroom among others. There are several types of teacher training programmes, each with its own unique characteristics and benefits. This paper explores three types of teacher training programmes: pre-service training, in-service training, and professional development programmes.

- **Pre-Service Training:** Pre-service training is designed for new teachers before they enter the classroom. This type of training is typically provided through teacher education programmes, which offer a combination of theoretical foundations and practical experiences (Feiman-Nemser, 2001). Pre-service training aims to equip prospective teachers with the necessary knowledge, skills, and competencies to effectively teach and manage a classroom. A key component of pre-service training is the practicum or student teaching experience, which provides hands-on experience in a classroom setting. During this experience, prospective teachers can apply theoretical knowledge and develop teaching skills under the guidance of experienced teachers.
- **In-Service Training:** In-service training is designed for practicing teachers to enhance their skills and knowledge. This type of training is essential for supporting teachers' ongoing professional development and improving student learning outcomes (Guskey, 2002). In-service training may take various forms, including workshops, seminars, coaching and mentoring. Workshops and seminars provide short-term training sessions that focus on specific topics or skills, while coaching and mentoring offer one-on-one support and guidance from

experienced teachers or coaches. Additionally, professional learning communities provide a collaborative environment where teachers can share best practices and work together to improve teaching.

- **Professional Development Programme:** Professional development programme focus on specific areas of teacher development, such as technology integration, special education, or subject-specific training (Desimone, 2009). These programmes aim to support teachers' ongoing professional growth and improve student learning outcomes. Technology integration training, for example, equips teachers with the skills and knowledge to effectively use technology in the classroom, enhancing student engagement and learning. Special education training provides teachers with strategies and techniques to support students with special needs, promoting inclusive and effective teaching practices.

Effective Teacher Training Programme Characteristics

1. **Context-specific:** Training programmes should be tailored to the specific needs and context of the teachers and students (Borko & Putnam, 1996).
2. **Ongoing support:** Providing ongoing support and coaching to teachers can help them apply new skills and knowledge in the classroom (Joyce & Showers, 2002).
3. **Collaboration:** Encouraging collaboration among teachers, administrators, and other stakeholders can help ensure the success of teacher training programmes (Little, 1993).
4. **Evaluation and feedback:** Regular evaluation and feedback can help identify areas for improvement and ensure the effectiveness of the training programme (Guskey, 2002).

Benefits of a Teacher Training Programme

Teacher training programme is designed to equip educators with the knowledge, skills, and competencies necessary to effectively teach and manage a classroom. The programme plays a critical role in ensuring that teachers are well-prepared to meet the diverse needs of their students and promote academic achievement. The benefits of a teacher training programme are numerous and can have a lasting impact on both teachers and students.

- **Improved Teacher Effectiveness:** A teacher training programme can significantly improve teacher effectiveness by enhancing pedagogical skills and subject matter expertise (Yoon et al., 2007). Well-trained teachers are better equipped to design and deliver high-quality instruction, adapt to changing educational contexts, and meet the diverse needs of their students. This, in turn, can lead to improved student learning outcomes and increased teacher satisfaction.
- **Increased Student Learning Outcomes:** Well-trained teachers can improve student achievement, engagement, and motivation (Darling-Hammond, 2000). When teachers have the necessary knowledge, skills, and competencies, they can create a supportive and inclusive learning environment that fosters student success. Effective teaching practices, such as differentiated instruction and formative assessment, can help students develop a deeper understanding of the subject matter and achieve their full potential.
- **Teacher Retention:** Teacher training programmes can also contribute to teacher retention by providing teachers with the support and resources they need to succeed in their roles (Ingersoll & Strong, 2011). When teachers feel supported and confident in their abilities, they are more likely to remain in the profession and continue to grow and develop as educators.
- **Enhanced Teacher Confidence:** Teacher training programmes can boost teachers' confidence in their abilities, leading to improved job satisfaction (Bandura, 1997). When teachers feel confident in their ability to teach and manage a classroom, they are more likely to be effective and enthusiastic in their teaching practices. This, in turn, can lead to increased student engagement and motivation.
- **Better Classroom Management:** Effective classroom management techniques can reduce disruptions and create a positive learning environment (Emmer & Stough, 2001). Well-trained teachers can design and implement classroom management strategies that promote student engagement, respect and responsibility. This can lead to a more productive and supportive learning environment, where students can focus on learning and achieving their goals.

- **Personalised Learning:** Teacher training programmes can equip teachers with the skills and knowledge to design and implement personalised learning plans that cater to the diverse needs of their students (Borko & Putnam, 1996). This can lead to improved student engagement, motivation and achievement.
- **Technology Integration:** Teacher training programme can provide teachers with the skills and knowledge to effectively integrate technology into their teaching practices (Koehler & Mishra, 2009). This can enhance student learning outcomes, increase student engagement and promote digital literacy.
- **Data-Driven Instruction:** Teacher training programmes can equip teachers with the skills and knowledge to collect, analyse and interpret data to inform their instructional practices (Means et al., 2010). This can lead to more effective teaching and improved student learning outcomes.
- **Collaboration and Communication:** Teacher training programmes can promote collaboration and communication among teachers, administrators and other stakeholders (Little, 1993). This can lead to a more cohesive and supportive educational environment, where teachers can share best practices and work together to improve student learning outcomes.

The Need to Develop a Comprehensive Teacher Training Programme

The education sector in Nigeria's basic schools faces numerous challenges, including inadequate teacher training, limited resources, and poor infrastructure. Teachers in these settings often lack the necessary skills, knowledge, and support to deliver high-quality instruction and meet the diverse needs of their students. Given these challenges, there is a clear need for a comprehensive teacher training programme that addresses the specific needs of teachers in Nigeria's basic schools.

One of the major challenges facing teachers in Nigeria's basic schools is limited resources. Many schools lack basic resources, such as textbooks, educational materials, and technology. This can make it difficult for teachers to design and deliver engaging and effective lessons. Additionally, large class sizes can make it challenging for teachers to provide individualised attention and support to

students. Furthermore, students in Nigeria's basic schools have diverse learning needs, including students with special needs and English language learners. Teachers need to be equipped with the necessary skills and knowledge to meet these diverse needs.

A comprehensive teacher training program for Nigeria's basic schools would provide teachers with the necessary skills, knowledge, and support to deliver high-quality instruction and meet the diverse needs of their students. Such a programme would likely include pedagogical training on effective teaching methods, classroom management, and lesson planning. Teachers would also benefit from subject matter expertise training, including content knowledge and pedagogical content knowledge. Practical experience and ongoing support would also be essential components of a comprehensive teacher training programme.

To design a comprehensive teacher training programme for Nigeria's basic schools, it is essential to conduct a needs assessment to identify the specific needs and challenges facing teachers in these settings. Collaboration with stakeholders, including teachers, administrators and policymakers, would also be necessary to design a programme that meets the needs of teachers and students. Ongoing support and coaching for teachers, including mentoring and peer support, would also be critical to the success of the programme.

Conclusion

A comprehensive teacher training programme is crucial for improving the quality of education in Nigeria's basic schools. By providing teachers with the necessary skills, knowledge, and support, such a program can lead to improved teacher effectiveness, increased student learning outcomes, and enhanced teacher confidence. Investing in teacher training and development can have numerous benefits, including improved educational outcomes and economic growth and development. A comprehensive teacher training programme would address the specific needs of teachers in Nigeria's basic schools, including pedagogical training, subject matter expertise, and practical experience. Ongoing support and coaching, including mentoring and peer support, would also be essential components of such a programme. By promoting effective teaching practices and improving educational outcomes, a comprehensive teacher training programme can play a critical role in shaping the future of Nigeria's education sector. Ultimately, the quality of education in Nigeria's basic schools is a critical issue that requires urgent attention. By prioritising teacher training and development, Nigeria can improve educational outcomes, promote economic growth

and development, and provide its citizens with the skills and knowledge necessary to succeed in an increasingly complex and interconnected world.

Suggestions

Based on the discussions in this paper, the following suggestions are made to improve the quality of education in Nigeria's basic schools:

- The government and educational stakeholders should develop a comprehensive teacher training programme that addresses the specific needs of teachers in Nigeria's basic schools.
- Teachers should be provided with ongoing support and coaching, including mentoring and peer support, to ensure that they can effectively implement new teaching strategies and technologies.
- The teacher training programme should focus on pedagogical training, including effective teaching methods, classroom management, and lesson planning.
- The teacher training programme should also emphasize subject matter expertise, including content knowledge and pedagogical content knowledge.
- The teacher training programme should incorporate practical experience, including student teaching and classroom observation, to provide teachers with hands-on experience.
- The government and educational stakeholders should monitor and evaluate the effectiveness of the teacher training programme and make necessary adjustments.
- The government and educational stakeholders should provide incentives for teachers to participate in the training programme, such as certification, promotion or salary increases.
- Government should encourage collaboration between teachers, administrators and policymakers to ensure that the teacher training programmes meet the needs of teachers and students.
- Integrate virtual technology, such as online courses, webinars and simulation-based training, to enhance teacher training and provide flexibility and accessibility.
- Provide technical support to ensure that teachers can effectively use virtual technology and other digital tools in their teaching practices.

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NIGERIA'S FOREIGN POLICY PERFORMANCE SINCE THE RETURN TO DEMOCRATIC GOVERNANCE IN 1999.

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Abstractvd

This paper uses secondary written sources to examine Nigeria's foreign policy performance since the return of democratic governance in 1999 to determine whether there is improvement. The foreign policy of Nigeria was formulated in 1960 to safeguard the interests of the county and its citizens, promote the liberation and unity of Africa and peaceful cooperation with the international community. The era of military intervention in the governance of Nigeria resulted in poor foreign policy performance that culminated in Nigeria becoming a pariah nation under the regime of General Sani Abacha. The return of democracy in 1999 created an opportunity for the country to improve its foreign policy so as to pursue its reintegration into the international community. Through several international visits and domestic reforms, the country was able to restore the trust of other countries in Nigeria which resulted in improved national economy - \$18 Billion was paid to clear the country's foreign debt, external reserve grew from \$2 billion to \$42 Billion, and trade volume with China expanded to \$101 Billion, Foreign Investment rose from \$1 Billion in 1999 to \$8 Billion by 2008, the country contributed to the formation of ECOWAS Free Trade Zone and Customs Union by 2001, it also contributed to resolving the political crises in Sao Tome and Togo

in 2003 and 2005 respectively. Thus, actively contributing to conflict management and international cooperation beneficial to the country. The paper concludes that Nigeria's foreign policy performance has indeed improved since the return of democratic governance in 1999.

Keywords: Nigeria; Foreign Policy; Performance; Democratic Governance; Africa.

Introduction

The international community is made up of many independent countries that relate with each other based on their national interests and aspirations. Each country tries to maximise the gains it can get from its relationship with other countries. As a result, foreign policies are formed by countries to guide their decisions and actions towards the external environment in such a way that their best interests are always protected. These foreign policies are dictated by the specific needs of the countries and balanced against the foreign policies of other countries. This is because the competitive nature of the international environment enables some countries to perform better than others in terms of foreign policies. Since gaining independence in 1960, Nigeria has pursued foreign policy options that varied in context and content over time because of several factors including the form of government, the personalities of the leaders, the needs of the country, and events in the international community, among others. The foreign policy performance of the country has also been varied over time. There had been periods where the country was active, influential and respected in regional and international affairs and there were times when the country lost its international prestige and became a pariah nation. This paper is aimed at examining the foreign policy performance of Nigeria since the return of democratic governance in 1999 to determine whether there have been improvements when compared to the earlier period largely characterised by military dictatorships. Secondary written materials will be the main source of data for this paper which will be arranged in five sections. The first section is the introduction and the second will provide a conceptual clarification of foreign policy as used in the context of this paper. The third section will provide a brief background to the foreign policy of Nigeria from the time of independence to the year 1999. This will then be followed by the fourth section which discusses the foreign policy performance of Nigeria since the

year 1999. The last section will offer a brief summary of the paper and a conclusion.

Conceptual Clarification

Foreign policy is one of the many concepts that have varied definitions and conceptualisations. Therefore, it is necessary to state clearly the meaning of this concept as used in the context of this paper. This concept is used here simply to mean the actions, behaviours, and decisions of a country in relation to other countries aimed at pursuing its national objectives or protecting its interests. This conceptualisation is drawn from the definition offered by Padelford and Lincoln (1977), as cited by As (2018), that; “a State’s Foreign Policy is totality of its dealings with the external environment. Foreign Policy is the overall result of the process by which a state translates its broadly conceived goals and interests into specific courses of action in order to achieve its objectives and preserve its interests” (p. 2). National objectives and interests are indeed so central to foreign policy that they dictate the decisions and actions of countries which translate into foreign policy. The objectives and interests of a country, whether in the short or long terms, serve as the lens through which everything related to other countries is carefully scrutinised to enable informed decisions to be taken accordingly. Sometimes these objectives and interests are clearly documented so as to serve as a reference for all external actions and inactions.

Background to Nigeria Foreign Policy

The foreign policy of Nigeria was articulated at independence by the government of Sir Abubakar Tafawa Balewa with specific documented objectives that were to guide the actions of the country in its relationship with other countries in the international community. The foreign policy objectives of Nigeria at independence as outlined by Balewa were as follows;

- Safeguarding the interests of the federation and its citizens;
- Membership of the Commonwealth and the United Nations;
- Not identifying with any of the power blocs as a matter of routine;
- Devotion to Africa-oriented policies in the interest of continental unity; and
- Total de-colonization of the African continent. (Ota & Ecoma, 2016, pp. 10-11).

Thus, it was clear that the country has charted its foreign policy direction right from the start. However, the difference between theory and practice manifested itself and contradictions became evident in the country's foreign policy right from the start. Its claim to not alignment with any power blocs, meaning either with the United States of America (USA) or the Union of Soviet Socialist Republic (USSR), was disregarded since Nigeria clearly identified with Britain and the USA while it shunned the USSR. It delayed granting the USSR diplomatic space in the country until 1961 and then it allocated only 10 diplomatic number plates for their vehicles in sharp contrast to the 100 diplomatic number plates each allocated to Britain and USA. The country also signed an Anglo-Nigeria Defence Pact with Britain in 1961. However, the country's foreign policy under Balewa was decisive as exemplified by the severance of diplomatic relations with France for nuclear tests in the Sahara Desert. The country also led other African countries to form the organization for African Unity (OAU) in 1963 (Ota & Ecoma, 2016). Thus the country fulfilled its commitment to the unity of Africa in its foreign policy.

The period of military intervention in the governance of Nigeria from 1966, and of the Nigerian Civil War (1967-1970), changed the foreign policy direction of the country especially because Britain and the USA refused to sell arms to Nigeria to prosecute the civil war. Nigeria turned to the USSR for arms and the two countries became friends. The USSR sold arms to Nigeria and even sent some military experts to provide training to Nigerians military on the use of their arms. Meanwhile France continued its hostile relationship with Nigeria by recognising Biafra and even influencing some francophone countries in Africa to do the same (Ashaver, 2014).

The era of Generals Murtala Mohammed and Olusegun Obasanjo from 1975-1979 is believed to have introduced dynamism to the country's foreign policy. There is no denying, however, that Murtala assumed an assertive stance in relation to Africa's right to decide its own affairs without any interference from the power blocs of the world. He followed word with action by providing the MPLA in Angola with military support and funds in 1975 against the wishes of the USA. The regime also later hosted the Festival of Arts and Culture (FESTAC) which brought together black countries of the world to promote cultural cooperation. The brief period of democratic governance in the country under Shehu Shagari was a period when the foreign policy of Nigeria became weakened and indecisive (Oforle & Maduekwe, 2018).

The regime of General Mohammadu Buhari which grabbed power in 1983 introduced an era of foreign policy which saw Nigeria as its centre and

its immediate neighbours as the next area of focus before the rest of the world was considered. This generally led to a drop in the foreign policy performance of the country. The regime, through an agreement with Benin Republic, Togo, and Ghana, closed Nigeria's borders with its neighbours in a purported fight against smuggling and money laundering. The regime also caused a diplomatic quarrel with Britain when it attempted to kidnap Umaru Dikko from the territory of Britain without informing the authorities (Ashaver, 2014).

The regime of General Ibrahim Babangida, which snatched power from the Buhari regime in 1985, introduced a new foreign policy characterised by economic diplomacy aimed at reversing the economic crisis the country was in. The regime sought to secure loans from the Paris and London clubs which refused additional loan to Nigeria because of its inability to repay its debt to them. It also sought to attract foreign investments while liberalising the economy to make it profitable for foreigners. The regime was able to implement the International Monetary Fund (IMF) prescribed reforms, the Structural Adjustment Programme (SAP), which endeared the regime to the international community but alienated it at home (Oforle & Maduekwe, 2018).

The regime of General Sani Abacha, which came after ousting the interim government led by Earnest Shonekan, quickly reduced Nigeria to a pariah country because of its isolationist foreign policy and domestic human rights abuses. The execution of Ken Saro Wiwa and eight others, among many other human rights abuses, led to the expulsion of the country from the Commonwealth of Nations in 1995. International economic and social embargoes were also imposed on the country during the infamous era of Abacha. The foreign policy of Nigeria was almost non-existent during this period and the country was neither respected nor accepted into the comity of nations (Okpokpo, 2000). Consequently, the country became a pariah among the international community.

Nigeria's Foreign Policy Performance since 1999

The return of Nigeria to democracy in 1999 saw a country that had been reduced to a pariah status in the comity of nations because of the excesses of the past military regimes. It meant that the new democratic government under Olusegun Obasanjo had an enormous task of restoring the country's battered image in the international scene. The foreign policy challenges of the country were clearly understood by its leaders and so there was a provision in the 1999 Constitution clearly spelling out the foreign policy objectives of the country as follows;

- (a) Promotion and protection of the national interest;
- (b) Promotion of African integration and support for African unity;
- (c) Promotion of international co-operation for the consolidation of universal peace and mutual respect among all nations and elimination of discrimination in all its manifestations;
- (d) Respect for international law and treaty obligations as well as the seeking of settlement of international disputes by negotiation, mediation, conciliation, arbitration and adjudication; and
- (e) Promotion of a just world economic order. (Egobueze, 2017, p. 110).

The need to achieve these objectives compelled the president and his foreign minister to embark on numerous travels to countries in Africa, Europe, Asia, and Latin America to renegotiate the acceptance of Nigeria after years of international isolation. The pressing foreign policy issues included the re-integration of Nigeria into the international community, conflict resolution and prevention, regional integration, Nigeria's economic resuscitation, war against corruption, and restoring the image of Nigeria (Egobueze, 2017). These objectives resulted in some domestic reforms aimed at attracting foreign investments into Nigeria. This included the creation of the Economic and Financial Crimes Commission (EFCC) and the Independent Corrupt Practices Commission (ICPC) to address the problem of corruption in the country. There was the banking and financial systems reforms in 2004, the capital market reforms, and the review of the Investment and Securities Act (1999). There was also the liberalisation of the power sector which ended the monopoly and made room for private investments. In addition, there were reforms in the nation's ports as well (Abdul & Ibrahim, 2013, p. 42). The result of these was a remarkable increase in Foreign Direct Investments (FDI) flowing into the country. In 1999 the FDI was just a little over \$1 billion and this rose to \$12 billion in 2008 (Ubi & Akinkuotu, 2014).

The foreign policy efforts of Nigeria after the return to democracy also focused on reversing its high external debt profile. Consequently, the Paris and London clubs were approached and an intensive process of negotiation resulted in a deal where about \$18 billion debt was forgiven while the country paid around the same amount to clear its debts. Another interesting

development was that during the first eight year of democratic governance the foreign reserve of the country rose from \$2 billion to \$43 billion (Abdul & Ibrahim, 2013). This no doubt contributed to the favourable conditions that attracted foreign investments into the country which, as already pointed out, rose steadily over the years following the return of the country to democratic governance.

Nigeria's foreign policy also focused on regional integration and cooperation between Nigeria and fellow African countries especially at the multilateral level. Nigeria was among the leading countries to create the New Partnership for African Development (NEPAD) which was aimed at accelerating the development of the African continent. There is also no denying the leading role Nigeria played in the formation of the African Union (AU). In addition, the country showed exemplary behaviour in accepting the 2002 judgement of the International Court of Justice on the disputed Bakassi Peninsula which was in favour of Cameroon (Nuamah, 2003). The country also renewed its participation in multilateral organisations both at the regional and international levels such as the World Trade Organisation (WTO), International Monetary Fund (IMF), World Bank, African Development Bank (AFDB), African Union (AU), Commonwealth, Organisation of Petroleum Exporting Countries (OPEC), and many others (Abdul & Ibrahim, 2013).

Nigeria continued her peacekeeping efforts in Sierra Leone and Liberia even after the return of democracy in 1999. Indeed the relationship between Nigeria and her neighbouring African countries improved. Nigeria's foreign policy was geared towards regional integration and trade which were beneficial to the countries involved. Nigeria advocated for the conversion of ECOWAS countries into a free trade zone which happened in the year 2000 followed by the formation of a Customs Union in 2001. Eventually, import tariffs between these countries were successfully liberalised and the Common External Tariff (CAT) of ECOWAS was adopted which resulted in downward review of tariffs. Nigeria also participated in international trade agreements such as the Cotonou Agreement trade pact with the WTO, and the Africa Growth and Opportunity Act (AGOA) which sought to provide trading advantages to African countries in the international market (Ubi & Akinkuotu, 2014). These policies benefitted the economy of Nigeria which was recovering from the abuse of past military regimes.

In the area of settlement of both international and civil conflicts, Nigeria clearly followed her foreign policy objective of respecting international law. As already mentioned, the country accepted the judgement

of the ICJ concerning the disputed Bakassi Peninsula which ceded the area to Cameroon. Nigeria played important mediatory roles in resolving the dispute between factions of rebel forces in Liberia leading to the granting of asylum to President Charles Taylor in Nigeria. The country also mediated between the government of Sudan and the rebels of Dafur region who had been at war. The restoration of President Fradique Menezes of Sao Tome to power by Nigeria, after he was removed by the military in 2003, was a contribution to the development of democracy in Africa. Similarly, Nigeria played a leading role in resolving the 2005 political crisis in Togo which resulted in the ascension of the democratically elected government to power (Wogu *et al.*, 2015).

Nigeria's foreign policy towards China since the return of democracy is also worth mentioning. The government of Obasanjo made several overtures to China which resulted in the signing of several agreements between the two countries relating to trade and investment. Nigeria was particularly interested in infrastructure development and as a result the government attempted a deal where China would build infrastructure for the country in exchange for oil blocs. Although the infrastructure deal did not take place, China invested in Nigeria's oil by purchasing oil blocs. The government of Umaru Musa Yar'Adua continued the relationship with China but discarded the oil for infrastructure in favour of oil for cash. The two governments reached some agreements relating to power and transport infrastructure. China advanced loans to Nigeria for the building of railway infrastructure and the contracts were awarded to Chinese companies. The government of President Goodluck Jonathan continued the relationship with China and more Chinese companies got railway and road construction contracts in Nigeria as a result of more loans from China. Throughout this period, trade between these two countries was expanding steadily. The result was that between 2004 and 2015 the trade volume between Nigeria and China grew to \$101 billion (Afinotan, 2015).

There is no doubt that from 1999 the foreign policy of Nigeria has taken a different direction from the era of military dictatorship. The country was able to reverse her pariah status in the international community shortly after the return to democratic governance. The country had indeed observed its foreign objectives of pursuing national interest, pursuing African integration and unity, promotion of international cooperation, respect for international law and conflict management, and pursuing a just world economic order. There are indeed indications, during the current leadership of President Muhammadu Buhari, of the reversal of the gains of Nigeria foreign policy since 1999 as exemplified by high debt profile, human rights abuses, and poor

governance. However, Nigeria still remains a respected country in the international community.

Conclusion

This paper examined Nigeria's foreign policy performance since the return of democratic governance to determine whether there has been improvement. The foreign policy of Nigeria was designed to safeguard the interests of the county, Africa and the international community at large. The era of military intervention in the governance of Nigeria saw changes in the foreign policy of the country that culminated into its attainment of a pariah status under the regime of Abacha. The return of democracy in 1999 created an opportunity for the country to reverse its foreign policy so as to pursue its reintegration into the international community. Through several international visits and domestic reforms, the country was able to restore the trust of other countries in Nigeria which resulted in improved economy, regional integration, conflict management and international cooperation beneficial to the country. Its foreign policy achievements included the formation of ECOWAS Free Trade Zone and Customs Union, Clearing foreign debt, increased Foreign Direct investments, resolving political crises in Sao Tome and Togo, among others. Based on these developments, it is the conclusion of this paper that Nigeria's foreign policy performance has indeed improved since the return of democratic governance in 1999.

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PERFORMANCE EVALUATION OF SELECTED MACHINE LEARNING ALGORITHMS FOR SOFTWARE DEFECT PREDICTION SYSTEM

BY

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Abstract

Software defect is an error within the source code of a solution, which prevents the solution from operating as intended. If a defect is encountered during execution, it can cause a failure of the system which is a serious threat that can reduce the software quality, increase the cost and cause delay in the developmental schedule. Many machine learning algorithms have been employed as classifiers in software defects prediction system but the best one has not been identified. Thus, this study evaluated the performance of some selected machine learning algorithm in a software defect prediction system.

The datasets were retrieved from online database (<http://bug.inf.usi.ch/download.php>) which contain bug datasets. The datasets were preprocessed to remove relevant attributes. **Stochastic Gradient Descent Algorithm was used to select the relevant features from the acquired datasets.** Five machine learning algorithms were considered (Naive Bayes (NB), Support vector machine (SVM), Artificial Neural Network (ANN), K-Nearest Neighborhood (KNN) and Decision tree (C4.5)). In order to determine the performance of the classifiers, the algorithms were implemented in Python environment. Then, performance evaluations of the selected techniques were conducted using metrics namely: Accuracy, Precision, F1-score and Sensitivity.

The NB, SVM, ANN, KNN and C4.5 had an Accuracy of 90.30%, 90.30%, 90.40%, 86.70% and 91.20% respectively, while the corresponding values of Precision were 0.9400, 0.9500, 0.9100, 0.8700 and 0.9200 respectively. The Sensitivity values for NB, SVM, ANN, KNN and C4.5 were 0.9900, 0.9600, 1.0000, 0.9900 and 0.9100 respectively, while the corresponding values for F1-score, were 0.9800, 0.9510, 0.95000, 0.9800 and 0.9300 respectively.

In conclusion, it was revealed that, Decision tree had the highest performance among all the algorithms with an accuracy of 91.20%, while, in Precision and F1-score, NB had the highest value of 0.9900 and ANN had the highest value of 1.0000 in Sensitivity. The result of this research has demonstrated the effectiveness of machine learning algorithms selected; therefore, the algorithms will be useful in developing more accurate, reliable and sensitive software defect prediction system.

Keywords: Software, Stochastic, Algorithm, Machine learning, Classifiers.

Introduction

In this new age of technology, the backbone of any computing system is a reliable software system (Rao and Patra, 2020). There is no field of study whether a private business organization, small scale or large scale, government parastatal that does not depend on reliable software, it is therefore very necessary to make real-time software that will be reliable, trustworthy and economically available at any point in time. Moreover, society has increasingly relied on advanced software systems, as software is intertwined with all aspects of human life (Singh and Salaria, 2013). The software that will be reliable and dependable is needed to be well monitored and scrutinize before implementation, this is what leads to software defect prediction, with this, the software developer will be able to find the likely faults on the software before the implementation.

A software defect is a bug, error, malfunction, flaw, fault, or inaccuracies in software that leads to an unpredicted or erroneous output (Cao, 2020). Faults are indispensable properties that exist in a system. They occur from scheme, manufacture or external environment. The software flaws are errors in programming which result in diverse performances compared with anticipation (Rana, *et.al.* 2014). Most faults recorded are from source code or design, some errors are from the improper or wrong code creating from compilers (Babu *et al.*, 2019). For software developers and clients, software

faults are a serious threat. Software defects not only reduce software quality, it increase cost and also delay the development schedule (Yang, 2017).

The practice of identifying the defective software system parts is referred to as Software Defect Prediction (SDP) (Kalaivani & Beena, 2018). The software defects can be effectively predicted using Software Defect Prediction Model (SDPM) (Kalaivani & Beena, 2018). Such models can use various software metrics that are available for carrying out the SDP mechanism.

The performance of machine learning algorithms depends majorly on the features used for the classification phase (Varghese & Verghese, 2012). If features are not effectively obtained, it can result in misclassification. Feature reduction is a significant phase in the machine learning algorithm, this technique consists of feature selection and extraction (Telgaonkar and Deshmukh, 2015). Feature selection is the process of selecting a subset of relevant features for model construction, thus reducing training times, simplifying the models (to make interpretation easier), and improving the chances of generalization, avoiding over-fitting (Novaković *et al.*, 2011; Patra & Dash, 2016). Feature extraction was done after feature selection to get the exact features that are suitable for the classification.

With these aforementioned task attributed to feature selection and feature extraction, this study developed a software prediction system applying a new approach by the introduction of a stochastic gradient descent algorithm to select the most relevant features before the classification using learning algorithms.

Statement of the Problem

Software are programmes installed on the hardware part of the computer system to be controlling all its activities. Predicting the defect that may occur in software is both important and interesting. Most software fault or defect recorded are from source code or design and they are serious threat to the engineer for the reason been that they can reduce the quality of software, increase the cost and even delay the developmental schedule (Kumar & Bhatia, 2014). Several researchers have developed software defect prediction system using various machine learning algorithms as classifier on different programming languages platform to solve the problem. For instance (Perraut *et al.*, 2017), compared NB, SVM, ANN, LR and KNN on five datasets. The outcome of their experiment did not show a superior classifier at the

identifying defects. Hence this research is evaluating the performance of Naive Bayes (NB), Support vector machine (SVM), Artificial Neural Network (ANN), K-Nearest Neighbourhood (KNN) and Decision tree C4.5 as classifiers on ECLIPSE JDT CORE, ECLIPSE PDE UI, EQUINOX FRAMEWORK, LUCENE and MYLN datasets to know which one is going to perform best among them, **using** Stochastic Gradient Descent Algorithm for feature reduction and Python Programming language for implementation for software defect prediction system development.

Aim and Objectives

The aim of this study is to evaluate the performance of selected machine learning algorithms for software defect prediction system. The objectives are to:

- (i). select the relevant features from the acquired datasets using Stochastic Gradient Descent Algorithm;
- (ii) classify the obtained relevant features using Artificial Neural Network (ANN), Naïve Bayes (NB), K-Nearest Neighbourhood (KNN), Decision Tree (C4.5), and Support Vector Machine (SVM) using Python programming language for implementation.
- (iii). evaluate the performance of the classifiers in terms of accuracy, Sensitivity, precision and F1-Score.

Significance of the Study

Software defect prediction helps to optimize testing resource allocation by identifying defect-prone module prior to testing (Suneetha, 2016). Software defect prediction play an important role in improving software quality and the prediction of defect where probable to occur in software can help to reduce the time and cost for software testing (Owojori, 2021).

* After the completion of this research* performance evaluation of a selected machine learning (ML) algorithm for a **software defect prediction system** *, it is going to be beneficial to the key stakeholder in the field of software development and maintenance such as software developer, quality assurance team, software Engineer, software companies and the customers,

*The Evaluating the performance of machine learning algorithms as classifiers in development of software defect prediction system will help the software

defect prediction system developer in reducing the effort in locating the defect when the best among them is known.

The software defect prediction system will help the quality assurance team by identifying high-risk modules that need more thorough testing for efficient test planning and prioritization.

This research will assist the Software engineer in making decision about refactoring modularity and design improvement which we will give more insight into systematic code issues or architectural hotspot

Too much bugs in software after production resulted into high cost of maintenance, therefore, this research is going to benefit the software companies by improving the product reliability lowering the maintenance cost.

The last beneficiary of the research is the end user, end users are also known as the customer, they will enjoy high quality and more stable software that will enhance them satisfaction

Methodology

The architecture of the performance evaluation of selected machine learning algorithms for software defect prediction system is presented in Figure 1. The following are the stages adopted in the research:

- i. The first stage is data acquisition. This stage involves gathering necessary datasets that was used for the research. Hence, the datasets was acquired from <http://bug.inf.usi.ch/download.php> which is publicly available for use.
- ii. The second stage is the feature selection stage which was achieved by using optimization algorithm called stochastic gradient descent algorithm to extract the relevant features from the datasets that was acquired from the first stage.
- iii. The third stage is the classification stage. The classification of the extracted feature was done here using Support Vector Machine (SVM), Artificial Neural Network (ANN), Naïve Bayes (NB), Decision Tree (C4.5), and K-Nearest Neighbourhood (KNN)
- iv. The fourth stage is the final stage. At this stage, the evaluation was done based accuracy, precision, sensitivity and F1-score

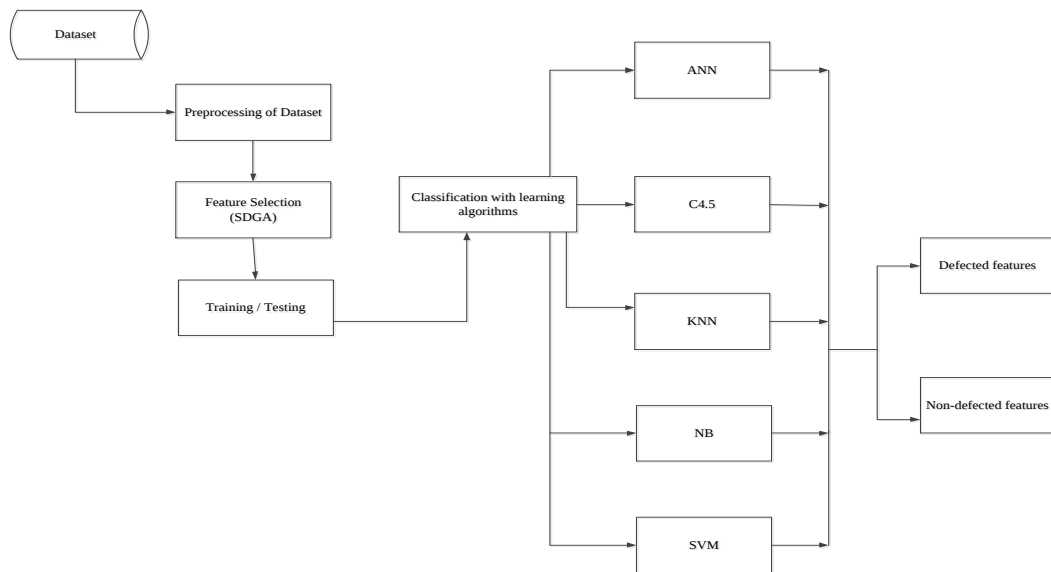


Figure .1. The Architecture of Software Defect Prediction System

Data Acquisition

The supervised learning approach in this study required the availability of previous faulty data of software release. The data for this study was acquired from <http://bug.inf.usi.ch/download.php> which is a databank that is made available for public use, open source software. For this research, the bug prediction dataset that was used contain data about the following software systems: **Eclipse JDT Core, PDE UI, Equinox Framework ,Lucene and Myln.** Each of these software contained different piece of information but the one with relevant parameter that suite the research was used during the cause of implementation.

Selection of Features

The acquired data from the source was in buggy form, therefore the task here was the extraction of the features that are relevant for prediction and elimination of those that will not contribute to the effective performance of the prediction. Feature extraction identified and extracts the most useful features of the dataset for learning, and these features were applied as valuable features for prediction. So by removing less important and redundant data, the

performance of the machine learning algorithms that was used improved upon using Stochastic Gradient Descent Algorithm (SGDA).

Datasets Classification

Data that has been extracted were classified into groups. In the research, the five open source software considered were classified using tenfold cross validation. Five learning algorithms: ANN, NB, C4.5, KNN and SVM was used for the task. Figure 1 shows the frame work of the research.

Results and Discussion

This section presents the detailed results of the evaluation of selected machine learning algorithms for software defect prediction.

Results of Learning Algorithms for Classification

The performance metrics were conducted for the different datasets used. The results were provided using the following tables.

Table 1: Performance Metrics for Lucene Dataset

Classifier	Evaluation Metrics			
	Accuracy (%)	Precision	Sensitivity	F1-Score
ANN	90.40	0.9000	1.0000	0.9500
C4.5	84.30	0.9200	0.9100	0.9100
KNN	86.50	0.8700	0.9900	0.9399
NB	87.30	0.9400	0.9200	0.9300
SVM	87.90	0.9300	0.9300	0.9300

From Table 1, the highest accuracy of 90.40% was obtained in ANN, the highest precision of 0.9400 was obtained in NB, the highest sensitivity of 0.9900 was KNN, the highest F1-score value of 0.9500 obtained in ANN all recorded in the Lucence dataset.

Table 2: Performance Metrics for Eclipse PDE UI Dataset

Classifier	Evaluation Metrics			
	Accuracy (%)	Precision	Sensitivity	F1-Score
ANN	86.75	0.8700	0.9900	0.9300
C4.5	78.20	0.8600	0.8900	0.8700
KNN	85.15	0.9800	0.9800	0.9800
NB	86.35	0.9900	0.9900	0.9900
SVM	84.50	0.9000	0.9300	0.9300

From Table 2, the highest accuracy of 86.75% was obtained in ANN, the highest precision value of 0.9900 was obtained NB, the highest sensitivity of 0.9900 was obtained in ANN and NB, the highest F1-score value of 0.9900 obtained in NB all recorded in Eclipse PDE UI Dataset.

Table 3: Performance Metrics for Myln Dataset

Classifier	Evaluation Metrics			
	Accuracy (%)	Precision	Sensitivity	F1-Score
ANN	86.75	0.8700	0.9900	0.9300
C4.5	78.20	0.8600	0.8900	0.8700
KNN	85.15	0.9800	0.9800	0.9800
NB	86.35	0.9900	0.9900	0.9900
SVM	84.50	0.9000	0.9300	0.9300

From Table 3, the highest accuracy of 86.75% was obtained in ANN, the highest precision of 0.9900 was obtained in NB, the highest sensitivity of 0.9900 was obtained in NB and ANN, the highest F1-score value of 0.9900 all obtained in NB all recorded in My In Dataset.

Table 4. Performance Metrics for Eclipse JDT CORE Dataset

Classifier	Evaluation Metrics			
	Accuracy (%)	Precision	Sensitivity	F1-Score
ANN	89.50	0.9100	0.9000	0.9400
C4.5	91.20	0.9200	0.9100	0.9300
KNN	86.70	0.8600	0.9330	0.9310
NB	90.30	0.9410	0.9300	0.9400
SVM	90.30	0.9500	0.9500	0.9510

From Table 4. the highest accuracy of 91.20% was obtained in C4.5, the highest precision of 0.9500 was obtained in SVM, the highest sensitivity of 0.9500 was SVM, the highest F1-score value of 0.9510 obtained in SVM all recorded in Eclipse JDT CORE Dataset.

Table 5: Performance Metrics for Equinox Framework Dataset

Classifier	Evaluation Metrics			
	Accuracy (%)	Precision	Sensitivity	F1-Score
ANN	57.25	0.6400	0.3600	0.4600
C4.5	61.50	0.7400	0.5100	0.6100

KNN	52.65	0.5400	0.7600	0.6300
NB	58.35	0.5600	0.9000	0.6900
SVM	68.10	0.6900	0.7100	0.7000

Table 5, the highest accuracy of 68.10% was obtained in SVM; the highest precision of 0.7400 obtained in C4.5, the highest sensitivity of 0.9000 was NB, the highest F1-score value of 0.7000 obtained in SVM all recorded in Equinox Framework Dataset

Comparative Analysis of Selected Machine Learning Algorithms for Software Defect Prediction

This section discusses the comparative analysis of different metrics used with respect to selected machine learning algorithms employed in this study.

Table 6: Comparative Analysis of Performance Evaluation of Selected Machine Learning Algorithms Based on (Accuracy) (%)

Classifier	Dataset				
	Lucene	Eclipse PDE UI	Myln	Equinox	Eclipse JDT CORE
ANN	90.40	86.75	88.10	57.25	89.50
C4.5	84.30	78.20	82.35	61.50	91.20
KNN	86.50	85.15	85.60	52.65	86.70
NB	87.30	86.35	83.15	58.35	90.30
SVM	87.90	84.50	88.40	68.10	90.30

The comparative study in table 6 revealed the highest accuracy of 91.20% which also the best accuracy was obtained in C4.5 in the Eclipse JDT CORE dataset.

Table 7: Comparative Analysis of Selected Machine Learning Algorithms Based on (Precision)

Classifier	Dataset				
	Lucene	Eclipse PDE UI	Myln	Equinox	Eclipse JDT CORE
ANN	0.9000	0.8700	0.8800	0.6400	0.9100
C4.5	0.9200	0.8600	0.9100	0.7400	0.9200
KNN	0.8700	0.9800	0.8600	0.5400	0.8600
NB	0.9400	0.9900	0.9200	0.5600	0.9410
SVM	0.9300	0.9000	0.9100	0.6900	0.9500

The comparative in study table 7 revealed the highest precision of 0.9900 which also the best precision was obtained in NB recorded in Dataset Eclipse PDE UI.

Table 8: Comparative Analysis of Software Defect Prediction System (Sensitivity)

Classifier	Dataset				
	Lucene	Eclipse PDE UI	Myln	Equinox	Eclipse JDT CORE

ANN	1.0000	0.9900	1.0000	0.3600	0.9000
C4.5	0.9100	0.8900	0.8800	0.5100	0.9100
KNN	0.9900	0.9800	0.9800	0.7600	0.9330
NB	0.9200	0.9900	0.9000	0.9000	0.9300
SVM	0.9300	0.9300	0.9600	0.7100	0.9500

The comparative study in table 8 revealed the highest sensitivity of 1.0000 which also the best sensitivity was obtained in ANN recorded in the Lucene and Myln dataset.

Table 9: Comparative Analysis of Selected Machine Learning Algorithms Based on (F1-score)

Classifier	Datasets				
	Lucene	Eclipse PDE UI	Myln	Equinox	Eclipse JDT ORE
ANN	0.9500	0.9300	0.9400	0.4600	0.9400
C4.5	0.9100	0.8700	0.8900	0.6100	0.9300
KNN	0.9399	0.9800	0.9200	0.6300	0.9310
NB	0.9300	0.9900	0.9000	0.6900	0.9400
SVM	0.9300	0.9300	0.9400	0.7000	0.9510

The comparative study in table 9 revealed the highest F1-score of 0.9900 which also the best F1-score was obtained in NB recorded in Eclipse PDE UI.

Conclusion

The feature selection has been considered by researcher to be one of the predominant stages in the software defect prediction. Feature selection involves a process of obtaining the subset of original features in which an initial set of raw data is reduced to a more measurable form for processing. Representation of feature produces an approximation to original feature in fewer dimensions, while still maintaining the same structure of original features.

This study evaluated the performance of selected machine learning algorithms for software defect prediction system. An optimization algorithm known as a stochastic gradient descent algorithm was introduced to select relevant features before the classification phase. The data were preprocessed to remove unwanted features using the python function from the different datasets employed in this study. After the preprocessing phase, the preprocessed data was passed into stochastic gradient descent to obtain discriminant features, thus the selected features were passed to five learning algorithms; SVM, NB, C4.5, ANN and KNN. Five publicly available online datasets namely Lucene, Myln, Eclipse JDT CORE, Eclipse PDE UI and Equinox datasets were used to validate the software defect prediction system.

The experimental results were showed for the individual datasets with different evaluation parameters for software defect prediction systems. The highest accuracy of 91.20% which is also the best accuracy was obtained in C4.5 in the Eclipse dataset, the highest precision of 0.9900 which also the best precision was obtained in NB recorded in Eclipse PDE UI, the highest sensitivity of 1.0000 which also the best sensitivity was obtained in ANN recorded in Lucene and Myln dataset and the highest F1-score of 0.9900 which also the best F1-score was obtained in NB recorded in Eclipse PDE UI.

The study therefore finally concluded that the application of a stochastic gradient descent algorithm resulted in an effective tool for evaluating the performance of machine learning algorithms for software defect prediction system.

Recommendations

The following recommendations are listed to draw the attention of future studies in software defect prediction systems:

- (i) Other classifiers such as variations of Naïve Bayes or treelike like Random Tree, RepTree classifier can also be included.
- (ii) The total time taken for the prediction of software defects should be considered in future work.

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AUGMENTED REALITY APPLICATIONS IN ENHANCING LEARNING OUTCOMES FOR STUDENTS WITH SPECIAL EDUCATIONAL NEEDS

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Abstract

This study explores the integration of Augmented Reality (AR) applications in education, with a specific focus on their potential to transform special education. The objective is to examine how AR technologies can be leveraged to support students with special needs by creating personalized, interactive, and immersive learning experiences. The study adopts a narrative review approach, synthesizing existing literature on the applications, benefits, and limitations of AR in special education contexts. Findings reveal that AR offers unique advantages, such as enhancing student engagement, enabling experiential learning, and fostering collaboration among learners with diverse needs. These benefits contribute to improved learning outcomes and greater inclusivity for students with disabilities. However, several challenges remain, including issues related to accessibility, high implementation costs, limited teacher training, and insufficient empirical evidence on long-term effectiveness. In conclusion, while AR presents significant opportunities for enhancing special education, realizing its full potential requires coordinated efforts. Recommendations include ensuring equitable access through cost-effective solutions, investing in educator training programs, conducting further empirical research to evaluate impact, and adhering to ethical guidelines in data usage and student privacy. By addressing these challenges, AR can serve as a transformative tool in creating inclusive and engaging learning environments for all students.

Keyword: Augmented Reality Applications, Special Educational Needs, Learning Outcomes Word Count: 199

Introduction

Recently, there has been a significant increase in the use of technology in education to meet the demands of different types of learners. Augmented reality (AR) is an emerging technology that has the potential to greatly impact educational methods, especially in the field of special education. Augmented reality, known for its capability to superimpose digital content onto the physical world, provides a dynamic and engaging learning setting that can be customised to meet the specific needs of students with special educational needs (SEN). In the context of the evolving digital era, it is essential to evaluate the potential of augmented reality (AR) applications in enhancing learning outcomes and advancing inclusive education for marginalized populations.

In the field of special education, where personalised instruction is of utmost importance, the use of augmented reality shows great potential. Through the utilisation of augmented reality (AR) technology, educators have the ability to develop tailored learning experiences that cater to the varied requirements and preferred methods of learning for children with special educational needs (SEN). Augmented Reality (AR) has the potential to eliminate obstacles to learning and empower students to achieve their maximum capabilities. It can achieve this by providing visual aids for visually impaired students, interactive simulations for those with autism spectrum disorder (ASD), and hands-on experiences for learners with physical disabilities.

Students with disabilities can benefit from engaging activities such as creative interactive exercises, visual presentations, project-based learning, school experiments, and other activities that promote active participation (Obradovic, et.al 2015). Put simply, children with disabilities require various forms of visual and perceptual stimulation in order to engage effectively (Rega & Mennitto, 2017). Therefore, other scholars, like Savelsbergh et al. (2016) and Cimer (2012), have suggested modifications to the teaching style and methodologies employed in science disciplines. Although various teaching methods have been used to improve the learning of students without disabilities, research on the effectiveness of interventions to enhance science course outcomes has not yet provided a definitive answer (Kellems et al., 2020; Savelsbergh et al., 2016). Advancements in technology have expanded the limits of teaching and learning. This includes the creation of new methods for delivering courses, such as e-learning, virtual lectures, augmented reality, video recording techniques, computer-assisted teaching, and multi-sensory

based teaching (Kellems et al., 2020). Firstly, Doğan (2015) concluded that extracurricular activities utilising technology have a positive effect on students' cognitive and physical development. Additionally, Doenyas et al. (2014) discovered that web-based iPad applications can help ASD students develop their ordering skills. These findings were seen both qualitatively and quantitatively. In a separate study, Çakır & Korkmaz (2019) found that augmented reality (AR) teaching materials are extremely useful for enhancing enthusiasm and preparedness to learn among individuals with special needs.

Furthermore, in recent times, advancements in digital technology have resulted in diverse learning possibilities and alternatives in the field of education. These developments have brought about new improvements in both learning and teaching methods (Jdaitawi, 2019, 2020a, 2020b). The myriad transformations taking place in the educational landscape are a result of wireless network technology, the integration of media in various contexts, and the adoption of novel teaching methodologies facilitated by emerging technologies. Among the various teaching techniques, augmented reality is receiving significant attention in educational research (Kellems et al., 2019; Khan et al., 2019;). Augmented reality (AR) combines traditional teaching methods with visualisations of processes, allowing students to interact with real-world objects and digital visualisations. This technology presents digital information directly in the real world, eliminating the need for users to focus on a device screen. Additionally, AR enables the superimposition of real objects with virtual objects and information.

Digital technology significantly impacts higher education. Therefore, institutions of higher education must take into account the rapid pace at which these technologies are advancing while designing instructional initiatives (Sirakaya & Sirakaya, 2020). AR applications have enhanced the acquisition of skills associated with ICT, such as teamwork and the exploration of immersive technology. These applications enable the implementation of innovative teaching methods that promote inquiry-based learning and ubiquitous access to educational resources (Mthembu, 2018). AR applications in education play a substantial role in the acquisition of information by simplifying the delivery of didactic content that would otherwise be challenging to convey. Therefore, the inclusion of this technology in educational practices favours obtaining better quality standards.

Augmented Reality Applications have the potential to enhance teaching and learning, improve the success of students (both with and without disabilities), and increase student motivation and engagement, according to

research by Carreon et al. (2019) and Kellems et al. (2019). Research has shown that the use of augmented reality (AR) technology in education can have positive effects on teaching and learning. It can lead to improved academic performance, increased motivation, enhanced perception, boosted confidence, greater independence in daily life skills, improved spatial ability, increased interest and engagement, and ultimately, higher satisfaction levels (Bridges et al., 2020). The reference for this work is Diao and Shih (2019). Augmented reality (AR) technology is utilised in higher education to enhance student learning. It serves as a tool that enables users to see tangible components of reality through mobile devices, fostering a pleasant and interactive learning experience.

Research has emphasised the significant benefits of augmented reality (AR) in the learning process and its ability to help impaired individuals integrate into the community and enhance their social skills (Lorenzo et al., 2019). AR technology enables the integration of virtual things with real ones, thanks to its mixed-environment nature, facilitating genuine contact. In addition, AR applications provide a range of features that deeply engage and incorporate disability-specific social services, such as social living and relevant learning, as well as physical services (Lorenzo et al., 2019). The present study examines the potential advantages of using augmented reality (AR) applications in special education for individuals with disabilities, including autism spectrum disorder, hearing impairments, and cognitive and physical disorders (Bridges et al., 2020; Lorenzo et al., 2019 and Zhao et al., 2018). Firstly, Bridges et al. (2020) validated that Augmented Reality (AR) enhances the everyday and independent skills of students with special needs. Zhao et al. (2018) reported that augmented reality (AR) technology helps students with impaired vision to comprehend information.

In response to the increased need for tools and strategies in special needs education, educators, engineers, researchers, and professionals have been creating ways that utilise augmented reality (AR) to enhance the learning and teaching experiences in this field. However, Quintero et al. (2019) pointed out that research on augmented reality (AR) in education, particularly in special education, has not been thoroughly explored and has remained stagnant compared to studies on other technologies (Bridges et al., 2020; Gomez-Puerta et al., 2019;). This highlights the need to investigate the impact of AR on the learning of individuals with special needs, focusing on various skills (Quintero et al., 2019).

Benefit of Augmented Reality (AR) in Education

Augmented Reality (AR) is transforming the field of education by enriching conventional learning approaches with immersive and interactive encounters. AR technology in education combines digital content with the physical world, creating a mixed learning environment that connects theoretical principles with practical applications. AR in education offers a significant advantage by captivating learners through multisensory experiences, enabling them to grasp abstract concepts and promoting a more profound comprehension. For example, in the field of science education, augmented reality (AR) enables students to visually dissect animals or investigate intricate scientific processes, offering practical learning opportunities that are otherwise unattainable in a conventional classroom environment, (Bridges et al., 2020).

Furthermore, augmented reality (AR) in education facilitates individualised learning experiences by accommodating various learning styles and preferences. By providing personalised information and engaging simulations, students have the opportunity to learn at their preferred speed, solidify their understanding of ideas as necessary, and delve into subjects with more thoroughness. This flexibility not only caters to varying learning paces but also promotes student independence and self-guided learning. AR technology enhances learners' ability to independently navigate their educational path, promoting a sense of ownership and drive, resulting in enhanced learning outcomes and knowledge retention, (Bridges et al., 2020).

Moreover, augmented reality (AR) technology enhances collaborative learning by allowing students to engage with virtual content together in real-world environments. Collaborative augmented reality (AR) applications enable learners to work together on projects, collectively address challenges, and participate in cooperative learning activities, irrespective of their geographical proximity. The collaborative nature of this feature not only fosters cooperation and communication skills but also enriches social contact and peer-to-peer learning. In addition, collaborative initiatives that utilise augmented reality (AR) foster creativity and innovation by promoting teamwork in the creation and enhancement of immersive educational experiences. Furthermore, augmented reality (AR) in education overcomes geographical limitations by granting access to educational resources and experiences irrespective of one's location. By utilising augmented reality (AR) on mobile devices or specialised platforms, students have the opportunity to engage in virtual simulations, visit significant historical sites, and

communicate with global experts. This enhances their educational experience and expands their worldview. This accessibility promotes educational equity by guaranteeing that all students, irrespective of their geographic location or socioeconomic status, have equitable access to exceptional educational content and experiences, (Bridges et al., 2020).

Benefit of Augmented Reality (AR) in Special Education

Augmented Reality (AR) has the potential to greatly transform special education by providing customised, interactive, and immersive learning experiences that are specifically designed to meet the individual needs of students with disabilities. An important advantage of augmented reality (AR) in special education is its capacity to amplify engagement and motivation. Augmented Reality (AR) enhances learning by superimposing digital content onto the physical environment, resulting in a more engaging and dynamic educational experience. This technology captivates students' attention and promotes active involvement in lessons. For kids with specific needs, who may have difficulties with conventional instructional approaches, this increased level of involvement can result in enhanced concentration, memory, and overall educational achievements, (Huang et al., 2019).

Additionally, augmented reality (AR) offers possibilities for hands-on learning, enabling students to investigate intangible ideas in a concrete and visually understandable way. AR simulations have the capability to replicate historical events, scientific phenomena, and physical locations. This allows students with disabilities to understand intricate concepts by engaging in interactive inquiry. This experiential method not only improves comprehension but also cultivates self-reliance and assurance in education, enabling students to investigate and uncover knowledge at their own speed. Also, augmented reality (AR) has the potential to support inclusive education by catering to a wide range of learning styles and abilities. AR applications can be customised to meet the specific requirements and preferences of students with disabilities. This includes features like audio descriptions for visually impaired learners and interactive prompts for students with cognitive impairments. AR fosters educational fairness by addressing the unique learning needs of each individual, therefore guaranteeing that all students may engage in valuable learning opportunities, (Zhao et al. (2018).

Moreover, augmented reality (AR) technology facilitates cooperation and interpersonal engagement among students, establishing a nurturing educational atmosphere that emphasises communication and collaboration

amongst peers. Collaborative augmented reality (AR) experiences facilitate students' ability to work together on projects, collectively solve problems, and effectively exchange ideas, regardless of their physical or cognitive capabilities. This cooperative method not only improves interpersonal abilities but also fosters understanding, openness, and embracing of unique characteristics in children, hence fostering a more inclusive school environment, (Zhao et al. 2018).

Finally, augmented reality (AR) provides instructors with essential tools for evaluating, tracking progress, and giving immediate feedback. Through monitoring students' activities within augmented reality (AR) environments, educators can acquire valuable information about their understanding, degree of involvement, and difficulties in learning. This enables them to intervene promptly and provide tailored education. In addition, assessments using augmented reality (AR) enable a more dynamic and genuine means of evaluating students' talents and knowledge, beyond conventional testing techniques to offer a more comprehensive picture of their skills and progress over time. In summary, the incorporation of augmented reality (AR) in special education shows significant potential for establishing inclusive, captivating, and efficient learning settings that accommodate the varied requirements of children with disabilities, (Zhao et al. 2018).

How to Integrate of Augmented Reality Application in Special Education Settings

Incorporating augmented reality (AR) technologies into special education environments can greatly improve the educational experience for kids with a variety of learning requirements. Prioritising the comprehension of individual students' distinct needs and difficulties is crucial in order to customise the augmented reality application accordingly. This entails working together with educators, therapists, and carers to determine personalised learning objectives and approaches.

After determining the learning objectives, it becomes essential to choose or create augmented reality (AR) applications that are in line with these aims. These applications should provide customisable options such as adjustable levels of difficulty, multi-sensory feedback, and interactive components to cater to different learning styles and abilities. AR can be utilised to develop immersive simulations for instructing life skills, social relationships, or academic subjects in a manner that is captivating and easily understandable. Providing training and assistance to educators and therapists

is crucial for ensuring successful implementation. By offering extensive training sessions and resources, individuals will be equipped with the necessary skills and knowledge to successfully incorporate augmented reality (AR) technology into their teaching methods and therapeutic interventions. In addition, continuous assistance and chances for professional development may guarantee that instructors remain up-to-date with the most recent breakthroughs in augmented reality technology and teaching methods, (Sharmila, 2024).

Establishing a conducive learning atmosphere is equally essential. This entails creating explicit protocols for utilising augmented reality (AR) applications, cultivating an environment that values diversity and teamwork, and offering appropriate adaptations and supportive technology to address the varied requirements of students. Furthermore, fostering a favourable disposition towards the adoption of technology among students, educators, and parents can stimulate active engagement and eagerness for the process of acquiring knowledge, (Sharmila, 2024).

Ultimately, continuous monitoring and evaluation are crucial in gauging the efficacy of integrating augmented reality in special education environments. Gathering feedback from students, instructors, and other stakeholders can yield useful information regarding the strengths, issues, and areas that want development. Examining data regarding student progress and outcomes can provide valuable insights for decision-making and help shape future improvements to the AR applications and instructional methods. Special education settings can enhance learning experiences and achieve positive outcomes for students with various learning needs by consistently improving and adjusting the usage of augmented reality (AR) technology, using evidence-based methods.

Challenges and Limitation of Integrating Augmented Reality application in special Education Settings

The use of augmented reality (AR) apps into special education environments offers both advantages and obstacles. Although augmented reality (AR) has the capacity to fundamentally transform the learning and interaction experiences of children with special needs, there are various limitations and challenges that must be overcome in order to effectively integrate it. One major obstacle is the availability of AR technology for students with varying requirements. A significant number of augmented reality (AR)

applications significantly depend on visual and aural inputs, which may not be appropriate for pupils who have visual or hearing impairments. It is essential to incorporate accessibility elements, such as text-to-speech functionality, haptic feedback, and customisable interfaces, into AR apps to ensure inclusivity for all learners, (Sharmila, 2024).

Additionally, the expense associated with acquiring AR hardware and software may pose a significant obstacle for educational institutions operating under financial constraints. Special education programmes frequently encounter cost limitations, and the implementation of augmented reality (AR) technology may not be viable for certain schools. Furthermore, the continuous maintenance and updating of AR systems entail ongoing expenditures, hence exacerbating the cost strain. Exploring viable funding sources or utilising collaborations with technology businesses could assist in addressing this difficulty. Another constraint is the absence of scientific investigation about the efficacy of augmented reality (AR) applications in special education environments. Although there is anecdotal evidence supporting the idea that AR can improve engagement and learning results for students with special needs, there is still a lack of thorough studies investigating its actual impact. Further investigation is required to assess the effectiveness of augmented reality interventions in various disabilities and educational settings, as well as to determine the most effective methods for deployment, (Sharmila, 2024).

Moreover, the intricate nature of AR development presents a challenge for educators who may not have the requisite expertise and experience to incorporate AR into their instructional methods. Teachers necessitate professional development opportunities and continuous support to proficiently integrate augmented reality applications into the curriculum and modify them to cater to the varied needs of their students. Effective collaboration among educators, technology developers, and researchers is crucial for jointly designing augmented reality (AR) solutions that are in line with educational objectives and teaching methods. Finally, it is imperative to address ethical considerations pertaining to data protection and security when incorporating augmented reality (AR) technology in special education environments. AR applications frequently gather and examine user data to customise educational experiences, which gives rise to concerns over the confidentiality and consent of students, particularly those who may be more susceptible. It is crucial to establish explicit norms and protocols for data management, informed permission, and user privacy in order to protect the rights and welfare of students with special needs, (Sharmila, 2024).

Conclusion

In conclusion, the incorporation of augmented reality (AR) applications in education, specifically in special education, provides numerous advantages but also poses notable difficulties. Augmented reality (AR) has the capacity to transform learning experiences for students with disabilities by offering tailored, interactive, and immersive educational possibilities. It improves participation, encourages active learning, supports diversity, enables teamwork, and allows personalised evaluation. Nevertheless, there are other challenges that need to be overcome in order to successfully include augmented reality (AR) into special education environments. The hurdles encompass guaranteeing accessibility for all students, surmounting financial obstacles, doing thorough research on effectiveness, offering sufficient training for educators, and tackling ethical issues related to data protection. Although there are obstacles, the potential of augmented reality to revolutionized special education remains optimistic. Through ongoing collaboration, innovation, and investment, AR can have a crucial impact in establishing inclusive and efficient learning environments for all children.

Recommendations

Based on these study recommendations that:

1. Developers and educators should work collaboratively to design AR applications that include accessibility features such as text-to-speech, customizable visuals, haptic feedback, and multilingual support to accommodate diverse learners with special needs.
2. Training programs should be developed and implemented to equip special educators, therapists, and school staff with the skills needed to effectively integrate AR technologies into the curriculum.
3. Government agencies, NGOs, and private sectors should collaborate to provide funding or subsidized AR tools for under-resourced schools and special education centres, especially in low-income areas.
4. Academic institutions and policymakers should invest in longitudinal and experimental studies to evaluate the long-term effectiveness of AR in different special education contexts, with an emphasis on data-driven outcomes.

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EFFECTS OF METHODS OF INSTRUCTION AND GENDER ON ACHIEVEMENT IN ENGLISH LANGUAGE COMPOSITION

By

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Abstract

This study investigates the effects of different instructional methods – specifically the Genre Approach and the Product Approach - and gender on students' achievement in English language composition. A quasi-experimental, pre-test-posttest control group design was adopted, involving 201 students randomly assigned to instructional groups. One group was taught using the Genre Approach, which emphasizes the social purposes and structural conventions of different text types, while the other was instructed through the traditional product approach, which focuses on grammatical accuracy and model imitation. Data were collected using standardized essay writing assessments administered before and after the intervention. Analysis of Variance (ANOVA) was employed to analyze the main and interaction effects of instructional method and gender on posttest performance, with pretest scores as a covariate. The results revealed that students taught using the Genre approach significantly outperformed those taught with the product method. Furthermore, gender differences were observed with female students generally exhibiting higher performance in composition writing. However, interaction between method of instruction and gender was not statistically significant. The study concludes that instructional methods have a substantial impact on writing achievement and recommends that educators adopt more interactive and learner-centered strategies to enhance students' writing skills across gender lines.

Keywords: Achievement, Product approach, Process approach, Gender, Composition writing

Introduction

The English Language teaching syllabus clearly outlines the four language skills: listening, speaking, reading, and writing. The comprehensive English Language syllabus approved by the Nigerian government for use in secondary schools outlines five key components for language instruction – Vocabulary Development, Grammatical Structures, Speech/spoken English, Listening and Reading comprehension, and writing.

Composition writing has played a fundamental role in language teaching and learning, serving as a critical component of a student's educational journey (Hyland, 2003). Nevertheless, mastering skill of composition writing remains a challenging task for many students, (Bitchener & Ferris, 2012). The primary goal of any formal language instruction, especially when the language serves as a second language in Nigeria is to equip learners with an understanding of its structural patterns to enhance effective communication.

Writing is a vital learning tool taught in school in the form of composition writing. Its significance in the academic development of a Nigerian school child cannot be overstated. Composition writing aids students in deepening their understanding of ideas and concepts. While reading helps them gather information, it is through writing that they clarify their ideas and give form to their thoughts. According to Halliday (2003), English language learners should have a good command of written language in order to be successful for at least economical purposes in the 21st century, as they need to communicate with their foreign partners through global networks. Kashmer (2003) in Ekhtor (2017), emphasizes the importance of writing in the global village, as an essential need for students as different people all over the world have to communicate in English by sending emails, chatting or sending different documents to each other. Although, individuals use written language for communication through the internet, social media, emails, and other online platforms, poor writing proficiency remains a significant barrier to effective language use, particularly among students in Nigeria. Okpala (2023) concluded that poor teaching and learning methods, lack of instructional materials, environmental problems, lack of interest for teachers and student's teacher factors, students' factors and mother tongue interference are the problems of teaching and learning of English language in secondary schools in Nigeria. Also, Habsi and Baliday (2024) revealed frequent spelling errors and grammatical inaccuracies, impacting the overall clarity of students writing. The findings underscore the necessity for targeted writing instruction that

focuses in these specific areas, the study advocates for the integration of comprehensive writing instruction into the curriculum and the implementation of support systems like online writing platforms and dedicated writing centers. Palaming (2023) implied that English teachers should be given adequate training and should attend seminar – workshops in ESL writing pedagogy for them to have an in-depth knowledge of the complexities involved in the writing process and learn more intervention strategies that they could apply in the classroom to help students improve their writing in English with less effort. Furthermore, Dizon, Gorce, Rodriguez (2023) revealed that the respondents' most common error was committed when writing the content followed by errors on organization, grammars, and writing mechanics. Oyedele & Chikwature (2016) study have a myriad of writing skills difficulties in composition writing. These include mother tongue interference, inconsistent use of tenses, spellings, amongst other various challenges. Teaching methods used by teachers were also another contributory factor. Ekhatior (2017) also found that the use of ineffective teaching approaches significantly hinders students' performance in composition writing skills.

To enhance the effectiveness of writing instruction, it is important to closely examine the teaching methods employed by educators, as these play a crucial role in influencing students achievement. The use of appropriate teaching methods is essential for effective language teaching and learning, particularly in composition writing. However, many language teachers tend to rely on the conventional product approach, often viewing it as the most convenient method for managing large classes. In this approach, students are passive, just sit and listen, while the teacher does all the talking. This may be one of the reasons why students perform poorly in English language during both internal and external examinations, given that composition writing carries a significant portion of the overall score. Teachers generally hold positive views about the product approach to teaching writing, believing that once students have a solid grasp of vocabulary and sentence structure, they can produce quality compositions. However, some teachers also acknowledge the limitations of this approach, noting that it may not effectively foster students' creativity or motivation.

Gender as a variable has been found to imply second language learning. Aswad (2022) claims that female students show higher integrative motivation, which means they are more driven to learn English as part of their personal identity and to interact with communities that use the language. In addition,

their positive attitude towards, learning English was more prominent compared to male students. Adeyemi's (2008) and Harker's (2000) studies have also shown that girls perform better than boys in reading, composition writing, grammar, spelling, word formation, arts and languages. Onosode (2004) claims that the sex of a learner can significantly influence their achievement in English language written composition. Akabogu (2015) showed that gender affects student's achievement in English language.

Tuan (2011) examined the impact of genre-based approach on students writing performance as well as students' attitudes towards the implementation of genre-based approach in writing learning. Research findings reveal that most of the students gained the control over the key features of the required recount genre in terms of social purposes, language features and schematic structure. The necessity and usefulness of the application of teaching – learning cycle into learning the recount genre was predominantly recognized among students. Liu & Chen (2022) study examined Chinese EFL student – teachers' knowledge and use of genre-based writing instruction (GBWI) during the teaching practicum and explored the challenges they encountered in enacting it. The findings demonstrated that teacher showed some familiarity with genre pedagogies, especially in terms of scaffolding, the linguistic features and semantic patterns in the focused genre.

The focus of Alhammad (2025) study was to investigate the impact of explicit instruction in writing using a genre-based approach (GBA) on Saudi EFL students. It examines emergent themes derived from learner interviews and assesses teachers' awareness of employing this pedagogical approach. Conducted at Prince Sattam bin Abdulaziz University (PSAU), the mixed methods study involved 32 EFL learners and 4 teachers from the BA program. A specifically designed intervention aimed to train teachers in genre-based essay writing instruction. Results indicated a significant improvement in students' writing performance with scores increasing from 12.97 in the pretest to 14.90 in the post-test $=.000$. Students reported heightened confidence in utilizing GBA for writing, while teachers displayed a positive disposition towards adopting efficacious methods to enhance student writing skills, despite potential gaps in their knowledge of recent developments in ELT.

Uday (2022) study aimed to investigate the effectiveness of genre-based approach on enhancing creative writing skills in English among the secondary school students. The sample of the study was 70 students equal in half from both the experimental and control group, studying English at class

IX. After implementing the genre-based approach, the instrument was re-administered to both groups. The results were statistically analysed using the non-parametric test i.e Mann hitney – U test. The results revealed that the experimental groups creative writing skills are enhanced than the control group as the result of teaching through Genre-based Approach.

Usman, Muktar & Muhammed (2023) study was designed to examine the effects of genre-based approach on secondary school students achievement in narrative composition writing in Toro LGA, Bauchi State. The study adopted quasi-experimental research design consisting of two groups of SS2 students, experimental and control. The result revealed that experimental group performed significantly better than the control group. This means that genre-based approach has a significant effect on narrative composition writing.

Composition writing is generally guided by three main approaches: the product approach, the process approach, and the Genre Approach:

The Product Approach

The product approach has been called by several names, the controlled-to-free approach, the text based approach and the guided composition (Raimes 1983, Silva 1990). It is a traditional approach to writing which focuses on written products. Teachers re-value the written product, judge its form and contents according to set criteria. The product Approach is form-focused and useful for controlled writing and accuracy but can be rigid. The teacher plays a central role guiding students to achieve accuracy in grammar, syntax, and organization. This approach is especially useful for beginners and in contexts where examinations demand mastery of conventional forms. The limitations of the product approach gave rise to the process approach.

The Process Approach

The process approach of writing is described as having five stages which are brainstorming/pre-writing, drafting, revising, editing and publishing. In the process approach, the steps or stages are practiced from the generation of ideas and compilation of information through a series of activities for planning, gathering information drafting, revising, and editing. Brainstorming is the phase of ideas gathering. Drafting is the process of writing a rough outline of what will be addressed. Once student produce a rough draft and they read it again and share it with peers to receive comments, they make modifications to their writings based on the feedback from their

peers. Revising on the first draft takes place at this point. Editing or correcting mechanical errors like spelling or punctuations is the last stage. The procedures of process writing help learners to develop more effective ways of conveying meaning and better comprehending the content that they want to express. In addition, a common assumption is that the process approach empowers its students, by enabling them to make decisions about the direction of their writing through discussions, tasks, drafting, feedback and informed choices, thus encouraging them to be responsible for making improvements themselves Jordan, (1997); Fredericksonm (2003), Urbanski, (2006). The teacher, in a process-approach classroom, serves as the facilitator. The process approach is learner-centered and is based on the cognitive, social constructivist and constructivist theories of learning. The Process Approach encouraged fluency and creativity, supporting learners in developing their ideas through multiple drafts.

The Genre Approach

The focus of the genre approach is that writing pedagogies should give learners “explicit and systematic explanations of the ways language functions in social contexts” (Hyland, 2003). Swales (1990) describes genre as a class of communicative events in which the members share some set of communicative purposes which are recognized by the expert members. This approach involves three stages: modeling a text; joint construction of a text and independent construction of a text. A genre approach is based on the systemic functional theory of language which holds that language is a social activity which always takes place in a context. It was developed by Halliday (1978, 1994), and elaborated by Macken-Horarik (2001) and others. Badger and White (2000) noted that the genre approach can be seen as an extension of the product approach, since both approaches view writing as a predominantly linguistic activity. The genre approach, however, places a greater emphasis on the social context in which writing is produced. The Genre Approach bridges the gap, emphasizing purpose, audience, and context, helping students master different types of real-world writing. As with the earlier approaches, it was faced with some criticisms. This made researchers such as Badger and White (2000) to suggest that “an effective methodology for writing needs to incorporate the insights, of product, process, and genre approaches”. The task-based language teaching model fulfils the synthesis of the product, process and genre approaches.

This study is delimited to junior secondary 3 (JSS3) students within Edo State, Nigeria.

The primary respondents for this study are students at the junior secondary school level, as they are at a developmental stage where writing skills are formally taught and evaluated. A secondary group of respondents includes English Language teachers who implement the instructional methods being studied. However, the main focus remains on the students' achievement in composition writing, assessed through pre-tests and posttest, to determine the effectiveness of the instructional methods and any gender-related differences in performance.

Statement of the Problem

The continual decline in senior secondary students' performance in English language has been largely attributed to a significant weakness in composition writing. (Kolawole, 1998, Odeh 2000; West African Examination Council Chief Examiners Report, 2023) revealed that overall; there was no significant improvement in candidates' performance in the composition section, which assesses standard writing skills such as informal letters to relatives, formal letters to editors, articles for publication, debates, and story writing. The subject for every topic was within the expanse and competence of the candidates. An ineffective approach to composition writing has been identified as a key factor contributing to candidates' poor performance in English language examinations in Nigeria. The report by the WAEC Chief Examiner (2023) highlighted several issues students face in composition writing, including inadequate preparation, which is evident in weak punctuation and speaking skills, poor grammatical usage, and frequent misinterpretation of questions, among other challenges. These challenges suggest that current instruction methods may not be sufficiently effective in developing students' writing competence. Various teaching strategies have been employed to address this issue, yet the persistent underachievement indicates a need for a more targeted and evidence-based instructional approach. These shortcomings indicate that composition is not being effectively taught in schools. Consequently, this study seeks to examine the relative effectiveness of the genre approach on student's performance in composition writing.

The following research questions were raised to guide the study.

- 1). Is there a difference in composition writing achievement in the post test mean scores of students taught using the genre approach and those taught using the product approach?
- 2). Is there a difference in composition writing achievement post-test mean scores of male and female students taught using the genre approach and the product approach?

The following hypotheses were formulated from the research questions to guide the study:

Ho1: There is no significant difference in the post test mean scores of students taught using the genre approach and the product approach

Ho2: There is no significant difference in composition writing post test mean scores of male and female students taught using the genre approach and the product approach.

Methodology

The study employed a quasi-experimental design, specifically a non-randomized pretest-posttest control group design. The dependent variable for the study is achievement in English composition writing. The independent variable is teaching approaches with two levels (genre approach and the product approach) and one (1) moderator variable – gender with two levels (male and female).

The population of the study comprised all six hundred and thirty (630) Junior secondary school 3 (JSS3) students from two schools (one all girls and one all boys) in Edo State during the 2024/2025 academic session. Using simple random sampling procedure, a sample of two hundred and one (201) students in four intact classes from the two schools were drawn. Two intact classes in each of the schools used were randomly selected and assigned to an experimental and a control group. Those in the experimental group were taught using the genre approach, while those in the control group were taught using the product approach.

One instrument was used to collect data for this study. The instrument was the English essay writing achievement test (EEWAT). This was adapted from past questions administered by the National Examination Council (NECO) Junior secondary certificate examination (JSCE) on essay writing. The test was designed to cover those topics on which the pre-test and post test

observations were based. The instrument is a standardized test which is used by English examiners for grading Junior school certificate examination. From the two hundred and one (201) copies of the questionnaire administered, one hundred and eighty-five (185) un-mutilated copies of the questionnaire were returned by the respondents. As a result of that, one hundred and eighty-five (185) copies of the questionnaire were used for the analysis.

For the face and content validity of the instrument, the instrument was given to experts, in the fields of measurement and evaluation and language testing for critical appraisal before administration. The instrument was considered to be valid. The reliability check of instruments was done via pilot testing using twenty (20) students who were randomly selected from a school outside the sampled schools. The internal consistency reliability of the English essay writing achievement test (EEWAT) was estimated using the test retest method. Using Pearson's product moment correlation statistics, the reliability coefficient of 0.87 was obtained. This shows that the instrument is reliable.

Procedure

The study spanned ten (10) weeks, with the first week dedicated to administering the pretest, eight weeks allocated for the treatment, and the final week reserved for the posttest.

Experimental Group: Genre-based approach

The researcher followed the genre approach teaching based on Swales (1990) model. This approach involves three stages: modeling a text; joint construction of a text and independent construction of a text.

These stages are often referred to as the teaching and learning cycle. The researcher stated the learning objectives and built the context by introducing the social purpose of the genre. The researcher presented a model text of a narrative composition, analysed the structure, language features and layout of the genre. Also, the researcher highlighted the key grammar, connectors and tone used. The researcher and students co-construct a text together. The researcher supports the students by guiding them on organizing ideas and using appropriate language features.

The researcher made the students to independently write their own texts within the same genre. Lastly, students review their work for content, structure, grammar and coherence.

Control Group:

The researcher wrote the topic on the board and explained it to the students. She asked the students questions based on the topic and used their responses to develop an outline. She asked the students to write a composition based on the outline given. Students submitted their composition for marking.

Procedure for Data Collection

The researcher began by administering a pretest to both groups to observe their initial performance. The aim was to ascertain the entry point of the students and also to find out the homogeneity of the two groups. The results revealed that the two groups were homogenous. After the pretest, treatment was administered to the experimental group. Both the subjects in the experimental and control groups were taught for eight weeks by the researcher. The researcher administered the posttest during the last week. The students' essays for the pre and posttest were scored and the results were subjected to statistical analysis. The data were analysed using mean, standard deviation statistics, and ANOVA and tested at the 0.05 level of significance.

Data presentation and Analysis**Test of Hypotheses****Hypothesis One**

Ho1: There is no significant difference in the post test mean scores of students taught using the genre approach and the product approach

Table 1: ANOVA Results for Mean Scores and Genre Approach					
Mean Scores					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	7416.282	7	1236.047	232.645	.000
Within Groups	945.718	178	5.313		
Total	8362.000	185			

Source: Field Survey 2025

Table 1 reveals that the F value of the genre approach is 232.645. It shows that there is significant difference in the post test mean scores of students taught using the genre approach. Since $p\text{-value } 0.00 < 0.05$, it shows that the result is statistically significant at 0.05 level of significance.

Table: ANOVA Results for Mean Scores and Product Approach

Mean Scores					
	Sum of Squares	Df	Mean Square	F	Sig
Between Groups	8362.000	5	2090.500	192.347	.000
Within Groups	.000	180	.000		
Total	8362.000	185			

Source: Field Survey 2025

Table 2 reveals that the F value of the product approach is 192.347. It shows that there is significant difference in the post test mean scores of students taught using the product approach. Since $p\text{-value } 0.00 < 0.05$, it shows that the result is statistically significant at 0.05 level of significance. The results from table 1 and 2 reveals that using the genre approach yields better outcome since the F value for the genre approach (232.645) is $>$ than that of the product approach (192.347).

Base on the results obtained, the null hypothesis which states that there is no significant difference in the post test mean scores of students taught using the genre approach and the product approach is rejected.

Hypothesis Two

Ho2: There is no significant difference in composition writing post-test mean scores of male and female students taught using the genre approach and the product approach.

Table 3: ANOVA Results for Mean Scores and Male students

Mean Scores					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	4719.472	7	786.579	41.268	.000
Within Groups	3392.723	178	19.060		
Total	8112.195	185			

Source: Field Survey 2025

Table 3 reveals that the F value for male students is 41.268. It shows that there is significant difference in composition writing post- test mean scores of male students taught using the genre approach and the product approach. Since p-value $0.00 < 0.05$, it shows that the result is statistically significant at 0.05 level of significance.

Table 4: ANOVA Results for Mean Scores and Female Students

Mean Scores					
	Sum of Squares	Df	Mean Square	F	Sig.
Between Groups	5386.162	7	897.694	58.616	.000
Within Groups	2726.032	178	15.315		
Total	8112.195	185			

Source: Field Survey 2025

Table 4 reveals that the F value for female students is 58.616. It shows that there is significant difference in composition writing post- test mean scores of female students taught using the genre approach and the product approach. Since p-value $0.00 < 0.05$, it shows that the result is statistically significant at 0.05 level of significance. The results from table 3 and 4 reveals that the female students have higher mean scores since the F value for female students (58.616) is $>$ than that of the male students (41.268).

Base on the results obtained, the null hypothesis which states that there is no significant difference in composition writing post-test mean scores of male

and female students taught using the genre approach and the product approach is rejected.

Discussion of Findings

The results obtained from the test of hypothesis one shows that there is significant difference in the post test mean scores of students taught using the genre approach and the product approach. This is in line with the findings of Haerzi (2017), Uday (2022), who carried out similar studies using undergraduate's students or secondary school students. The same result was obtained irrespective of the class level. This could be as a result of the approach used.

Results obtained from the test of hypothesis two shows that there is significant difference in composition posttest mean scores of male and female students taught using the genre approach and the product approach.

This highlights the superior performance of female students compared to their male counterparts in composition writing when taught using both the genre and product approaches. This may be linked to the longstanding belief that females tend to excel more in language learning than males. It aligns with the findings of Azikiwe (2005) and Ofor (2002) which revealed notable gender differences in language achievement.

Conclusion

At the end of this study which investigated the effects of methods of instruction and Gender on Achievement in English Language composition on junior secondary school students composition writing ability revealed that the genre based composition teaching is more effective to the product Approach to teaching composition writing. The genre approach composition teaching, improves the teaching of composition writing in our schools. Students challenges in composition writing have a detrimental impact on their overall performance in the English language. This under achievement may be attributed to the widespread use of the product approach by many English teachers. The researcher posits that adopting the genre approach in teaching composition writing could lead to significant improvements in students writing performance in schools.

Recommendations

In light of the study's findings and the conclusions drawn, the following recommendation is proposed: Teachers should emphasize the stages of the genre approach and encourage students to actively engage with and experiment with language.

Teachers should adopt more interactive and learner – centred strategies to enhance students writing skills across gender lines; the government should provide English language teachers with opportunities for in-service training, seminars, and workshops to broaden their knowledge and encourage adoption of instructional methods beyond the conventional product approach currently in use.

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IDEOLOGICAL PERSPECTIVES OF DIGITAL COMMENTARIES OF ABRAHAM TOURE: A DECOLONIZATION OF AFRICA.

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Abstract

As Africa rethinks a global relations shift from colonial-era dependencies to new models of partnership, this study scrutinizes how Abraham Toure's digital commentaries elucidate a 'decolorization' (decolonization) agenda for Africa. Using discourse and content analysis, we trace his ideological narratives: Western liberal hegemony is robustly precluded, while alternate alliances are advocated. Toure's content frames European partnerships as inherently forcible and paternalistic, depicting postcolonial aid and investment as modern imperialism. For instance, young West Africans often blame "the former colonial powers who continue to subdue us" a view echoed in Toure's rhetoric. He argues that European influence undermines African sovereignty and development. Simultaneously, his narratives highlight connections with Russia and China as preferable allies. Survey data supports this shift: approval of Russia's leadership in West Africa soared by roughly 22 percentage points from 2020 to 2023, even as France's popularity collapsed. Toure praises pro-Russian networks and Sino-African cooperation as sources of hope and development, framing Africa's current turn as a persistence of historical Pan-African alignment. Recent scholarship highlights the "unforeseen resurrection" of African military-Marxist ideas through digital media. Building on this, Toure situates himself within an invigorated Pan-African tradition, explicitly beseeching icons like Thomas Sankara and Kwame Nkrumah. This resuscitates socialist-nationalist intellectual flows sidelined by Cold War geopolitics and decades of neoliberal governance. By channeling this lineage, Toure's discourse resonates with African leaders, students, and media

scholars concerned with sovereignty and neo-colonial critique. In summation, our analysis recommends that Toure's online activism exemplifies a broader ideological realignment: a rejection of Western hegemony in favor of multipolar partnerships rooted in historic traditions.

Keywords: Ideology, Realignment, Global South, Politics.

Background to the study

The struggle for ideological self-definition in postcolonial Africa remains a fundamental but unresolved quest. Many African states despite decades of political independence, continue to operate within frameworks of governance, development, and international relations largely shaped by Western liberal thought. This persistent ideological dependency has often cloaked in discourses of aid, democracy, and modernization—undermines Africa's sovereignty and hampers the articulation of indigenous political alternatives. At the intersection of this epistemic crisis and the rise of digital discourse lies a growing body of counter-narratives that seek to decolorize African thought and redirect its ideological compass.

Abraham Toure, a prominent digital commentator and Afrocentric thinker, represents one of the most vocal advocates for this ideological realignment. Through podcasts, essays, and social media engagements, Toure critiques the legacies of colonialism, neoliberalism, and Western hegemony, while promoting alternative alliances and indigenous political philosophies. His work reflects a growing dissatisfaction among Africans—especially youth—with the status quo and a renewed interest in epistemic sovereignty and pan-African solidarity. This study is motivated by the problem of Africa's continuing ideological subjugation within a global order shaped by Western political values. It seeks to examine how digital intellectuals like Abraham Toure are shaping a counter-hegemonic discourse that challenges prevailing paradigms and redefines Africa's place in the world.

The aim of this research is to critically analyze the ideological tenets, discursive strategies, and transformative potential of Abraham Toure's digital commentaries within the broader context of Africa's ideological decolonization. To guide this investigation, the study addresses the following research questions:

1. What are the central ideological tenets of Abraham Toure's political thoughts?

2. How does Toure's work reflect or challenge prevailing political ideologies in Africa and the Global South?
3. In what ways does Toure contribute to the discourse of decolorization and epistemic sovereignty?
4. How can Toure's ideas inform policy-making and governance models in postcolonial African states?

Through discourse and content analysis, this research interrogates the political significance of Toure's interventions and the ways in which digital media are facilitating a resurgence of suppressed ideological traditions, particularly those sidelined during the Cold War and the dominance of neoliberal governance. Ultimately, the study contributes to ongoing debates about ideological independence, pan-Africanism, and the role of public intellectuals in shaping Africa's future.

Review of Related Literature

Pan-Africanism remains one of the most enduring ideological frameworks in African political thought. It emphasizes continental unity, economic independence, and resistance to neo-colonialism (Nkrumah, 1963; Adi, 2018). Scholars like Ali Mazrui (2003) and Thandika Mkandawire (2005) highlight the ongoing relevance of Pan-Africanism in confronting global economic structures that undermine African development. Abraham Toure, much like Nkrumah, envisions a united African political entity capable of resisting external domination and articulating its developmental vision from within. Post-colonial theorists such as Achille Mbembe (2001) and Mahmood Mamdani (1996) have critiqued the post-independence African state for replicating colonial bureaucratic rationalities and failing to produce a genuinely emancipatory political project. Mbembe's notion of 'necropolitics' underscores how post-colonial power often operates through coercion and control over life itself. Abraham Toure builds upon this critique by arguing for an ideological break from both liberal democratic formalism and authoritarian developmentalism, favoring participatory, community-centered governance models.

The 'decolonial turn,' articulated by (Walter Dignolo (2007), Anibal Quijano (2000), & Sabelo Ndlovu-Gatsheni (2013)), calls for:

the de-linking of knowledge systems from Western epistemological frameworks. Toure's rejection of imported political ideologies and his advocacy for Afrocentric political institutions echo this call for epistemic disobedience. Decolonial theorists argue that global power asymmetries are rooted not only in economic and political domination but also in knowledge hierarchies a view Toure shares (pp.323-324). (Prashad, 2022 & Escobar, 2018) suggests that: the Global South is experiencing a "political renaissance" marked by renewed emphasis on sovereignty, non-alignment, and regional solidarity. Africa's increasing engagement with South-South cooperation and the resurgence of interest in non-Western governance paradigms are emblematic of this shift. Toure's intellectual interventions reflect this broader trend by promoting a reimagined Africa anchored in its historical, cultural, and philosophical roots (p.126).

Though still underrepresented in mainstream academic literature, recent empirical studies indicate a growing shift in African political consciousness toward indigenous and decolonial political frameworks. These studies offer empirical grounding for the ideological terrain in which Abraham Toure's thought is situated.

Although Abraham Toure's political thought represents a compelling intervention in the ideological realignment of Africa, his vision confronts multiple structural, political, and epistemic obstacles. These challenges are symptomatic of the broader tensions faced by African intellectuals and activists engaged in counter-hegemonic political projects. One of the most significant challenges facing Toure is the marginalization of his ideas within dominant intellectual and policy-making circles. As noted by Ndlovu-Gatsheni (2013), African intellectuals who challenge Western epistemologies often find themselves excluded from global discursive platforms. Toure's rejection of neoliberalism and liberal democracy may be seen as "radical" or "anti-modern," reducing the likelihood that his proposals are taken seriously in mainstream African political discourse or international institutions. Toure's corroborates with the views of (Nkrumah, 1965, Chabal & Daloz, 1999) call for a model proposed that:

Grassroots democratic models, community-based governance, and participatory politics runs counter to the interests of entrenched political elites. Many African states remain governed by neo-patrimonial systems where state power is centralized, personalized, and often repressive. As such, radical ideological reform is frequently met with state surveillance, co-optation, or repression. And Toure's critique of Western-backed African elites who act as intermediaries of global capital also places him at odds with national governments reliant on foreign aid, security arrangements, and diplomatic alliances. In this sense, Toure confronts the structural challenge of a deeply externalized sovereignty as supported by, p. 128).

While Pan-African ideals remain popular, the practical realization of continental unity remains elusive. Ideological divisions, language barriers, geopolitical interests, and competing economic priorities among African states have weakened collective action mechanisms such as the African Union. Toure's Pan-African advocacy thus runs up against a fragmented continental political architecture that lacks the cohesion and ideological consensus to actualize transformative integration. Despite these challenges, Abraham Toure's ideological project offers significant prospects for Africa's political and epistemic future particularly in the context of growing dissatisfaction with existing political and economic models. Toure's insistence on Afrocentric knowledge systems contributes to a growing continental movement for epistemic justice. His work supports the intellectual revitalization of African philosophy, history, and governance models as legitimate and foundational sources of political theory. This aligns with initiatives such as the African Decolonial Research Network (ADERN) and increasing academic calls for curricula reform in African higher education institutions.

(Mignolo, 2007 & Mbembe, 2016), opined that:

the prospect here lies in shifting the center of gravity of political knowledge production back to the continent, enabling Africans to theorize their own modernities rather than merely adopt foreign prescriptions. Toure's message has resonated particularly well with African youth movements disillusioned with formal political processes. With the median

age in Africa at just under 20 years, the continent possesses a unique demographic dividend that could be mobilized for ideological renewal (Honwana, 2019). Toure's anti-elite rhetoric, his critique of neocolonialism, and his call for indigenous sovereignty offer intellectual ammunition for youth-led social movements seeking systemic change.-*Manual*, p.346.

Toure's ideological engagement also places Africa within a broader global realignment, where emerging powers from the Global South such as BRICS+ are challenging Western hegemony. Toure's thought encourages African participation in multipolar alliances that foreground principles of non-alignment, mutual development, and ideological pluralism (Prashad, 2022). In this context, Africa has an opportunity to reposition itself as a normative center within the Global South, rather than a peripheral recipient of global order. By emphasizing participatory and communal governance structures, Toure reorients political thought toward the local, where African traditions of consensus-building, restorative justice, and kinship-based leadership continue to function (Logan, 2008). He opines that:

these models offer potential alternatives to both autocracy and Western electoralism, especially in rural areas where state infrastructure is weak or illegitimate. Such systems may serve as scalable, culturally resonant prototypes for democratic innovation across the continent. While Abraham Toure faces significant ideological and structural challenges in promoting a radically decolonial and Pan-African political vision, the relevance of his ideas continues to grow amid global crises of liberalism and neoliberalism. The obstacles to implementation elite resistance, epistemic marginalization, and political fragmentation are formidable. Yet the prospects for Africa, if aligned with Toure's intellectual blueprint, are equally transformative (pp. 189-190).

Toure represents not just a critique of the status quo but also an imaginative reassertion of Africa's political agency, epistemological autonomy, and continental future. His work invites scholars, activists, and policymakers to engage more seriously with indigenous paradigms as legitimate and vital instruments of governance in the 21st century. As Africa reassesses its geopolitical alignments in the context of a shifting global order, voices like

Abraham Toure have emphasized the value of South-South cooperation and multipolar diplomacy, including collaboration with Russia. While this does not necessitate antagonism toward Europe, it reflects a conscious pivot away from historically unequal relationships with Western powers toward diversified partnerships. Below is a balanced, scholarly analysis of the potential benefits of African collaboration with Russia when contrasted with the traditional European approach.

One of the most significant challenges facing Toure is the marginalization of his ideas within dominant intellectual and policy-making circles. As noted by Ndlovu-Gatsheni (2013):

African intellectuals who challenge Western epistemologies often find themselves excluded from global discursive platforms. Toure's rejection of neoliberalism and liberal democracy may be seen as "radical" or "anti-modern," reducing the likelihood that his proposals are taken seriously in mainstream African political discourse or international institutions (p.68).

Moreover, many African universities and think tanks remain intellectually dependent on Western funding, curricula, and paradigms (Mamdani, 2007). This institutional structure makes it difficult for decolonial and Pan-African voices like Toure's to gain traction.

Empirical studies on youth-led movements in Africa (Branch & Mampilly, 2015 & Honwana, 2019) show increased disenchantment with traditional party politics and a turn toward more radical, grassroots-oriented ideologies. Movements such as Y'en a Marre in Senegal and Fees Must Fall in South Africa exemplify a rising generation challenging neoliberal structures and calling for a new political contract. Toure's ideas are resonant among such demographics, where intellectual and activist energies are converging around anti-colonial and anti-neoliberal ideals. Fieldwork-based research in Ghana, Kenya, and Tanzania reveals a growing interest in hybrid governance structures that blend customary authority with modern democratic processes (Logan, 2008 & Baldwin, 2016).

These studies challenge the assumption that liberal democracy is universally applicable and open space for Afrocentric political experimentation, an idea central to Toure's platform. Quantitative and qualitative research has

documented widespread popular dissatisfaction with International Monetary Fund (IMF) and World Bank policies in Sub-Saharan Africa (Mkandawire, 2011 & Fraser, 2010). Empirical evidence suggests that structural adjustment programs and liberal market policies have exacerbated inequality, making Toure's critiques of global capitalist structures empirically valid and politically urgent.

Ede, A. (2022) explored the role of digital platforms in reviving Pan-Africanist discourses. His study found that social media has created a transnational arena for Afrocentric activists to challenge neoliberal narratives and propose alternative models of governance. The study Find that Digital Commentaries are evolving as sites of ideological realignment. It Supports Toure's usage of Facebook and Twitter/X to mobilize postcolonial thought and South-South solidarity.

Mkandawire (2005) emphasized the need for epistemic sovereignty in Africa. He critiqued the tendency of African policymakers to import Western development paradigms and called for homegrown ideological foundations. One of the Findings was that African thought leaders are central to resisting ideological dependency. This is relevance because Toure's critiques of IMF/World Bank prescriptions align with Mkandawire's advocacy for endogenous development.

Bosch (2017) analyzed how African intellectuals use online platforms to counter dominant political narratives. She discovered that blogs and YouTube channels allow intellectuals to reach a new generation with anti-imperial and decolonial messages. This Find that digital engagement is a strategic tool for ideological influence; which relevance as Toure's YouTube discussions and blog essays represented this trend of intellectual digital activism.

As Africa reassesses its geopolitical alignments in the context of a shifting global order, voices like Abraham Toure have emphasized the value of South-South cooperation and multipolar diplomacy, including collaboration with Russia. While this does not necessitate antagonism toward Europe, it reflects a conscious pivot away from historically unequal relationships with Western powers toward diversified partnerships. Below is a balanced, scholarly analysis of the potential benefits of African collaboration with Russia when contrasted with the traditional European approach.

Russia is increasingly active in African energy, mining, and nuclear sectors. Rosatom, for instance, has signed nuclear cooperation deals with several

African countries, including Egypt, Nigeria, and Rwanda, aimed at boosting energy capacity (Sputnik Africa, 2023). These projects are often framed as technology transfers rather than extractive ventures. By contrast, many European-led development programs prioritize renewable energy and climate targets, sometimes at the expense of African industrialization goals—what some scholars critique as a form of eco-colonialism (Obeng-Odoom, 2021). The benefit is that Russian investment supports industrial sovereignty and energy security by offering alternatives to Eurocentric green conditionalities.

Acharya (2016) traced the emergence of new “norm entrepreneurs” in the Global South who are challenging the liberal world order through regional blocs and counter-hegemonic discourse. The Finding showed that intellectuals and activists from the Global South are repositioning themselves as global norm-shapers. It is true that Toure’s calls for a Global South coalition rooted in justice and epistemic autonomy echo these findings.

Methodology and Theoretical Framework

This study adopted the qualitative research design, employing discourse analysis and ideological critique to analyze Abraham Toure’s political writings, speeches, and public interventions. This methodology is best suited for understanding the deeper philosophical underpinnings of political thought and tracing ideological genealogies. A Purposive sampling method was employed to select materials that explicitly dealt with Toure’s digital comments. Norman Fairclough’s three dimensional model of discourse analysis was used. Data were coded using **NVIVO 12** Software. The data Collection was done using the original texts authored by Abraham Toure such as published essays, interviews, and social media communiqués that centre on Africa’s ideological decolonization of Africa. While the analysis used the critical discuss analysis template which was used to examine how Toure constructed political meaning, identified power structures, and articulated counter-hegemonic narratives.

This study anchored its lens on Post-Colonial, This framework provide the tools to critically analyze Abraham Toure’s comments. Post-colonial theory interrogates the lingering effects of colonialism on contemporary political and epistemological systems. As articulated by Edward Said (1978) and Homi K. Bhabha (1994), post-colonialism explores the cultural and ideological structures that sustain neo-imperial control. Toure’s critique of externally

imposed political systems aligns with this framework, as he seeks to dismantle neocolonial governance structures and epistemologies. From the tenets of the theory stated above, there is a framework of integrated lens through which a thorough questions of Toure's comments on Africa's Ideological realignment can be analyzed. The theories highlight the persistence of colonial structure, envisions an alternative future based on unity and Africa's historical identity as well as provide the methodological tools for rethinking power, identity, and knowledge beyond Western paradigms.

Validity and reliability in qualitative research does not aim for statistical generalizability, methodological rigor is ensured through triangulation cross-validating Toure's ideological positions with empirical trends, historical movements, and parallel discourses in the Global South. Member-checking with African political theorists and grassroots activists will also be employed to enhance interpretive accuracy.

Data Analysis and Findings

Table 1: Toure's Comments and Analysis

S/No	Exemplars	Comments	Analysis
1.	Toure's address at the West African Sovereignty Forum in 2024)	Toure condemned ECOWAS and France attitudes towards Africa and descried them as Neo-colonial Gatekeepers	It is a display of framing and discourse analysis.
2.	Military-led Government Communiqués in Burkina Faso	Burkina Faso's official termination of the military cooperation agreement with France in January 2023 and expulsion of the French ambassador.	This statement shifts the discourse from integration to redefinition. Toure advocates for horizontal alliances among Global South countries, echoing Acharya's (2016) theory of norm entrepreneurs and the decline of Western hegemony.
3.	Manifestos and Political Proposals	The 2024 Declaration of the Sahel Renaissance, reportedly co-	This showed evidence of policy realignment. Analyze discourse around sovereignty, multipolarity,

	by Ideological Movements	authored by political actors from Burkina Faso, Mali, and Niger.	and African self-determination. Toure's affiliated groups (if formalized) may publish declarations, Pan-African solidarity charters, or policy reform proposals.
4.	Digital Resistance and Intellectual Activism	DecolonizeAfrican Minds is not a hashtag. It's an ideological movement for postcolonial survival.	Toure redefines social media as a space of ideological contestation. He promotes digital Pan-Africanism as a continuation of the anti-colonial struggle, aligning with Ede (2022) who identifies online platforms as arenas of epistemic insurgency in Africa.
5.	Diaspora Engagement and Global Strategy	Diaspora is not exile. It's a strategic outpost in the war for African liberation	Toure reframes the African diaspora from victims to geopolitical agents. This aligns with scholars like Paul Tiyambe Zeleza (2005), who argue for diaspora inclusion in African development and global influence.
6.	Comparative Global South Inspirations	If China can rise without Western permission, so can Africa. What we lack is will, not wisdom	Here, Toure draws on the developmental trajectory of China as an alternative model. This comparative rhetoric is strategic, invoking successful Global South narratives to inspire African self-determination and resilience.
7.	Epistemic Decolonization	Africa must stop outsourcing its development model. Liberation begins	This comment critiques the African elite's reliance on externally imposed models, particularly neoliberal economic frameworks.

		with epistemic independence	Toure calls for a self-reliant ideological foundation based on African realities. He echoes scholars like Ngũgĩ wa Thiong'o (1986) and Sabelo Ndlovu-Gatsheni (2013), who argue that knowledge decolonization is a prerequisite for genuine sovereignty.
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Table 1: Real-World Examples

S/No	Exemplar	Comments	Analysis
1.	Academic Analysis: Russia's Expanding Influence in Africa	Ramani, S. (2021). Russia in Africa: Emerging Power in a New Multipolar World.	It gave details of how Russia used diplomacy, security partnerships, and anti-Western rhetoric to build influence across the continent. Provides secondary data for analyzing the strategic appeal of Russian engagement to actors like Toure.
2.	Historical Reference: Soviet Support for African Liberation Movements	Shubin, V. (2008). The Hot Cold War: The USSR in Southern Africa.	This gave historical basis for Toure's ideological preference for non-Western alliances and Soviet-African solidarity.
3.	Reports from	ECOWAS' 2023 report on the "Unconstitutional Change of Government"	This shows regional institutional reaction to ideological and

	ECOWAS and the AU on Political Transitions	in Burkina Faso and Mali.	governance shifts led by military or Pan-African populist movements.
4.	Media Coverage: Real-time Political Developments	Jeune Afrique (2024) headline: Burkina Faso-Russia: Une alliance au-delà du militaire.	It validates shifts in public diplomacy and media perception regarding Burkina Faso's pivot from Europe to Russia.
5.	Think Tank and NGO Reports	International Crisis Group (2023): The Sahel's Last Stand: Political Upheaval and Security Realignment.	This provides evidence on how sanctions, failed liberal governance models, and Western disengagement have opened space for ideological alternatives.

Table 3: Themes, Empirical Cases and Theoretical Link

Theme Key Focus	Empirical Case	Theoretical Link
Rejection of Neocolonialism	Anti-Western discourse , Toure's speeches, termination of French pacts	Dependency, Decolonial Theory
Strategic Realignment	Russia/China as alternatives. Russian military/economic deals in Sahel	Realism, Postcolonial IR

Pan-African Identity Revival	Reclaiming African ideology Sahel Renaissance Charter, student congresses	Pan-Africanism, Constructivism
Crisis of Liberal Democracy	Disillusionment with Western political models Focus group opposition to ECOWAS-style democracy	Critical Democracy, Postcolonial State
Youth Political Awakening	Educated resistance and future agency Youth activism, decolonial seminars	Gramscian Counter-hegemony, Youth Studies

This theme showcases the intellectual and generational revival underpinning Africa's ideological shift. It links grassroots activism, critical theory, and anti-imperial thought, especially among the educated youth. This could be linked link to the following theories: Gramscian Hegemony and Counter-Hegemony (Gramsci, 1971), Youth and Political Mobilization in Africa (Honwana, 2012)

Theme 1: Rejection of Neocolonialism and Western Conditionality: The codes identified are: *'France must leave, Neo-colonial agenda'*, *'Western hypocrisy'*. And *'Aid with strings attached.'*

The Exemplars: 1. Toure's 2024 speech at the West African Sovereignty Forum condemned France and the EU for perpetuating "a new form of slavery through economic conditionalities."

2. Burkina Faso's official termination of French military agreements in 2023. This theme captures a strong ideological rejection of Western liberal hegemony, portraying European partnerships as inherently coercive and paternalistic. The use of emotionally charged terms like 'slavery' and 'hypocrisy' creates a binary moral narrative: Africa vs. the West. And they are lined to Dependency Theory (Frank, 1967), Decolonial Theory (Mignolo, 2011 & Ndlovu-Gatsheni, 2020)

Theme 2: Sovereignty and Strategic Realignment: The codes identified are 'Multipolar world', 'Russian support without interference', 'African solutions to African problems', and 'Reject puppet governments'.

The Exemplars are: 1. Focus group participants in Ouagadougou described Russian engagement as 'respectful of sovereignty.' 2. The Declaration of the Sahel Renaissance emphasized 'diversified partnerships without subordination.'

This theme reflects a shift toward non-Western alliances, especially with Russia and China, perceived as more respectful of national sovereignty. It supports the idea of a strategic realignment toward a multipolar global order. This theme buddies with these theories: Realism in International Relations (Waltz, 1979), Postcolonial State Theory (Bayart, 1993)

Theme 3: Pan-Africanism and Identity Revival: The following codes are identified: 'African Renaissance', 'Kwame Nkrumah's vision', 'Sahel self-determination', 'United African front'.

The Exemplars: 1. Abraham Toure and his allies reference the political vision of Kwame Nkrumah and Thomas Sankara as ideological ancestors. 2. Youth movement materials (e.g., Balai Citoyen) promote Pan-African solidarity as an antidote to foreign domination.

This theme explores the ideological continuity between historical Pan-Africanism and the new wave of Afrocentric political identity, especially among younger generations. It signifies a return to self-defined African political consciousness. They are link to following theories: Pan-Africanism and Afrocentricity (Asante, 2007; Nkrumah, 1963), Constructivism in IR (Wendt, 1999)

Theme 4: Youth Political Awakening and Intellectual Resistance: The codes identified: 'Youth as vanguard', 'Decolonize the mind', 'New African intellectuals', 'The future is ours'.

The Exemplars: 1. Student groups at the University of Ouagadougou organized a conference on 'African Consciousness and the Global South,' where Abraham Toure was a keynote speaker.

2. Youth networks across the Sahel share political memes, manifestos, and podcasts rejecting Eurocentrism.

This thematic analysis showed how Abraham Toure's ideological project reflects a broader intellectual, geopolitical, and generational realignment in Africa. Each theme reveals an aspect of the political renaissance emerging from within the Global South and provides empirical grounding for your research objectives.

In view of the above, the findings of this study reveal that Abraham Toure, along with a new generation of African thinkers and activists, embodies a broader ideological realignment away from Western liberalism and neocolonial structures toward Pan-Africanist, Afrocentric, and multipolar frameworks. These findings align with trends observable across Burkina Faso, Mali, Niger, and even wider Global South contexts.

Toure's rhetoric and ideology amplified through his speeches and writings are rooted in a rejection of Western-imposed neoliberalism, developmental dependency, and liberal democracy, which he frames as forms of modern imperialism. This reflects a wider public sentiment, especially among youth and grassroots activists in the Sahel who believe that the post-colonial state remains a neocolonial project (Ndlovu-Gatsheni, 2020 & Adebajo, 2022). The terminology of 'economic slavery', 'puppet governments', and 'foreign-dictated democracy' coded in the data mirror critiques from postcolonial theorists like Fanon (1963) and Mignolo (2011), who argue that the Global South continues to experience epistemic and structural violence under Eurocentric global orders.

The study found that Russia, and to a lesser extent China, are increasingly viewed as geopolitical counterweights to the West. Toure and his ideological allies present Russian partnerships as a way to secure unconditional support in defense, technology, and trade, free from the political strings attached to Western aid and diplomacy (Ramani, 2021 & Shubin, 2008). Burkina Faso's expulsion of French forces in 2023 and alignment with Russian private security contractors represents a real-world manifestation of this trend (International Crisis Group, 2023).

This aligns with realist international relations theory (Waltz, 1979), which suggests that states especially weak or transitional ones gravitate toward balancing powers when dominant states overreach.

There is a renaissance of Pan-Africanism, as evidenced by the use of historical symbols (e.g., Sankara, Nkrumah) and a discourse of unity, dignity, and resistance. Youth-led movements, academic discourses, and ideological circles in Burkina Faso are using Afrocentric frameworks to critique both the failures of postcolonial leadership and the continued influence of Western institutions (Asante, 2007 & Akinbobola, 2023). Toure emerges as a symbolic figure in this revival, invoking intellectual traditions suppressed during the Cold War and the rise of neoliberal governance in Africa.

A major discovery in this research is the role of youth in shaping and sustaining this ideological realignment. Young people through digital activism, protest, educational reform, and intellectual production are becoming the epistemic agents of Africa's political transformation (Honwana, 2012 & Mbembe, 2017). Their political consciousness is forged not just in classrooms but on social media, in the streets, and through transnational solidarity networks. This resonates with Gramscian theory on counter-hegemonic movements (Gramsci, 1971), where oppressed groups contest dominant ideologies by constructing new political cultures and imaginaries.

Conclusion

This study concludes that Abraham Toure is more than a political actor; he is a symbol of Africa's shifting ideological center. His discourse, deeply embedded in Pan-African consciousness, anti-neocolonial critique, and multipolar diplomacy, represents an emerging model of resistance against the liberal, Euro-American model of governance that has dominated the continent since independence. The ideological realignment of Africa evident in Burkina Faso's foreign policy pivot, the rise of youth activism, and the rejection of regional bodies like ECOWAS is not an isolated geopolitical maneuver. It is a cultural, intellectual, and strategic reawakening, echoing historical struggles for autonomy but infused with contemporary tools and frameworks.

However, the path ahead is fraught with risks and contradictions. Partnerships with powers like Russia or China may avoid some of the pitfalls of Western conditionality but bring their own limitations, especially regarding democratic accountability and long-term sustainability.

The implication struggle is often multilateral consensus, Europe can push for the suspension or sanctioning of countries/continent from institutions it

supports such as ACP-EU Joint Parliamentary Assembly, EU-Africa Summits, or even UN voting alliances. And even diplomatic boycotts. While these sanctions can apply pressure, they also risk undermining long-term EU-Africa relations. Key risks include driving African governments toward alternative powers (Russia, China, Iran, Turkey). Thereby fueling anti-colonial sentiment and pan-African resistance narratives. Damaging Europe's credibility as a partner for development and democracy.

Based on the conclusion above, it is recommended as following:

- 4) Universities and schools across Africa should embed Afrocentric philosophy, Pan-African history, and critical decolonial studies into national curricula. This will intellectually empower the next generation to create indigenous policy frameworks and resist neocolonial ideological capture.
- 5) Burkina Faso and other realigning states should pursue Pan-African economic and political cooperation, possibly through new Sahel-based alliances or revitalized AU reforms. This will provide a regional buffer against sanctions and fragmentation.
- 6) Engaging with Russia, China, and other non-Western powers must be guided by strategic sovereignty, not clientelism. Policymakers should negotiate transparent, mutually beneficial partnerships and establish domestic oversight mechanisms to prevent elite capture or new dependencies.
- 7) Governments and civil society should support youth-led political innovation through funding for media platforms, civic tech, and intellectual exchanges. These can amplify counter-hegemonic narratives and promote inclusive democratic experimentation.
- 8) Current African bodies like ECOWAS often mirror Western donor interests. Burkina Faso and allies should lead a campaign to restructure these organizations or establish alternatives grounded in African political traditions, participatory governance, and sovereignty respect.
- 9) Sanctions must therefore be strategic, proportionate, and accompanied by diplomatic off-ramps to encourage re-engagement without exacerbating hostility.

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INCLUSIVE MATHEMATICS EDUCATION: DISTINGUISHING DYSCALCULIA FROM LEARNING DIFFICULTIES FOR EFFECTIVE EARLY INTERVENTION

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Abstract

Inclusive mathematics education is essential for ensuring that all learners, regardless of their abilities or disabilities, have equitable access to quality instruction and opportunities for success. In Nigeria, learners who struggle with mathematics are often misunderstood, misdiagnosed, or neglected, especially when their challenges are rooted in specific learning disabilities like dyscalculia. Dyscalculia, a neurological disorder affecting numerical processing and arithmetic skills, is frequently confused with general learning difficulties resulting from poor teaching methods, emotional distress, or inadequate exposure. This confusion leads to delayed intervention, academic frustration, and exclusion from mathematical achievement. This paper examines the key differences between dyscalculia and general mathematics learning difficulties, emphasizing the need for early identification and appropriate remediation within an inclusive educational framework. The study draws on cognitive development and inclusive education theories to highlight the importance of teacher awareness, assessment tools, and responsive teaching strategies. It presents practical approaches such as multisensory instruction, the Concrete–Representational–Abstract (CRA) model, and individualized support mechanisms that can foster meaningful learning for affected students. Furthermore, the paper explores current challenges in Nigeria’s educational system, including a lack of teacher training, inadequate policy implementation, and minimal support services for learners with hidden disabilities. It concludes with actionable recommendations for curriculum reform, teacher preparation, and policy enhancement aimed at fostering an inclusive, supportive, and effective mathematics learning environment for all. The insights offered are timely and essential as Nigeria seeks to transform mathematics education and address the needs of all learners in line with global best practices.

Keywords: Dyscalculia, Mislabeling, learning difficulties, early intervention, and Nigeria.

Introduction

Inclusive mathematics education is an approach that seeks to accommodate the diverse needs of all learners by providing equal access to mathematical learning opportunities within a supportive and flexible environment. It promotes active participation and success for every student, including those with disabilities, by removing barriers to learning and using differentiated instructional strategies (UNESCO, 2020). Inclusive education goes beyond mere placement in a mainstream classroom; it emphasizes meaningful engagement and tailored support that respects individual differences, particularly in foundational subjects like mathematics.

Mathematics is essential for all learners because it nurtures critical thinking, problem-solving, logical reasoning, and functional numeracy skills necessary for everyday life and national development (Okigbo & Okoli, 2021). For learners with learning challenges, especially those with specific learning disabilities, acquiring mathematical competence is often a major struggle. When such difficulties are not identified and addressed early, they can hinder academic progress and lead to low self-esteem, school dropout, and social exclusion.

Dyscalculia is a neurodevelopmental disorder that significantly affects a person's ability to understand and work with numbers. It is characterized by persistent difficulties in number sense, memorizing arithmetic facts, and performing accurate calculations, despite normal intelligence and adequate instruction (Butterworth, Varma & Laurillard, 2022). In Nigeria, awareness of dyscalculia remains low among educators, parents, and policymakers. Mathematical struggles are often attributed to lack of effort or poor teaching, rather than a possible underlying disability. As a result, early screening and intervention are rare or completely absent in most schools.

This paper explores the distinction between dyscalculia and general mathematics learning difficulties, with the aim of promoting early identification and evidence-based interventions to support inclusive mathematics education in Nigeria.

Conceptual Clarifications

Dyscalculia: Causes, Characteristics, and Diagnosis

Dyscalculia is a specific learning disability that impairs an individual's ability to acquire basic numerical and arithmetic skills. It is believed to be caused by neurobiological differences that affect the brain's capacity to process numerical information (Butterworth et al., 2022). Common

characteristics of dyscalculia include poor number sense, difficulty with mental arithmetic, frequent confusion with mathematical symbols, and an inability to understand quantity relationships (APA, 2017).

Diagnosis typically involves standardized assessments by educational psychologists, incorporating tools such as the Dyscalculia Screener or the Mathematics Disability Diagnostic Battery. However, in Nigeria, formal diagnostic services are limited, leading to misinterpretation of symptoms and delayed intervention (Adeoye & Fakorede, 2019).

Learning Difficulties in Mathematics

Learning difficulties in mathematics are often temporary and arise from non-neurological factors such as poor instructional methods, emotional distress, socio-economic background, or inconsistent school attendance. These difficulties can be remediated when the underlying issues are addressed for instance, by improving teacher delivery, reducing class size, or offering emotional support (Ifeakor & Nworgu, 2016). Unlike dyscalculia, learning difficulties do not persist when the learner receives effective and appropriate instructional support.

Key Differences with Classroom Examples

A child with dyscalculia may consistently struggle to identify which of two numbers is larger, even after multiple lessons and interventions. Conversely, a child with learning difficulty due to a disruptive home environment might improve significantly in mathematical performance once they receive stable emotional support and targeted teaching.

Inclusive Education and Its Relevance in Mathematics Classrooms

Inclusive education involves the systematic removal of barriers that limit the participation of any learner, particularly those with disabilities. In the mathematics classroom, this means providing varied teaching strategies such as visual aids, hands-on materials, and individualized support to accommodate all learners (UNESCO, 2020). Inclusive practices are essential in ensuring that students with dyscalculia or other learning challenges are not marginalized but are empowered to succeed alongside their peers.

Theoretical Framework

This study is anchored on Cognitive Load Theory, Piaget's Theory of Cognitive Development, and the Response to Intervention (RTI) model. These frameworks offer insight into how children learn mathematics, why some struggle, and how early support can be implemented effectively.

Cognitive Load Theory (CLT)

Cognitive Load Theory, developed by Sweller (2017), posits that working memory has a limited capacity, and excessive information or poorly structured tasks can overload learners, impairing understanding and retention. Students with dyscalculia often experience intrinsic cognitive load due to their difficulties in processing numerical relationships and arithmetic operations (Pass & Sweller, 2016). In inclusive classrooms, minimizing extraneous cognitive load through visual aids, step-by-step instructions, and structured tasks can help learners with and without disabilities access mathematical concepts more effectively.

Piaget's Theory of Cognitive Development

According to Piaget (1952), children progress through stages of cognitive development, each marked by new ways of thinking and understanding the world. For example, in the concrete operational stage (ages 7–11), children begin to develop logical reasoning skills but still rely heavily on concrete objects and visual cues. Learners with dyscalculia may struggle to transition from concrete to abstract reasoning in mathematics, requiring extended use of manipulatives and visual supports even beyond this developmental stage (Ojose, 2019). Understanding a child's developmental stage helps educators tailor instruction to their cognitive needs.

Response to Intervention (RTI)

RTI is a multi-tiered model designed to identify and support students with learning difficulties early. It emphasizes the use of data-driven instruction and progress monitoring across three tiers of support. At Tier 1, all students receive high-quality, inclusive instruction. Tier 2 provides small group interventions for those at risk, while Tier 3 delivers individualized, intensive support (Fuchs & Fuchs, 2017). RTI is especially effective in distinguishing between learners with temporary difficulties and those with persistent disabilities like dyscalculia, thus preventing mislabeling and enabling timely intervention.

By combining these theories, educators can better understand the unique cognitive demands faced by students with dyscalculia and apply inclusive, evidence-based strategies to meet their learning needs.

Why Early Identification Matters

Early identification refers to the timely detection of learning difficulties or disabilities such as dyscalculia at the earliest possible stage of a child's academic journey, typically in the foundational years of primary or junior secondary education. It involves systematically observing, screening, and assessing learners to recognize atypical development patterns before they lead to entrenched academic failure or emotional distress (RTI Action Network, 2017).

Early identification is essential for effective intervention and the prevention of long-term academic and emotional consequences. Without timely support, affected learners often experience repeated failure in mathematics, leading to anxiety, low self-esteem, school avoidance, and eventual dropout (Geary et al., 2019).

Importance of Screening in Early Primary and Junior Secondary School

The foundational years of primary and junior secondary education are critical for detecting learning disabilities. At these stages, children are introduced to basic number concepts, arithmetic, and mathematical reasoning. Screening during this period can help differentiate between normal developmental delays and persistent numerical difficulties indicative of dyscalculia. According to Nunes and Bryant (2021), early screening allows for tailored instructional strategies that address the learner's specific needs before negative patterns become entrenched.

Tools and Red Flags Teachers Should Notice

Educators play a key role in spotting early signs of dyscalculia. According to Butterworth (2018) the following are common classroom indicators:

- Persistent difficulty with basic number sense (for example, understanding quantity or number magnitude)
- Inability to remember simple arithmetic facts
- Confusion between mathematical symbols
- Difficulty telling time or understanding patterns
- Anxiety or behavioral issues during math lessons

Several tools are available to assist with early screening, such as the Dyscalculia Screener (Butterworth, 2018), Number Sense Screening Tool, and teacher observation checklists adapted to local contexts. These tools help distinguish dyscalculia from general learning delays due to teaching quality or socio-emotional factors.

Role of School Psychologists, Special Educators, and Parents

Early identification is most effective when it involves a collaborative approach. School psychologists are essential in conducting assessments and interpreting cognitive profiles. Special educators help in designing and implementing individualized educational plans (IEPs), while parents provide contextual insights into a child's learning behavior at home. According to Adeoye and Fakorede (2019), family involvement enhances the success of intervention programs, especially when strategies are reinforced both in school and at home.

The earlier dyscalculia is identified, the more likely students are to benefit from targeted interventions that enhance their mathematical confidence and competence critical components of inclusive education.

Learners with dyscalculia benefit most from targeted, inclusive, and evidence-based remediation strategies. These approaches not only address their specific learning needs but also promote equity in mathematics education.

1. Multisensory Instruction

Multisensory approaches engage learners through visual, auditory, kinesthetic, and tactile channels. For example, using manipulatives like counters, number lines, or tactile boards helps learners understand abstract math concepts in concrete ways (Sousa & Tomlinson, 2018).

2. Concrete–Representational–Abstract (CRA) Approach

This three-step model begins with hands-on (concrete) materials, moves to visual models (representational), and finally transitions to numbers and symbols (abstract). CRA approach has proven effective in supporting learners with persistent math challenges (Flores et al., 2016).

3. Assistive Technology

Tools such as talking calculators, math learning apps (for example, ModMath), or screen readers support independent learning and reduce anxiety by simplifying complex tasks (Cihak & Foust, 2021).

4. One-on-One and Peer Tutoring

Personalized instruction and peer-supported learning create safe environments for struggling learners. These strategies allow for repetition, feedback, and modeling of thinking processes in mathematics.

5. Modification of Math Assessments

Adapting assessment formats such as allowing oral responses, extended time, or simplified language helps reduce math anxiety and ensures learners are tested based on their understanding, not just speed or recall.

Conclusion

Inclusive mathematics education is not merely a policy aspiration but a necessary framework for equitable learning in today's diverse classrooms. When mathematics instruction is designed to accommodate the varied cognitive profiles of learners including those with dyscalculia, it fosters not only academic competence but also confidence and long-term educational participation.

Early identification of dyscalculia is central to effective intervention. Without it, learners risk falling into cycles of failure, frustration, and emotional withdrawal from mathematics. However, when timely screening is combined with appropriate remediation strategies such as multisensory instruction, assistive technology, and individualized support students can overcome barriers and thrive.

This paper advocates for a systemic shift from blame to support. Learners struggling with mathematics should not be labeled lazy or unserious but recognized as individuals with specific educational needs requiring tailored approaches. Teachers, school administrators, policymakers, and parents all have critical roles to play in creating inclusive, supportive environments that make mathematics accessible for all.

By promoting awareness, training, collaboration, and policy reform, Nigeria's education system can begin to close the gap between potential and performance in mathematics especially for those whose challenges are hidden, but very real.

Recommendations

To ensure equitable access and long-term improvement, the following strategies are essential:

1. Integrate Dyscalculia Awareness in Teacher Training
2. Pre-service and in-service teacher education programs should include content on identifying and supporting dyscalculia.
3. Embed Screening Tools in Primary Education
4. Early use of culturally appropriate, validated screeners should be standard practice in lower primary and JSS levels.
5. Adjust Curriculum for Inclusiveness
6. The national curriculum should be revised to allow flexible teaching methods, differentiated instruction, and supportive learning environments.
7. Employ More Special Educators in Regular Schools
8. Inclusion is strengthened when trained special educators collaborate with classroom teachers in lesson planning and intervention.
9. Formulate Policies and Increase Funding
10. Governmental policies must prioritize inclusive education, backed by sustained funding for training, resources, and assistive technologies.

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REDEFINING LEARNING DISABILITIES IN THE 21ST CENTURY: ADDRESSING MISLABELING, DIAGNOSIS, AND GLOBAL SHIFTS IN UNDERSTANDING AND SUPPORT

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Abstract

Learning disabilities (LD) have long been misunderstood, misdiagnosed, and misrepresented, particularly in developing contexts due to overlapping definitions with learning difficulties and intellectual disability. This paper critically reviews how learning disabilities are being redefined in the 21st century in line with global shifts in understanding the processes involved in diagnosis, and providing support for children with learning disabilities. It also highlights the dangers of mislabelling, especially in environments where clear diagnostic frameworks and trained professionals are lacking. Drawing on theoretical perspectives such as the neurodiversity paradigm and the social model of disability, the paper examines international frameworks and best practices in inclusive education as it affects learning disabilities. It also analyses evolving identification methods such as Dynamic Assessment (DA) and Response To Intervention (RTI). It further addressed how these innovations reduces overreliance on IQ-based classification. The review concludes by examining it's implications on Nigeria and similar contexts, recommending clearer definitions, improved teacher training, and context-sensitive diagnosis and support systems. Redefining learning disabilities from a rights-based and strength-focused lens is essential for equity, inclusion, and effective educational policy in the modern era.

Keywords: *Learning Disabilities, Mislabeling, Neurodiversity, Inclusive Education, Global Trends.*

Introduction

In recent decades, the term Learning Disabilities (LD) has gained recognition in educational and clinical fields. Yet, its definition and distinction from related terms like learning difficulties and intellectual disability remain unclear (Florian, 2019; Miciak & Fletcher, 2020). This confusion often leads to mislabelling especially in under-resourced regions like sub-Saharan Africa. In Nigeria, learners struggling academically are frequently misclassified without proper diagnostic evaluation, resulting in misplacement or neglect (Ajuwon & Brown, 2021).

Such misrepresentation affects educational planning, support, and learners' outcomes. However, the 21st century has brought shifts in understanding, with the rise of the neurodiversity movement (Armstrong, 2015), increased support for inclusive education (UNESCO, 2020), and adoption of functional educational frameworks that will enhance learning (American Psychiatric Association, 2015; World Health Organization, 2019).

Innovations such as dynamic assessment, Response to Intervention (RTI), and multi-tiered support systems (MTSS) have transformed LD identification and support (Fuchs, Fuchs, & Vaughn, 2020; Peters & Brown, 2021). Yet, in Nigeria, implementation is limited due to inadequate training, awareness, and diagnostic systems (Olaniyan & Oni, 2018; Oboegbulem & Ugwu, 2023).

Conceptual and Theoretical Framework

Distinguishing between learning disabilities, learning difficulties, and intellectual disability is essential to avoid mislabelling, especially in settings with limited diagnostic infrastructure. Despite global attention to inclusion, these terms are often misused, contributing to discrimination (Florian, 2019; Oboegbulem & Ugwu, 2023).

Learning Disabilities (LD)

LDs are neurological conditions affecting language-related processes. They are sometimes categorized under Specific Learning Disorders for example, dyslexia, dysgraphia, dyscalculia that persist despite adequate teaching and intelligence (American Psychiatric Association, 2015). World Health Organization also classifies LDs as developmental learning disorders,

requiring tailored instruction (World Health Organization, 2019; Miciak & Fletcher, 2020).

Learning Difficulties

Unlike LDs, learning difficulties result from external factors like poverty, trauma, or poor instruction. These are usually temporary and responsive to improved conditions (Rose, 2016). In the UK, the term can also imply mild cognitive issues, adding to the confusion (Department for Education, 2015). Nigeria's National Policy on Education (FRN, 2013) fails to clearly distinguish the two, often labelling temporary challenges as permanent disabilities (Ajuwon & Brown, 2021).

Redefining Learning Disabilities: Evolution of the Concept

Learning disabilities (LD) have evolved conceptually, reflecting changes in psychology, education, and medicine. Understanding this evolution is crucial to addressing ongoing diagnostic challenges, particularly in non-Western contexts where LD is often confused with learning difficulties or intellectual disabilities.

Historical Perspectives: IQ and Academic Performance

LD was initially defined by the IQ-achievement discrepancy model, which identified learners with significant gaps between intellectual potential and academic performance—especially in reading and math (Hallahan et al., 2019). While influential, the model had drawbacks: it delayed intervention, disadvantaged learners from low-income or non-dominant backgrounds, and failed to reliably distinguish LD from other issues (Fletcher et al., 2018).

Shifts in Clinical and Educational Definitions

To address these limitations, newer definitions focus on persistent academic difficulties despite instruction. The American Psychiatric Association identifies LD as Specific Learning Disorder lasting at least six months in areas like reading, writing, or math (American Psychiatric Association, 2015). World Health Organization classifies LD as a neurodevelopmental disorder affecting skill acquisition in learners with average cognition (World Health Organization, 2019).

Recognition of Misdiagnosis and International Disparities

Gaps between medical and educational approaches have led to misdiagnosis especially in low- and middle-income earning countries. For example, in Nigeria, students are often mislabeled as lazy or retarded due to limited awareness, weak teacher training, and inappropriate tools (Ajuwon et al., 2023; Obiakor & Ofor, 2020). Diagnostic practices, often imported from the West, overlook linguistic and cultural contexts, resulting in misplacement (Petersen & Louw, 2021).

Current Perspectives and Global Trends

Modern perspectives emphasise neurodiversity and inclusive education. Frameworks like the UNCRPD and UNESCO's Incheon Declaration (2015) advocate dismantling structural barriers and shifting focus from learner deficits to environmental responsiveness.

By 2024, best practices recognise LD as a lifelong neurodevelopmental difference requiring early identification, targeted support, and inclusive teaching. However, without integrating these principles into teacher training, policy, and classroom practice especially in resource-poor settings many learners will remain misdiagnosed or marginalised.

Global Trends in Redefining Learning Disabilities

In the 21st century, learning disabilities (LD) are increasingly viewed through inclusive, culturally responsive, and person - centred lenses. This shift reflects growing global commitment to educational equity and neurodiversity. However, progress varies by country due to differences in policy, resources, and cultural attitudes.

Neurodiversity and Inclusion Movements

The neurodiversity paradigm repositions LD and related conditions (e.g., ADHD, dyslexia) as natural cognitive differences not deficits (Armstrong, 2017). Inclusive education now encourages systems to adapt to learners by embedding flexibility in instruction, assessment, and support. UDL is increasingly used to ensure engagement and accessibility for all.

Cultural Sensitivity and Diagnostic Equity

One of the key challenges in global LD redefinition is cultural bias. Many diagnostic tools and behaviours are based on Western norms and often

exported without adaptation, leading to misidentification across diverse populations.

To address this, researchers promote:

1. Use of multilingual and locally relevant assessments
2. Consideration of socio-economic and contextual factors
3. Family and community involvement in identification
4. LD should be seen not as a fixed condition but as contextually shaped and understood (Petersen & Louw, 2021).

Diagnosis and Support in the 21st Century

Modern diagnosis and support for learning disabilities (LD) have shifted from rigid, test-based models to more inclusive, dynamic, and context-sensitive approaches. Current best practices prioritise early identification, strength-based interventions, and flexible instruction over categorical labelling.

From Static Testing to Dynamic Assessment

The traditional IQ-achievement discrepancy model delayed identification, ignored context, and failed to guide intervention effectively particularly disadvantaging culturally and linguistically diverse learners (Flanagan et al., 2017).

In contrast, dynamic and functional assessments evaluate how learners respond to instruction, focusing on real-world performance and adaptability. This method highlights specific learning needs without relying solely on static labels.

RTI and MTSS: Multi-Tiered Systems of Support

Multi- Tiered System of Support (MTSS) with Response to Intervention (RTI) at its core, emphasizes prevention, data-driven instruction, and flexible interventions:

Tier 1: High-quality general instruction

Tier 2: Targeted small-group support

Tier 3: Intensive, individualised help (Fuchs & Vaughn, 2020)

LD identification occurs after documented intervention efforts, reducing misdiagnosis and ensuring support precedes labelling.

Teachers and Multidisciplinary Teams

Teachers are central to early identification and ongoing intervention. Through formative assessments and real-time adjustments, they detect early signs of LD. Multidisciplinary teams including special educators, psychologists, therapists, and families collaborate to develop well-rounded support plans (Elliott & Grigorenko, 2019).

Assistive Technology and Inclusive Tools

Assistive technology (AT) now includes accessible tools like text-to-speech software, mind maps, and audiobooks. The Universal Design for Learning (UDL) framework integrates such tools into regular teaching, benefiting all learners. Countries like the UK embed AT and UDL into inclusive policies and legislation (Norwich, 2020).

Implications For Nigeria and Similar Contexts

In countries like Nigeria, the mislabelling of learners with learning disabilities (LD) remains a critical issue. Despite global progress, outdated systems, limited training, and cultural beliefs continue to hinder accurate diagnosis and support.

Systemic Gaps and Mislabelling

Learners with dyslexia, dyscalculia, or dysgraphia are often misclassified under intellectual disabilities or behavioural disorders due to the absence of culturally appropriate tools and a shortage of trained professionals. Many educators lack clarity on the distinctions between LD, learning difficulties, and intellectual disability. With scarce national data on LD, policymaking is generic, often resulting in misplaced learners who miss targeted interventions or face punishment for unaddressed needs.

Policy and Teacher Preparation Challenges

Although inclusive education is mentioned in Nigeria's National Policy on Education (2014), it lacks clear frameworks for identifying or supporting LD. Teacher training programs rarely include substantial content on LD or neurodevelopmental diversity. Many teachers report feeling ill-equipped to identify LD or adapt instruction. Without structured in-service training, reliance on outdated beliefs persists, reinforcing exclusion.

Cultural Beliefs as Barriers

In many African contexts, academic struggles are still interpreted through spiritual or moral lenses. Children without visible impairments may be labelled lazy, cursed, or bewitched. Such views delay diagnosis, prevent families from seeking help, and in extreme cases lead to stigma, abuse, and educational exclusion.

Conclusion and Recommendations

Conclusion

Redefining learning disabilities in the 21st century is both an educational and moral imperative. This paper has shown how outdated, overlapping definitions contribute to systemic mislabelling especially in under-resourced and culturally complex environments like Nigeria.

A clear, inclusive understanding of LD rooted in global frameworks and responsive to local realities is essential for equity. Misidentification leads to academic exclusion and psychological harm, while accurate identification enables targeted support and inclusive schooling.

Recommendations

1. Educators should engage in ongoing professional development on LD and inclusive strategies and use culturally relevant assessment tools and collaborate with families and specialists.
2. Policymaker should update policies to align with DSM-5 and ICD-11, Integrate LD modules into teacher training. Establishment of diagnostic/support centres nationwide, prioritising underserved areas.
3. Researchers should study LD within local cultural and linguistic contexts. They should also develop and validate indigenous screening tools and explore how culture and language influence identification and support.

Adopting a clear, evidence-based, and inclusive framework for LD is no longer optional, it is essential to unlock the full potential of all learners.

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**SCHOOL CLIMATE (SC) AND SOCIAL ANXIETY DISORDER (SAD) AMONG
PUBLIC SECONDARY SCHOOL STUDENTS IN OREDO LOCAL
GOVERNMENT AREA OF EDO STATE.**

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Abstract

This paper explored school climate and social anxiety disorder among public secondary school students in Oredo Local Government Area of Edo State. Five research questions guided the study. The study adopted the descriptive survey research design. The population of the study comprised all the twenty-five public secondary schools in Oredo Local Government Area of Edo State (Post Primary Education Board). The sample size for this study was one hundred and fifty students selected randomly from five randomly selected schools representing 20%. The instrument for data collection for this study was a questionnaire designed by the researchers titled "School Climate Social Anxiety Disorder Questionnaire" (SCSADQ). The validity of the instrument was determined by three lecturers from the Department of Measurement and Evaluation, Faculty of Education, University of Benin. Corrections made were effected in the drafting of the final instrument. To determine the reliability of the instrument, the internal consistency reliability test was used. Cronbach alpha coefficient of 0.79 was obtained which indicated that the instrument was reliable. Data collected were analyzed using descriptive statistics of frequency, mean and standard deviation. The findings revealed that the school climate, through factors such as Peer relationships, teachers' practices and relationships with students, disciplinary practices, competitive academic atmosphere and inclusivity and acceptance of diversity influence the development, severity and support to overcome social anxiety disorder. It was

therefore recommended that teachers should be trained on positive behavioural support and principals should establish safe channels for students to report abuse confidentially. In addition to the implement of strict policies against teachers' misconduct and peer bullying in the school.

Keywords: School, Climate, Social, Anxiety, Disorder

Introduction

School climate refers to the total environment of the school, including relationships among students and staff, teaching and learning practices, and the sense of safety and support within the school community. It reflects students, teachers and staff experiences, feelings and perception of the school. The main features of school climate include the following; relationship among students, staff and administration; respect, trust and fairness; inclusiveness and support; school connectedness and students' engagement; attitudes, values and norms; sense of emotional and physical safety. A school climate can be restraining or constraining. A positive school climate reflects a school where students feel safe, respected and encouraged to express themselves. It promotes well-being, acceptance and academic success. A negative school climate characterized by bullying, lack of support and unrealistic social or academic expectations can increase the development of social anxiety disorder. Among the input into the school system, teachers and students play the most critical roles. They are the hub of any educational system. A teacher is someone entrusted with the responsibility to systematically and rationally transmit knowledge, values and skills in accordance with professional principles in order to achieve educational goals. For the secondary school teacher, how he performs his responsibilities is imperative because his students are adolescents whose identities are still developing. American psychological association (2015) identified the crises of identity, values, religion, insecurity and freedom and independence as the five areas of crises that affect adolescents' responses. He stressed that if these crises are not well handled by the teacher, there is the tendency to develop resistance to control and to establish control and impress his authority the teacher may exert force and go beyond his authority to abuse the student emotionally. Students who are emotionally or physically abused by teachers often experience a decline in academic performance due to fear, stress and loss of motivation (Benbenishty & Astor, 2005). The teacher-student relationship plays a pivotal role in shaping students' academic and personal development. However, when this

relationship is characterized by emotional, verbal, or physical abuse, the consequences can be deeply damaging because it can predispose the students to phobic reactions that results in Social Anxiety Disorder.

Social Anxiety Disorder (SAD) also referred to as social phobia is a mental health condition marked by excessive and persistent fear or anxiety about situations in which an individual is exposed to scrutiny and possibly judgement that may result in humiliation by others (American Psychiatric Association, 2013). It is an impairing condition that affects social, academic and occupational functioning. This condition makes them avoid social interactions situations or when it is unavoidable, they endure the situation with intense anxiety and frustration. They exhibit certain symptoms under feared situations, such as sweating, trembling, blushing, fast heart rate among others. Other symptoms include self-critical thoughts, difficulty concentrating, fear of negative evaluation and anticipatory anxiety. The symptoms of SAD are rampant among adolescents and young adults (Sevari, 2014). This condition could hinder students' academic and social performance. Van, Mancini and Farvolden (2003) stated that individuals with SAD have difficulty concentrating in the classroom and fear to speak in front of the class. A student with this disorder will avoid answering questions in the class, always want to sit at the back of the class, speak softly or not at all in the class, avoid eye contact, avoid participation in class group activities and as much as possible avoid social gatherings and keep isolated from others. Ozuri (2019) stated that secondary school students are predisposed to SAD due to the high demands of academic achievements and attendant stressfull activities. Adolescents with SAD experience low educational achievement and social skills. Ohayon and Schatzberg, (2010), reported that people with SAD exhibit self-critical thoughts, self consciousness, difficulty in concentrating and high fear of negative evaluation or judgement, hence they find it very difficult speaking in groups or in public. UNESCO, (2015) identified several factors that could influence SAD among adolescent to include: Parental overprotection, genetic predisposition. Etkin and Wager, (2007) reported dysfunction in certain brain areas such as the amygdala, distorted thinking, catastrophising social situations and over estimating others critical judgements as predisposing factors. Environmental influences, teachers' competence and peer influence, negative social experiences such as bullying, teasing, childhood trauma and parental over control or critical parenting are factors that could predispose to the risk of SAD (Rapee & Spence, 2004). This

study focuses on school climate, particularly peers and teachers attitudes and practices.

Teacher behaviour and attitude play a significant role in developing and strengthening students' emotional and psychological wellbeing, Their actions and interactions with students can either contribute to a supportive learning environment that reduces the risk of developing anxiety symptoms or make students develop maladaptive beliefs that perpetuate anxiety and avoidance behaviours. Teachers who are overly critical, unsupportive, or inconsistent in their interactions with students may inadvertently foster social anxiety in students. Juvonen, Nishina and Graham (2000) observed that students who were regularly criticized by teachers had lower grades and high drop out rates. McEachern, Aluede and Kenny (2008) asserted that emotional abuse in the classroom can be very traumatic to students and cause deep hurts and pains that carry throughout life. A classroom where students feel respected, heard, and encouraged can foster the development of self confidence and high self-esteem while a classroom that lacks emotional and psychological safety can cause students to constantly feel judged or threatened resulting in lack of confidence and low self-esteem. According to Kunkel, Chapa and Ellis, (2003) students subjected to humiliation by teachers are more likely to internalise negative self beliefs and withdraw from class activities.

Also, when teachers consistently use derogatory, abusive and embarrassing words on students who are not performing up to expectations, or who violate school rules and regulations, especially in the presence of peers, such students may develop fear of embarrassment or judgment, which are core features of SAD. Students who are verbally abused by teachers often report low self-esteem, depression and a reduced sense of competence (McEachern, Aluede, & Kenny, 2008).

This situation can lead to high rate of absenteeism, as students may attempt to avoid contact with abusive teacher and classmates (Gámez-Guadix, Orue, Smith, & Calvete, 2015). According to Ozuri, (2019) assault on children is a grave violation of their human rights and has detrimental effects on their emotional and physical wellbeing in the present and over time. Teachers who appear indifferent or dismissive toward students' emotional needs may inadvertently create a hostile or unsupportive atmosphere, leaving socially anxious students with the feelings of rejection, misunderstood, or neglected.

Over time, this fear can affect other social situations, reinforcing social avoidance behaviors associated with SAD.

The habit of comparing students openly or showing favoritism can damage self-esteem and increase social withdrawal in less favored students, fostering feelings of inferiority and social inadequacy. Teachers who positively reinforce students' efforts or provide encouragement use such opportunities to build confidence and reduce anxiety in socially vulnerable students. Teachers who display warmth, patience, understanding, empathy and consistency can help prevent or reduce SAD by promoting a safe, accepting, and inclusive classroom environment that fosters emotional resilience and positive social development.

Insensitivity to individual differences by teachers through prioritising extroversion and public speaking over quiet or reserved behavior in the classroom, can make introverted students feel inadequate or invisible. A hostile, unwelcoming peer environment, where bullying, teasing, or social exclusion are rampant, can significantly increase a student's fear of negative evaluation, a vital feature of SAD. Students who are frequently criticized, ridiculed, or isolated by peers in the classroom or school may begin to avoid social interactions altogether, leading to the development of social anxiety symptoms.

Statement of the Problem

It appears that despite the growing prevalence of social anxiety disorder among adolescents, and its concomitant effects on adolescents' behaviour and performance, many teachers and principals are still unaware of how their attitudes, behaviour and practices can contribute to the development, severity or helping students with SAD succeed socially and academically. Despite growing awareness, many schools lack structured interventions or supportive practices to identify, prevent, or address SAD effectively. It has been reported that some teachers abuse students emotionally through the use of abusive, derogatory and dehumanizing words and practices like assault and battery, sexual abuse, corporal punishment, cutting of students' hair and other dehumanizing practices. Sometimes students are called all sorts of embarrassing names in the presence of peers and colleagues. The problem of teachers' unprofessional attitudes and practices that affect student's self-perception negatively is worrisome, due to its restraining effects on students'

abilities and potentials. Brunello (2000) reported that social anxiety disorder is rampant among secondary school students, as the most vulnerable group. According to Ohayon and Schatzbert (2010) adolescents with SAD, experience low educational achievements and poor social skills in relationships with peers and family members. Gross emotional and psychological abuse of students could be a predisposing factor to exhibiting reactions associated with social anxiety disorder. The question that arises is, could school climate influence social anxiety disorder among students? This underscores the need to investigate whether school climate factors contribute to the development and progression of social anxiety disorder in students.

Purpose of the Study

The main purpose of this study was to find out the influence of school climate on the development, severity and overcoming social anxiety disorder.

Specifically, the study investigated whether:

Peer relationships within the school influenced SAD

Teacher practices in the school influenced SAD.

Competitive academic atmosphere within the school climate influence the prevalence of social anxiety disorder

Research Questions

The following research questions guided the study:

1. Does the quality of peer relationships within the school environment impact the development of Social Anxiety Disorder among students?
2. Do teacher practices influence Social Anxiety Disorder in students?
3. Does a competitive academic atmosphere contribute to Social Anxiety Disorder among students?

Theoretical Framework

This paper is hinged on the Social Systems Theory developed in 1974 . According to the Social Systems Theory, a school is an organized social unit with interdependent roles and functions. The school comprised subsystems

like teachers, students, leadership, curriculum, policies, rules, culture and peer groups. If the school climate is harsh, competitive, discriminatory, or unsafe, it disrupts the system's equilibrium and can lead to psychological stress, such as social anxiety disorder among students. If the school climate fails to promote healthy relationships, such as teachers and students, or student- student relationships or to promote inclusive values, the system may produce negative emotional outcomes, such as anxiety and isolation.

Methodology

The study adopted the descriptive survey research design. The population of the study comprised all the twenty-five public secondary schools in Oredo Local Government Area of Edo State (Post Primary Education Board). The sample size for this study was one hundred and fifty students selected randomly from five schools representing 20%. The simple random sampling techniques was used to select 30 students each from the selected schools for the study. The instrument for data collection for this study was a questionnaire designed by the researchers titled "School Climate Social Anxiety Disorder Questionnaire" (SCSADQ). The students in the sampled schools responded to the instrument. The instrument was in four sections: A, B, C, and D. Section A elicited demographic information. Sections B, C, and D comprised ten (10) items each, that elicited information on Social Anxiety Disorder with respect to each of the research questions. The four-point Likert scale based on strongly agree (4), agree (3), disagree (2) and strongly disagree (1) was used in response to the statements on the questionnaire. The validity of the instrument was determined by three lecturers from the Department of Measurement and Evaluation, Faculty of Education, University of Benin. Corrections made were effected in the drafting of the final instrument. To determine the reliability of the instrument, it was administered to 30 respondents that were not part of the study. The responses were analyzed using Cronbach alpha. This yielded a reliability coefficient of 0.79 which indicated that the instrument was reliable. To answer the research questions, descriptive statistics of frequency, mean and standard deviation were used to analyze the data collected. Each student's score on the ten items for each research question were summed. The maximum total score for each student for each research question was forty (40) while the minimum score was ten (10). The normative mean was established by adding up the scores of the responses ($4+3+2+1=10$) divided by the highest score (4), $10/4 = 2.50$. Decision was reached using mean range value of 1- 1.49 as strongly disagree,

1.50 - 2.49 as disagree, 2.50- 3.49 as agree while 3.50 and above as strongly agree.

Presentation of Results

Research Question 1: Does the quality of peer relationships within the school environment impact the development of Social Anxiety Disorder among students?

No	Items	Mean	Standard Deviation	Decision
Peer Relationships and Social Anxiety Disorder (SAD)				
1	I often feel judged or criticized by my peers in school.	2.15	0.86	Disagree
2	Fear of negative comments from friends will prevent me from speaking or acting freely.	2.55	0.67	Agree
3	I will avoid social situations at school if I will be embarrassed by classmates.	3.62	0.61	Strongly Agree
4	I will feel rejected if left out during group activities with my classmates.	2.88	0.81	Agree
5	I will feel uncomfortable in the midst of my classmates who often make fun of or mock me.	3.66	0.92	Strongly Agree
6	I am concerned about what my classmates think of me.	3.51	0.85	Strongly Agree

7	I feel uncomfortable expressing myself freely in front of my classmates.	3.20	0.67	Agree
8	Being ignored by friends will make me feel rejected or unhappy.	3.82	0.50	Strongly Agree
9	Fear of being gossiped and bullied will make me avoid social activities in school.	3.50	0.41	Strongly Agree
10	The fear of being rejected will make it hard to make friends.	3.03	0.65	Agree
	Cluster Mean	3.19	0.75	Agree

Table 1: Mean ratings of peer relationships and Social Anxiety Disorder among students

Research Question 2. Do teacher practices influence Social Anxiety Disorder in students?

Table 2: Mean ratings of teacher practices and Social Anxiety Disorder in students

No	Items	Mean	Standard Deviation	Decision
Teachers' Practices and Social Anxiety Disorder (SAD)				
1	My teacher criticizes me in front of my classmates.	2.42	0.76	Disagree
2	I will feel comfortable asking questions in class if my teacher is approachable.	3.94	0.75	Strongly Agree
3	I will feel embarrassed if my teacher makes comparison between other students and I.	3.65	0.56	Strongly Agree
4	Fear of my teacher's reactions will make me avoid participating in class.	2.82	0.23	Agree
5	I will feel free to express myself if my teacher listens to every students' opinion without judgment.	3.75	0.33	Strongly Agree
6	I will feel uncomfortable if my teacher calls on me unexpectedly in class.	2.56	0.54	Agree
7	I will participate more in class if my teacher encourages respectful communication and	3.02	0.62	Agree

	discourages mockery or bullying.			
8	I will feel loved and accepted if my teacher treats me fairly and equally as other students.	3.50	0.43	Strongly Agree
9	I will feel comfortable in class if my teacher helps me learn from my mistakes rather than scolding me.	3.64	0.37	Strongly Agree
10	My teacher's attitude makes me more confident or uncomfortable in social and academic settings.	3.75	0.55	Strongly Agree
	Cluster Mean	3.31	0.98	Agree

Research Question 3: Does a competitive academic atmosphere contribute to Social Anxiety Disorder among students?

Table 3: Mean ratings of competitive academic atmosphere and Social Anxiety Disorder among students

No	Items	Mean	Standard Deviation	Decision
Competitive Academic Atmosphere and Social Anxiety Disorder (SAD)				
1	I will feel bad if I am constantly compared to other students academically.	3.25	0.67	Agree
2	I am afraid of being mocked by my classmates when I perform poorly in tests or assignments.	2.76	0.82	Agree

3	The pressure to be among the top students makes me anxious and withdrawn.	2.58	0.72	Agree
4	I will not like to participate in class discussions to prevent making mistakes in front of high-achieving classmates.	2.76	0.66	Agree
5	Competition among students makes me uncomfortable learning in such environment.	2.52	0.58	Agree
6	I worry excessively about how my academic performance is perceived by other students.	2.83	0.68	Agree
7	Fear of failing in my academics makes me avoid school-related social interactions so I can have more time to study.	2.45	0.85	Disagree
8	How well my classmates respect me is largely based on how I perform academically compared to others.	2.68	0.52	Agree
9	The focus on my position in class makes me feel inferior.	2.52	0.61	Agree
10	Competing with my classmates makes me anxious when speaking or presenting in class.	2.60	0.54	Agree
	Cluster Mean	2.70	0.67	Agree

KEY: 1-1.49 – Strongly Disagree, 1.50-2.49 – Disagree, 2.50-3.49 – Agree, 3.50-4.00 – Strongly Agree

Discussion of Results

Research Question 1: Does the quality of peer relationships influence the development of social anxiety disorder?

To answer this question, mean ratings and standard deviation was used. The result of the analysis was presented in table1

The data in table I shows the mean ratings of students on the influence of peer on the development of social anxiety disorder among students in public secondary schools in Oredo Local Government Area of Edo State.

The mean ratings ranged from 2.15 to 3.82. The mean ratings of 3.62, 3.66, 3.51 3.82 and 3.50, Standard deviation 0.61, 0.92, 0.85, 0.50 and 0.41 respectively showed that the students strongly agreed on items, 3, 5, 6, 8 and 9. However, they agreed on items 2, 4, 7 and 10 with mean ratings of 2.56, 2.88, 3.20 and 3.03 and standard deviations 0.67, 0.81, 0.67 and 0.65 respectively. The cluster mean of 3.19 and standard diviation 0.75 revealed that peer relationship influences the development of social anxiety.

Research Question 2 : Do teacher practices influence the development of social anxiety disorder among students?

To answer this question, mean ratings and standard deviation was used. The result of the analysis was presented in table 2

The data in table 2 shows the mean ratings of students on the influence of teachers' practices on the development of social anxiety disorder among students in public secondary schools in Oredo Local Government Area of Edo State.

The mean ratings ranged from 2.42 to 3.94. The mean ratings of 3.94, 3.65, 3.75, 3.50, 3.64, and 3.75 Standard deviation 0.75,0.56, 0.33, 0.43, 0.37, and 0.55 respectively showed that the students strongly agreed on items, 2, 3, 5, 8, 9, and 10. However, they agreed on items 4, 6, and 7 with mean ratings of 2.82, 2.56, and 3.02 standard deviations 0.23, 0.54, and 0.62 respectively. They disagreed on item 1 with a mean of 2.42 and standard deviation 0.76. The cluster mean of 3.31 and standard deviation 0.98 revealed that teachers'

practices influence the development of social anxiety disorder among students.

Research Question 3: Do competitive academic atmosphere influence the development of social anxiety disorder among students?

To answer this question, mean ratings and standard deviation was used. The result of the analysis was presented in table 4

The data in table 4 shows the mean ratings of students on the influence of competitive academic atmosphere on the development of social anxiety disorder among students in public secondary schools in Oredo Local Government Area of Edo State.

The mean ratings ranged from 2.52 to 3.25. The mean ratings of 3.25, 2.76, 2.58, 2.76, 2.52, 2.83, 2.68, 2.52, and 2.60 standard deviation 0.67, 0.82, 0.72, 0.66, 0.58, 0.68, 0.52, 0.61, and 0.54 respectively showed that the students agreed on items, 1, 2, 3, 4, 5, 6, 8, 9, and 10. However, they disagreed with item 7 with mean ratings of 2.45 standard deviations, 0.85 respectively. The cluster mean of 2.70 and standard deviation 0.67 revealed that competitive academic atmosphere influences the development of social anxiety disorder among students.

Conclusion

Based on the results, it is therefore concluded that the school climate, through factors such as Peer relationships, teachers' practices and relationships with students, and competitive academic atmosphere have the potential to help students develop positive self- concept and high academic achievements. However, if negative, it can have devastating effects on students' self-esteem, making them vulnerable to long term emotional damage that could influence the development and severity of SAD. These school factors that are the hallmarks of school climate have been implicated in this paper to have the potential to influence the development of social anxiety disorder among students in public secondary schools. Therefore, the school climate should be a safe nurturing atmosphere where students are treated with dignity and respect.

Recommendations

Based on the findings of this study, it is therefore recommended that:

1. Teachers should be trained on positive behavioural support
2. Principals should establish safe channels for students to report abuse confidentially.
3. Principals should implement strict policies against teachers' misconduct and peer bullying.

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