AWARENESS AND IMPLEMENTATION OF WAEC AND NECO CHIEF EXAMINERS' REPORTS IN TEACHING BIOLOGY IN JOS SOUTH, PLATEAU STATE, NIGERIA

[1]Comfort Nanko Piwuna and [2]Felicia Onyemowo Agbo
[1& 2] Department of Science and Technology Education. Faculty of Education, University of Jos.
piwunacomfort@yahoo.com, dronoyemowo@gmail.com

Abstract
This paper was prompted by evidences of persistent under-achievement of Biology students in external examinations vis-a-vis the existence of the annual reports of the West African Examination Council (WAEC) and the National Examination Council (NECO) Chief examiners. The research was under taken to investigate the "Awareness and implementation of WAEC and NECO chief examiners' reports in teaching biology in Jos-South, Plateau State, Nigeria". The descriptive survey design was adopted. The population for the study comprised all biology teachers in Jos-South Local Government Area. With the Biology Teachers Implementation of WAEC and NECO Questionnaire (BTIWNQ) which had a reliability coefficient of 0.97 obtained by using the Cronbach Alpha method, all 37 biology teachers (22males, 15 females) who constituted the sample were administered the 11 –item questionnaire. The study found that, though majority (54.1%) of the teachers were aware of the WAEC reports, only 6 (16.2) teachers implemented the recommendations. For NECO reports, 37.8% were aware of the reports and only 4 (10.8%) implemented its recommendations. The paper concludes that, the lack of implementing these reports could be the reason for the persistent poor performance of biology students in external examinations. The Federal and State ministries of education in collaboration with principals and proprietors of schools should enforce purchase of the reports and also monitor its implementation by teachers. This way, performance of biology students could improve.

Keywords: Awareness, Implementation, WAEC, NECO, Biology, Teaching

Introduction

Education generally is seen as a catalytic tool that transforms both individual lives and the future of nations. In Nigeria, virtually all reform documents like the Development Plans from 1960 to date - the National Policy on Education (1977, 2004, 2008,2013 and 2020), the National Economic Empowerment and Development Strategy (NEEDS, 2004), Vision 2010, and vision 2020, all affirm that education is the veritable and critical tool to achieving socio-economic development, capacity building, societal maintenance, skill acquisition, acquisition of relevant knowledge and the development of technology as well as habits for surviving in a changing world. These documents also lay emphasis on the study of science which is a process and product that tries to proffer answers to human questions and curiosity. It is one of the most important fields of knowledge students can learn because of its relevance to life and its application to everyday situations. Science is vital to man because its application meets basic human needs and improves the standard of living for

mankind by finding sources of clean energy; providing a rational use of natural resources and its sustainability and even the continuous existence of the human race is guaranteed by the scientific enterprise. The core science subjects are, Chemistry Physics, and Biology.

Applications of these core science subjects have transformed every facet of human life and because of their impact on human life, there is the necessity to engage students in activities that will lead to better understanding of scientific concepts and improved performance.

Biology is a natural science that studies living things in its entirety. It studies life and living organisms, including their physical structure, chemical composition and processes, molecular interactions, physiological mechanisms, habitats, development and evolution of species. Biology is one of the 76 subjects examined by the West African Examination Council (WAEC) and of the 96 subjects examined by the National Examination Council (NECO), in the May-June and November/December examinations. These examinations are written as Senior Secondary Certificate Examinations (SSCE). The results from these examinations are used to meet the entry requirements into tertiary institutions and to search for employment.

Despite the importance of biology to human capital development and transformation, stakeholders like parents, school authorities, higher institutions and both WAEC and NECO have decried the poor performance of students in the subject. The West African Examination Council (WAEC) Chief Examiner's reports (2006, 2007, and 2008, 2015-2019) attributed the poor pass rate (not passing at credit level) to the probable lack of use of their reports. Also, the Chief Examiner of the National Examinational Council (NECO 2010), decried the general poor performance of the candidates, especially in the sciences, including biology where majority of the candidates scored below credit level even with the annual observations and recommendations for improved performance suggested by the WAEC and NECO Chief Examiners

WAEC, NECO and the National Business and Technical Examination Board (NABTEB) are terminal examination bodies in Nigeria, conducting final examinations for senior secondary school students. WAEC and NECO produce annually the chief examiners' 'reports which are in-depth analysis of each annual examination, NABTEB, however does not produce annual Chief Examiners report. The essence of these reports is to provide feedback to the stakeholders (schools, teachers, parents and students) on the strengths and weaknesses of students. The perceived reasons for the weaknesses are meant to enable biology teachers' guard against the re-occurrence of mistakes and deficiencies exhibited by candidates. The reports are also intended to serve for comparison of standards and performance between states and countries and to establish whether the syllabus was being adhered to. It is assumed that if teachers implement the observations and recommendations of these reports when teaching, the effort may lead to better understanding of biology concepts which may also lead to improved performance in examinations. Implementation means putting the observations and recommendations of the reports into practice, or the actual engagement of students to use the reports.

The Chief Examiners' annual report gives a résumé of each subject area according to the number of papers written, for WAEC biology, there is Biology paper I, which is a

multiple-choice (objectives) type paper. Biology II is a theory paper and Biology III, is a practical paper. For NECO biology, Biology paper I is practical, Biology paper II is essay, and Biology paper III is multiple choice objective questions. The résumé for assessing biology follows the format of the National résumé found in the WAEC and NECO reports and the analysis is in-depth and very specific. General comments by both Chief Examiners on each year's paper are given and the responses to each question analyzed. The format over the years consists of: a general comment on the paper as a whole such as, standard was high, rubrics were clear, questions were well framed, and marking schemes were exhaustive and adequate. Then candidates' strengths were itemized; for example, ability to follow instructions, ability to state transmutable characters in plants and to explain the term gene, hybrid, trait; candidates' weaknesses, such as, poor spelling of technical terms, poor drawings, not giving titles to diagrams, are also itemized.

In spite the importance of biology and the annual release of the reports of WAEC and NECO Chief Examiners, the performance of students in biology for Plateau State at the senior secondary level of education is poor. For instance, the WAEC result in 2014, had the total number of students that sat for the examination at 52,858 and only 9,304(17.6 %) passed at credit level; in 2015, out of 43,298 candidates that wrote the examination, 11,978 (27.22 %) passed at credit level. For 2016, 2017, 2018 and 2019, the total number that wrote the examination was 40,407, 43,115, 39,079 and 40,867 respectively. The number that passed at credit level stood at 20,004(49.05%), 18,484(42.87 %), 9,908(25.35 %), and 16,132 (39.47 %) respectively. The concern here is what happens to the 82.2 % candidates of 2014, 72.78 % for 2015, 50.95 % for 2016, 57.13% for 2017, 74.65% for 2018 and 60.53 % for 2019 that did not score at credit level. The numbers that formed these percentages are students who had outright failures to just passes (0-49) and therefore did not stand the chance of being admitted to read biology and biology related courses in the university and other higher institutions of learning.

In the light of the reports by the Chief Examiners and the continuous poor achievement of students who select biology as a subject and in view of the fact that out of the 289 biology teachers in Plateau State only 39 representing 13.49 % attended the 2019 coordination of WAEC examination. There is therefore a need to find out, whether the biology teachers are aware of the WAEC and NECO Chief Examiners reports and whether the reports are being implemented.

Aim and Objectives of the Study

The aim of this paper is to find out the awareness and the level of implementation of the WAEC and NECO Chief Examiners' report in the teaching of biology, specifically the paper seeks to:

1. Ascertain the objectives for WAEC and NECO Chief Examiners' reports in biology.
2. Find out the teachers awareness of the existence of WAEC and NECO Chief Examiners' reports in Jos South Local Government Area of Plateau State
3. Determine the duration of the biology teachers' implementation of the WAEC and NECO Chief Examiners' recommendations in the instructional process in Jos South L.G.A.

Research Questions

The following research questions are formulated to which answers will be sought:

1. What are the objectives of WAEC and NECO Chief Examiners' annual reports in biology?

2. How aware are biology teachers in Jos South L.G.A of the WAEC and NECO Chief Examiners reports?
3. What is the duration of implementation of the WAEC and NECO Chief Examiners' recommendations in the instructional process by biology teachers in Jos South L.G.A?

Methodology

The survey research design was adopted to collect information from biology teachers in Jos South Local Government Area of Plateau State. The population of this study consists of all the 37 biology teachers in public schools of Jos South L.G.A in the Northern zone of Plateau state. The 37 (22male, 15 females) biology teachers constituted the sample. The instrument used for data collection is the Biology Teachers Implementation of WAEC and NECO Questionnaire (BTIWNQ). The BTIWNQ consist of two sections, A and B. Section A sought demographic information of the respondents such as gender, qualification and years of teaching experience. Section B sought information on the biology teacher's awareness and implementation of the WAEC and NECO chief examiners' reports and is made up of six items(1,2,3,4,6 &7) that sought to establish the biology teacher's awareness of the reports and five items(5,8,9,10 &11) sought to establish the implementation of such reports in the instructional process in biology. The BTIWNQ is structured to illicit a 'yes' or 'no' response from which teachers are expected to tick appropriately as it applies to them.

The BTIWNQ was developed by the researchers after extensive literature review. This enabled the researchers to find out the level of biology teachers' awareness about the existence of the WAEC and NECO chief examiners' report in Jos South Local Government Area, and weather they incorporate the observations and recommendations in the teaching of biology. The content validity was established by experts in Research Measurement and Evaluation Unit, and Biology Education Unit of the University of Jos. The initial 20 items were scrutinized by the experts in terms of adequacy of the wordings, language, comprehensiveness; relevance and the arrangement of the items and identical questions were removed bringing the items to 11. The experts' judgment was rated 1, 2 and 3 and the agreement among the experts was judge using Kendall's coefficient of concordance and the value was 0.76. The value showed that the agreement between experts was strong; the instrument is therefore considered valid. The Cronbach Alpha Coefficient was used to determine the reliability for BTIWNQ at 0.97.

The BTIWNQ was administered to the Biology teachers by the researchers through the Jos South Area Inspectorate office who distributed, collected and returned the filled questionnaires. To analyze the BTIWNQ, the tally method was used to find the number and percentages of teachers that are aware of the reports and use the recommendations of the WAEC and NECO Chief examiners' report to teach SS II biology students.

Results and Discussion

The results of the data analyzed in the study are presented and discussed as follows:

Research Question One

What are the objectives of the WAEC and NECO Chief Examiners' reports in biology?

The general objectives of the annual report by the chief examiner of WAEC include;

1. Analysis of student's performances with the aim of detecting weakness and proffer solutions for all stakeholders concerned with the senior secondary school examination.
2. To maintain internationally accepted procedures.
3. To serve as comparison of standards and performance between states, and countries and to establish whether the syllabus was being adhered to.
4. Help students find resources for all WAEC approved subjects that will help them understand the standard required for success in respective examinations (WAEC, 2021).

The general objectives for the annual chief examiner's report by NECO are:

1. To be used by school teachers to effectively guard against response errors by candidates.
2. To be used by students as feedback and guidance on ideal procedure for answering questions.
3. The observations and recommendations made, if carefully studied by teachers and candidates, would not only improve the teaching – learning process but also enable candidates avoid answering errors that have remained obstacles to their performance.
4. Asses the general performance of candidates in each subject with a view to making recommendations for improved performance and to enable the council to improve testing standard (NECO, 2010).
5. To serve as feedback to teachers on areas of candidate's strengths, weaknesses, reasons for perceived shortcomings and recommendations for improved performance. This according to the council will bring about needed improvement in the teaching – learning process (NECO, 2011).
6. If observations and recommendations are carefully studied and applied, would guarantee a more effective teaching learning process, improved testing standards and better performances of candidates at senior secondary certificate examination, thus a sine-qua-non for all stakeholders (NECO, 2012).

From the general objectives of both WAEC and NECO Chief examiners annual reports, objective four (WAEC) and objectives one, two, three, five and six of the NECO reports are meant to provide resources in the form of observations and recommendations that if implemented or used by teachers and students could guard against response errors; provide ideal procedure for answering questions, improve the teaching-learning process; improve performance in biology and improve testing standards.

Research Question Two

How aware are biology teachers in Jos South L.G.A of the WAEC and NECO Chief Examiners reports?

Table 1: Biology Teachers Awareness and Implementation of the WAEC Chief Examiners' Reports

S/N	Statement	WAEC				
		Yes		No		Total
		N	%	N	%	
1	I have heard of the WAEC Chief Examiners' Report	20	54.1	17	45.9	37(100)
2	I have come in contact/handled the WAEC Report	14	37.8	23	62.2	37(100)
3	I have browsed the report on the internet	06	16.2	31	83.8	37(100)
4	I come in contact with the report yearly	13	35.1	24	64.9	37(100)
5	I use the report to teach and correct my students	06	16.2	31	83.8	37(100)
6	I have attended WAEC coordination	19	51.4	18	48.6	37(100)
7	I have marked WAEC Examination	12	32.4	25	67.6	37(100)
8	I have used the WAEC report and implemented it's recommendations	06	16.2	31	83.8	37(100)
9	The report is very useful to me as a biology teacher	12	32.4	25	67.6	37(100)
10	Since I started using the report, I have seen positive changes in the performance of my student	07	18.9	30	81.1	37(100)
11	Using the report has brought improvement to my Biology teaching-learning process	02	5.4	35	94.6	37(100)

Table 1 shows the result on the extent to which biology teachers in Jos South L.G.A. are aware of the WAEC Chief Examiners' Reports. From the result 54.1% of the teachers have heard about the chief examiners reports, 19% have attended WAEC coordination and 32.4% have marked the WAEC examination, but only few have come in direct contact with, browsed and used the report to teach and correct students. This implies that majority of the teachers have not handled the WAEC reports and may not be in a position to correct students by using the recommendations of the examiner. 06 (16.2%) of the teachers have taken the necessary step of using the recommendations of the Chief Examiner and only 2(5.4%) saw improvement in their students, this could be because most teachers did not take time to find out the impact of implementing the recommendations of the Chief examiners reports.

Table 2: Biology Teachers Awareness and Implementation of the NECO Chief Examiners' Reports

S/N	Statement	NECO				
		Yes		No		Total
		N	%	N	%	
1	I have heard of the NECO Chief Examiners' Report	14	37.8	23	62.2	37(100)
2	I have come in contact/handled the NECO Report	07	18.9	30	81.1	37(100)
3	I have browsed the report on the internet	00	00	37	100	37(100)
4	I come in contact with the report yearly	04	10.8	33	89.2	37(100)
5	I use the report to teach and correct my students	04	10.8	33	89.2	37(100)
6	I have attended NECO coordination	09	24.3	28	75.7	37(100)
7	I have marked NECO Examination	07	18.9	30	81.1	37(100)
8	I have used the NECO report and implemented it's recommendations	04	10.8	33	89.2	37(100)
9	The report is very useful to me as a biology teacher	09	24.3	28	75.7	37(100)
10	Since I started using the report, I have seen positive changes in the performance of my student	00	00	37	100	37(100)
11	Using the report has brought improvement to my Biology teaching-learning process	00	00	37	100	37(100)

Table 2 shows the result on the extent to which biology teachers in Jos South L.G.A. are aware of the NECO Chief Examiners' reports. From the result only 07(18.9 %) of the teachers in the study areas have marked NECO examination, only 37.8% have heard of NECO chief examiners reports and 10.8% have handled and used the report, although it is useful to them. None of the teachers have browsed the reports; only 04 (10.8%) teachers used the report to teach and correct students, 09 (24.3%) have attended NECO coordination. This does not portend improvement in the performance of biology students as intended by the Examination body.

Research Question Three

What is the duration of implementation of the WAEC and NECO Chief Examiners' recommendations in the instructional process by biology teachers in Jos South L.G.A?

Table 3: The duration of the Biology Teachers Implementation of the WAEC and NECO Chief Examiners' Recommendations in the Instructional Process

Examination	Duration				Total
	0-2years	3-5years	6-10years	11years and above	
WAEC	19(51.4%)	3(8.1%)	6 (16.2%)	9(24.3%)	37(100%)
NECO	-	4(10.8%)	-	-	-

Table 3 reveals the result on the implementation of WAEC and NECO chief examiners recommendations by teachers in the instructional process. The result indicates that the biology teachers' implementation of WAEC chief examiners report in the

instructional process according to years of experience (duration) was higher between 0-2years having 51.4 %, followed by 11 years and above, having 24.3 %, then 6-10 years having 16..2 % and lastly, 3-5years having 8.1 %. It means that majority of the teachers started using the WAEC chief examiners report in the past two-three years. For NECO, only 10.8 % (3-5 years) of the biology teachers implement the chief examiners recommendations in the instructional process.

Discussion

The assumption of this study is that the annual production of the external examination reports by both WAEC and NECO should lead to improvement in biology students' performance, if and when implemented. Both examiners' have over the years lamented the lack of implementing their recommendations by teachers with the attendant result of poor performance of students, especially in the sciences. The bane of little awareness and lack of implementing the reports of the Chief examiners by teachers could be responsible for the poor performance of biology students. From Table I and 2, and in view of the fact that the main aim of the reports according to the examiners', is to assess the general performance of candidates in each subject with the intent of making recommendations for improved performance. Biology teachers seem not to be aware that such reports exist. For WAEC, 45.9% (17) of the sample have not heard about the reports, 62.2% (23) have not come in contact with the reports, 83.8% (31) have not used the reports to effect corrections or avoid common errors by students. This statistics is worst for NECO, as 62% (23) have not heard of the reports, 81.1% (30) of the biology teachers have not come in contact with nor handled the reports, none of the 37 teachers have browsed the report on the internet, this is because NECO does not have any uploaded chief examiner's report on the internet, even the production of the hard copies stopped in 2012.

As important and useful as the reports are in probably reversing failure rates in biology, only 6 teachers constituting 16.2% have used the observations and recommendations of the WAEC examiner to aid students improvement. Again, 2 (5.4%) teachers attest to the improvement in their students' performance, this implies that 94.6% of the teachers did not observe any improvement in their students' performance as a result of not being aware and therefore not implementing the recommendations of the reports. In the NECO case as shown in Table 2, only 4 (10.8%) of the sampled teachers used the reports. According to Table 3, the younger teachers, those with 1-2years 51.4%, 3-5 years 8.1%, and 6-10 years 16.2% of teaching experience form the highest number of those using the reports to teach. This may not be surprising because they are more I.C.T compliant than the older teachers. For NECO, only 4 teachers (10.8%) with 3-5 years teaching experience have used the reports.

The Federal and state ministries of education, school principals and proprietors are called upon to not only enforce purchase of chief examiners' reports but closely monitor implementation of the observations and recommendations of the examiners'. Since production of hard copies of the reports have ceased, schools should purchase data so that staff can browse from the internet these reports. School principals and proprietors should also ensure attendance of co-ordination of both WAEC and NECO by mobilizing and disbursing funds for such exercises. This would expose biology teachers to the detailed answering procedure and expectations of the examination bodies'. Reports of the chief examiners' also reveal

the strengths and weaknesses of students and also proffer solutions to the weaknesses. The observations and recommendations of the WAEC and NECO chief examiners, if and when implemented would improve the teaching –learning process and enable students to avoid answering errors that have remained obstacles to their performance. (NECO, 2010). Implementing the reports could therefore be the panacea to the poor performance of students at national examinations.

References

Federal Government of Nigeria. (2009). *Nigeria Vision 20:2020: Economic transformation blue print*. Retrieved December 6, 2022, from http://www.nv2020/?

Federal Republic of Nigeria. (1977). *National policy on education.* Lagos: Government Printer

Federal Republic of Nigeria. (2002). *National examinations council (NECO)*. Abuja: Establishment Act.

Federal Republic of Nigeria. (2004). *National policy on education* (4th Ed). Lagos: NERDC Press

Federal Republic of Nigeria. (2013). *National policy on education.* Lagos: NERDC Press

Federal Republic of Nigeria. (2020). *National policy on education.* Retrieved December 6, 2022, from https://www.education.gov.ng

National Bureau of Statistics, Nigeria. (2019). *Sector contributions to Nigerian economic growth*. Retrieved December 16, 2022, from www.nigerianstat.gov.ng.

National Examinations Council (NECO), (2008). *Chief examiners' report (internal).* Ibadan: Stirling-Horden Publishers Ltd. Oyo state.

National Planning Commission, (2004). *National economic empowerment and development strategy (NEEDS).* Nigeria. Lagos: B_3 Communications Ltd.

NECO. (2009). *Chief examiners' report. (internal).* Ibadan: Stirling-Horden Publishers Ltd.

NECO. (2010-2012). *Chief examiners 'report. (internal).* Abuja: Wins Image Ltd. Abuja, Nigeria.

WAEC (2011-2018). *Chief examiners' report.* Nigeria, Yaba-Lagos.