



## **Validity Evidence For The Cameroon GCE Board Organised Examinations and Candidates' Academic Performance in Ordinary Level History (2010 -2015).**

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### **ABSTRACT**

This study was conceived upon the realization that many candidates who sit for examinations organised by the Cameroon GCE Board over the years underperform. This underperformance has been blamed on several factors by researchers, teachers, parents, subject panel officials, the Cameroon GCE Board and education stakeholders without a particular attention to the role of the Board itself. This study was therefore designed to determine the validity evidence for the Cameroon GCE Board organised examinations and their relation to the academic performance of candidates at the GCE Ordinary level History. The focus was placed on validity evidence based on content and evidence based on response processes. Three research questions and hypotheses were postulated. The research design used for this study was the correlational research design. The researcher used stratified random sampling to draw a sample of 313 GCE Subject panel officials from a population of 1751 of some selected subjects and simple random sampling to draw a sample of 306 GCE candidates from a population of 1534. Two self-designed questionnaires were used to collect data from subject panel officials and candidates. Data were analysed using descriptive statistics, bivariate regression analysis and t test. The Statistical Package for Social Science (SPSS) version 20 was used to determine correlation and regression results. The test construction and test administration practices of the Cameroon GCE Board were found to significantly predict candidates' academic performance. The influence of the evaluation or scoring practices of the Board on candidates' academic performance was found to be insignificant. The study proffers far reaching recommendations to the Cameroon Government and the Cameroon GCE Board for the improvement and maintenance of standards by the latter. To the Cameroon Government, the study recommends the creation of an office of the qualification and examinations regulator, which should be a quality assurance bureau or regulatory agency that will monitor the activities of the Cameroon GCE Board. The government

should employ external assessors to constantly evaluate the activities of the Board. It should also ensure the allocation of more funds to the Cameroon GCE Board for efficiency. To the Cameroon GCE Board, the study recommends efficiency in test development, co-operative effort to ensure quality assurance in the examinations they organise through manpower exchange and development programmes, payment of all workers according to the provisions of the labour code to deter them from examination malpractices.

**Key words:** GCE, Test development, validity evidence

## Introduction

The primary goal of any credible public examination agency like the Cameroon General Certificate of Education Board (CGCEB) must be to ensure credibility in the examination and assessment of its candidates in fostering education in the country. Education remains a potent tool for attaining national goals and therefore the Cameroon GCE Board must remain a veritable instrument for measuring educational attainment at the secondary school level in Anglophone Cameroon by maintaining standards at all cost. The goal of any examination board should also be to ensure that all candidates irrespective of their tribe, religion or location write the examinations under uniform examination conditions, same timetable, and uniform examination periods in terms of days, duration, time, and uniform examination hall conditions in order to ensure fairness in the assessment of every candidate (Aworanti, 2014). Assessment which is the main function of the Cameroon GCE Board is very important in every nation because they provide information, in the form of test scores as documented in certificates that can be used for practical purposes to the benefit of individuals, organizations, and society at large. Moreover, this information is of higher quality for a particular purpose than information available from alternative sources..

The Board was created on July 1, 1993 by a Presidential Decree No 93/172 and its Text of Application order No 112/CAB/PM was signed by the Prime Minister to organise the General Certificate of Education Examinations at the Ordinary and Advanced Levels and foreign examinations for the English Sub- System in Cameroon. The historical background of the Cameroon GCE Board started in 1944. In 1944, the General Certificate of Education (GCE) examination in Southern Cameroons was run by the University of Cambridge Local Examination Syndicate (UCLES). In 1954 Southern Cameroons withdrew from the UCLES to take the West African School Certificate Examination (WASCE) which had been created in 1951 and which went on until the reunification of Southern Cameroons with the Republic of Cameroon in 1961

(CGCEB, 2007). After the reunification of Southern Cameroons and East Cameroon, Southern Cameroons, then West Cameroon withdrew from the West African School Certificate Examination in 1963 to join the University of London General Certificate of Education Examination until 1976 when the Cameroon Ministry of National Education took over the conduct of the General Certificate of Education (GCE) examinations.

Looking at the evolution of the Cameroon GCE Board, one can conclude that a lot of attention is paid to the role of the board as an assessment body not only within but outside Cameroon. Assessment is one of the processes of education which does not only drive itself but it drives other processes like teaching and curriculum. Assessment is very important as an integral part of every teaching-learning process because it provides candidates' results and at the same time addressing their learning difficulties. Developing an assessment tool (test) that produces reliable scores and valid interpretations is not an easy task, and progressively high stakes examination like those run by the Cameroon GCE Board, indicate a progressively greater need for professional psychometricians. Therefore, assessment and certification which are the main roles of the board is tasked to determine and improve on how well each process of education is ensuring progress towards achieving the aims of education as stipulated in the curriculum, using professionals of high standards and with cognate experience. The Cameroon GCE Board runs high stakes assessment with an emphasis on the use of examination results to judge the quality of students and that of schools and therefore it must be meticulous in that role by ensuring that each examination organized undergoes a validation process. The main reason for the 'cameroonisation' of the GCE examinations was amongst others to ensure quality of the certificates offered as well as quality of students admitted into universities and training colleges and to achieve this the Board must begin with setting standards on the quality of its examinations. Unfortunately, most of the candidates who sit these certificate examinations fail as illustrated in tables 1 and 2 below.

Tables 1 and 2 indicate that the performance is fairly above average with many candidates failing the examination and this calls for concern. Considering this trend in performance in examination organised by the Board in general and in History Ordinary level in particular, it is worthy to investigate not only the causes of this poor performance but to evaluate the validity arguments

for GCE Board organised examinations with particular focus on its test development practices. The Findings can be useful in dismissing baseless arguments by some examinee population and parents that blame the Board for their failure in examinations. The Cameroon GCE Board should play a fair role as an examination body and should not in any way influence the performance of its candidates. In fact, according to the Head of the National Office of West African Examination Council (WAEC), Dr. Iyi Uwadiae, explaining the causes of mass failure in WAEC examination in the 2011 session, argued in defence of WAEC that WAEC, as a body entrusted with the conduct of the examination should not be seen as a public enemy because the council does not fail candidates deliberately. To ascertain the same position for the Board some research like this has to be ignited to prove that the Board from inception is working towards ensuring fairness in assessment as well as maintaining standards and credibility.

Since examination is expected to reveal the true latent ability of examinees as can be seen through performance, the Cameroon GCE Board should as the only public examining body for the English Sub-system in Cameroon work meticulously towards efficiency. Again examination is described by Fagbamiye (1998) as a tool for measuring and judging the standard of education in any country, making one to see clearly its importance in a country. Therefore, the Board's examination should be constructed to discriminate through performance. The discriminatory power of a test could be seen as the ability of the test to discriminate impartially, objectively and honestly along the intellectual ability continuum of individuals being examined. The academic performance of candidates is central to the Board's activities. It is therefore a yard stick for ascertaining the capabilities of a candidate from which his inherent or unrevealed abilities could be inferred. Academic performance in GCE examinations is categorised into passed or failed grades. Passed grades for Ordinary level examinations are A, B and C while D and E are failed grades while for A/L passed grades are A, B, C, D, and E. The performance of candidates in GCE examinations should be based on candidates' intellectual abilities not because of some extraneous factors or errors especially if they are coming from within the examining agency itself.

The importance of the Board in nation building cannot be overemphasised and should be seen through its examinations. Examination is the building block for measuring and judging the quality and standard of education of a country. The socio-economic development structure of a country depends on good and reliable examination for a sound education system. The academic level of citizens only last, and is determined through quality examination. No country can attain

a developed status without a reliable dynamic educational system equated with valid testing vis-a-vis, examination program (Mkpaie, 2014). Therefore, these standards should be reflected in the Board's test development practices.

## **Statement of the Problem**

The text creating the Cameroon GCE Board calls on the Board to organise examinations that are valid, reliable and credible by ensuring that it provides solutions to the problems that plagued the GCE examinations before its creation. Therefore, the Board should ensure that the process of test development through test construction, administration and evaluation must be geared towards maintaining a world outlook and standards. This means that the certificates offered by the Board must gain credence based on the standards and the process of its examinations. It also implies that all assessments organised by the Board require evidence of validity to be interpreted meaningfully. It should be noted that assessments are not valid or invalid; rather the scores or outcomes of assessments have more or less evidence to support or refute a specific interpretation such as passing or failing a subject (Messick, 2007). Validity is the sine qua non of assessment, as without evidence of validity, assessments in the English sub sector in Cameroon have little or no intrinsic meaning. Therefore, the interpretations given to the History O/L results of examinations organised by the Cameroon GCE Board should have relative validity evidence to be recognised and respected locally and abroad and this must be reflected in the fact that candidates who sit for the examinations are not affected in any way by the Board's role as an assessment body.

Since the creation of the Cameroon GCE Board, the performance of candidates in History has inveterately been on the decline. This notion has caused enervating and disquieting pessimism in students, teachers and even the public and the Board. For instance, in 2015 the general results was 48% while in 2016 it dropped to 42% (CGCEB, 2007). It was then observed that the Cameroon GCE Board in its role as an assessment body may be affecting in some way candidates' performance in GCE examinations with particular reference to O/L History. The study therefore seeks to investigate this phenomenon to determine whether the Board's practices affect candidates' performance in any way.

## **The Research Questions**

The main research question was to determine the validity evidence for examinations organised by the Cameroon GCE Board and its effects on candidates' academic performance at the GCE O/L History.

Specifically, the study sought to answer the following research questions:

1. To what extent do the test construction practices of the Cameroon GCE Board affect candidates' academic performance in O/L History?
2. What is the relationship between test administration procedures of the examinations organised by the Cameroon GCE Board and candidates' performance in O/L History?
3. To what extent does the evaluation or marking of the examinations organised by the Cameroon GCE Board predict candidates' academic performance in O/L History?

## **Research Objectives**

Generally, the main objective of the study was to investigate the validity evidence of examinations organised by the Cameroon GCE Board with particular attention to its effects on performance in OL History. The purpose of the present paper was to describe the sources of evidence (content and response processes) that can be accumulated to help support or refute a validity argument for the examinations organised by the Cameroon GCE Board.

Specifically, this study is intended to:

1. Find out the effect of the test construction practices of the Board on the candidates' academic performance in ordinary level History (O/L).
2. Establish the relationship between the test administration procedures of the examinations organised by the Cameroon GCE Board and the candidates' academic performance in O/L History.
3. Thirdly, to find out whether the evaluation or scoring practices of GCE examinations organised by the Cameroon GCE Board by examiners predict candidates' academic performance in O/L History.

## **The Research Hypotheses**

The following hypotheses were formulated and test at 0.5 level of significance to guide the study.

### **The General Hypotheses**

**Ha1:** The Validity evidence of the Cameroon GCE Board examinations significantly predicts candidates' academic performances in Ordinary Level (OL) History.

**Ho1:** The Validity evidence of the Cameroon GCE Board examinations does not significantly predict candidates' performances in Ordinary Level (OL) History.

### **Specific Research Hypotheses**

**Ha1:** The test construction practices of the Cameroon GCE Board significantly affect candidates' academic performances in Ordinary Level (OL) History.

**Ho1:** The test construction practices of the Cameroon GCE Board do not significantly affect candidates' academic performances in Ordinary Level (OL) History.

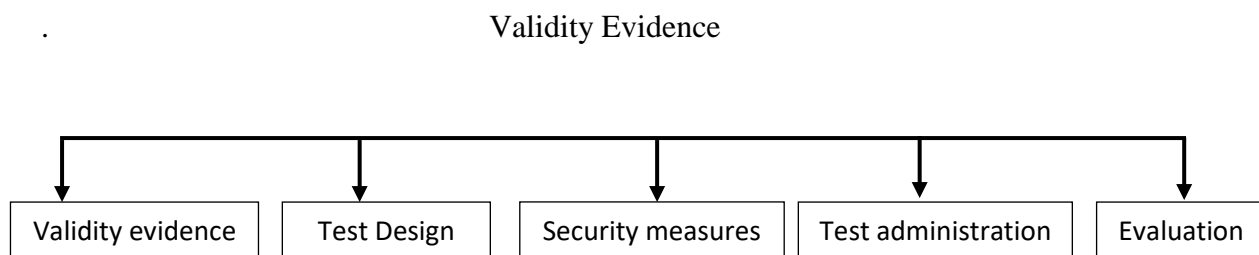
**Ha2:** There is a significant relationship between the test administration procedures of the examinations organised by the Cameroon GCE Board and candidates' academic performances in Ordinary Level (OL) History.

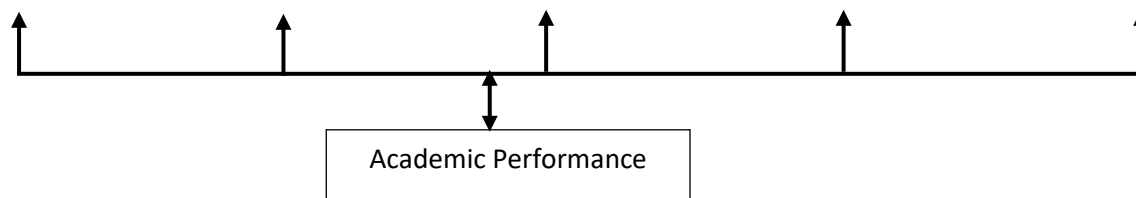
**Ho2:** There is no significant relationship between the test administration procedures of the examinations organised by the Cameroon GCE Board and candidates' academic performances in Ordinary Level (OL) History.

**Ha3:** The evaluation of the examinations organised by the Cameroon GCE Board significantly predict candidates' academic performances in OL History.

**Ho3:** The evaluation of the examinations organised by the Cameroon GCE Board do not significantly predict candidates' academic performances in OL History.

### **Conceptual Framework**





**Figure 1: The Conceptual Framework of Research Variables (Source: The Researcher)**

## Empirical Framework

Anyanwu, and Onwuakpa, (2015) in a paper presented at the Annual International Association for Educational Assessment (IAEA) Conference held at the University of Kansas, USA entitled “Improving Validity of Tests through Improved Test Development Procedures”, postulate that Psychometricians over the world are of the view that validity and reliability of test items are very critical in quality assurance of test items. The paper however, opines that validity is the most important between the two attributes of a good test because it gives the true scores, relevance and appropriateness of test items. The paper identifies some test development procedures in order to improve upon validity measures of tests among which are providing clear instructions in the tests, avoiding the use of difficult vocabularies, appropriate arrangement of items and improving upon the length of tests. The paper outlines strategies for improving test validity through improved test development procedures which include a thorough planning and development of a test, provision of clear instructions and use of unambiguous items, use of less difficult vocabulary, use of appropriate level of difficulty of test items, appropriate arrangement of test items, use of poorly constructed items must be discarded, altering the pattern of answers or keys, length of a test must be considered and the length of time or duration of a test. The paper in conclusion, recommends that public examination bodies should ensure that their test items are trial tested before they are composed into test for use in their examinations; that test items should be arranged according to the increasing order of their difficulty indices in the body of every test; that the table of Specification must be developed and carefully used during test development stage and finally that the experts in test development should be used in editing; vetting and composing test items into test forms before they are used..

Agommuoh, and Akanwa, (2016) in a paper presented at the Department of Science of Education at the Michael Okpara University of Agriculture, Abia State, Nigeria titled “Validity of Nigeria’s Unified Tertiary Matriculation Examination, Physics Computer-Based Test, threats and opportunities” examine the validity of the computer-based test system of examination organised



by the Joint Admission and Matriculation Board (JAMB) of Nigeria. The study sought to find out the threats and opportunities encountered during this examination by students taking Physics to qualify to be admitted into tertiary institutions in Nigeria. The objectives of using this computer-based testing by JAMB include the elimination of all forms of examination malpractices and promotion of the use of electronic testing in Nigeria. The transformation from the paper and pencil test to computer based test according to JAMB would help to reduce examination malpractice, use of mercenaries to write the UTME by candidates, as well as late arrival of examination materials during examinations and will introduce more confidence in the system. Consequently, 2015 was set as the deadline for the adoption of the technology for all candidates writing the UTME with a view to nipping in the bud the alarming rate of examination malpractice which had defied all forms of anti-fraud policies and measures. Computer-based tests (CBT) are the form of assessment in which the computer is an integral part of question papers' delivery, response storage, making of response or reporting of results from a test or exercise. The study analyses the advantages and disadvantages of the CBT. The study has four research questions and two hypotheses. This study employed the descriptive survey design to investigate the threats and opportunities of physics students who took the JAMB CBT physics examination and those who will take the exam next year. The population of the study was fifteen thousand six hundred and eighty-eight (15688) Senior Secondary two and three students who took and who will take Physics in JAMB UTME in Umuahia Education Zone of Abia State, Nigeria. The sample was made up of two hundred and fifty (170 males and 80 females) students got by a combination of purposive and cluster sampling techniques. The instruments for data collection are researchers' developed structural questionnaire of the four point Likert type. The study concludes that while there are potential opportunities for the use of the CBT, the several challenges must be overcome to guarantee the validity of the examination and to ensure effective large-scale state assessments. Whereas, this study examines the validity the JAMB computer based examination in Nigeria, this present studies discusses the validity evidence of the Cameroon GCE Board paper-pencil based examination in Cameroon. This present study however, seeks to correlate the validity of the examination of the performance of candidates which was not the focus of the former study.

Areghan, Agwu C. and Aidokhai A.(2012) in an article on test administration procedures of public examinations in Nigeria and their implications for the West African Senior School Certificate Examination (WASSCE) examine the potential sources of distortion during the administration of WASSCE and the marking of WASSCE scripts in Nigeria. This paper is

similar to this study in the following ways. It states that the WASSCE is a high stake international examination conducted by the West African Examinations Council (WAEC) in Nigeria including Anglophone West Africa. The article also discusses the pragmatic strategies that have been adopted over time by the Nigeria Office of WAEC to expand the framework for action in order to enhance the effectiveness and efficiency of its processes for test administration and marking. The paper further states that test Administration procedures are basically the same for Standardized Tests the world over. However, Areghan et al (2012) say that large candidature, inadequate facilities and insufficient manpower have implications in the validity of assessment outcomes. One of the determinants of quality in educational assessment is its predictive validity. If a candidate scores high in the West African Senior School Certificate Examination (WASSCE) and turns out to be a failure in a tertiary institution, the credibility of the West African Examinations Council (WAEC) assessment would definitely be questioned. The paper goes further to articulate that WAEC as an international examining body therefore periodically reviews its test administration procedures with a view to minimizing distortions to come out with very reliable scores. The paper focuses on pre-examination and post examination practices with particular attention to distortions at the various stages and finally concludes that the challenges of proper administration of tests and coming out with valid and reliable assessment outcomes in the country are enormous because distortion in the process is a societal ill which examining bodies will continue to fight. It has also brought to light the various attempts made by the West African Examinations Council to reduce their effects on assessment such that test outcomes would be a true reflection of candidates' abilities. While the above study explains the role of WAEC as an assessment body in the conduct of valid WASSCE in Nigeria, this present study examines the role of the Cameroon GCE Board in the conduct of valid examinations in Cameroon but goes further to correlate the validity arguments for this examination to the academic performance of candidates.

Plake, Babara and Jones, (2002) in a paper on test practices presented at a meeting of the Association of Test Publishers in Calsbad, California on the responsibilities of test sponsors, test developers, test administrators and test takers in ensuring fair testing practices, focuses on the test taker but discusses the roles of the other stakeholders in ensuring fair testing practices and valid test results. Plake et al (2002) identifies these stakeholders to include test sponsors who are concerned about the policy issues related to test use; test developers who must prepare a test that meets both the purpose and specifications articulated by the test sponsor and the requirements for sound measurement practices. Test administrators are responsible for test delivery in ways that

protect the integrity of the test scores and the security of the test product. The stakeholders here in relation to the present study can be likened to the Cameroon GCE Board. The paper further states that the main responsibility in test development should be to construct examinations that meet current professional technical standards and guidelines and that the test content must be reviewed by qualified experts followed by field testing. The paper states that test publishers are responsible for providing confirmatory evidence of the reliability of scores and the validity of inferences based on interpretations of test performance. The paper quotes Messick (1989) and Kane (2001) who provide excellent summaries of contemporary procedures for the conduct and reporting of validity studies, and Feldt and Brennan (1989) and Brennan (2001) who present similar guidance for reliability studies. According to Plake et al (2002) stakeholders must also consider policies to ensure test security and by these, test administration personnel play a primary role in maintaining the integrity of the testing sessions by implementing procedures to prevent cheating and other unauthorized test-taker behaviours. These procedures include verifying the identity of test takers, preparing a seating chart and randomly assigning test takers to seats/work stations, actively monitoring the test room, eliminating access to telecommunication devices and other unauthorized resources (e.g., calculators, cameras), and maintaining custody of secure materials. Security measures should be explained to test takers as a means of deterrence and to notify them of obtrusive responses).

Adelakum and Uwadiae (2013 ) in a paper on the challenges of quality assurance in assessment in multicultural contexts with particular attention to the West African Examination Council (WAEC) in Nigeria stipulates that mindful of the imperative of quality assurance in assessment in multicultural contexts, WAEC has strengthened its operations through the development of new performance indicators, benchmarking processes and standardized reference points for quality and standards such as frameworks of qualifications, output standards and criteria that focus on candidates' performance. The paper is similar to the present study in that it WAEC as an assessment, upholds professional practices in the assessment procedures and has like the Cameroon GCE Board evolved other strategies aimed at ensuring quality assurance in the conduct of the West African Senior School Certificate Examination (WASSCE). The paper therefore, expediently examines the quality assurance measures under test development procedures; test Administration procedures, coordination meetings and marking of scripts, standard fixing and grade award meetings and results and certificates. In each of these stages, the paper outlines strategies used to ensure quality, credibility and standards of the examination.

Dibu-Ojerinde (2005), in a paper presented at the ICET World Assembly, Pretoria, South Africa on the challenges of standards in the test development process for the Senior School Certificate Examination organized by the National Examination Council in Nigeria. The paper attempts to investigate test development procedures of NECO and goes further to appraise the adequacy of the procedures and the impeding factors to the maintenance of standards in the procedures for the development of valid and reliable test items for the Senior Secondary School Examination (SSCE) in Nigeria. It states that when issues of reliability, validity and usability are sufficiently catered for then, the items so developed could be said to be capable of carrying out the function for which it is designed (i.e. capable of eliciting responses that will assist the examiners in taking the right decision about the candidates). It goes further to identify challenges facing the maintenance of standards in test development which include late or zero response from item-writers, defective (i.e. poorly – written) test items from item-writers, huge financial requirement, rigours and time involved in item analyses after trial testing, moderation of items, finance and the stress of pooling and sampling of items from the item banks.

In a paper entitled “Investigating Reliability and Validity in Rating Scripts for Standardisation Purposes in Onscreen Marking”, Cheung, Amy K.M., and Chang, Rui (2009), investigated the reliability and validity of Assistant Examiners (AEs) in rating the standardised scripts used as benchmarks in onscreen marking (OSM) of the written component of Primary 6 English Language in the Territory-wide System Assessment in the Hong Kong Special Administrative Region. This paper was presented at the 35<sup>th</sup> annual Conference of the International Association of Educational Assessment (IAEA). The paper postulates that marking criteria included content and language. Standardised scripts were employed for training markers, qualifying markers before they started rating and check-marking the markers at random intervals throughout the entire OSM period. Therefore, these standardised scripts played a vital role in monitoring the marking quality even with the cutting edge technology of OSM. Stratified sampling technique was used and the data collected enabled correlations between expert panel ratings and AEs’ ratings and the Multi-faceted Rasch Model was run to calculate the fair average (FA) for all AEs and unfit for each rater. To externally validate the ratings, verifiable quantitative measures (VQM) were used as a check which correlated against both FA and individual ratings. The results yielded correlations in the range of 0.6 to 0.9 for FA ( $\alpha < 0.05$ ) and 0.4 to 0.8 for individual raters ( $\alpha < 0.05$ ) showing that the method used in rating scripts for standardisation

purposes was in most cases valid and reliable, especially when FA was used. The study touches on keys issues of the present study including the role of raters in producing valid and reliable results of candidates though the raters are working onscreen. While the aspect of evaluation is vital for any examination outcome, the study does not discuss the absence of efficiency in influencing candidates' performance.

Alobwede (2015) in his unpublished work on improving and sustaining standards highlights the causes of poor performances in 525 Economics examinations organized by the Cameroon GCE Board. He analyses meticulously the absence of training in the construction of multiple choice questions (MCQS) for teachers as one of the causes of candidates' poor performance at the Cameroon General Certificate of Education Board (CGCEB) organized examinations in Ordinary Levels Economics. The work mentions other causes of poor performances at the Cameroon GCE Board organized examinations such as student factors and proposes the way forward in improving candidates' performance in Economics. While the work focuses only on poor performance in Ordinary level Economics, it also ignores the view that the Cameroon GCE Board may also influence the performance of candidates in any of the subjects offered by the Board. This present study seeks to explain the role of the CGCEB test development practices in affecting candidates' performance with particular attention to the Ordinary level History.

Karue and Amukowa (2013) also published an article to investigate the factors that affect performances in certificate examinations in Kenya with a view to suggesting ways for better performance in The International Journal of Social Sciences. According to their findings teacher qualification, student characteristics, qualification of Head teacher, home environments, the role of the Parents Teacher Associations (PTAs) and school characteristics affect performances in Kenya Secondary Certificate Examinations (KSCE) in the Embu District of the Eastern Province in Kenya. Like this present study, it focuses on what affects performance in school certificate examinations but distinguishes between day secondary schools and boarding schools. The study uses questionnaires and interviews as research instruments as well as multiple regression analysis as the statistical tests. However, the studies discusses phenomenon in a district in Kenya unlike this present studies which investigates the practices of the Cameroon GCE Board and its relationship to candidates' performance in two regions of Cameroon with a particular attention to Ordinary level History. This study underscores the role of the CGCEB as an assessment body in candidates' performance in examinations unlike the article which ignores the fact.

Kola (2014) in a paper review that centred on causes of poor academic performance in West Africa Senior School Certificate Examination especially in Nigeria argued that mass failure of students in these public examinations could be traced to several factors that can be compartmentalized into the domains of parents, students, teachers, schools, the language of instruction, government and the society among others. The paper concludes that this mass failure constitutes wastage on investment in secondary education. The paper then recommends that since academic performance is a virile instrument to the national development of any nation; all concerned stakeholders must be responsive to their roles in order to restore hope to the current grotesque academic performance of students in the West African Examination Council (WAEC) examinations in Nigeria. This study is similar to the present work in that it discusses the causes of poor performance in school certificate examinations though it focuses on West Africa Senior School Certificate Examinations in Nigeria. However, whereas the paper focuses on causes of poor performance in West Africa Senior School Certificate Examination and ignoring the role of WAEC as an assessment body in influencing performance of candidates in those examinations, this present study is necessary because it seeks to explain the influence of the Cameroon GCE Board as an examination body in the performances of candidates.

Akuro and Ngozi (2014) in “Trend in the G.C.E. Ordinary Level Mathematics Performance of students in the North West region of Cameroon” published in the Journal of Education and Practice, to portray the trend in the General Certificate of Education (GCE), Ordinary Level mathematics performance of secondary school students of the North West Region of Cameroon, across the years 2007-2013. The aim of this had been simply to clearly portray patterns in students’ performance and to know whether with the passage of time, student performance has been improving, worsening or even remaining constant. Consequently, such information is critical to education policy makers and other stakeholders as to the formulation of policies and measures that could either improve or maintain students’ performance. To carry out the research an expost factor research design was used. Furthermore, the population of the study was all the 171,187 Form Five secondary school students of the North West Region of Cameroon that sat for this examination across the years 2007-2013. No sampling was used since the results of all the students in the population were considered in the study. The findings showed that there was a decline in the performance of students in mathematics over the years. From these results, they therefore forecasted that considering the downward trend in the GCE ordinary level mathematics performance of the students for the last three years, students’ performance for the fourth coming year could be horrible if nothing is done. The gap in this study is that it investigates only trends

in performance in GCE Ordinary Level Mathematics in the North West Region of Cameroon without any focus on the causes of the changing trends. Apart from this, the study also does not mention the contributions of the Cameroon GCE Board to the changing trends in performance in Mathematics. This study is important in that it investigates trends in performance of candidates in mathematics examination organised by the Cameroon GCE Board and though it highlights a downward trend in performance in Mathematics, it does not investigate the role of the Board in causing this downward trend,

Lebata (2014) carried out an investigation of performance in the Biology 5090 at some selected High Schools in Lesotho, submitted in accordance with the requirements For the Degree of Master of Education – With Specialisation in Natural Science Education at the University Of South Africa. The researcher examines the factors responsible for the poor performance in Biology 5090, suggesting ways in which this performance can be improved upon therein. The researcher states that teacher and teacher quality, English as a medium of instruction, study habits, motivation, and other factors affect students' performance in schools. The gap here is that the researcher focussed on causes of poor performance in Biology and though it deals on a different subject it fails to determine the validity evidence of the examination and to highlight the role of the assessment body on performance.

In a paper presented at the National Universities Commission (NUC) at Abuja, Nigeria by the Chief Executive of the National Business and Technical Examinations Board (NABTEB) on why candidates fail in public examinations Dr. Olatunde A. Aworanti explained the perceived causes of failure in public examinations to include such factors as institutional, environmental psycho-social, home and teacher-related factors and suggested the ways forward to enhance the performances of candidates in public examinations. The paper explains how NABTEB was created in the bid to domesticate the examinations and tailor them towards societal needs and organize examinations that are credible so that certificates offered are respected locally and internationally. He outlines the examinations organized by NABTEB and proposes remedies. The study states that the reliability and validity of examinations among other factors for national interest in achieving national goals and aspirations have been the underlying factors for the establishment of external agencies (examination bodies) like West African Examinations Council (WAEC), National Examinations Council (NECO), National Business and Technical Examinations Board (NABTEB) to conduct both examinations for school candidates and examinations for out-of-school candidates and award certificates to successful candidates in their

areas of career aspirations. This paper is relevant to the study in that it discusses issues related to the performance in examinations organised by NABTEB as well as the influence of reliability and validity in the formation of assessment agencies but it fails to pinpoint the role of NABTEB as an assessment body in influencing the performance of candidates sitting in for the examinations it organizes.

Explaining reasons for mass failure in the West African Examinations Council (WAEC) at the Students' Academic Success Summit held at the University of Lagos (Nigeria) on January 24, 2011, the Head of National Office of WAEC, Dr. Iyi Uwadiae, attributed the high failure rates in examinations conducted by the council to several factors. According to him the causes of massive failure in WAEC examinations can be attributed to some candidates' lack of knowledge of common pitfalls, coupled with inadequate coverage of the syllabus, non-familiarity with test format and the lack of strong reading spirit for candidates who prepare for the examinations. He said that WAEC, as a body entrusted with the conduct of the examination, should not be seen as a public enemy because the council does not fail candidates deliberately. This paper highlights the causes of mass failure in examinations organized by WAEC but excludes the fact that WAEC as an assessment body can make errors in its assessment practices that can affect candidates' performances.

In an investigation into causes of poor performance in Accounting at Kenya Certificate of Secondary Education (KCSE) Examination in some selected schools, Mwangi (2004) outlines the causes of poor performance in accounting. The research design used for this study was the expost facto design. Samples were drawn from a target population of public secondary schools that offered Accounting in the years 1999-2003, using the stratified random sampling technique. The research instruments that were used included questionnaires, interview and observation guides. A pilot study was carried out to ascertain the validity and reliability of the instruments. The analysis of data collected was done using descriptive statistics. The study established that the qualification and experience of head teachers and teachers, availability and adequacy of textbooks, interest of the students in the subject played a significant role in influencing performance in Accounting. The study recommended in-service training service and seminars and that teachers of Accounting should be streamlined. The study is similar to this present study in that it discusses the causes of poor performance of candidates in accounting examination and also in research methodology but the study fails to evaluate the role of the assessment body in influencing candidates' performance which his study seeks to investigate.



In a research project report submitted for registration of the Degree of Master of Education in Educational Administration and Planning, University of Nairobi Maina (2003), which sets out to investigate the causes of poor performance in Kiswahili Kenya Certificate of Secondary Education (KCSE) examination in a District in Kenya because there has been consistent poor performance in the previous years. For the research methods, the simple random sampling was done to get a sample of 293 students to participate in the research and questionnaires, one for the teachers and the one for the students was used. Descriptive statistics were used to analyse the data. The study which focuses on performance in the kiswawahili language concluded that lack of materials and resources, the administrators who emphasise on the use of English over Kiswahili, over loaded teachers and the relative unimportance of Kiswahili are responsible for the poor performance of students in KSCE examinations. The study is important to this study in that it discusses the causes of poor performance in public examination but falls short of investigating the role of the examining body in Kenya in influencing this poor performance.

David (2014) in a dissertation submitted in partial fulfilment of the requirements for the Degree of Master Of Arts in Rural Development of Sokoine, University Of Agriculture. Morogoro, Tanzania titled “Determinants of Poor Academic Performance of Secondary School Students in Sumbawanga District, Tanzania” assesses the factors that influence the academic performance of students of selected secondary schools in Sumbawanga District in Tanzania. This examination are organised by National Examination Council of Tanzania (NECTA). Purposive sampling was used to select the District, Heads of schools and District Secondary Educational officers. Systematic Random Sampling procedures were also used to select students while simple random sampling was employed in selecting teachers as well as parents. In this study the questionnaire, physical interviews and observation approaches were used in data collection. The data were analysed using descriptive analysis and Binary Logistic model for inferential analysis. The study found that the factors that hamper students’ academic performance include truancy among the students, incompetence of English language among students as a language of instruction, the home based factors such as low income of parents and long walking distance from home to school, school environment, shortage of qualified teachers and shortage of well-equipped science laboratories. This study is relevant to the present in both methodology and its evaluation of factors causing poor performance. However, the gap here is that the study fails to discuss the role of the examination agency in causing candidates’ poor performance.

Salman, Mohammed, Ogunlade and Ayinla (2012) in an article published in the Journal of Education and Practice, Volume 3, Number 8 on the causes of mass failure in senior school certificate Mathematics examinations as viewed by teachers and students in Ondo, Nigeria seek to investigate the contributions of Teachers, Students, Parents, Society, Government, School and Examination bodies in the mass failure in mathematics examinations in Nigeria. The Senior Secondary School teachers and students were involved as population for the study. 100 teachers and 400 Senior Secondary two students were purposively selected. The descriptive survey research was adopted for the study. The sampled teachers and students responded to researchers prepared questionnaire. The findings revealed that majority of the teachers and students supported the argument that students, teachers, parents, society, government, school and examination bodies were responsible for mass failure in NECO/WAEC Mathematics examinations. In fact, considering the role of Examination bodies, 86 out of 100 teachers (86%) and 262 out of 400 students (65.5%) agreed that leakage of examination questions contributed to students failure, and 88 out of 100 teachers (88%) and 264 out of 400 students (66%) agreed that the bribery and corruption on the part of supervisors also contributed to students mass failure in NECO/WAEC Mathematics Examinations. This study is important for the present study in that it investigates the causes of mass failure in examinations including the role of examination bodies. In spite of this connection this study ignores the validity arguments for these examinations and does not discuss the link with performance of candidates.

### **Research Methodology**

The research design used for this study was the correlational research design because it sought to establish the relationship between two or more variables. The geo-political area where this research was carried out was the North-West and South-West Regions of Cameroon particularly in Bamenda, capital of the North West Region and Buea, capital of the South West Region. Cameroon has ten regions. The target population included the students and teachers who took part in the GCE organised examinations for the years under consideration while the sample population are all those students and teachers involved in the writing and evaluation of GCE History examinations for the years under consideration. It was from this sample that the sample of the population was drawn. In this study, random sampling techniques and the stratified techniques were used.

The instrument for data collection was the questionnaire for students and examiners. Two self-made questionnaires were constructed by the researcher for subject panel officials and to

candidates who sat for the 2017 GCE examinations with the help of the supervisor. The questionnaires were structured in such a way that the respondents choose a response from the options provided. For the officials, it was a 44 item questionnaire graded and weighted using the ten Likert scale as strongly Disagree (SD) with values 1 and 2, Somewhat Disagree (SWD) with values 3, 4 and 5, Somewhat Agree (SWA) with values 6, 7 and 8, and Strongly Agree (SA) with values 9 and 10 for subject panel officials and 15 item questionnaire for candidates.

These instruments once established were tested to ensure that they are valid and reliable. The researcher administered the questionnaire personally to the respondents, then went back and collected them on agreed dates. Not all the questionnaires were returned. 118 out of 306 questionnaires were returned from the candidates while 209 out of 313 questionnaires were collected from subject panel officials.

### **Validation of Instrument**

Validity refers to how well a test measures what it is purported to measure. Validity encompasses the entire experimental concept and establishes whether the results obtained meet all the requirements of the scientific research method. Instruments are devised to measure what the researcher intends to measure and therefore he must ascertain the extent to which the instruments measure what they were designed to measure. Validity index would be calculated by administering the questionnaires to three experienced Assistant Chief Examiners who were to differentiate each item by accepting or rejecting depending on the fitting. For the three sets of questionnaires one calculated using the formulae below and each result added and divided by three. This produced a coefficient validity index (CVI) of 78.8%.

$$CVI = \text{number of items accepted divided by total number of items.}$$

Again, content validity was used to check the representation of the research questions in the questionnaires. The items found inadequate were discarded while some were modified. Secondly the researcher sought assistance from the supervisor in order to help improve content validity of the instrument.

### **Reliability of Data**

Reliability is the degree to which an assessment tool produces stable and constant or consistent results. The idea behind reliability is that any significant results must be more than a one off finding and be inherently repeatable. Other researchers must be able to perform exactly the same experiment under the same conditions and generate the same results (Moskal et al, 2000). While

reliability is necessary, it alone is not sufficient. For a study or a test to be reliable it also needs to be valid (Moskal et al, 2000).

To determine the reliability of an instrument involves the computation of the correlation coefficient on two sets of scores obtained from the same group of people using a given instrument. This researcher also used SPSS 20 and the Alpha Cronbach to determine the internal consistency.

After pilot testing, the items were analyzed to ensure reliability using cronbach alpha as a measure of internal consistency. This will give a correlation coefficient 'r'. Amin (2005) states that a value of  $r=0.7$  and above is a good indicator for the instrument to be used, while a value below 0.7 calls for revision of some items. The results indicated a value of 0.8 which was fairly good to progress with data collection.

## **Discussion of the Findings**

The first objective was to find out the effects of the Cameroon GCE Board test construction practices on candidates' academic performance in O/L History. The research question derived from this objective was; to what extent does the test construction practices of the Cameroon GCE Board influence candidates' academic performance in O/L History? A null hypothesis was derived from this research question which states that the test construction practices of the Cameroon GCE Board do not significantly affect candidates' academic performances in Ordinary Level (OL) History. Based on the findings, the result of the study presented in tables 13 and 14 of chapter four revealed that, the test construction practices of the Cameroon GCE Board has a strong influence on candidates' academic performance and the null hypothesis was thus rejected while the alternative hypothesis was upheld. This led the researcher to conclude that the test construction practices of the GCE Board affect candidates' academic performance. These findings corroborate with the findings of Anyanwu, Onwuakpa and Williams (2015) who state that if public examination bodies fail to ensure that their test items are trial tested before life examinations, arranged in the increasing order of their difficulty indices in the body of every test, the development of a table of specification as well as the use of experts in test development in editing, vetting and composing test items into test forms before they are used, then the candidates performance can be affected negatively. Again, Olaidipupo (2015) also reveals that the absence of trial testing during test construction can affect in a negative way reliability and validity of examinations organised by the NECO and consequently the performance of candidates.

The second objective was to find out the relationship between the test administrations procedures of the GCE Board and the candidates' academic performance in O/L History. The research question derived from it was; to find out whether there is a relationship between test administration procedures of the examinations organised by the Cameroon GCE Board and candidates' academic performance in O/L History. A null hypothesis was derived from this research question which states that there is no significant relationship between the test administration procedures of the GCE Board and candidates' academic performances in Ordinary Level (OL) History. Based on the findings, the result of the study presented in tables 15 and 16 of chapter four revealed that, there is a relationship between the test construction practices of the Cameroon GCE Board and candidates' academic performance and therefore, the null hypothesis was thus rejected and the alternative hypothesis maintained. Therefore, these findings revealed that the respondents believe that the test administration procedures of the Cameroon GCE Board have a significant relationship with candidates' academic performance. This means that the way examinations are run by the Board influence Candidates' academic performance positively or negatively. These findings are in line with those of Areghan, Agwu and Aidokhai (2012) in article on test administration procedures of public examinations in Nigeria and their implications in WASSCE. The article discusses the distortion during the administration of WASSCE and its eminent consequences on candidates' performance and discusses pragmatic strategies to enhance the effectiveness and efficiency of its processes for test administration. To Areghan et al (2012), large candidature, inadequate facilities and insufficient manpower have implications on the validity of assessment outcomes and this is similar to this present findings. Another study by Mkpae (2008) concludes that despite the great achievements of the West African Examination council (WAEC) in the conduct of SSCE, it has been bedevilled by examination malpractices affecting the validity and reliability of the examinations and that these malpractices mostly during test administration affect performance in many dimensions.

The third and last research objective was to find out the extent to which the evaluation or scoring practices of the examinations organised by the Cameroon GCE Board predict candidates' academic performance in O/L History. The research question derived from this objective was; to what extent do the evaluation of GCE examinations organised by the GCE Board predict candidates' academic performance in O/L History? An alternative hypothesis was derived from this question which states that the evaluation of examinations organised by the Cameroon GCE Board significantly predict candidates' academic performance in O/L History. Based on the

findings, the result of the study presented in tables 17 of chapter four revealed that the evaluation process of the GCE examinations do not predict candidates' academic performance in O/L History and the alternative hypothesis was thus rejected and the null hypothesis was accepted. This means that most respondents are of the opinion that the evaluation or scoring practices of the Board do not predict candidates' academic performance in any way. The evaluation exercise is carried out by examiners who are teachers invited by the Board each end of year. Only the views of the subject panel officials were sampled. These findings might have been so because of the fact that the Board invites only teachers with cognate experience to mark the examinations, the methodical drilling of examiners prior to the marking exercise and the fact that examiners are constantly consulting each other and even subject panel hierarchy in case of doubt amongst others. These findings also corroborate with those of Cheung, Amy and Chang (2009) who investigated the reliability and validity in rating scripts by assistant examiners and concluded that all efforts must be made by examining agencies to monitor marking quality, the absence of which can affect performance of candidates. Again Hudson and Graham (2009) in a paper on improving marking quality in essays, conclude that scanning technology, marking algorithms and adaptable sampling criteria should be used to provide a dynamic approach to monitor marking variances between individual markers. To them if these variances are not checked, candidates will pass and some will fail mistakenly because of the insufficiencies of markers therefore affecting candidates' academic performance.

## Conclusion

The main objective of this study was to determine whether there is validity evidence of the Cameroon GCE Board examinations and by this find out whether the Board's test development procedures predict Candidates' academic performance in one way or the other. The study found out that there is validity evidence to support the GCE Board examinations. But it further revealed that in spite of this fact, the test construction and test administration procedures of the Cameroon GCE Board affect in some significant way candidates' academic performance. This means that some candidates succeed or fail because of some errors in the Board's test construction and administration procedures. On the other hand the study revealed that the marking of the examinations organised by the Board by examiners do not significantly predict candidates' academic performance. Therefore, the Cameroon GCE Board while strengthening its evaluation practices should work relentlessly on improving its test construction and test administration practices. The Board should ensure that the examination they organise must be valid and reliable,

such that candidates that study should pass not because of some extraneous variable caused by the Board itself.

## REFERENCES

- Agommuoh, P.C. and Akanwa, U.N.(2016). Validity of Nigeria's Unified Tertiary Matriculation Examination, Physics Computer- Based Tests (CBT): Threats and Opportunities. Abia, Nigeria.
- AJAYI, I. A. & OSALUSI, F. M. (2013). Mass Failure of Students In West African Senior School Certificate Examinations (WASSCE) In Nigeria: The Teachers' Perspective. Case study Journal Vol-2- issue 4 <http://www.casestudiesjournal.com>
- Allan S. C. & James A. W. (2012). Handbook on Test Development: Helpful Tips for Creating Reliable and Valid Classroom Tests. Testing & Evaluation Services University of Wisconsin-Madison
- Alobwede, E.E. (2015). Improving and Sustaining Academic Standards: Poor Performance in 525 Economics/ The Way Forward and the Arts of Constructing Multiple Choice Questions (MCQS). Shiloh Printers, Bamenda.
- Amin, M.E.(2004). Foundation of Statistical Inference for Social Research: Makerere University Printery Kampala.
- Amin, M.E.(2005).Social Research Research: Conception, Methodology and Analysis Makerere University Printery Kampala.
- Anyanwu, I. E., & Onwuakpa, F. I. Williams (2015). Improving Validity of Tests through Improved Test Development Procedures. A Paper Presented at the Annual International Association for Educational Assessment (IAEA) Conference Held at the University of Kansas, Lawrence, Kansas, USA from October 11 to 15, 2015
- Akuro, A., Ngosi A. (2014).Trend in the G.C.E. Ordinary Level Mathematics Performance of Students in the North West region of Cameroon. Journal of Education and Practice. Volume 5, No.36.
- Aregan, P., Agwu C. & Aidokhai, A. (2014). Test Administration Procedures Of Public Examinations In Nigeria: Implications For The West African Senior School Certificate Examination

Aworanti, O.A. (2013). Why Candidates Fail in Public Examinations Being A Paper Presented at the federal ministry of education national stakeholders consultative meeting on improving performance in public examinations

Cameroon GCE Board (2013). Articles on test development. Cameroon GCE Board, Buea

Cameroon General Certificate Of Education Board. (2007). Regulations and Syllabuses For General Education Subjects: Presprint, Limbe

David, N.M. (2014). Determinants Of Poor Academic Performance Of Secondary School Students In Sumbawanga District, Tanzania. A Dissertation Submitted In Partial Fulfilment Of The Requirements For The Degree Of Master Of Arts In Rural Development Of Sokoine University Of Agriculture. Morogoro, Tanzania.

Dibu-Ojerinde O.O. (2005). The Challenges Of Standards In The Test Development Process For The Senior School Certificate Examination In Nigeria. A Paper Presented At The Icet World Assembly, Pretoria, South Africa.

Downing, Steven M. & Haladyna, Thomas M., (2009). Test Item Development: Validity Evidence From Quality Assurance Procedures. Journal of Applied Measurement in Education Volume 10, 1997 - [Issue 1](#)

Fagbamiye, E.O (1998). Examination malpractice in Nigerian education institution: Is there any hope? In A. Adegboye, O. Olutoye & J. O. Adetunberu (eds.) Issues on examination malpractice in Nigeria. Ado-Ekiti: PETOA.

Feldt, L. S., & Brennan, R. L. (1989). Reliability. In R. L. Linn (Ed.), *Educational Measurement* 3rd edition (pp. 105–146). Washington, DC: The American Council on Education/Macmillan.

Flateby T.L. (2013). A Guide for Writing and Improving Achievement Tests. University of South Florida, Tampa

Hudson, Graham (2009). Improving marking quality in essays – can technology help? The 35<sup>th</sup> Annual Conference of the International Association of Educational Assessment (IAEA).



- Lane, S. (1999). Validity Evidence for Assessments. A paper presented at the 1999 Edward F. Reidy Interactive Lecture Series sponsored by the National Centre for the Improvement of Educational Assessment Inc. in Providence, RI.
- Maina, E.N. (2003). An Investigation Into The Causes Of Poor Performance In Kiswahili KCSE Examination In Kipipiri Division Of Nyandarua District, University Of Nairobi
- Mathew A. Akoko (2015). EDUM 6105: Construction and Validation of Measurement Instruments. (PowerPoint Lecture notes to Masters Students, The University of Bamenda)
- McGrew S.K. (2009). The Art and Science of Test Development: Theory, Tools, Tips and Troubles. Woodcock-Munoz Foundation, Mennnesota.
- Motshabi K., Kesamang M and Gabalebatse M, (2011). Best Practices in educational assessment for regional integration, A paper presented at the 2011 AEAA Annual conference, Nairobi, Kenya, August 1-5, 2011
- Mkpae, S.G. (2010). Evaluation of the Conduct of Senior School Certificate Examination by WAEC and NECO in Rivers state, Nigeria
- Mwangi, N. N. (2004). An Investigation into Causes Of Poor Performance In Accounting At Kenya Certificate Of Secondary Examination (K.C.S.E.) In Selected Schools In Kiambu District, Kenya. University Of Nairobi Research Archives
- National Examinations and Assessment (2009). Report on the National Senior Certificate (NSC) Examination Results (Part two). Department of Basic Education, Republic of South Africa.
- Ndong T.M., Tambo L.I. (2000). Educational Development in Cameroon (1961-1999), Issues and Perspectives. Nkemnji Global Tech, University of Regina Press, USA
- Nworgu, B.G. (2015). Educational Measurement and Evaluation: Theory and Practice. Enugu: University Trust Publishers

- Oladipupo, M.(2015). Improving Validity Of Test Items Through Credible And Robust Trial Testing Exercise :Neco Approach.A paper presented at the Annual Conference of International Association of Educational Assessment. University of Kansas, USA.
- Okpala, P. N, Onocha C. O & Oyedeji O. A (1993): Measurement and Evaluation in Education; Stirling-Hordaen Publishers (Nig.) Ltd.
- Orem, Chris D., (2012). Demonstrating Validity Evidence of Meta-Assessment Scores Using Generalizability Theory. James Madison University
- Phillips, S.E. (1996). Legal defensibility of standards: Issues and policy perspectives. *Educational Measurement: Issues and Practice*, 15 (2), 5-19.
- Salman, M.F.I., Mohammed, A.S., Ogunlade, A.A & Ayinla, J.O.1. (2012).Causes of Mass Failure in Senior School Certificate Mathematics Examinations as Viewed by Secondary School Teachers and Students in Ondo, Nigeria. *Journal of Education and Practice*. Vol 3, No.8.
- Tchombe, T.M.(2009).Psychological Parameters In Teaching. Presses universitaires D'Afrique, Yaounde
- Uduh, C. A. O. (2009). Managing examination crisis in Nigeria: The West African Examinations Council (WAEC)'s experience. A paper presented at the 27th annual conference of the Association for Educational Assessment in Africa (AEAA) in Yaounde, Cameroon. August 24—28.
- Wetzel, A.P. (2011). Factor Analysis Methods and Validity Evidence: A Systematic Review of Instrument Development Across The Continuum Of Medical Education. Virginia Commonwealth University, Richmond, VA