

**ENHANCING EQUITY IN PUBLIC EXAMINATIONS:  
THE WEST AFRICAN EXAMINATIONS COUNCIL'S  
EXPERIENCE**

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### **ABSTRACT**

Equity in public examination presupposes that all candidates who possess the same degree of ability are awarded the same grade. Inequities, on the other hand, places some individuals and/or groups at a disadvantage due to factors other than the ability that the examination purports to assess (The World Bank Group, 2001). Apart from inequities that may exist in the general education system which may restrict access to an examination system or limit candidates' opportunity to prepare for an examination, other inequities may be found in the examination process itself. This paper attempts to highlight practices that may create inequities such as bias and other forms of injustice in public examinations. Drawing from empirical evidence, the paper looks at inequities existing in test administration, the marking system, school-based assessment, examination malpractice, conduct of examination for candidates with special needs and gender performance difference. The paper draws from the experience of the West African Examinations Council to proffer solutions to the problem of equity in public examinations. The paper concludes with recommendations on how to ensure equity in the public examination systems and thus enhance the credibility of the system of public examination and assessment.

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### 1. INTRODUCTION

Equity in examination has been a contemporary issue of discourse in the Education sector. The concept of equity in education connotes justice and fairness in all its ramifications to all stakeholders. It means there should be no discrimination against any segment of the population in terms of access to education, be it racial, religious, socio-economic background or otherwise. The New Webster's dictionary defines the concept of Equity as

*"... the application of the principles of natural justice in particular circumstances where the existing laws would not allow a fair or reasonable result."*

This definition portends that the approach to educational issues, including public examination, should be equitable in all respects. Equitability in this context implies fairness, justice, objectivity in the development, conduct and processing of test results without fear nor favour.

Adewale, Ajayi, and Enikanoselu (2006) view equity in education as "ensuring that all segments get their share of access to whatever educational opportunities are provided." There must not be discrimination with regards to political affiliation, geographical location nor should anyone be prevented from full participation in the acquisition of education at all levels.

The World Bank (2001) posits that an equitable examination system should ensure that all students who possess the same ability receive the same treatment and get the same result. This is because where there are inequities, an individual or group may gain unfair advantage over the other.

The World Bank study also identified some factors militating against equity in the performance of students. These include:

- Conflicting role expectations for boys and girls.
- Differential demands for boys and girls to work outside the school hours.

- Girls appear to be better in essays and continuous assessment, while boys are slightly advantageous in multiple choice questions.

Essentially, equity in examinations is to ensure that standards are set across the board to enable all and sundry to compete on equal terms barring any extraneous factors that may affect any group arising not from the examining bodies.

## **2. EQUITY IN THE WEST AFRICAN SENIOR SCHOOL CERTIFICATE EXAMINATION**

The West African Examinations Council conducts both international and national/local examinations in all its member countries. The West African Senior School Certificate Examination (WASSCE) is taken twice a year in the member countries; May/June for school candidates and November/December for private candidates are the mostly patronized ones.

As West Africa's foremost examining body, WAEC is considered to be at the forefront of developing and maintaining internationally accepted procedures in examinations. In this regards, Council is believed to be providing quality and reliable educational assessments that encourage academic and moral excellence among the youth.

Quality assurance is also fundamental to the corporate image of any organization. In fact, the integrity of an examination paper lies in the ability to ensure its security from production to the point when candidates are scheduled to come in contact with it. Ensuring this credibility is a major challenge in test administration procedures.

Validity and reliability of the instruments are therefore basic concepts of equity in education held in high esteem by the Council. WAEC has elaborate and well defined processes of conducting examinations with inbuilt security measures at each stage of the examinations. It is therefore pertinent to examine the measures put in place by WAEC for ensuring quality and equity in its examinations.

**(1) Examination Syllabus:** The examination syllabus is derived from the teaching syllabuses drawn from the national curriculum of each member country. Therefore, every student that is adequately taken through the school system using the syllabuses has a good chance of success in the final external examination conducted by WAEC.

**(2) Commissioning of Test Items:** Subject experts and professionals of high integrity are commissioned to write test items, with the use of tables of specification. Items so generated are edited to remove errors, ambiguities, cultural or social and gender biases that may affect or jeopardize the chances of candidates' successes in the examination. These test items are also widely trial tested and are analyzed to determine the difficulty and discrimination indices of the items for validity and reliability.

**(3) Moderation of Items:** Subject experts from relevant disciplines constitute the moderating committees who scrutinize thoroughly all compiled items by the subject officers before the drafts are compiled into test papers. All compiled test papers are proof-read thoroughly to ascertain that they are error free.

**(4) Security of Question Papers:** Test items are dispatched under strict security to the printing houses for the production of test papers in order to prevent compromise or give undue advantage to any candidate or group of candidates before the actual examination date.

**(5) Registration:** This is now done on-line since 2005 to remove multiple entries and thereby reduce examination malpractice cases. Candidates' errors are also minimized because opportunity of amendment of entry details are available before uploading.

**(6) Examination Timetable:** The examination time-table is released several months before the commencement of the examination. This enables candidates to be physically and psychologically prepared. The same time-table is used by all the member countries. Therefore, candidates write the same examination at the same time to prevent fore knowledge or leakage.

**(7) Physically challenged candidates:** Council in its bid to ensure equitable access to its examinations equally caters for the physically challenged. Therefore, candidates that are visually challenged or have ear-defects are assisted by conducting examinations with necessary audio-visual aids. Braille is printed for the blind candidates to ensure that they are not disadvantaged in any form.

**(8) Supervisors:** Council engages the services of supervisors recommended by the federal and state ministries of education. These are people of high integrity, smart, sharp and alert to their responsibilities. The supervisors are swapped on daily basis to discourage malpractice.

**(9) Conduct of examination:** The greatest challenge occurs during the conduct of the examination. The safe transition of the question papers from WAEC custody to the hands of custodians, supervisors and invigilators have been ensured by the introduction of supervisors' mail bags with suitable padlocks from the custodial centers to the examination centers are part of the security measures put in place to forestall any form of compromise. In addition, worked scripts are put in lock-up bags so that no one can swap them. Daily delivery of question papers and return of scripts to the nearest zonal or branch office to ensure non-interference in any form is also put in place.

**(10) Standardization of Marking Scheme:** Before conference marking is carried out, International Preliminary Coordination of Chief Examiners in the various subjects is done for the compilation of the final marking scheme. Therefore, equity in marking is achieved through standardized marking schemes.

**(11) Conference Marking:** All essays papers/worked scripts are controlled and sent to the various marking venues for marking. In order to ensure reliability of scores awarded by the examiners, coordination sessions and marking of dummies are carried out by each subject group to ensure validity and reliability of scores awarded to candidates. The chief examiners and team leaders also vet the scripts marked by the assistant examiners progressively to ensure uniformity in the marking.

**(12) Checking of Scripts:** In order to eliminate possible human errors during marking, some adhoc staff are recruited as checkers to go through the marked scripts page by page to ensure that all scripts are marked and scores awarded are properly added. Scores transferred on the computer 'OMR' sheets are dictated to WAEC subject officers by the examiners from the marks and attendance sheets to ascertain that scores are correctly transcribed/ recorded.

**(13) Standard Fixing and Grades Awards Meetings:** The process enables the use of the same standard of measurement procedures in the assessment and placement of all the candidates in the group they belong. This ensures equity, fairness and uniformity in the general grades awarded. Thereafter, standard fixing and grade awards meetings are held to determine the bench marks for the various subjects.

**(14) Result Processing:** Processing of results is subjected to the highest level of quality control and assurance by the Computer Services Division. Photo-embossment of

candidates on certificates is also a major security measure to forestall malpractice. All necessary structures therefore, are put in place to ensure fairness, validity and reliability of the scores awarded to candidates by WAEC.

### 3. WAEC'S INTERVENTION STRATEGIES IN PUBLIC EXAMINATIONS

WAEC in its effort to ensure equity and fairness in examination procedures also carries out research activities, organizes seminars, subject workshops and item-writing workshops. WAEC's research, among others, includes monitoring and appraising Council's goals and processes as well as examining educational problems relating to testing and educational measurement. As an institution within the education sector, WAEC's investigations delve into issues relating to teaching and learning, curriculum development and other components of the education sector. (Uwadiae and Oke, 2006). In its search for justice and fairness in the assessment realm, WAEC conducted a total of one hundred and three (103) research studies between 1990 and 2006. The studies were carried out under different assessment themes as indicated in table I.

**Table 1: Themes of the studies conducted by WAEC (1990-2006)**

S/N	Themes	Number of studies	Percentage
1	Improving quality of examination items	27	26.2
2	Continuous/School Based Assessment	08	7.8
3	Performance of Candidates	35	34.0
4	Gender related Assessment Issues	02	1.9
5	Aptitude Test Development and Testing	02	1.9
6	Examination Malpractice	06	5.8
7	Equivalence of Certificates	05	4.9
8	Equity in Assessment	10	9.7
9	Staff/Examination Bodies Related Issues	05	4.9
10	Entries in Examination	03	2.9
	Total	103	100

Source: Uwadiae & Oke (2006)

Table 1 shows that majority of the studies were assessment related. A good percentage (34.0%) of the studies conducted focused on performance of candidates in examinations. Others focused on improving quality of examination items, gender related matters,

aptitude test development and testing, equivalence of certificates, examination malpractice cases and so on. These studies were embarked upon as a result of the need to establish through empirical studies, equity and fairness in assessment. It is pertinent to note that all the findings from the various studies were incorporated into the assessment procedures of WAEC to promote equity in testing techniques.

WAEC ensures that all checks and balances are instituted to ensure quality and integrity in its examinations. Where it is discovered that candidates or groups of candidates gained undue advantage to perpetrate examination malpractice by manipulating Council's rules, commensurate sanctions and penalties ranging from cancellation of subject results or entire results, de-recognition of schools and disciplinary actions against supervisors or school principals are carried out on such erring offenders.

WAEC has conducted ten studies to ensure equity in its examinations. Its' study to ascertain gender bias in its multiple-choice questions and its effects on performance revealed that most of the items in the ten WASSCE Science, Technology and Mathematics (STM) subjects examined were devoid of gender bias. However, a joint study conducted by the Educational Testing Service and the College Board concluded that the multiple-choice format itself is biased against women. In another reported 1989 study by Phyllis Rosser, "The SAT Gender Gap: Identifying the Causes", it was found that the vast majority of questions exhibiting large gender differences in correct answer rates are biased in favor of males. This was despite females' superior academic performance in the questions.

#### **4. RECOMMENDATION**

The following recommendations are proffered:

- WAEC should not be left alone with the task of total quality assessment in education.
- Efforts should be made by teachers in schools to attract males into subjects like Food & Nutrition and Clothing & Textile that seem to be gender-biased.
- Efforts should also be intensified to ensure that multiple choice questions in STM subjects are not gender-biased.

- Questions should also be “balanced” in order not to favour any particular gender.
- Item writers should be briefed thoroughly on the need to avoid bias, and write only items that are neutral to both male and female.

## **CONCLUSION**

WAEC as an organization has served as an impartial assessor of education in the West African sub-region. This has been done through standardized assessment procedures, with the use of valid and reliable assessment instruments to promote excellence in academic pursuits. WAEC has consistently improved its corporate image through research activities, seminars, conferences and workshops because of its belief that “Education is the bedrock upon which other sectors of the economy of any nation are built” (Guardian Newspaper, March 22, 2007).

Although WAEC is besieged by a number of problems ranging from inadequate funding, to unprecedented rise in malpractice cases, Council is undaunted in its efforts to ensure equity in the assessment and certification of candidates. It is this tenacity of purpose that has endeared WAEC to its numerous stakeholders. However, WAEC should not be left alone with the task of total quality assessment in education. Efforts should be made by teachers in schools to attract females into subjects like Foods & Nutrition and Clothing & textiles that seem to be gender-biased, while also efforts should be intensified to ensure that multiple choice questions in STM subjects are not gender biased. Questions should also be “balanced” in order not to favour any particular gender. Item writers should also be briefed thoroughly on the need to avoid bias, and write only items that are neutral to both male and female.

## REFERENCES

- Adekale, A. (1993): Incidence and Causes of Examination Malpractice among Students of the University of Ilorin. Nigeria. *Journal of Educational Foundation* 4(1) 18-41.
- Adewale, T.M., Ajayi, K.O. and Enikanoselu, O.A. (2006): Extent of Access and Equity in Higher Education in Nigeria and Possible Solutions in Nigerian. *Journal of Educational Administration and Planning* 6, (1). 41-52.
- Ijaiya, N.Y.S (2004): Agents of Examination Malpractice in Nigeria Public Examinations: The Strongest Links. *Journal of Educational Foundation* 4(1) 43-49
- Ivan Addae-Mensah (2006): *Quality Assurance in Public Examinations*. WAEC's 11<sup>th</sup> Annual Endowment Fund Lecture.
- Nwahunanya C. (2004): Examination Malpractice: A threat to the credibility of Distance education in Nwahunanye, C. (ed) *Distance Education at the Crossroads in Nigeria*.
- Odongbo, D.N (2002): Controlling Examination Malpractices and Irregularities; Uganda National Examination Board's Experience. Proceedings of the 20<sup>th</sup> Annual Conference of AEEA: Arusha Tanzania, 2002.
- Omosho H.M. (1990): The face of examination malpractice in Nigeria. WAEC News: A House Journal of WAEC, 4(3).
- Onyechere, I (2004) Cheating: *A world-wide problem in 'Comes in at least 33 ways'*. Retrieved March 4, 2004: from [All Africa.com](http://www.allafrica.com).
- Sooze, S. (2004): *Way out of Examination Malpractices Daily Times*. May 29, 2004.
- The Guardian Newspaper (2004): Examination fraud in schools. Guardian Newspaper, Monday, 12<sup>th</sup> April 2004.
- The New Webster's Dictionary (1994) Lexicon International – Publishers Guild Group, New York, New York.
- Uwadiae.I & Oke, M.G. (2006). *Research in the West African Examinations Council and its contributions to Educational Policies and Practices in Anglophone West Africa*. A paper presented at the 24<sup>th</sup> Annual Conference of the Association for Educational Assessment in Africa, Ezulwini-Swaziland. 28<sup>th</sup> August- 1<sup>st</sup> September, 2006.
- World Bank Group (2001) “Material for Equity” prepared by Vincent Greaney, George Bethel, Thomas Kellaghan, Hugh McManns. Retrieved May 10, 2008 from <http://www1.org/education/exams/equity>
- WAEC (2001): *A Review of Studies conducted by the Research Division of WAEC (1990-1999)*