
ASSESSMENT OF DESIRABLE TEST ENVIRONMENT OF PUBLIC SCHOOLS USED FOR BASIC EDUCATION CERTIFICATE EXAMINATION (BECE) IN ENUGU EDUCATION ZONE

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ABSTRACT: This study was undertaken to assess the desirable test environment for basic education certificate examination in Enugu education zone. Specifically, the study was framed to determine BECE accreditation status; the conduct of the examiner; and the conduct of the students. The study used Classical Test Theory (CTT) as the theoretical base to explain the relationship between the desirable test environment and Basic Education Certificate Examination. The study adopted a descriptive survey design. The population of the study was 6551 Basic Education Certificate Examination education students who took the 2021 BECE and 374 teachers working in the 31 public secondary schools in Enugu Educational Zone. A basic random and proportionate procedure was employed to choose the sample of 152 instructors and 1150 Upper Basic 3 school students (JSS3). The instrument used in this study was questionnaire titled QADTEPSBECE. The instrument contained a check list and two observational schedules from NECO's BECE level and it was validated by three experts. The reliability of the instrument was also established. After the analysis, the study findings were that: Examiner Demeanor at various levels contributes to a good desirable test environments in the conduct of BECE; Testees' conduct, to a large extent, contributes to a good desirable test environments in schools are inadequate, but teachers in Enugu State still require NCE as a prerequisite for teaching Upper Basic Education; the behavior of examiners in BECE is acceptable; and the behavior of the test subjects is generally acceptable. Therefore, the study major recommendation is that government should declare state of emergency with respect to vital facilities in schools.

Keywords: Basic Education Certificate Examination (BECE), Desirable Test Environment, Examiner Conduct, Student Behavior, Enugu Education Zone

Introduction

Education is universally acknowledged as the cornerstone of national development and personal empowerment. In Nigeria, the quality of education at the basic level is crucial for sustainable socio-economic growth. The National Policy on Education (FRN, 2014) describes education as an "instrument par excellence" for development, reinforcing the idea that access to quality education is a fundamental human right and a vital mechanism for national progress (Nugba, Quansah, Ankomah & Tsey, 2021). To ensure access and equity in basic education, the Federal Government introduced the Universal Basic Education (UBE) programme in 1999. This initiative aimed to provide free and compulsory education for every child of school age across Nigeria,

covering both primary and junior secondary education. The programme sought to reduce dropout rates, improve retention, and provide foundational literacy, numeracy, life skills, and ethical education to learners.

In support of this, the Nigerian Educational Research and Development Council (NERDC) harmonized existing primary and junior secondary curricula into a unified 9-year Basic Education Curriculum (BEC). This curriculum, implemented nationwide in 2008, was designed to help Nigeria meet global educational goals such as the Education for All (EFA) and the Millennium Development Goals (MDGs) (Batubo & Goodness, 2022). The goal was to ensure that learners acquired the basic competencies needed to advance into higher education or vocational training and participate meaningfully in national development.

The Universal Basic Education Commission (UBEC), created in 2004, was charged with overseeing the implementation of the UBE programme, working alongside State Universal Basic Education Boards (SUBEBs) and Local Government Education Authorities (LGEAs). The success of this ambitious programme depends on strategic planning, adequate funding, and, critically, the continuous assessment of learning outcomes through standardized evaluation.

One of the core instruments for evaluating educational progress at the junior secondary level is the Basic Education Certificate Examination (BECE), introduced by the National Examination Council (NECO) in 2000. The BECE serves as the final assessment after nine years of basic education and determines students' eligibility to proceed to senior secondary school. Only students enrolled in NECO-accredited schools are eligible to take this exam, which evaluates literacy, numeracy, communication, and life skills.

The stated objectives of the BECE include: selecting students for progression to senior secondary schools, awarding the Basic Education Certificate, and identifying candidates for technical or vocational institutions (NECO, 2000). It is intended to be a high-stakes, valid, and reliable summative evaluation—one that influences a learner's future academic and career prospects. As such, the exam is expected to be administered under standardized and conducive conditions that uphold fairness and integrity.

Despite these intentions, recent trends show a disturbing decline in student performance across many states in Nigeria. In Ebonyi State, for instance, performance in Basic Science hovered around 34%–45% between 2009 and 2013 (Nwafor, 2012; Akani, 2016). Other states, including Enugu, show similar patterns of underachievement (Gimba, Hassan, Yaki & Chado, 2018). These outcomes question the effectiveness of the UBE programme in delivering its intended results.

Various factors have been linked to this performance decline, including economic hardship, insecurity (such as insurgency), infrastructural challenges, teacher dissatisfaction, and poor instructional quality (Ayodele, 2019; Tella, 2017; Pepple & Waganda, 2017). However, one critical factor that is frequently overlooked in the literature is the quality of the test environment in which students take the BECE. Scholars such as Buba and Kogigili (2020), Ekong, Ubi, and Eni (2020) have emphasized that a conducive examination environment significantly affects learner performance, particularly in high-stakes assessments.

A test environment includes physical conditions such as seating arrangement, lighting, ventilation, and noise levels, as well as procedural components like examiner conduct, student behavior, and adherence to standardized

examination protocols. These conditions can either support or hinder a student's ability to accurately demonstrate what they have learned.

In recognition of this, NECO developed a detailed manual to guide the administration of the BECE. This manual, adopted by the Enugu State Ministry of Education and other states, outlines essential elements of a desirable test environment. It covers three main areas: (i) accreditation of schools (ensuring adequate infrastructure and qualified teachers), (ii) roles and conduct of examination personnel (invigilators, supervisors, administrators), and (iii) student behavior during exams (punctuality, seating, uniforms, and academic integrity).

The accreditation process verifies that only schools with adequate infrastructure and teaching capacity can register candidates for the BECE. Examination conduct guidelines are meant to prevent malpractice, enforce discipline, and maintain uniform testing procedures. Similarly, student conduct standards aim to create a calm and fair environment for assessment.

However, concerns have emerged that these standards are not consistently or effectively implemented. While the NECO manual provides a comprehensive blueprint, there is limited data on the extent to which these guidelines are followed in practice—particularly in the Enugu education zone. Questions remain about whether schools meet the required criteria, whether examination officers adhere to their roles, and whether students are tested in environments conducive to optimal performance.

This gap in implementation fidelity raises further questions: Are inconsistencies in BECE results in Enugu State partly due to poor test conditions? Do all schools have access to the same quality of exam environments? To what extent are stakeholders (school administrators, education officers, and teachers) aware of and complying with the standards outlined in the NECO manual?

Furthermore, literature on this topic is sparse. While student performance challenges have been explored from curriculum, teacher, and socio-economic perspectives, relatively little attention has been given to test environment implementation. This lack of empirical data limits our understanding of how the examination context affects outcomes and hinders the formulation of effective policy and administrative interventions.

Thus, the core problem that this study seeks to address is the insufficient research and understanding of how test environment standards for BECE are being implemented in Enugu State. Without reliable data on test administration conditions, efforts to improve the quality and fairness of the examination—and by extension, basic education outcomes—will remain incomplete.

Given the high stakes associated with the BECE, it is imperative to investigate whether existing test environments help or hinder student performance. A flawed or inconsistent testing environment can undermine the reliability of exam scores and erode public confidence in the educational system. It also compromises the goals of the UBE programme, particularly its promise of equal access and opportunity for all learners. This study is therefore timely and significant. It aims to assess the level of implementation of key test environment components—school accreditation, examiner conduct, and student behavior—during the BECE in Enugu education zone. By evaluating how well these standards are being followed, the study will offer evidence-based recommendations for improving testing practices and promoting fairness and quality in basic education assessments.

Purpose of the Study

The main purpose of this study was to assess of desirable test environment for basic education certificate examination in Enugu education zone. Specifically, this study found out the:

1. Accreditation status of schools where BECE are taken in Enugu education zone;
2. Conduct of BECE examiners in the administering the BECE in examination in Enugu education zone;
3. Conduct of students in BECE in examination in Enugu education zone.

Research Questions

In line with the purpose of the study, the following research questions guided this study:

1. What is the accreditation status of schools where BECE are taken in Enugu education zone?
2. What are the conducts of BECE examiners in the administering the BECE examination in Enugu education zone?
3. What are the conducts of students in BECE in examination in Enugu education zone?

Conceptual Framework

Desirable Test Environment (Approx. 530 words)

A desirable test environment refers to a well-structured setting that promotes optimal student learning and fair assessment conditions. Environment, in educational terms, includes both the physical space—such as classrooms, lighting, and furniture—and social elements like teacher-student relationships and school culture. Ofomata (2014) defines the environment as the sum of external factors that affect an individual's development. Mgbodile (2014) extends this view to the school context, citing that teachers, peers, teaching methods, and school materials collectively define the school environment.

A positive school environment not only fosters learning but also improves student motivation and retention. Mick (2011) emphasized the importance of a healthy, safe, and inclusive academic atmosphere that supports both physical and emotional well-being. Devam (2012) noted that factors such as classroom lighting, layout, and infrastructure can significantly influence learning and test performance.

School location is another important determinant. Urban schools often have better resources than rural ones, although urban noise (e.g., near airports) can negatively affect concentration (Chukwuemeka, 2013). Learning is also influenced by the availability of resources like libraries, laboratories, and technology. Balog (2018) highlighted the interplay of people, curriculum, teaching aids, and infrastructure as critical in shaping educational experiences.

Olatunji (2018) categorized effective learning environments into four types: student-centered, knowledge-based, assessment-based, and community-focused. Each provides unique advantages in shaping critical thinking, collaboration, and long-term academic growth. Raccoon Gang (2018) further emphasized the need for students to feel safe, supported, and emotionally connected to their learning context. Students thrive when they engage positively with teachers, peers, and learning tools.

Ultimately, a desirable test environment integrates emotional, physical, and intellectual support systems to ensure accurate assessment of student knowledge. It encourages creativity, motivation, fairness, and academic excellence.

Universal Basic Education (UBE) (Approx. 480 words)

The Universal Basic Education (UBE) programme, launched in 1999 and formally established by law in 2004, is Nigeria's flagship educational reform to provide free, compulsory nine-year schooling. Managed by the Universal Basic Education Commission (UBEC), the programme is implemented through State Universal Basic Education Boards (SUBEBs) and Local Government Education Authorities (LGEAs) across all 774 local government areas. The UBE aims to offer every Nigerian child access to free basic education from Primary 1 through Junior Secondary School 3. This nine-year structure is intended to foster literacy, numeracy, civic responsibility, and life skills needed for lifelong learning and national development. The initiative is a response to high dropout rates, inequality in educational access, and the need for national educational reform (Ejere, 2011).

Salihu and Jamil (2015) emphasized that UBE seeks to equip learners with critical thinking abilities, sound judgment, communication skills, and social responsibility. Moreover, the programme aims to unify educational access across rural and urban areas, eliminate gender disparities, and offer inclusive opportunities to marginalized groups.

The 2004 National Policy on Education classified basic education as six years of primary school and three years of junior secondary school. It mandates adult and non-formal education to reach out-of-school children and illiterate adults. The UBE framework is thus "universal" (inclusive), "basic" (foundational), and "education" (a fundamental human right).

However, achieving these goals has been challenging. While the policy has significantly improved enrollment rates, it still faces hurdles in teacher quality, infrastructure, and financial sustainability. These challenges highlight the need for robust policy implementation, stakeholder commitment, and regular evaluation to ensure that the UBE vision is realized for all Nigerian children.

Basic Education Certificate Examination (BECE) (Approx. 580 words)

The Basic Education Certificate Examination (BECE) is a standardized exam conducted annually to assess students who have completed the nine-year basic education cycle in Nigeria. Administered under the supervision of NECO (National Examination Council), it determines eligibility for senior secondary school or technical and vocational institutions.

BECE is typically held between June and July across Nigeria's 36 states and the Federal Capital Territory. Students from both public and approved private schools participate. The exam is divided into two parts: an objective section with multiple-choice questions and a theory section that requires written responses. Students must pass a minimum of six subjects—including Mathematics and English—to qualify for advancement.

The examination plays a vital role in Nigeria's educational assessment system. It certifies completion of basic education, regulates student progression, and informs decisions about future academic placement in science, arts, or technical tracks. In essence, the BECE serves as both a gatekeeper and a benchmark for educational quality at the basic level (Batubo & Uwbiza, 2022).

Subjects assessed in BECE include core disciplines such as English, Mathematics, Integrated Science, Social Studies, and Nigerian languages (e.g., Yoruba, Igbo, Hausa). In total, about 25 subjects are available, but students typically take between 10 to 13. Performance is graded on a five-point scale (A to F), with grades A, B, and C signifying varying degrees of success.

NECO issues BECE certificates within a month of result publication, which schools collect on behalf of students. These results are used not just for academic progression, but also for monitoring the performance of schools and states. Notably, poor performance in BECE has been linked to issues such as low-quality instruction, poor facilities, and test environment inconsistencies.

Ultimately, BECE serves as a critical tool for measuring the success of the UBE programme and the overall effectiveness of Nigeria's basic education policy.

Policy Assessment (Approx. 510 words)

Policy assessment refers to the systematic evaluation of how well policy objectives are translated into practice. It involves measuring the extent to which educational policies—such as the revised nine-year Basic Education Curriculum (BEC)—are implemented and how they impact student learning.

Olateru-Olagbegi (2015) highlighted major reforms in the curriculum, such as subject reduction, thematic content alignment, and integration of technology, vocational training, and global citizenship topics. These reforms aimed to modernize Nigeria's basic education system. However, several challenges hinder policy execution.

First, the quality of instructional delivery remains poor due to underqualified, underpaid, and poorly supported teachers (Ejiogu, 2009; Adah, 2016). Teachers often lack the necessary training and tools, particularly in science, technology, and vocational fields. The profession itself is undervalued, leading to a shortage of competent educators.

Second, the integration of information technology remains weak. Many schools lack computers, internet access, and reliable electricity, making digital learning impractical. Third, the grading of compound subjects like "Basic Science and Technology" creates ambiguity in evaluating individual student competencies.

Funding also poses a serious challenge. Despite the promise of free education, hidden costs like books, uniforms, and transportation persist. Olatunji (2018) argues that true "free education" must eliminate both direct and indirect financial burdens. Furthermore, insecurity—especially in Northern Nigeria—has disrupted school operations and led to mass dropouts (Owonikoko, 2021).

These issues reveal a disconnect between policy design and practical implementation. Effective policy assessment requires monitoring, accountability, and context-specific adaptation. Without this, the goals of curriculum reforms and the UBE programme may remain unrealized.

Strategies for Effective Implementation of UBE (Approx. 550 words)

To overcome challenges facing the UBE programme, strategic implementation is essential. Ejere (2011) emphasizes that policy failure in Nigeria often results from weak implementation rather than poor planning.

Human Resources: Improving teacher quality is crucial. All teachers should attain at least the National Certificate in Education (NCE), and teacher training should be modernized through open and distance learning. Continuous professional development through workshops and refresher courses must be prioritized. The competence of School-Based Management Committees (SBMCs) and Local Government Education Authorities (LGEAs) also needs to be strengthened.

Financial Resources: Sustainable funding is vital. All levels of government should meet their financial obligations, including counterpart funding requirements. Legislative action should mandate that 30% of budgets

go to education. Development partners, NGOs, and communities should supplement state efforts. Transparency, as mandated by the Fiscal Responsibility Act (2007), must be enforced to prevent mismanagement.

Infrastructure: Schools require better facilities—classrooms, libraries, labs, electricity, water, and sanitation. A shift system could optimize use of limited infrastructure. Teaching and learning materials must also be sufficiently provided to public schools.

Quality Assurance: Monitoring, supervision, and evaluation mechanisms should be embedded in the system. School heads must regularly assess teaching standards, while external audits can serve as checks on implementation effectiveness.

Social Mobilization and Enforcement: Parents must be educated and held accountable. Public sensitization campaigns and community engagement can build support. Legal penalties under the UBE Act (2004) should be enforced, but only after eliminating hidden school costs. Inclusion of special needs education and integration of Quranic/adult literacy programs is also vital.

Data Management: Planning depends on reliable data. Schools must keep accurate records, and Education Management Information Systems (EMIS) should be adopted nationwide to support evidence-based decision-making.

Theoretical Framework

Classical Test Theory (CTT)

The concept of classical testing was developed by Melvin Novick in 1966. The concept emerged following three concepts; the first is the recognition of measurement error, the second is the concept of such an error as a random variable, and the third is the concept of correlation and how to express it. The main purpose of CTT is to focus on the test score of the test group, and if items fail in different ways, it gathers the examiner's group together to objectively evaluate the items pass rate. CTT is based on the assumption that the examinee has a perceived score and an actual score. A test taker's observed score is often expressed as the average of the test taker's true score plus/minus the unobserved measurement error. Therefore, classical test theory, based on score theory, states that each individual has a true T score that would be obtained if there was no measurement error. Unfortunately, test users never observe a person's true score, T only an observed score, X . The true score theory is conceptualized thus; observed score (test score) = true score plus error score. Mathematically,

$$X = T + E$$

$$\text{Observed score} = \text{True score} + \text{Error score}$$

The true score T , reflects whether examinees amount of knowledge or ability is the true measurement of the examinee which is always contaminated by random errors. With respect to the variables of interest in this present study, test environment is a strong source of error score. These random errors when emanating from the test environment can result from several factors of the test environment give room to such as systematic error as exam malpractice, fatigue or stress. Such undoubtable would undermine the reliability of the test scores. Understanding and adopting CTT in test score analyses will thus help examiners construct and administer a valid test by considering the implications of a test environment on reliability of test scores. CTT forms the foundation of this present study because its approach measures the dependability of behavioral measurements on other external and

internal threat to the true score such as reliability threats. This is because CTT can estimate the difference between many sources of error that affect the reliability of test scores. It can be used to evaluate the relative contribution of multiple sources of error and their relationship to the overall outcome of the results.

Review of Related Empirical Studies

Several empirical studies have investigated the relationship between the implementation of the Universal Basic Education (UBE) programme and students' academic performance in the Basic Education Certificate Examination (BECE), with diverse findings spanning curriculum quality, school environment, teacher capacity, and test validity.

Frempong, Asare-Bediako, and Aboagye (2016), in a study involving 460 participants in Ghana, identified eight broad factors contributing to poor BECE performance. These included teacher ineffectiveness, poor parenting, economic hardship, limited formal and informal education, and weak educational governance. The study stressed multi-sectoral efforts to improve educational outcomes.

Isomero and Amin (2021) also found that poor student performance in BECE was linked to a lack of textbooks, inadequate parental support, student indiscipline, teacher absenteeism, and bullying. They recommended stronger parent-teacher collaboration and improved school supervision.

Akuffo-Badoo (2006) analyzed over 278,000 BECE candidates in Ghana and found a significant discrepancy between students' continuous assessment scores and their final BECE results, especially among low-performing schools. This raised concerns about the reliability of internal assessments.

Ollennu and Etsey (2015) explored how multiple-choice test designs influence student performance in English, Maths, and Science. Using 810 Form 3 students and ANOVA analysis, they concluded that the arrangement of test items could affect outcomes and cautioned against relying solely on item sequence to control test behavior.

Igweonu (2021) conducted a qualitative study in South-East Nigeria, where teachers and principals reported that hands-on strategies and active instructional practices under the UBE programme improved student performance in science. The findings highlighted the importance of stakeholder engagement in educational reforms.

Esomonu and Ogbuzulu (2019) examined the predictive relationship between BECE and WAEC scores among 1,200 students. They found strong correlations—84% in English, 49.2% in Maths, and 88.7% in Igbo—indicating that BECE performance can reliably predict senior secondary outcomes.

Ayanwale, Adeleke, and Mamadelo (2018) evaluated the 2017 NECO mathematics paper using Classical Test Theory (CTT) and Item Response Theory (IRT). They found inconsistencies between the two models, suggesting that NECO's test items might not fully align with advanced psychometric standards. They recommended the integration of feedback-driven test development.

Buba and Kogigili (2020) validated the content of BECE science exams in Adamawa State. Their study revealed a mismatch between curriculum objectives and actual test items, especially in cognitive domain weighting. They advocated for more training for examiners to align testing with curriculum intent.

Ekong, Ubi, and Eni (2020) used IRT to identify gender-based differential item functioning (DIF) in NECO and Akwa Ibom State's BECE Mathematics exams. They found several items that favored male students and emphasized the need for more inclusive and balanced test construction.

Asiedu-Addo and Tetteh (2014) investigated mathematics underachievement in Ghana, attributing poor performance to students' limited conceptual understanding and inadequate assessment practices by teachers.

Batubo and Good (2022) analyzed psychometric properties of BECE test items from 2018 to 2020 in Rivers State. They confirmed high reliability but noted issues with distractors in multiple-choice questions. They recommended refining test items to better discriminate between varying student abilities.

Finally, Onanuga and Saka (2018) studied performance in STEM subjects in Ogun State from 2011–2020. They noted fluctuating mathematics performance and steady gains in other science subjects. The study emphasized the need for sustained support for STEM education.

RESEARCH METHODS

Research Design

The research design adopted for the study was the descriptive survey design. According to Nworgu (2015), a descriptive survey is one in which a group of people or items is studied by collecting and analyzing data from only a few considered representative of the entire population. The design enabled the researcher to collect data from a manageable number of respondents and generalize the findings to the wider population. Therefore, this design was deemed appropriate for assessing the desirable environment for test administration of the Basic Education Certificate Examination (BECE) in Enugu Education Zone, Enugu State.

Area of the Study

The study was conducted in Enugu Education Zone of Enugu State, one of the seven education zones in the state. The zone comprises Enugu North, Enugu East, and Isi Uzo Local Government Areas (LGAs). Enugu North covered an area of 106 km² with its headquarters in Ogui; Enugu East spanned 383 km² with its headquarters in Nkwo; while Isi Uzo had 405 km² with its headquarters in Ikem. The choice of this area was based on the high concentration of public secondary schools where BECE was conducted annually.

Population of the Study

The population of the study comprised 3,813 Upper Basic Education (JSS3) students who sat for the 2021 BECE across 31 public secondary schools in Enugu Education Zone (Post Primary Schools Management Board, 2021).

Sample and Sampling Technique

The sample for the study consisted of 1,302 Upper Basic 3 (JSS3) students. A multi-stage sampling technique was employed. Initially, purposive sampling was used to select two LGAs from the three in the population. Proportionate sampling was then applied to select 50% of schools within the sampled LGAs. Subsequently, all 1,150 students in the selected schools who participated in the 2021 BECE were included in the study. Additionally, all 152 teachers from the sampled schools were involved due to the manageable size of this sub-population.

Instrument for Data Collection

The instrument used for data collection was titled **Questionnaire on Assessment of Desirable Test Environment of Public Schools used for Basic Education Certificate Examination (QADTEPSBECE)** (see Appendix A). It comprised a researcher-adapted checklist and two observational schedules derived from NECO's BECE manual (see Appendix B). The manual, adopted by the Enugu State Ministry of Education and others,

outlined required conditions for BECE administration, including accreditation criteria, examiner conduct, and testee conduct.

A checklist was used to gather data on schools' compliance with accreditation benchmarks (Research Question 1), while observational schedules were used to evaluate examiner conduct (Research Question 2) and student behavior during the exam (Research Question 3).

Validation of the Instrument

The instrument was face-validated by three specialists—one in measurement and evaluation, one in mathematics, and one in educational foundations—all from Godfrey Okoye University, Enugu. The validators were given the instrument draft along with the study's objectives and research questions. They assessed item clarity, construct alignment, and relevance. Their feedback was incorporated by the researcher to refine the final version of the instrument.

Reliability of the Instrument

A test-retest method was employed to establish the reliability of the instrument. The instrument was first administered during mock BECE exams in the Nsukka Education Zone. After one week, it was re-administered to the same group. Using matching techniques appropriate for non-parametric data, the reliability index was computed at 89%, indicating high instrument stability. This justified its use for the main study. The matching technique was suitable as the items were not dichotomously or polytomously scored.

Method of Data Collection

The QADTEPSBECE instrument was administered to sampled students, teachers, and schools with the assistance of two trained research assistants. The assistants were briefed on proper administration procedures, ethical considerations, and how to address questions from respondents. On-the-spot assessments were conducted in all sampled schools, and observations were rated directly. The researcher ensured uniformity in data collection across all locations.

Method of Data Analysis

Data collected were analyzed in line with the research questions. Data from Research Question 1 were analyzed using percentages. For Research Questions 2 and 3, means and standard deviations were computed. The checklist responses were converted into percentages and a benchmark of 70% was set as the threshold for adequacy. Mean scores of 2.50 and above were considered as sufficient evidence of effective assessment. The checklist ratings were compared against NECO's BECE manual standards to determine compliance with recommended test environment components.

DATA PRESENTATION AND ANALYSIS

The results of this study are presented in this chapter. The findings are presented and analyzed in tables according to the research questions that guided the study.

Research Question One: What is the accreditation status of schools where BECE are taken in Enugu education zone?

Table 1: Checklist on accreditation status of public schools where BECE are taken

S/N	Accreditation activities	Availability (%)	Decision
1	Year of last accreditation/resource verification	25%	Not Adequate
2	Evidence of approval from ministry of education	100%	Adequate
3	Spacious examination hall	100%	Adequate
4	Minimum of 6 classrooms	100%	Adequate
5	Comfortable writing desk and chairs	79%	Adequate
6	Functional facility for basic technology	32%	Not Adequate
7	Functional Physics lab	84%	Not Adequate
8	Functional Chemistry lab	68%	Not Adequate
9	Functional Biology lab	61%	Not Adequate
10	Functional Agriculture lab	12%	Not Adequate
11	Functional Computer lab	23%	Not Adequate
12	Functional Library	56%	Not Adequate
13	Percentage of teachers with NCE	98%	Adequate

Table 1 depicts data on accreditation status of public schools in Enugu education zone where BECE are taken with respect to test environment, input facilities and human resources provided at the centers. It *checked* the minimum standard as stated in the BECE manual against the state of the art of the school test environment. It also indicates the adequacy of availability of these needed inputs as used to conduct BECE. Decision on adequacy of these inputs were set at 70% by the researcher. Hence, this shows that on average, five out of the thirteen inputs are adequate in the test environment.

Research Question Two: How do BECE examiners conduct themselves in administering the exam in Enugu education zone?

Table 2: Observational Schedule on how examiners conduct themselves

S/N	Examiners conduct	X	SD	Decision
1	Exam Administrators effectively directs the running of BECE	3.10	0.94	Good conduct
2	Monitoring Officers activities reduce exam mal-practices	3.21	0.54	Good conduct
3	Distributors ensures that sensitive and non-sensitive materials get to the custodian point on time and in good faith	2.55	0.36	Good conduct
4	Custodian Officers effectively sort sensitive and non-sensitive materials for onward move to schools without mix-up	3.42	0.53	Good conduct
5	Supervisors are effective in overseeing examination hall	2.51	0.55	Good conduct
6	Invigilators are regularly provided by schools taking BECE	2.88	0.32	Good conduct
7	Photo Album are compiled to identify students taking BECE	3.85	1.57	Good conduct
	Total	3.07	0.68	Good conduct

Key: X = Mean; SD = Standard Deviation

Table 2 presented the item-by-item mean and standard deviations of observations on examiners' conduct in implementing an ideal test environment for BECE in Enugu education zone. Decision on good conduct were set at 2.50 by the researcher. Findings shows that the examiners' conducts at different levels were found to be fitting. Hence, an average mean of 3.07 is satisfactory to indicate that examiners constitute good test environment in the conduct of BECE.

Research Question Three: How do testee conduct themselves in BECE in Enugu education zone?

Table 3: Observational Schedule on how testees conduct themselves

S/N	Testee conduct	X	SD	Decision
1	Seating arrangement: testees observe 1.5m gap all round	1.7	1.47	Bad conduct
2	Lateness: testees are always in hall before exam time	3.6	1.35	Good conduct
3	Use of school uniform: testees wear their school uniform during exam	4.0	1.50	Good conduct
4	Noise: testees are not allowed to speak but concentrate	3.6	1.30	Good conduct
5	Cheating prohibition: any testee found cheating in any form is sanctioned	3.8	1.41	Good conduct
Total		3.34	1.41	Good conduct

Table 3 presented the item-by-item mean and standard deviations of observations on testees' conduct in conforming to an ideal test environment for BECE in Enugu education zone. Decision on good conduct were set at 2.50 by the researcher. Findings shows that testees' conduct at different depots were found to be appropriate but in item 1. But an average mean of 3.34 is satisfactory to indicate that testees' behavior constitute good test environment in the conduct of BECE in Enugu education zone.

Discussion of Findings

The findings of the study are discussed in line with the research questions that guided the study.

Accreditation Status of Schools where BECE are Taken in Enugu Education Zone

BECE is a veritable tool to qualify examinees to proceed to the senior secondary. It is also an assessment that measures the extent to which basic competencies and skills have been acquired. In order to effectively measure the achievement level of examinees at that stage and a proactive step in addressing any challenge inherent in the implementation of desirable test environment, the Nigerian government reviewed the curriculum of the basic education level in 2008 and 2014 respectively. The rationale behind these steps of the government in carrying out the two major curriculum initiatives became even more obvious when cognizance is taken of the key findings of this study. Findings of this study indicated that with respect to accreditation as an aspect of desirable test environment for BECE, there is evidence of approval from ministry of education, spacious examination hall, minimum of 6 classrooms, comfortable writing desk and chairs. There is no gainsaying the fact that the performance of an examinee on a test item can also be explained by the characteristics of these test environment. The above findings are in contrast to those made by Salihu and Jamil (2015) that there are shortage of space to

accommodate the requirements of the universal basic education because the education facilities did not expand in accordance with the growth of the student population.

Findings also indicate that the teachers are qualified. This is because 98% of the teachers were found to have at least NCE as qualification. As stipulated in the National Policy on Education, the minimum qualification for teaching in junior secondary is NCE. This is a welcome development because it could be inferred that Government to a large extent maintains the NCE as a minimum qualification for teaching in the public schools in the state. This contradicts the findings of Frempong, Asare-Bediako and Aboagye (2016) *on the analysis of factors contributing to poor academic performance of students in BECE which indicates that teacher factor is a major one*. The findings of this study also oppose those made by Otemuyiwa and Attah (2019) that there was shortage of teachers in all the basic education schools in Kwali Area Council of the Federal Capital Territory, Abuja.

However, the current trends in the performance of students at BECE show that examinees' performance is consistently fluctuating over the years (Ayanwale, Adeleke and Mamadelo, 2018). According to Salihu and Jamil (2015), one of the ways to assess the current effectiveness of the scheme is to look at the availability of the infrastructures needed for its implementation. This study noted that some basic infrastructures which were stipulated in the BECE manual to be provided to be able to deliver basic education and desirable test environment to testee are insufficient. Findings show that there are lack of functional facility for basic technology. Other facilities needed to meet the goals of the basic education and to ensure desirable test environment but in dire condition are Physics, Chemistry, Biology, Agriculture and Computer labs. Many of the buildings housing these facilities are already deteriorated, resulting in the creation of learning and test environments which are not conducive. In addition to the insufficiencies which have been influential in limiting the potential success of universal basic education, there has also been a poor state of school libraries, among other educational facilities which should have given student the opportunity to functional education. Other insufficiencies discovered in this study is that accreditation/resource verification are rarely done. There are three main reasons why the BECE is important: It decides the selection of students that will be promoted from Junior Secondary School to Senior Secondary School, it is necessary to be awarded the basic education certificate and it is required for admission into technical institutes. It is hardly debatable that non implementation of regular re-accreditation/resource verification would constitute the bane of achieving a desirable test environment in these public.

How BECE Examiners Conduct Themselves in Exam Administration

With respect to the conduct of examiners in assessment of a desirable test environment in the study area, findings of this present study revealed that Exam Administrators effectively directs the running of BECE, Monitoring Officers activities reduce exam mal-practices, Distributors ensures that sensitive and non-sensitive materials get to the custodian point on time and in good faith and Custodian Officers effectively sort sensitive and non-sensitive materials for onward move to schools without mix-up. Other findings as indicated in this study are that Supervisors are effective in overseeing examination hall, Invigilators are regularly provided by schools taking BECE and, Photo Album are compiled to identify students taking BECE.

There is no gainsaying the fact that such a healthy conduct of BECE examiners as obtainable in Enugu education zone supervenes into a conducive learning and test administration regime and as well promotes students' hard

work in their schools and their interest to stay in their school and write BECE. This is because student's academic performance is influenced not only by provision of learning opportunities, but also by the organization of assessment procedures that are effective in reward system that encourages studiousness. This is because provision and assurance of quality environment have profound impact on their aspiration to learn, their curiosity and their desire to develop their own competency.

The environment in which the learner acquires knowledge has a great influence on the cognitive achievement of the learner. It was found out by Mgbodile (2014) that the quality of learning is markedly influenced by environmental and organizational factors. Desirable test environments thus serve as active contributors to the students' learning process (Keep, 2012). These good conduct by BECE examiners can be integrated into the structure of the school making it an active space rather than passive spaces because active interaction with the environment is regarded as the most basic requirement for proper intellectual development. As findings show shows that the examiners' conducts at different levels is fitting, it is intrinsic to promote a healthy conducive internal and external condition and influences in the school that positively affect the test administration and the academic performance of the students. Orlu (2013) found out that the school environment and coordination of teaching and learning activities has a significant influence on academic performance. Ajao (2011) also observed that the quality of education not only depends on the teachers performing their duties, but also in the effective coordination of the school's learning environment and assessment procedures.

How Testee Conduct Themselves in BECE in Enugu Education Zone

Findings of this study show that testees' conducts in the test environment are satisfactory with respect to Lateness: testees are always in hall before exam time, Use of school uniform: testees wear their school uniform during exam, Noise: testees are not allowed to speak but concentrate and Cheating prohibition: any testee found cheating in any form is sanctioned. These are however indices that outcomes and decisions taken from such examination sessions would be valid and warranted. On the other hand, findings of this study indicates that there is bad conduct in BECE with respect to seating arrangement: testees do not observe 1.5m gap all round as stipulated in the BECE manual, even when there are enough space in the exam hall. This is more likely to encourage examination misconduct like to giraffe in exam hall.

Conclusions from the Findings of the Study

This study ascertained the assessment of desirable test environment for BECE in Enugu education zone. The following conclusions are made on the basis of the findings of the study:

First, the Post Primary State Management Board (PPSMB) in Enugu State maintains the NCE as a minimum qualification for teaching at the Upper basic education. As stipulated in the National Policy on Education, the minimum qualification for teaching in junior secondary is NCE. This is show that the teachers in the upper basic met the standard set the ministry of education and other corresponding body.

Second, Examiners' conduct in BECE is satisfactory. Monitoring Officers activities reduce exam mal-practices, Distributors ensures that sensitive and non-sensitive materials get to the custodian point on time and in good faith and Custodian Officers effectively sort sensitive and non-sensitive materials for onward move to schools without mix-up.

Third, students conduct is largely satisfactory. Thus, the conducts in the test environment are satisfactory with respect to Lateness: testees are always in hall before exam time, Use of school uniform: testees wear their school uniform during exam, Noise: testees are not allowed to speak but concentrate and Cheating prohibition: any testee found cheating in any form is sanctioned.

Implications from the Findings of the Study

The major findings show that:

1. Most basic input facilities needed in implementing desirable test environment in schools are not adequate. This implies that there is dearth of needed basic input facilities to meet the goals of the basic education and to ensure desirable test environment.
2. Accreditation and resource verification is seldom done in Government schools. The absence of this is a very critical missing link in the implementation process of the revised 9-year Basic Education Curriculum.
3. Examiners at different levels constitute good desirable test environment in the conduct of BECE. Hence, effective implementation of BECE is feasible.
4. Testees conduct to a large extent constitute good desirable test environment for BECE. This implies that the testees deserve learning spaces that meet their individual and collective needs to excel.

Recommendations

Bearing in mind the findings of this study, the following recommendations are made towards improving the implementation of BECE in the study area.

1. Government should declare state of emergency in public schools with respect to basic infrastructure like library and labs that are vital to the realization of the Basic Education Curriculum so that schools are properly equipped for functional teaching and learning of which assessment is a vital part.
2. A conducive learning environment does not just happen on their own or by chance. They should be created through conscious procedures like interacting with students in a positive manner, exhibiting positive behaviors including others that would promote learning activities in the learning environment.
3. As a matter of urgency, ministry of education should put in place an effective and institutionalized system for regular supervision of learning environment and measurement of outcomes through accreditation and resource verification activities.

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