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Assessment of Biology Curriculum Implementation in Colleges of Education in Osun State, Nigeria

Marie Onovroghene Salami *, Popoola Oluwasegun Oladipupo, Muhideen Abiodun Oloyede and Akinwumi Emmanuel Adefioye
Department of Science and Technology Education, Obafemi Awolowo University, Ile-Ife, Nigeria.
*Corresponding author email id: mariesalami56@yahoo.com

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Abstract **– The study investigated the level of compliance of Colleges of Education in Osun State with the National Commission for Colleges of Education (NCCE) minimum standard. These were with a view to improving the implementation of Biology curriculum in Colleges of Education in Osun State. The study adopted descriptive survey research design. The population for this study consisted of all the Biology lecturers and students in the Colleges of Education in Osun State. The study sample comprised of Biology lecturers and students (NCE II) of the two public Colleges of Education selected using total enumeration technique, and two private Colleges of Education selected using simple random sampling technique. Total enumeration sampling technique was used to select 31 and 29 students from the two private Colleges of Education, while Simple random sampling technique was used to select 120 students from each of the public Colleges of Education. Three Biology lecturers were selected from each of the four selected Colleges of Education using simple random sampling technique, making a total of 12 lecturers. Two instruments were used to collect data for the study; these are Biology Curriculum Implementation Evaluation Questionnaire for Lecturers (BCIEQL) and Biology Practical Assessment Questionnaire for Students (BPAQS). The research questions raised were answered using frequency and percentage. The results revealed the level of compliance of the Colleges of Education in the study area with the NCCE minimum standard for NCE as 60%. The study concluded that the Biology Curriculum is being properly implemented in Colleges of Education in Osun State in accordance with NCCE benchmark for NCE.**

Keywords **– Science Education, Biology Curriculum, Curriculum Implementation, Compliance Level of Colleges, Teacher Education, Benchmark/Minimum Standard.**

I. INTRODUCTION

Education is the transmission of knowledge from the teachers to the learners. Education is the act of making learning achievable. It is the process by which knowledge, attitude, skills, values, belief etc. are procured. Education is an instrument for national development because it is the implement used in developing the citizens who in turn contribute to the development of the nation (Bello, 2017). Thus, rapid growth and development are inevitable in any nation whose education is properly structured and implemented. According to Yusuf (2013), Education is the next to a thaumaturgical life because it is an agent of transformation. It gives all round development to students and society. It is highly cherished by all nations of the world and it has transformed people from nothingness to greatness (Etor, Mbon and Ekanem, 2013).

Assessment is a compulsory aspect of teaching and learning processes. It is the constant effort by which facts about students learning are collected. The intentions of assessment are to increase the quality and value of teaching, as well as to discover and measure the performance of students.

Biology is one of the aspects of science education. It is one of the important science subjects instructed in both secondary schools and higher institutions in Nigeria. Nwagbo (2008) stated that as a science subject in school curriculum, Biology is designed to produce individuals some of whom may or may not take biological studies in their professional pursuits. It is however hoped that in whatever profession they finally find themselves, the

Biology education they acquire in school would be of value to the totality of their Education. It will give a scope of balanced learning experiences through which learners build up the important logical information and understanding, skills and procedures, qualities and state of mind embedded in the 'life and living' strand and different strands of science education for self-awareness and for contributing towards a logical and mechanical world.

Curriculum is a phenomenon because of it varieties of definition from different Scholars. Onwuka (2004), see curriculum as a sequence of planned and unplanned learning activities which is revealed to a learner during the course of his development. According to Oloyede and Adeleke (2009), curriculum is seen as topic in the meantime and as an arrangement of attractive encounters sorted out into procedures and abilities to be understood. This view conveys the importance of teaching and make it unambiguous as far as curriculum is concerned. Ehindero (2014) sees curriculum studies as the core of education framework. He expressed that it is the essential beginning stage for learning, teaching and comprehension in education.

According to Okebukola (2004), curriculum implementation is the act of conversing its goals from text to the reality. The process by which curriculum is transformed from the paper into an active exercise is known as curriculum implementation (Salami and Ojediran, 2017). Curriculum implementation is done in the classroom by educators in primary and secondary schools and by lecturers in Colleges of Education, Polytechnics and universities. Curriculum implementation involves putting into practice the officially recommended courses of study, syllabuses, and subjects. The procedure involves helping the student to gain knowledge or experience as the student obtains the arranged or intended experiences, knowledge, skills, ideas, and attitudes that are gone for enabling a similar student to work effectively in a general public (Gautam, 2015).

Today, institutions of higher learning are not pleased with their products in light of the fact that their performance is an indication of the implementation disappointment of the curriculum. This is on the grounds that the viability of practical interpretation of a program is obvious by the best possible lead, conduct and the performance of the student. The consequence of this is reared of unemployable graduates, which has turned out to be a standout amongst the most poisonous problems staring the Nigerian adolescents on the face. For this pattern to be turned around there is a requirement for a change in outlook.

According to Ojediran (2016), teacher education is a programme that trains men and women to become professional teachers. It is a program that trains people to end up as professional teachers. Teacher Education program in the Colleges of Education is based on the provisions for the preparation of teachers at the junior secondary school level which were drawn from the National Strategy on Education (NPE) (FRN, 2004). According to UNICEF (2000), the most effective teachers are those that are efficient enough to influence learners to have a good mastery of the subject matter and didacticism. This characteristic is related to the subject-matter knowledge teachers acquire during their formal studies and pre-service teacher education courses.

There is a widespread feedback that the existing NCE program was turnnel visioned (NCCE, 2012). So, general dissatisfaction with the existing education system began to be expressed by the society and the concept of falling standards in our educational system crept in (Alumode and Oluma, 2016). The Nigerian Federal Government (FRN) in recognition of this observation articulated its stand on the issue in the National Policy on Education document. Federal Government of Nigeria stated that any existing contradictions, ambiguities and lack of uniformity in the educational practices in different parts of the country should be removed to facilitate an even

orderly development (FRN, 1998) as cited by (Alumode and Oluma, 2016). And that drove the administrators (i.e. NCCE) to revise and update the NCE Minimum Standards recorded in 2012 with a new benchmark for NCE program which was propelled in February, 2013.

Moreover, FRN in Alumode and Onuma (2016) stated that frequent occurrences of students' riots, closure of schools; frequent strike actions by lecturers in Colleges of Education, Polytechnics and Universities leading to disruption of academic programmes; and a host of other disruptions in the academic calendar affects education standard and quality negatively. Even Examination malpractice occurs in a variety of forms and adulterates the quality of education. These are part of the reasons why the administrators of NCCE revised and update the NCE curriculum which the Colleges of Education must comply with in order to achieve the desired goals.

Compliance is the demonstration or procedure of agreeing to a longing, request, proposition, or routine. The expression "compliance" for the most part covers the recognition of legitimate necessities and in addition inward social rules (sets of accepted rules, mandates); these days, it likewise ordinarily incorporates a promise to acting with honesty. Different estimates must be taken at all dimensions (compliance administration framework) if a compliance culture is to be built up in an organization.

According to Ibijola (2015), Quality must be procured when set standards are accomplished, yet might be troublesome where subsidizing (funding) is deficient. Academic quality affirmation can be alluded to as guaranteeing that every one of the procedures associated with the guidance of students stay standardized consistently. Okebukola (2004), presents academic quality assurance as a process of continuous improvement in the quality of teaching and learning activities which will be achieved via pathways of employing mechanisms internal and external to the system. It is ensuring that at least the provision of the Minimum Academic Standards (MAS) documents are attained, maintained and enhanced (Omoregie, 2005). The provision of quality education and by extension quality of life is constitutional and social obligation of government to her citizenry if it is to attain sustainable development (Muhammad and Lawal, 2015). Sustainable development is a development that meets the needs of the present without compromising the ability of future generations to meet their own needs (Arneh, 1990) in Muhammad and Lawal (2015).

The level of compliance of higher institutions with the national body will determine the extent at which the aims of the minimum standards are achieved. According to Alumode and Onuma (2016), When minimum educational standards are articulated and prescribed, there must be a mechanism put in place to monitor the actualization and if need be, impose sanctions for noncompliance. Therefore, if that is not done the entire exercise of minimum standards would be futile. The Colleges of Education are expected based on NCCE curriculum to produce teachers who have sound dominance of critical thinking abilities, create profoundly energetic, ethical and proficient classroom teachers for the teaching of basic science in junior secondary schools and biology teachers in senior secondary schools or Colleges when they obtain their degree certificate through direct entry. Moreover, a college is said to be complying with the benchmark by being established, possess all the necessary requirement by the curriculum and implementing the programme adequately through the stakeholders. Therefore, it is on this premise that the Biology curriculum implementation in Colleges of Education in Osun state will be assessed.

Objective of the Study

The specific objective of the study is to:

- Identify the level of compliance of Colleges of Education with the National Commission for Colleges of Education (N.C.C.E.) Benchmark for Biology Curriculum.

II. METHODOLOGY

The population for this study consisted of all the Biology lecturers and students in the Colleges of Education in Osun State. The study sample comprised of Biology lecturers and students (NCE II) of the two public Colleges of Education selected using total enumeration technique, and two private Colleges of Education selected using simple random sampling technique. Total enumeration sampling technique was used to select 31 and 29 students from the two private Colleges of Education, while Simple random sampling technique was used to select 120 students from each of the public Colleges of Education. Three Biology lecturers were selected from each of the four selected Colleges of Education using simple random sampling technique, making a total of 12 lecturers. Two instruments were used to collect data for the study; these are Biology Curriculum Implementation Evaluation Questionnaire for Lecturers (BCIEQL) and Biology Practical Assessment Questionnaire for Students (BPAQS). The research questions raised were answered using frequency count and percentage.

Research Question :

What is the compliance' level of Colleges of Education with the National Commission for Colleges of Education (N.C.C.E) benchmark for Biology Curriculum ?

Data were collected on the assessment of Biology curriculum implementation in Colleges of Education in Osun State through Interview and questionnaires administered to the respondents. Data obtained were analyzed using frequency and simple percentages as follows.

Table 1. The compliance level of Colleges of Education with the National Commission for Colleges of Education (N.C.C.E.) benchmark for Biology Curriculum based on Students' response.

S/N	ITEMS	SA Freq (%)	A Freq (%)	D Freq (%)	SD Freq (%)	_ X	Compliance Level
1.	My School has a standard laboratory/laboratories	120 (40.0)	140 (46.7)	25 (8.3)	15 (5.0)	3.22	Acceptable
2.	There are enough facilities in our laboratory	79 (26.3)	156 (52.0)	46 (15.3)	20 (6.0)	3.00	Acceptable
3.	I like to attend all of my practical classes	165 (55.0)	105 (35.0)	19 (6.3)	11 (3.7)	3.41	Acceptable
4.	The resources in our Biology laboratory are not accessible	21 (7.0)	73 (24.3)	129 (43.0)	77 (25.7)	2.13	Not Acceptable
5.	Available equipment in our laboratory are not utilized by Biology lecturers in conducting practical activities	50 (16.7)	83 (27.7)	91 (30.3)	76 (25.3)	2.36	Not Acceptable
6.	Biology practical classes take place frequently in my school	88 (29.3)	146 (48.7)	47 (16.3)	17 (5.7)	3.02	Acceptable
7.	My lecturer uses different methods in conducting practical activities	173 (57.7)	89 (29.7)	24 (8.0)	17 (4.7)	3.40	Acceptable
8.	I enjoy Biology practical in groups	168 (56.0)	92 (30.7)	23 (7.7)	17 (5.7)	3.32	Acceptable
9.	I am always compelled to attend practical classes	62 (20.7)	128 (42.7)	49 (16.3)	61 (20.3)	2.64	Acceptable
10.	We only have our practical classes when examination is approaching	42 (14.0)	34 (11.3)	68 (22.7)	156 (52.0)	1.87	Not Acceptable

S/N	ITEMS	SA Freq (%)	A Freq (%)	D Freq (%)	SD Freq (%)	_ X	Compliance Level
11.	Biology practical contributes positively to my performance in examination	169 (56.3)	76 (25.3)	38 (12.7)	17 (5.7)	3.32	Acceptable
12.	Government/management supplies laboratory equipment/ apparatus from time to time	49 (16.3)	64 (21.3)	79 (26.3)	108 (36.0)	2.20	Not Acceptable
13.	During practical activities, my lecturers only write instructions on the given specimens without proper explanations	36 (12.0)	34 (11.3)	96 (32.0)	134 (44.7)	1.90	Not Acceptable
14.	We are too many for lecturers to cope with during practical classes	45 (15.0)	47 (15.7)	111 (37.0)	97 (32.3)	2.13	Not Acceptable
15.	There are a few lecturers who can handle Biology practical effectively in my school	53 (17.7)	110 (36.7)	81 (27.0)	59 (19.7)	2.54	Acceptable
16.	The way my lecturer handles Biology practical does not help me to understand the concept in each topic	25 (8.3)	37 (12.3)	78 (26.0)	160 (53.3)	1.76	Not Acceptable
17.	Lecturers from another departments teach us Biology	23 (7.7)	34 (11.3)	69 (23.0)	174 (58.0)	1.68	Not Acceptable
18.	I am happier in Biology practical classes than any other subjects	100 (33.3)	127 (42.3)	37 (12.3)	36 (12.0)	2.97	Acceptable
19.	I have little or no interest in Biology, I gained admission to study Biology by accident	107 (35.7)	120 (40.0)	54 (18.0)	19 (6.3)	3.15	Acceptable
20.	I have acquired adequate laboratory skills in Biology	154 (51.3)	113 (37.7)	24 (8.0)	9 (3.0)	2.71	Acceptable

Source: field survey, 2018

Standard reference mean X = 2.50

The table 1 shows the compliance level of Colleges. The mean score from 2.5 and above are tagged acceptable which shows the level of compliance, while a mean score below 2.5 is not acceptable. It was revealed in item 1 that 86.67% students agreed that their School has a standard laboratory/ laboratories with a mean score of 3.22, and it was also observed in item 2 that 78.33% with a mean score of 3.00 assents that they have enough facilities in their laboratory. It was discovered as shown in item three that 90% students like to attend all their practical classes with a mean score of 3.41, whereas 68.67% with a mean score of 2.13 dissented that the equipment in their Biology laboratory are not accessible as observed in item 3, and then 55.66% also disagreed that available equipment in their laboratory are not utilized by Biology lecturers in conducting practical activities with a mean score of 2.36.

It was also observed that 78% with a mean score of 3.02 agreed that Biology practical classes' takes place frequently in their schools as revealed in item 6 with 87.34% concurred that their lecturers uses different methods in conducting practical activities with a mean score of 3.40 as shown in item 7, and 86.67% said they enjoy Biology practical in groups with a mean score of 3.32 in item 8. It was noticed that 63.34% students complied that they were always compelled to attend practical classes with a mean score of 2.64 in item 9, but 74.67% dissented in item 10 with a mean score of 1.87 dissented that they only have their practical classes when examination is approaching. It was shown in item 11 that 81.66% concurred that Biology practical contributes positively to their performance in examination with a mean score of 3.32 and 37.66% with a mean score of 2.20

agreed that Government/ management supplies laboratory equipment/apparatus from time to time in as shown in item 12.

It was deduced in item 13 that 76.67% with a mean score of 1.90 dissented that their lecturers only write instructions on the given specimens without proper explanations during practical activities, and 69.33% disagreed as well in item 14 with a mean score of 2.13 that they are too many for lecturers to cope with during practical classes. It was revealed in item 15 that 54.34% with a mean score of 2.54 assented that there are a few lecturers who can handle Biology practical effectively in their school, whereas, 79.33% disagreed that the way their lecturer handles Biology practical does not help them to understand the concept in each topic with a mean score of 1.76 in item 16.

It was shown in item 17 that 81% dissented that Lecturers from another departments teach them Biology with a mean score of 1.68, but 75.66% with a mean score of 2.97 concurred that they are happier in Biology practical classes than any other subjects in item 18. It was revealed in item 19 that 75.67 agreed that they have little or no interest in Biology, but they gained admission to study Biology by accident, and it was revealed that 89% assented that they have acquired adequate laboratory skills in Biology with a mean score of 2.71 in item 20.

Table 2. The compliance level of Colleges of Education with the National Commission for Colleges of Education (N.C.C.E.) benchmark for Biology Curriculum based on lecturers' response.

S/N	ITEMS	SA Freq (%)	A Freq (%)	D Freq (%)	SD Freq (%)	$\bar{X}$	Compliance Level
1.	I ignore some aspects of the content of Biology practical due to lack of proper understanding of the topics	0 (0.0%)	0 (0.0%)	2 (16.7%)	10 (83.3%)	1.17	Not acceptable
2.	Sharing ideas and opinions on Biology practical activities with lecturers working in different schools and cities is a good idea	10 (83.3%)	1 (8.3)	1 (8.3)	0 (0.0%)	3.75	
3.	Available reagents in the Biology laboratory have expired	0 (0.0)	4 (33.3)	3 (25.0)	5 (41.7)	1.92	Not acceptable
4.	During practical activities, I'm always ending up explaining what students are to do withthe given specimen without carrying out any experiment	0 (0.0)	0 (0.0)	2 (16.7%)	10 (83.3%)	1.17	Not acceptable
5.	I engage students very often in practical activities	6 (50.0)	5 (41.7)	1 (8.3)	0 (0.0)	3.42	Acceptable
6.	Students are not always serious in practical classes	1 (8.3)	2 (16.7%)	8 (66.7)	1 (8.3)	2.75	Acceptable
7.	I am not familiar with the concept of improvisation in practical classes	1 (8.3)	O (0.0)	3 (25.0)	8 (66.7)	1.50	Not acceptable
8.	I don't have time to improvise materials for practical	O (0.0)	1 (8.3)	4 (33.3)	7 (58.3)	1.50	Not acceptable
9.	I arrange/conduct practical activities once in a while	3 (25.0)	1 (8.3)	5 (41.7)	3 (25.0)	2.33	Not acceptable
10.	I enjoy teaching this course	12 (100.0)	O (0.0)	O (0.0)	O (0.0)	4.00	Acceptable
11.	Teaching this course is energy-sapping because the class is too large	1 (8.3)	4 (33.3)	3 (25.0)	3 (25.0)	2.08	Not acceptable
12.	I can control my class effectively no matter the size	8 (66.7)	1 (8.3)	3 (25.0)	O (0.0)	3.42	Acceptable

S/N	ITEMS	SA Freq (%)	A Freq (%)	D Freq (%)	SD Freq (%)	_ X	Compliance Level
13.	I participated in the Education Training programme when I was employed newly as a lecturer	3 (25.0)	4 (33.3)	1 (8.3)	4 (33.3)	2.50	Acceptable
14.	I gained a lot of knowledge of teaching methods from the programme	3 (25.0)	5 (41.7)	1 (8.3)	3 (25.0)	2.67	Acceptable
15.	My classes are interactive as I give time to students to actively participate by asking/answering questions and contributing points during my classes	11 (91.7)	1 (8.3)	O (0.0)	O (0.0)	3.92	Acceptable
16.	All my students can hear me when I'm conducting practical activities	7 (58.3)	5 (41.7)	O (0.0)	O (0.0)	3.58	Acceptable
17.	All my students can see what I write on the white/chalkboard	6 (50.0)	3 (25.0)	3 (25.0)	O (0.0)	3.25	Acceptable
18.	I take time to explain difficult concepts/terms to my students during the practical classes.	10 (83.3)	2 (16.7)	O (0.0)	O (0.0)	3.83	Acceptable
19.	My students have acquired an ability to apply scientific knowledge to everyday life	4 (33.3)	6 (50.0)	2 (16.7)	O (0.0)	3.17	Acceptable
20.	My students have acquired adequate field skills in Biology	1 (8.3)	9 (75.0)	2 (16.7)	O (0.0)	2.92	Acceptable

Source: field survey, 2018

Standard reference mean X = 2.50

The table 2 revealed that Biology lecturers in Colleges of Education (100%) with the mean score of 1.17 dissented that they ignore some aspects of the content of Biology practical due to lack of proper understanding of the topics. This implied that they all concurred that they have good mastery and adequate understanding of every topic in Biology curriculum. The mean score from 2.5 and above are tagged acceptable which shows that they complied with the standard, while a mean score below 2.5 is not acceptable. It was deduced that 91.7% of the Biology lecturers with a mean score of 3.75 assents that sharing ideas and opinions on Biology practical activities with lecturers working in different schools and cities is a good idea, and that is what they do.

It was observed that 33.3% with a mean score of 2.17 agreed that the laboratory equipment/materials are inadequate. Whereas, 50% of Biology lecturers with a mean score of 2.67 assents that lack of competent hands in handling practical classes create stress for the few available ones, and also, 58.3% with a mean score of 2.17 disagreed that practical materials are provided by the government/management to Biology lecturers to facilitate practical classes. It was as well noticed that 33.3% of Biology lecturers complied that available reagents in the Biology laboratory have expired with a mean score of 1.92, while 100% totally dissented that they always ending up explaining what students are to do with the given specimen without carrying out any experiment during practical activities with a mean score of 1.17.

Moreover, 91.7% with a mean score of 3.42 assented that they engage students very often in practical activities, but 25% supposed that students are not always serious in practical classes with a mean score of 2.25, although 66.7% with a mean score of 2.42 wished to handle practical classes as it ought to be but there are no facilities to cater for the practical exercises. The table as well shown that 91.7% of Biology lecturers disagreed that they are

not familiar with the concept of improvisation in practical classes as revealed in item 11 with a mean score of 1.50, and 8.3% with a mean score of 1.50 agreed they don't have time to improvise materials for practical.

More also, 75.0% Biology lecturers with a mean score of 3.00 agreed that there are no encouragement or motivation from both management and students, coupled with the fact that 100% lecturers totally disagreed that there are enough incentives from the school authority to Biology Lecturers on practical activities with a mean score of 1.50. Also, 66.7% disagreed that they conduct practical activities once in a while with a mean score of 2.33, thus 100% lecturers enjoyed teaching Biology as a course with a mean score of 4.0 as shown in item 10. It was however noticed that 41.7% with a mean score of 2.08 assents that teaching the course is energy-sapping because the class is too large, whereas 75% concurred that they can control their classes effectively no matter the size with a mean score of 3.42 in item 12.

It was revealed in item 13 that 58.3% said they participated in Education training programme when they were employed newly as a lecturer, with 66.7% in item 14 which agreed that they gained a lot of knowledge on teaching methods from the programme with a mean score of 2.67. It was revealed in item 15 that 100% agreed that their classes are interactive as they give time to students to actively participate by asking/answering questions and contributing points during their classes with a mean score of 3.92, and 100% assented that all their students can hear them when they are conducting practical activities with a mean score of 3.58. It was also revealed that 75% agreed that students can see what they write on the white/chalk board with a mean score of 3.25 in item 17. It was as well noticed that 100% with a mean score of 3.83 takes time to explain difficult concepts/terms to my students during the practical classes in item 18. It was discovered that 83.3% in item 19 with a mean score of 3.17 said that students have acquired ability to apply scientific knowledge to everyday life. In item 20, it was revealed that 83.3% assented that their students have acquired adequate field skills in Biology with a mean score of 2.92.

It was discovered that 60% was accepted from table 1 which coded for the compliance level in the Colleges of education in the study area, while 40% was not accepted based on the students' response. It was also noticed from table 2 that 60% complied which means they accepted while 40% was rejected based on the lecturers' response as the level of their compliance in the study area. It could be deduced from the two tables that the total percentage of the level of compliance was 60% to 40%.

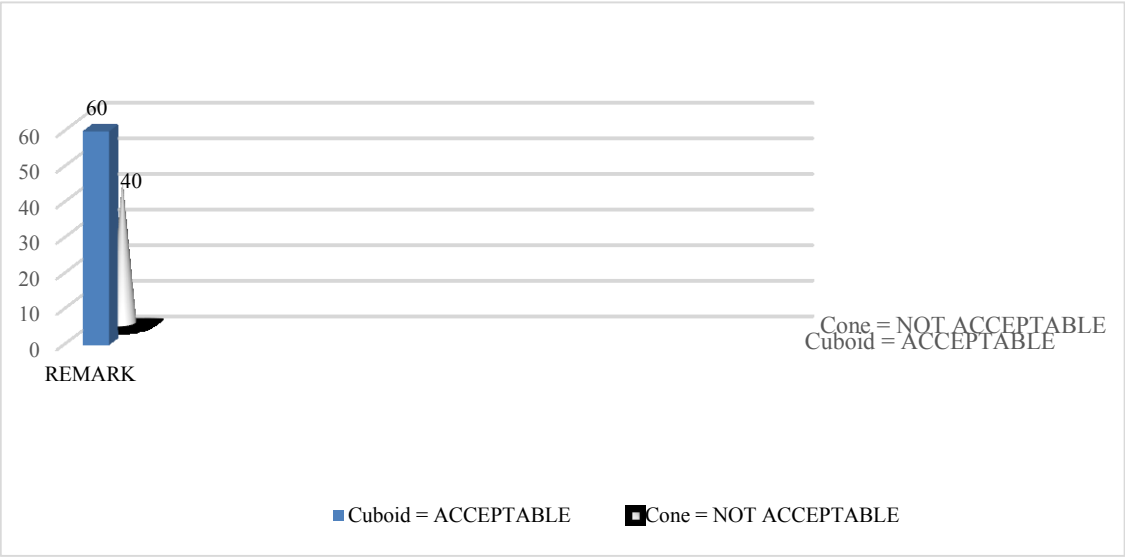

Fig. 1.

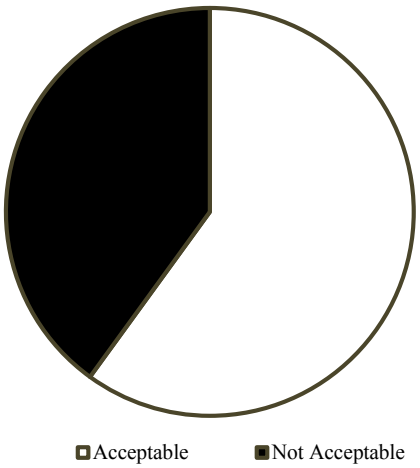

Fig. 2.

Fig. 1 and 2. The summary of the compliance' level of Colleges of Education with the National Commission for Colleges of Education (N.C.C.E) benchmark for Biology Curriculum.

The summary of the compliance level of Colleges of Education with the National Commission for Colleges of Education (N.C.C.E.) benchmark for Biology curriculum based on students' response is revealed in the graph in figure 1 and 2. It was discovered that the level of Compliance of Colleges of Education in the study area with the National Commission for Colleges of Education (N.C.C.E) benchmark for Nigeria Certificate in Education is 60%.

III. Discussion

The Level of Compliance of Colleges of Education with the National Commission for Colleges of Education (N.C.C.E.) Benchmark

Research Question identified the level of compliance of Colleges of Education with the National Commission for Colleges of Education (N.C.C.E.) Benchmark for Biology Curriculum. It was discovered that most of the colleges of education in Osun state acquiesces with the blueprint of the National Commission for Colleges of Education to a reasonable degree. It was observed that there are good laboratories in the study area, though the directive of N.C.C.E. for the general laboratories was planned to be three which one should be for each level (i.e. NCE 1, 2 and 3), but as for the schools observed by the researcher, the maximum number of laboratories were two and that were found in public Colleges of Education. The private colleges have only one laboratory which is also not too spacious for certain practical activities. However, there are stock rooms and preparation rooms in the Colleges of Education in the study area as planned in N.C.C.E. curriculum.

It was as well discovered that the colleges don't have personal Museum, but the public colleges have Aquarium and Herbarium which are also lacking in the private colleges. Most of the colleges have Biological garden but not being utilized by all. It was also identified that there were no enough incentives from the school authority or government to Biology Lecturers on practical activities, so most of them are not encouraged in the Job. However, some lecturers especially in the public Colleges finds fulfillment in the job not because of the pay but because of the passion they have for their profession, and most of the lecturers both in public and private colleges are passionate about the students.

The available laboratory equipment/apparatus in Colleges of education are enough to cover a larger percent of the Biology contents on N.C.C.E. benchmark for Nigeria Certificate in Education. It was discovered that the minimum qualification of lecturers in Colleges of Education in Osun State were Second Degree [i.e. M.sc, M.sc(Ed)], and there are Ph.D holders in the study area. Therefore, Lecturers in both public and private Colleges are qualified for the implementation of the N.C.C.E. Biology Curriculum. However, Olagunju and Abiona (2008) in their study on the production and utilization of materials resources in biology education revealed that male teachers' perception of utilization of materials in teaching is higher than that of the female teachers. This could also be true in the study area.

It was observed that a quite number of students agreed that they were not interested in the course they are studying but were given the admission because there were no alternative. The reason could be because of the number of years some have stayed in writing the Unified Tertiary Matriculation Examination (UTME) with the aim of gaining admission into the university but couldn't work out and due to age factor they were prompted in taking up the available admission. All the more likewise, consideration of researchers have been attracted to the performance of secondary school students in Basic science that it is anything but a decent indicator for their performance in both Biology and Chemistry in the Senior Secondary Certificate Examination (i.e. both WAEC and NECO). Basic science as an integrated science subject which is educated at the senior and junior schools' level to set up the pupils for the center science subject. Faleye and Afolabi (2016) carried out an investigation on the Predictive Validity of Osun State Junior Secondary Certificate Examination. The examination demonstrated that JSCE is a poor indicator of SSCE in subjects that are practically arranged, while it isn't a poor indicator of students' performance in SSCE in different subjects, for example, English Language. This reality really proposes that laboratory practical classes are extremely basic in science.

It is therefore recommended that the management in the Colleges of Education administration and indeed the federal Government should provide sufficient fund to assist in meeting the required standard.

IV. Conclusion and Recommendation

The study concluded that the Biology Curriculum is being properly implemented in Colleges of Education in Osun State in accordance with NCCE benchmark for NCE. It is however recommended that the Nigerian government should provide sufficient fund to assist in meeting the required standard. Also, the admission requirement into the Colleges of Education should be based on merit (i.e. By UTME cut off mark for Colleges or through a pre-NCE programme) based on the N.C.C.E requirements.

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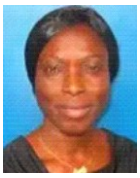
AUTHOR'S PROFILE



First Author

Dr. Marie Onovroghene SALAMI is a senior Lecturer in the Department of Science and Technology Education, Obafemi Awolowo University, Ile-Ife, Nigeria. She was born on 9th March 1956 in Okpara, Waterside, Delta State, Nigeria. She had NCE in (Chem/Bio) at College of Education, Abraka, Delta State. She attended Obafemi Awolowo University, Ile-Ife, Nigeria where She obtained B.Sc. Education (Biology), MA. Ed (Curriculum Studies) and Ph.D in Curriculum Studies (Science Option). Currently, She's the Head of Department of Science and Technology Education, Faculty of Education. She has in the last decade worked extensively in Science process skills and pre-service science tea--cher's acquisition toward professionalism. She has supervised many undergraduate and postgraduate students, and also published widely in many reputable national and international outlets. She is married with children.

Second Author

OLADIPUPO, Popoola Oluwasegun was born to the family of ABIOYE Femi Isaac in Oyan, Osun State, on the 17th of April 1990. He attended University of Ibadan, Ibadan, Nigeria where he obtained B.Ed. (Teacher Education/ Biology) 2013, and Diploma in Computer Engineering and Mobile Hardware at RLG Institute of Technology, 2018. He bagged his master Degree in Science Education [M.Sc. Ed. (Zoology)] at Obafemi Awolowo University, Ile-Ife, Nigeria, 2019. Mr. Oladipupo Popoola Oluwasegun is a researcher, Teacher/Mentor and analyst. He is a renowned Tutor and Practical facilitator at both secondary and post - secondary schools. He is a registered member of Teacher Registration Council of Nigeria (TRCN) and a Certified Project Manager, his area of recent research interest include Curriculum implementation (Science), Evaluation of Laboratory Equipment, Lecturers/Teachers' Qualifications and Involvement in Biology Practical Activities at all levels of Education. Published article include: Effects of English and Yoruba interpreted biology picture label as an advanced organize. DOI: 10.18844/cerj.v9i3.4285.

Third Author

OLOYEDE, Muhideen Abiodun was born on the 8th of July 1990 in Oba Oke, Osun State, Nigeria. He obtained B.Sc. Ed (Chemistry) at Adeyemi College of Education Ondo Chapter, (OAU affiliated) and Master degree in Science Education (Curriculum Studies) at Obafemi Awolowo University, Ile Ife, Nigeria in 2011 and 2019 respectively. He is a reseacher, teacher and a registered member of Teacher Registration Council of Nigeria (TRCN), a renowned examiner (WAEC and NECO) who had participated in series of coordination exercises. Mr Oloyede Muhideen Abiodun is working as chemistry teacher in secondary school, his area of recent research interest involved effect of peer tutoring and think p--air share strategies on chemistry students learning outcomes in schools. He received commendation from United Nation Millennium Campaign, Nairobi, Kenya in the year 2013 and a science teacher representative at National Workshop on Astronomy for Science Teachers held at Federal University of Technology, Akure, 2016.

Fourth Author

Akinwumi Emmanuel ADEFIOYE was born on 26th day of February, 1978 in Ile-Ife, Osun State, Nigeria. He is an educator and a seasoned teacher of mathematics. He is a postgraduate student of the Department Science and Technology Education, Obafemi Awolowo University, Ile-Ife, Nigeria. He bagged his first degree at Lagos State University, Ojo, Lagos in the year 2010 and holds master degree in Science Education (Mathematics) at Obafemi Awolowo University, 2019. He is a registered member of Teachers Registration Council of Nigeria (TRCN). His area of interest includes Effects of Metacognitive Training on Secondary School Students' Mathematics Achievement and Self-efficacy. He has attended various seminars including "Always Learning Mathematics" by Longman Publishers in 2011. He is married and blessed with Children.