
**Revolutionising Assessment
and Evaluation Procedures
in Education**

**A Book of Readings in Honour of
Professor Promise N. Okpala**

Edited by

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Dedication

This work is dedicated to all who aspire to attain academic excellence.

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Assessment as a Tool for Learning Improvement at the Senior Secondary Education Level

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Introduction

The need for the learners' performance to be assessed is very important in the educational system. This is because assessment of students' learning outcomes is cardinal to the realisation of the objectives of education in any economy. Assessment is important in education because it provides information about learning that can be used to: diagnose learner strengths and needs, provide feedback on teaching and learning, provide a basis for instructional placement, inform and guide instruction, communicate learning expectations, motivate and focus learner attention and effort, provide practice applying knowledge and skills, provide a basis for learner evaluation (e.g. grading) and gauge programme effectiveness (McTighe and Ferrara, 1994). Teaching cannot be said to have succeeded until assessment proves so. Durowoju, Onuka and Onabamiro (2010) submit that a good teacher would desire to know whether teaching has really taken place, or whether learners have mastered the lesson taught after the teaching and learning process. Hence, teaching efforts may be completely invalidated if no provision is made for some assessment of progress.

Assessment has been described in several ways by scholars. For example, Baku (2008) describes assessment as a means of determining the extent to which education has achieved its goals and objectives while Rust (2002) describes it as an evaluation or appraisal of students' learning outcome. According to him, assessment involves making judgement about students' performances as well as identifying the strengths and weaknesses of students in a particular subject. Furthermore, Assessment Reform Group (2002) described assessment as the practice of collecting evidence of students' learning in terms of

action, while summative assessment involves assessing students' performances at the end of a given period through testing or examination (Baku, 2008). Through assessment, teachers, parents and the learners become aware of how well or otherwise they are performing. A well planned assessment can help answer the following questions: To what extent have objectives been met? How has instruction impacted on its target population? What changes and improvements should be made?

According to Gronlund in Joshua (2004), there are four major identifiable purposes for the assessment of individual students' progress in a school. These are:

- (i) Determining pupil performance at the beginning of instruction (Placement evaluation). This focuses on the student's entry behaviour, and tries to verify whether the child is ready for the lesson/curriculum in terms of pre-requisite knowledge, skills, aptitude, attitude, interest, etc;
- (ii) Monitoring learning progress during instruction (Formative evaluation) requires giving feedback to the student and the teacher on the students' progress in a unit; and locating possible errors in terms of the structure of the unit so that remedial/alternative instructional techniques can be prescribed;
- (iii) Diagnosing learning difficulties during instruction (Diagnostic evaluation). This is concerned with identifying persistent or recurring learning difficulties that are left unresolved by the standard corrective prescriptions of formative evaluation; and
- (iv) Determining students' achievement at the end of instruction (Summative evaluation). This is designed to determine the extent to which the instructional objectives have been achieved; and is used primarily for assigning grade, certifying mastery of intended learning outcome and promotion/graduation.

Much of the classroom assessment literature is of what teachers do, or what they should do, what kinds of information they should gather and to what uses they should put the information (Brown & Hirschfield 2008; Harris and Brown 2008; Peterson and Irving, 2007). Student evaluation or learner assessment implies assessment of the three

their learning, where they need to go and how best to get there. It should also provide helpful guidance for a learner, and help the teacher adjust teaching strategies.

The roles of assessment in schools according to Plessis, Prouty, Schubert, Habib and George (2003), include: to promote learning for understanding, to let the students know how well they are progressing in their own learning, to improve teaching among others. It is based on the principle that pupils will improve most if they understand the aim of their learning. Learning has three stages namely: acquisition, retention and recall. In practical term, recall is the only way in which we can really ascertain what has been learnt, hence, recall is subsumed in assessment programmes.

Students' learning outcomes comprise cognitive, affective and psychomotor achievements and assessment for learning improvement is expected to cover these three domains of educational objectives. Assessment for learning demonstrates a particular view of learning – that all learners can improve and achieve their full potential. Assessment for learning is a continuous dialogue that should: focus on the whole person, taking into account feelings as well as skills, and understanding any barriers the learner may experience, encourage learners to take more responsibility for their own learning, ensure that learners are aware of what they are learning and why.

Assessment for learning can take place in teaching and learning sessions, through written and verbal feedback and as part of review, target setting and action planning. Information obtained from assessment can be used to evaluate and improve learning and instruction. Assessment feedback should describe the nature of progress a pupil is making with regards to the specified learning targets and bring about improvement to the learning outcomes of students. In the process of assessment, testing/measurement is frequently done; but a variety of sources of information, both formal and informal may be used. Hence, assessment sub-sumes test, testing, measurement and evaluation of the cognitive, psychomotor and affective traits and characteristics (Brown, 1983; Denga, 1987; Joshua, 1998a, Nenty, 1997; Walsh & Betz (1985).

Furthermore, the Curriculum Development Council in 2001 recommended that assessment should be carried out in various forms such as; projects, observations, tests, examinations e.t.c. While Onuka & Junaid (2007) also submit that for learning improvement to take place, there is the need to use several types of assessment tools such as: teacher-made tests, oral questions, discussion, project, assignments and classroom observations among others. As essential as assessment is in bringing about improvement in students cumulative performance, it has been observed by some experts that it is fraught with all kinds of problems and misconceptions in Nigerian primary and secondary schools. Evidence from Onuka & Durowaju's (2011) findings show that in Nigeria schools, students are commonly assessed through written tests and examinations only.

Most teachers hardly use other methods of assessment such as assignments, discussion, projects, oral questions and even observation to assess students in order to improve learning and teachers hardly discuss test results/performance with individual students with a view to helping the student identify his/her errors and their causes, and possible remedial. Hence, the main objective of assessment which is for learning improvement aimes might not be achieved. Thus, this study examined the role of Assessment in improving students' learning outcomes in Oyo state secondary schools.

Research Questions

- 1a) How is assessment carried out in Oyo state secondary schools?
- 1b) How is the process of assessment effective in terms of improving learning?
- 2a) Is there any significant difference in the extent to which assessment has improved male and female secondary school students' learning outcome in Oyo state?
- 2b) Is there any significant difference in the male and female teachers perception of the extent to which assessment has improved learning in Oyo State Secondary Schools?

Methodology

Procedure

This is a survey research.

Population, Sampling technique and sample

The target population for this study comprised all public Secondary School students and teachers in Oyo State of Nigeria. Multi-stage sampling technique was employed to select the sample for the study as follows: Oyo state was clustered along the existing educational zones and simple random sampling technique was used in selecting two educational zones, that is, Ibadan zone 1 and zone 2. From each of the zones, one local government area was randomly selected, namely: Ibadan North and Akinyele Local Government Areas. Thereafter, five public secondary schools were randomly selected from each of the local government. Thus, 10 secondary schools were used in the study. Simple random sampling technique was also used to select twenty five SS11 students from each of the ten schools making a total of 250 students (138 males and 112 females). While purposive sampling technique was used in selecting three teachers from each selected schools. Thus, a total of 30 teachers (12 males and 18 females) in the selected schools were used in the study.

Instrumentation

Two instruments were used in carrying out the study, these are:

- 1 Students' questionnaire on Assessment method (SQAM)
- 2 Teachers' perception of the role of Assessment questionnaire (TPRAQ)

Students' perception of the role of assessment questionnaire (SQAM)

This instrument which consisted of two sections was constructed by the researchers. Section A elicited information on the demographic data of the respondents while section 'B' was made up of 15 items on how assessments are carried out and roles of assessments in secondary schools. The instrument was originally made up of 25 items and became

15 items following the validation exercise. The original scale was initially administered on 30 students who were similar to the sample selected for the main study, who were non-participants in the real study. The resulting data were computed using Cronbach Alpha statistics yielding a reliability coefficient of 0.82.

The teachers' perception of the role of assessment questionnaire (TPRAQ)

This instrument comprised two sections. Section A elicited information on the demographic data of the respondents while section B consisted of 15 items. The responses are measured on a 4-Likert point scale. The TPRAQ was pilot tested for validation and Cronbach Alpha statistics was used to ascertain the reliability. After the validation, the items on the instrument which were 30 in number reduced to 15 items and the reliability coefficient was 0.78.

Data collection procedure

The researcher and five trained research assistants administered the instrument on the participants in their respective schools for five days.

Data Analysis

The culminating data were analysed utilizing percentage and t-test statistics. All the strongly agree and Agree responses were lumped together under Agree while all the Strongly disagree and Disagree were also put together under Disagree. The relevant questions were tested at 0.05 level of significance.

Result

Table 1: Mode of assessment in Oyo state secondary schools?

S/N	Items	Agree (%)	Disagree (%)
1	Our teachers assess us through class work after each lesson	87(34.3)	163(65.6)
2	test after each topic	51(20.4)	199(79.6)
3	written test once in a term and examination at the end of the term.	182(72.8)	68(27.2)
4	assignment to know the extent of what we have learnt	115(46)	135(54)
5	written tests twice in a term and written examination at the end of the term.	211(95%)	39(4.8%)
6	practical works to do in class to test our knowledge.	76(30.4)	174(69.6)
7	Our teachers usually re-teach topics we don't understand to improve our learning	104(41.6)	146(58.4)
8	I like the way our teachers set their questions during tests and examinations	142(57%)	108(43%)
9	Assessment as done in my school has greatly improved my learning outcome	67(26.8)	183(73.2)

Table 1 shows that 95.6% of the students indicated that they are assessed through written tests twice in a term and examination at the end of the term while 78.2% indicated that only one written test and

examination at the end of the term are the only way teachers use to assess them. 46% claimed that they are assessed through assignments. The table further shows that 41.6% of the respondents indicated that their teachers ask them questions while teaching to assess them. However, 73.2% of the respondents disagree that assessment as done in their school has greatly improved their learning.

Table 2: Effective assessment process for improved learning

The answer to this question is presented in Table 2

S/N	Items	Response	
		Yes	No
	Assessment		
1	helps teachers to know what to do to improve students' learning	18(60)	12(40)
2	helps teachers to identify learners' area of weakness	19(63.3)	11(36.7)
3	helps teachers to know whether teaching was effective	12(40)	18(60)
4	helps teachers to improve quality of teaching	9(30)	21(70)
5	As carried out in my school has brought about learning improvement	4(13.4)	26(86.6)
6	provide quality information to students about their learning	17(56.6)	13(43.4)
7	I often give feedback to students after each assessment for correction purpose.	23(76.6)	7(23.4)
8	Feedback given after assessment has improved my students' learning	11(36.6)	19(63.4)
9	I usually re-teach the topics identified as my students' area of weakness.	14(46.6)	16(53.4)

Table 2 shows teachers' responses concerning the effectiveness of assessment in secondary schools.

It shows that only 13.4% of them indicated that assessment brings about learning improvement while 63.3% indicated that it helps to identify learners' area of weakness. The table also shows that 76.6% claimed that they often give feedback to students after assessment for correction purpose while only 36.6% claimed that the feedback has improved their students' learning.

Table 3: Mean difference in students' perception of assessment assisted improved learning by gender

		N	Mean	SD	df	t	Sig
Students	Male	135	19.84	2.076	248	-16.98	.000
	Female	115	23.97	1.701			
Total		250					

Table 3 shows that the calculated $t_{(248)} = -16.98$ is less than the P value ($P < 0.05$). Hence, there is significant gender difference in the extent to which assessment improved students' learning outcome. The mean scores indicated that assessment improved the female students learning outcome more than the male students.

Table 4: Mean difference in teachers' perception of assessment propelled improved learning by gender

	Sex	N	M	SD	t	df	sig
Teacher	Male	12	42.25	4.535	.845	28	.594
	Female	18	40.94	3.857			
Total		30					

Table 4 shows that the calculated $t(28) = .845$ is more than the P value ($P > 0.05$). Hence there is no significant difference in the male and female teachers' perception of the extent of the role of assessment in Oyo state Secondary schools. The teachers irrespective of the gender are of the same opinion that the extent to which assessment as carried out in schools in Oyo state has brought about their students' learning improvement is low.

Discussion

The results of this study revealed that assessment play certain roles in schools. Most teachers indicated that assessment helps to identify learners' area of weakness. The findings also revealed that majority of the teachers claimed that assessment helps teachers to know what to do to improve students' learning and it also helps to provide quality information to students about their learning. Hence, assessments engender learning improvement. This finding is supported by Baku's (2008) assertion that assessment helps to improve learning if it is well carried out as expected because it helps to identify the strengths and weakness of students at the early stage for remedial actions. However, the study revealed that its usage for learning improvement in Oyo state schools is low. Evidence from the study shows that most students claimed that their learning has not been improved by the way assessment are carried out or done in their schools. 86.6% of the teachers too claimed that the ways assessments are done in their schools have not brought about improvement in the learning outcome of the students.

Furthermore, the study also revealed that almost all the students indicated that their teachers usually assess them by giving them written tests twice in a term and a written examination at the end of the term only and that their teachers do not give them test, assignments or classwork to do at the end of each topic or lesson to find out the extent of their learning. Furthermore, the study also revealed that most teachers do not give practical work to their students to assess what they have learnt and most teachers hardly give feedback to the students for remediation purpose so as to improve the students learning. This is an indication that the assessments carried out in our schools are not systematic and comprehensive and most often they are not used for guidance purpose. This finding also supported Onuka & Durowoju's (2011) findings that in Nigeria schools, students are commonly assessed through written tests and examinations only.

The study also shows that there is significant gender difference in the extent to which assessment improved students' learning achievements. The mean scores show that the female students claimed that the way they were being assessed in their schools has improved their learning achievements more than their male counterparts. This may be due to the fact that most of the items constructed by most teachers are not gender friendly because most of the male students indicated that they disliked the ways their teachers set questions for them during tests and examinations. However, there is no significant difference in the male and female teachers' perception of the role of assessment in Oyo state Secondary schools. Though majority of them claimed that they often give feedback to students for correction purpose, most of them indicated that assessment has not improved their students' learning outcome. This finding disagree with Joshua (2004) submission that teachers hardly discuss test results/performance with individual students with a view to helping the student identify his/her errors and their causes/sources, and possible remedial/preventive. This is an indication that although the students may differ in their view concerning the extent to which assessment has improved their learning, most teachers irrespective of gender have the same view that assessment is carried out to improve students' learning outcome.

Conclusion

In the light of the findings of this study, it is concluded that assessment as done in most schools in Oyo state only determine the fate or destiny of students rather than improving students' learning outcome. This type of assessment is not beneficial to the teaching–learning process because it does not provide immediate feedback and remediation meant to improve learning.

Recommendations

- 1) Assessment should be adequately used in schools in order to improve students' learning achievements.
- 2) Teachers should ensure that they use various tools such as assignments, discussion, projects, oral questions and even observation to assess students in order to improve learning
- 3) Teachers should ensure that their test items are gender-friendly.
- 4) They should set questions that are not biased; rather standard questions should always be constructed. This can be done by validating the instruments before they are used.

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