

# Expert Opinion

## Standardised Students' Assessment

by Professor Dibu Ojerinde

The objectives of a modern Examinations Board should be to Assess, Measure and Evaluate. Also, a National Assessment assesses students in the state and the nation as a whole and it gives score-cards as a measure of standard. It focuses on educational performance and comparison with others across the nation/state, in relation to set standards but not for certification. It Measures National Achievements, State Achievements, District Achievements, etc, for specific objectives. Nigeria's policy on Educational Assessment stipulates that primary schools are assessed based on Continuous Assessment by teachers and for secondary schools, CA and external Assessments should be 30:70 ratio. Results are used to stream into academic areas and technical/vocational at the end of JSS3. In addition to this, there is need to also use aptitude tests to determine students' potentials and stream them into science, arts, vocational, etc.

In order to implement a credible and reliable assessment system, there is need to have the following professional directorates; Test Development: e.g. achievement test, aptitude tests. Different types of tests include multiple choice, essay, practical, oral, observation, etc; Test Administration: addresses when, where, who; coordinates logistics and Quality Assurance – assures quality for test questions, exams centers, exam papers, etc; maintains standards; pretesting; psychometrics; maintenance; research and statistic; assignment of figures to test items; examination security (against malpractices).

**Professor Dibu Ojerinde is the current Registrar/CEO of the Joint Admissions and Matriculation Board (JAMB). He has held several leadership positions in both local and international organisations including the Registrar/ CEO of National Examinations Council (NECO), Vice President of the Association for Educational Assessment in Africa; President of the International Association for Educational Assessment (IAEA) amongst others. He has written several books and he is part of a team on the Development of Aptitude Tests for Junior Secondary Schools in Nigeria. Professor Dibu Ojerinde is the first Nigerian Professor of Tests and Measurement.**



Teachers undergoing item writing training for the Lagos Eko Project Standardised Students' Assessment.

# Quizzing THE Teacher.

1. Which civilization showed evidence of the earliest known examples of Standardised testing?

- a) The Egyptians
- b) The ancient Mayans
- c) The Aztecs
- d) The Chinese

2. What are the two categories that standardised tests fall into?

- a) Aptitude and achievement
- b) Art and literature
- c) IQ and problem solving
- d) None of the above

3. Standardized tests are scored using which of the following methods?

- a) Multiple choice or true/false
- b) Percentile or scale score
- c) Norm-referencing or criterion-referencing
- d) Raw score or weighted score

4. When the results of a standardised tests are used to determine school accreditation, teacher performance or grade promotion, that test is a:

- a) High-stakes test
- b) Hard test
- c) Meaningless test
- d) Multiple-choice test

5. Which of the following are test-prep skills students can practice at home?

- a) Following Instructions
- b) Time Management
- c) Reading Comprehension
- d) All of the above

The first ten correct answers will be specially acknowledged. Email answers to [ekolandmark@gmail.com](mailto:ekolandmark@gmail.com)



Students writing Lagos Eko Project End of the Year Standardised Students' Assessment.

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# Landmark

A Publication of Lagos Eko Secondary Education Project, February, 2013.



Students of Isolo Comprehensive Senior High School celebrating 2012 Governor's Education Award for outstanding performance in Lagos Eko Project Standardised Students' Assessment.

## Standardised Students' Assessment: A Strategy for Public Schools Accountability

**Standardised assessment of students is not a new phenomenon within the education systems. Its introduction, administration and use as an instrument of education policy reform has prompted a great deal of debate across the world. Standardised assessment focuses on consistent and comparable questioning, scoring, administration and interpretations of students learning in the different part of the state or nation.**

The Lagos Eko Project has identified that baseline data obtained through valid and reliable assessment instruments is fundamental to measuring the impact of its intervention in Lagos State public schools. In realisation of this fact, a system of standardised testing was designed to generate primary data that can be used to measure improvements in standards or otherwise of these schools. Standardised assessment measures students' attainment as an indication of the quality of the education service's output. It also serves as a link between those responsible for providing the service; teachers, schools and in some cases the local, state and national education authorities who define the service.

For the Lagos Eko project, there are ranges of objectives and calculated effects of standardised assessment that are assisting in tracking changes in students learning and performance. An example of this is the production of school report cards that provides detailed information to individual schools based on analysis of the sub-sections of the assessment. Standardised Assessment is also relevant to the Project because of its applicability to a large population like Lagos State.

In ensuring the sustainability of the system, Lagos State public school teachers have been supported in acquiring relevant skills in assessment strategies and item development. Till date, over 1,800 teachers have been trained in Item Writing and Moderation. These skills help in teachers' professional development.

The assessment has helped the Project in monitoring and sustaining the progress made toward achieving its overall development objectives. In this regard, there is evidence of improvement in both the project administered standardised assessment and the West African Secondary School Certificate Examination (WASSCE). While the Eko Project Assessment for senior secondary schools has improved from a baseline of 20.9%, 20.0% and 23.3% in English Language, Mathematics and Biology respectively in 2009 to 34.2%, 24.6%, and 32.4% in English Language, Mathematics and Biology respectively in 2011, the 2012 WASSCE results improved from 17.4% in 2011 to 38.5% of candidate in all the public senior secondary schools in the state, who made credits and above in 5 subjects including English and Mathematics.

Similarly, Eko Project Assessment for senior secondary schools has improved from a baseline of 19.5%, 18.4% and 20.3% in English Language, Mathematics and Basic Science respectively in 2009 to 34.6%, 28.6% and 36.0% in English Language, Mathematics and Basic Science respectively in 2011.

## Welcome Note

I am delighted at the reception of the maiden edition of Eko landmark and the subsequent feedback received from our numerous stakeholders which have helped considerably in shaping the content of this edition.

The Eko Landmark is committed to keeping you updated on contemporary educational matters and the progress of the Lagos Eko Project towards achieving its overall development objective.

This edition provides inputs on the standardised students' assessment which is regarded as a major indicator for measuring students' performance in Lagos State public schools. It also provides a glimpse into the process of the standardised students' assessment, rewards for performance and the efforts of schools and Education Districts in this regard.

We are glad that the results from previous assessments have indicated significant improvement in learning achievements and we hope that this year's performance will exceed those of previous years. Enjoy your read!



Ms. Ronke Azeez

Special Adviser to the Governor/  
Project Coordinator, Lagos Eko Project

[www.lagosekoproject.org](http://www.lagosekoproject.org)



Team work and cooperation of teachers have enhanced students' performance in Lagos schools



Mrs. Esther Olujemisi Filani, the Principal of Ejigbo Senior High School, Education District VI takes us through the experience of her school since the introduction of Lagos Eko Project, particularly in the area of students' performance.

**How has been your school's performance since the beginning of the Lagos Eko Project?**

Our WAEC and NECO results last session were very good. We presented 145 students for WAEC and they all passed English with merits. We had 100% success in 11 subjects including English language. In the NECO Exams, we also had 100% in 17 subject including English Language, Mathematics and Biology. In a debate competition organized by Christ Embassy for all public and private secondary schools in Isolo-Ejigbo, our school came first with an award. We received a cup and a gold medal. With the funds from the Eko Project, we have been able to acquire several instructional resources such as biological, geographical and botanical gardens among other things which have aided students' understanding of various subject matters and have equally improved our practical learning.

**What can you attribute to the success of your school's performance?**

It is team work among my teachers and Project Implementation Committee members. They have been very cooperative, supportive and hardworking. My teachers are always ready to work. You cannot believe how the Mathematics department works, during extra lessons the teachers are always two in a class, one teaches while the other one monitors the students' work. Students' willingness to learn has increased tremendously, the turn-out at our Christmas holiday coaching last year was quite impressive. The Standardised Students' Assessment has also helped the students and teachers; it reveals the areas of strengths and weaknesses.

*We presented 145 students for WAEC and they all passed English with merits. We had 100% in 11 subjects, including English Language. In NECO, we presented 32 students and we had 100% in 17 subjects including English Language, Mathematics and Biology.*

**What is your role as the principal, during the Standardised Students' Assessment?**

As the principal, I always tell my teachers that our performance must not diminish. I encourage them to go for trainings so that they do not have problems in supervising. My teachers and I check every student to ensure that they have the correct materials with them, and to make sure that their names and numbers are correctly shaded on the OMR sheets. Prior to the exams, we use sample answer sheets to train the students on how to shade properly.

**How do you support low-performing students, knowing that the Standardised Students' Assessment is a collective responsibility?**

The school counselors, year tutors, and class teachers all support the students, especially the weak ones. We encourage them through pep-talks. I tell them to burn their candles now so that they will not burn it when they are supposed to sleep.

**Tell us about the school report card.**

The score card is good because apart from telling us that we did not do well in a particular subject, it even tells us the part of the subject we did not do well in. I believe it is a very good system as it exposes deficiencies in the core subject areas. Together with my teachers and HODs, I study the report card to see where we are not doing well; areas we have to improve on. It is a true reflection of the students' performance.

**What is the purpose of the Governor's Education Award? And how is it related to the Standardised Students' Assessment?**

It is to encourage the students and teachers to do well and perform better. To let them know that outstanding performance in the Standardised Students' Assessment is rewarded. The Governor is an action man who believes that education is part of his administration and he is not leaving the education sector out.

Governor Fashola rewards schools performance at the Governor's Education Award



Governor Babatunde Raji Fashola (SAN) presenting a cheque of N256 million to 128 public secondary schools. Here, the Governor is with students of winning schools and the Special Adviser to the Governor, Lagos Eko Project at the Governor's Education Award.



Thirty schools were awarded facilities for the establishment of Power Kids Club initiative of the Lagos State Electricity Board.



A Resource Person with Principals from Governor's Education Award-Winning Schools at a Capacity Building Programme in the UK.

Process of Standardised Students' Assessment - By Dr Gbenga Adewale

The process of standardised students' assessment employed in the Lagos Eko Secondary Education Project follows the regular procedures in any public examination with some peculiarities. The process is summarized as follows:

- I. A work plan is developed.
- ii. Item writers are identified and invited for an item writer workshop. Before the workshop, the item writers are interviewed by the consultants and only six are selected for each subject for a class, so by implication, 72 item writers are engaged for any end of year assessment (six for each of JS1
- iii. The item writers are trained on the principles of test construction for two days.
- iv. Each of the six item writers is asked to develop 100 items based on the table of specification assigned to him/her. So, for each subject, 600 items are generated.
- v. The 600 items in each subject are assigned to two moderators who are experts in that field during the moderators' workshop. However, three moderators are usually used for Mathematics because of the calculations involved.
- vi. The moderators read through each of the items to determine if the item writers follow the table of specification and if the items are suitable for the class they are meant for. They also provide answers to the questions. Plenary sessions are always organized for moderators in each subject to present a number of acceptable, unacceptable and modified Items with examples. All moderators contribute to enrich the assessment in a particular subject; they also determine the item writers' performance by indicating the number of items that are acceptable, modified and not acceptable.
- vii. At the end of the moderation exercise, 400 items per subject are selected, typed and critiqued by the consultants.
- viii. The 400 items are then taken to a comparable state for trial testing for two reasons; to determine if the wordings of the items are okay and to determine the test characteristics.

**The following item analyses are carried out;**

- A). Facility (difficulty) indices (P-value)
- B). Discrimination indices (D-value)
- C). Foil analysis (distractors)
- D). Point - biserial correlation

Usually, we set criteria for the good items using the first two item analysis measures above, that is;

$0.3 \leq p \leq 0.7$  where p is the difficulty level

$d \geq 0.3$  where d is the discrimination index.

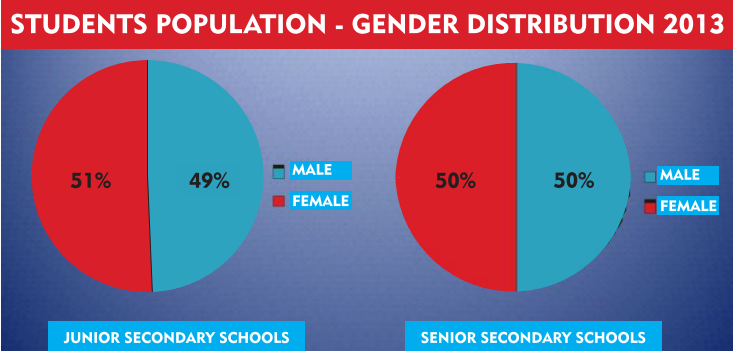
Out of the 400 items administered during the trial testing only 80 items are selected, so any of the 400 items that satisfy the set criteria qualifies to be selected. If there are many items satisfying the criteria, the best 80 are then selected.

- ix. The 80 good items are then written out and submitted to another consultant to shuffle the items. In this process, our objective is to prevent any form of examination malpractice. Two types of shuffles are done. The shuffle is done to rearrange the item numbers three times while retaining the original items. This implies that there are four question papers using the four colours of Lagos State (Red, Blue, Green and Yellow) but the same questions. The original (usually red) item 1 may be item 61 in the blue and item 34 in the green and item 76 in the yellow. After the item shuffle, option shuffle is also done such that if the original item 1 has the correct answer (key) to be C, it may be A in Blue, B in Green and D in Yellow. No two colours with the same question have the same option.
- x. After the assessment analysts have completed the shuffling, the items come back to the assessment consultants for validation.
- xi. The final stage of the process is printing after which the items are dispatched to the custodian (the bank) where supervisors (Vice Principals) would go to collect on each of the two days of examination.

Dr Gbenga Adewale an Assessment Consultant with the Lagos Eko Project is of the Institute of Education, University of Ibadan.

LAGOS STATE WASSCE 2012 RESULTS

AVERAGE PERFORMANCE BY DISTRICTS IN CORE SUBJECTS				
DISTRICTS	SUBJECT	% Avg Credit	% Avg Pass	% Avg Fail
DISTRICT I	ENGLISH	82.15	14.86	1.56
	MATHS	68.99	24.26	5.32
	BIOLOGY	44.14	31.23	23.20
DISTRICT II	ENGLISH	62.43	26.38	9.93
	MATHS	36.71	46.89	15.12
	BIOLOGY	21.85	32.96	43.94
DISTRICT III	ENGLISH	52.80	28.67	13.94
	MATHS	56.79	30.27	14.37
	BIOLOGY	28.76	32.43	36.30
DISTRICT IV	ENGLISH	67.10	21.63	10.79
	MATHS	44.36	33.29	21.87
	BIOLOGY	26.76	33.01	39.75
DISTRICT V	ENGLISH	54.92	29.49	14.09
	MATHS	50.38	32.42	15.72
	BIOLOGY	29.23	32.64	36.68
DISTRICT VI	ENGLISH	58.82	30.56	10.41
	MATHS	30.44	45.34	24.04
	BIOLOGY	23.92	31.04	44.87



Education Districts Support the Assessment Process

In order to achieve a successful Lagos Eko Project Standardized Students Assessment, I work with my team to ensure an updated students bio-data of all schools within Education District I while also screening and selecting supervisors, invigilators, item writers and moderators from schools and the District needed for the assessment.

A few months to the assessment several planning meetings are held with the PSU and the Education Districts on the administration, logistics and security of the exercise. The District takes custody of the OMR sheets, ensures its safety and approves banks within the District that will store question papers. Before commencement of the test, the District receives and distributes all necessary materials needed for the exercise, making sure all schools within the District are allocated with necessary materials needed for the exercise. During the assessment, the District assigns staff to effectively manage the logistics process. This involves ensuring that there are sufficient materials in each school and also monitoring the assessment process for any irregularities. After the assessment we convey all used OMR sheets and attendance of students who sat for the assessment to the collation center at Agidingbi where it is handed over to the Project Support Unit.

At the end of the process, the District ensures that allowances are paid to supervisors, invigilators and other Education District Administrators who participated in the exercise.