ASSESSMENT PRACTICES AND PROFESSIONAL TEACHER DEVELOPMENT IN THE 21ST CENTURY

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ABSTRACT
The societal perception of teaching in Nigeria as an unrecognized profession and an ungrateful trade for all comers has changed in recent times partly because of the global attention to and the realization that education is the precursor of development and teacher education is the bedrock of quality education. The paper focuses on teacher quality and professional standards in terms of the three-dimensional characteristics consisting of professional knowledge and understanding, professional skills or competences, and professional attributes all of which are evaluated through various assessment procedures and tools. Relating examples from other commonwealth countries, the paper portrays the assessment practices commonly adopted in teacher education in Nigeria by addressing three vital questions, namely: (a) How do teacher educators conceptualize assessment? (b) What types of assessment are applied for appraising the knowledge base, professional skills and attitudes of teachers? (c) How can the certified teacher with good qualities retain functional utility over many years of service? The identified assessment practices include formative and summative assessments, objective and subjective assessments, referencing assessments (criterion-referenced, norm-referenced, and ipsative), formal and informal assessments, and internal and external assessments. An innovative model of assessments involving individual assessment, group assessment, self-assessment, and peer-assessment is advocated for the retention of the functional validity of certified good teachers. Different assessment procedures which are applicable during continuing professional development of teachers are also discussed. Considering assessment practices as basis for quality assurance and accountability in teacher education programs, the paper recommends comprehensive assessment system based on a coordinated plan, teamwork and collaboration as strategy for improved professional quality of teachers for the 21st century.

Introduction – The status of teachers as professionals
Until the recent times, the teaching profession was viewed as a career without status and teachers were regarded as chattels (Frazier and Sadker, 1973). Some people alluded to teaching as a career reserved for women, the aged, the lame and the socially useless (Bryne, 1978). Some people even regarded teaching as a leprous occupation (Isyaku, 2000); while others considered it an all comers trade (Anikweze, 2009), and are hesitant to recognize it as a true profession. Not a few graduates, including those from the faculties of education, considered it as the occupation of last resort (Anikweze, 2008a). Consequently, professionalization has not been easy to achieve for the teaching occupation in Nigeria. Bisong (2005) blamed the sorry situation on the inability of teachers to assert pride in their occupation and to manifest professional competence, authority, self-confidence and integrity. The poor recognition accorded to teaching as a profession is also attributable to the nature and length of training in the development of teachers. It has been observed that some individuals that trained in other professional fields but are engaged in teaching rather than practicing their primary professions have refused to be identified as teachers.

However, since the later part of the 20th century, conceptualizations about teacher roles and the status of teachers the world over began to change. This change in perception is partly attributable to changing times and partly because education itself is dynamic. Consequently, many societies have been engaged in serious reforms, both in the educational sector, and in other sectors of socio-economic and political developments. A significant element in these reforms is the recognition of education as a potent instrument of change. Nigeria is not exempt in this global revolution. This fact is evidenced by the
bold acknowledgement in all the editions of the National Policy on Education that Nigeria has adopted education as “an instrument par excellence for national development” (FRN, 1977; 1981; 1998:5; & 2004) and that conviction still remains valid. But perhaps more significant is the acknowledgement that the status of teachers and their professional development are not only one of the variables that need to be reformed so as to improve the education system, but that teachers constitute the most significant agents of change and therefore a vital driving force for implementing reforms (Villegas-Reimers, 2003). This realization is also reflected in the Nigerian National Policy on Education through the unequivocal acknowledgement that “no education system can rise above the quality of its teachers” (FRN, 2004:17).

Teacher quality and professional standards have been issues of serious concern to educational planners in virtually all countries of the world. One cannot go too far to justify why it should be so – there is the need for quality education. Quality education can be conceptualized as education that is relevant to the developmental needs of the recipients as individuals, and to the society in which the individuals live and operate as active participants (Anikweze, 2008b). In other words, quality education is the type that yields outputs which are intellectually perspicacious, socially adaptable and miscible, vocationally skilled and competent, and morally sound. It is quite logical to expect that teachers who midwife the upbringing of Nigerian citizens that possess these qualities must themselves possess such qualities. Certainly, no teacher will be expected to deliver what he/she does not possess. This expectation explains why many stakeholders in Nigerian education easily concede that teacher education is the foundation of quality education. In this regard, one can assert that functional teacher quality is a condition precedent for quality education. As it were, any steps taken to reinvent teacher quality are steps so well taken to lever the quality of education at other levels of the educational system and by extension, other sectors of national development. Unfortunately, the findings of Green, Johnson, Kim & Pope (2006) suggest that assessment is currently an educational realm without professional consensus. Therefore, the professional preparation of teachers must include insightful exposure to various assessment methods and procedures to enable trained teachers undertake fruitful evaluation of the outcomes of their interaction with students in the cognitive, affective and psychomotor domains.

To this end, government is determined to improve the professional development of teachers through agencies such as the Teachers Registration Council of Nigeria (TRCN), the National Commission for Colleges of Education (NCCE) and the National Teachers Institute (NTI). These agencies formulate policies and regulate standards for the professional preparation of teachers and further influence capacity building and assessment of quality among practicing teachers. The professional development of teachers in contemporary times is therefore geared towards achieving a high degree of coherence with the challenges of the 21st century with particular regard to teachers’ professional attributes, professional knowledge and understanding, and professional skills. These qualities of the professional teacher should form the bedrock of assessment practices both for determining the worth and status of specific individual teachers and for providing feedback for continuing professional development of teachers in general.

International referents for the status of teachers
The international conceptions of professional teachers according to Axelrod (2007) are hinged on qualified teacher status consisting of three-dimensional but interwoven characteristics. These are professional knowledge and understanding, professional skills or competences, and professional attributes. Jatto (2005) considered these characteristics in terms of criteria for assessing teacher competency, viz: knowledge criteria, performance criteria and product criteria.

The professional knowledge base of the qualified teacher includes the acquisition of adequate knowledge of subject matter, methodological approaches and instructional designs, principles of human growth and development, learning theories and curriculum organization. Such a teacher should be intelligent, versatile and equipped with good communication skill in the language of instruction. A qualified teacher should be certified to have satisfied these qualities
before he or she is registered. Even then, continuing professional development is a sine qua non for effective functionality.

Professional skills or competences demand that a qualified teacher is easily distinguishable through the manifestation of good communication skill, enquiry mind, creativity, recognition of individual differences, astute classroom management, good leadership, parenting skills and group tactics. Such a teacher is expected to be innovative, industrious, and resourceful especially in the production and improvisation of instructional materials. S/he should equally be good in manifesting ICT skills, evaluation of learners, record keeping and providing good guidance to learners.

The professional attributes of a teacher that would be effective include adaptability and flexibility, commitment, honesty, sincerity, integrity, fairness and open-mindedness, and democratic in principle. Other attributes are diligence, punctuality to classes, neatness, self confidence, and good character. The teacher should also have a pleasant personality; always ready to observe professional ethics; maintain active membership of professional bodies; be kind and sympathetic to children; patient with slow learners and manifest self discipline in all circumstances. Additionally, the teacher should always be organized and orderly, gender sensitive, mentally alert, morally upright, socially respectable and emotionally stable.

A review of literature shows that many countries of the world have established conditions precedent for personnel to attain Qualified Teacher Status (QTS). Generally, the statuses hinge around the tripartite criteria mentioned above although nomenclatures may differ. In England and Wales, Scotland and Northern Ireland, for instance, an individual desiring to become, and continue being, a teacher of children in the state must first go through an undergraduate degree programme plus a compulsory course in teacher education before QTS could be granted (Wikipedia, 2008). Similar statuses exist in other Commonwealth countries where those who already have a degree are required to undertake a postgraduate teacher training course, such as the Postgraduate Certificate in Education (PGCE), Professional Certificate in Education (PCE) or employment-based training, such as the Graduate Teacher Programme (GTP). This approach to entry into the teaching profession has been described as consecutive mode of teacher education (Isyaku, 2002). The second mode is concurrent in structure whereby a diploma such as the Nigeria Certificate in Education (NCE) or undergraduate degree qualifications, such as the Bachelor of Education (B. Ed.), or the Bachelor of Science Education (B.Sc.(Ed.)), is awarded making the recipient qualified to be registered as a professional teacher.

In the United States of America, Brickman (2008) reports that elementary-school teachers are required to complete a college-degree course before being given a permanent teaching certificate, while a post-graduate degree has become necessary to teach on a permanent basis in high school. In addition to a thorough command of at least one academic subject, a qualified teacher in the United States is expected to have a broad background of general education, as well as professional preparation that includes the psychology of children or adolescents, the principles and techniques of teaching, and the historical foundations of education. However, experienced teachers could become certified by the National Board for Professional Teaching Standards (NBPTS) only after passing a screening based on both their knowledge of academic subjects and their performance with children. The certification attracted recognition as professionals for such teachers and also, in many cases, ushered in enhanced salaries.

In Nigeria and other African countries, educationists and teacher educators may know the numerous characteristics and qualities that make for quality teachers and really expect professionally trained teachers to manifest those characteristics. However, the issues that call for scrutiny relate to the assessment modes and practices by which the trainers of pre-service teachers arrive at the qualifications credited to the graduates of teacher education whether from the colleges of education, faculties of education of the universities, or schools of education of the polytechnics. The envisaged issues will be elucidated by addressing three vital questions, namely: (a) How do teacher educators conceptualize assessment? (b) What
types of assessment are applied for appraising the knowledge base, professional skills and attitudes of teachers? (c) How can the certified teacher with good qualities retain functional utility over many years of service?

How assessment is conceptualized by teacher educators

An assessment is generally conceptualized as the process of investigating the status or standard of the target of consideration with reference to certain expectations which are often expressed as objectives. In most teacher education institutions, assessment implies the process of using the results obtained from measurements to take relevant decisions about a programme being assessed (Obioma, 1988). Thus, educational assessment involves the process of documentation, usually in measurable terms, of knowledge, skills, attitudes and beliefs manifested by individuals who are passing through the system of education. Accordingly, teacher educators in Nigeria generally understand assessment in education to occur whenever one person, in some kind of interaction, direct or indirect with another, is conscious of obtaining and interpreting information about the knowledge and understanding, or abilities and attitudes of that other person (Rowntree, 1987).

Types of Assessment Practices for Evaluating Teacher Competence

Black and William (1998) used the term assessment to refer generally to different kinds of activities that teacher educators adopt to help teacher trainees learn. The educators also use different types of assessment to evaluate what their students have learned depending on the purposes and the approaches to assessment. The categories of assessment that can be distinguished, though not all are fully implemented in Nigeria, are: formative and summative assessments, objective and subjective assessments, referencing (criterion-referenced, norm-referenced, and ipsative) assessments, and internal and external assessments.

i. Formative and Summative Assessments

Generally, a combination of formative and summative assessment is prescribed. The major distinction between formative and summative categories of assessment lies in the purpose of assessment practices. Formative assessment is the assessment for learning generally carried out throughout a course or project. It is often referred to as continuous assessment or educative assessment. It is used for obtaining continuous feedback to both the teacher and the learners for the purpose of determining the progress of learning during a course of instruction and for improving learners’ performance through remediation. The flaw that has been identified with the implementation of continuous assessment in Nigeria is that teachers over-emphasize the cognitive domain to the neglect of affective and psychomotor domains thereby diminishing the comprehensive quality of continuous assessment. Research findings (Obemeata, 1984; Anikweze, 1995; Adetayo, 2008) suggest that teachers do not give credence to the assessment of the affective and psychomotor domains of educational objectives either because of ignorance about the assessment instruments for measuring them or due to pressures from examination demands for students’ success. Sususwele-Banda (2005) investigated primary school teachers’ perceptions and practices in Mathematics assessment in Malawi and found out that teachers perceive classroom assessment as periodic tests and showed limited ability to use different methods and tools to assess their students’ developments in the affective and psychomotor domains. The investigator concluded that teacher education program had not adequately contributed to teachers’ perceptions about comprehensive classroom assessment. In Nigeria, the fault is certainly not with the program of teacher education but with the implementers.

Summative assessment, on the other hand, is the assessment of learning that is generally carried out at the end of a course or project for decision making as it affects promotion, selection, and grouping of students, curriculum planning and evaluation, certification of students, hiring or firing of teachers, maintenance of school standards, comparing students and schools and for reporting how learners have progressed to parents, learners themselves and educational administrators. Stake (2004) explained the difference between formative and summative assessment with the following analogy: “When the cook tastes the soup, that’s formative; When the guests taste the soup, that’s summative.” Diagnostic
assessment and Self-assessment are forms of formative assessment while Performance-based assessment is a form of summative assessment since it focuses on achievement.

ii. Objective and Subjective Assessment
An objective assessment takes the form of structured response questions which have predetermined single answers. Subjective assessment, on the other hand, takes the form of essay or unstructured questions that may have more than one correct answer and testees are free to organize answers in their own varied ways.

iii. Criterion-referenced, Norm-referenced, and Ipsative Assessment
These terms provide bases for the comparison of learners’ performance in assessment activities. Criterion-referenced assessment uses a criterion-referenced test to measure students’ performance against defined ‘standard’ criteria. In the case of Norm-referenced assessment, a norm-referenced test is used to measure each student’s performance against group performance. The IQ test is the best known example of norm-referenced assessment. The bell-shaped curve (normal curve) is often used to determine the grades of the assessed candidates. Ipsative assessment is the practice of assessing present performance against the prior performance of the person being assessed. It is self comparison either in the same domain over time, or comparative to other domains within the same student. This form of assessment is an innovation yet to be practiced in Nigeria.

iv. Formal and informal assessment
Formal assessment is usually planned to take the form of a written test, quiz, or project. The scores from such formal assessments are recorded in the Continuous Assessment Record Book. An informal assessment occurs in a more casual manner and may take the form of observation, inventories and checklists, rating scales, participation in class work, peer and self evaluation. The scores from such assessments are for motivating learners’ engagement time in studies and may not contribute to learners’ final grades.

v. Internal and external assessment
Internal assessment is set and marked in-school by the teachers. Examples include all teacher made tests and examinations set and scored by class teachers. External assessment, on the other hand, is set by examination bodies such as the National Examinations Council (NECO), the West African Examinations Council (WAEC), the National Business and Technical Examinations Board (NABTEB), and the Joint Admissions and Matriculations Board (JAMB). The various examination bodies also organize the marking of the scripts using non-biased subject experts. For teacher education that takes place in tertiary institutions, external assessment takes the form of moderation of the questions, marking schemes and the marking by approved external examiners. A major difference between internal and external assessment is that while feedback from the former helps the learner to improve, the grade from external assessment comes too late to be useful for helping the learner, the purpose being either for certification or for selection.

Organization of assessments for retaining the functional utility of certified teachers with good qualities
Continuing professional development (CPD) is critically important for teachers to retain their utility value in an education system fraught with interminable dynamism. As teachers engage in CPD, there are different methods of organizing assessments that yield feedback for ascertaining the continued functional utility of practicing teachers. Functional utility in this context refers to up-to-date and relevant knowledge base; appropriate and effectual skills, and positive professional attitudes. The innovative model of assessments being advocated entails use of individual assessment, group assessment, self-assessment, or peer-assessment. The goal is to develop new models of assessment geared to fostering lifelong learning skills through which students would develop their own capacity to self-assess, reflect on, and take an active role in managing their own learning (Nicol et al, 2009). Each of the projected approaches has some merits to exploit and some
demerits to avoid. A careful combination of all the approaches is ideal; but the choice depends on the purpose of the teacher.

*Individual assessment* is applied when the teacher designs assessment activities for learners to work individually such as written assignments, presentations, or performance tasks in order to assess individual progress. Individual assessment is common in most school systems as the basis for reporting student progress. Each learner at each grade level is assessed according to his/her position in achieving the objectives of instruction. The advantages include motivation of learners to accept a greater degree of responsibility for their learning progress; opportunity for the teacher to focus more directly on the learning needs of each student; provision of specific feedback to the individual learner on his/her strengths and weaknesses; and the provision of standpoint for remedial assistance to the individual learner and a more relevant method of reporting progress for learners with special needs. However, adoption of individual assessments poses the challenge of coping with the greater amount of time investment in correcting and scoring assessment activities submitted by individuals relative to group assessment of learners as a unit. There is also the tendency of individual assessments to foster a competitive atmosphere that can sometimes become unhealthy thereby hampering learning progress that could have been achieved through cooperative and collaborative efforts. It also denies teachers essential information for making judgments concerning learners’ social development.

*Group assessment* is recommended when the focus is on the progress that learners can make by cooperating and collaborating to complete assessment activities. It is an assessment technique for collecting information on the learners working in group situations. To apply group assessment judiciously, the teacher must decide in advance about award of marks; whether to evaluate group work by awarding the same mark to all members of the group, or to evaluate individual learner contribution to the progress of the group work, or to award a combination of group and individual marks. Whichever method is adopted, group work has the advantages of fostering the spirit of cooperation among learners, freeing the teacher from disentangling the contributions of individuals since the summative product of a group activity is the product of several students' work, and promoting higher achievement, more positive interpersonal relations among students, and more positive attitudes toward the subject area and the teacher relative to competitive and individualistic learning. A disadvantage of group assessment is that some indolent students might gain unmerited marks hiding under the group without contributing anything. On the other hand, some bright students may feel that it is unfair to award group marks for their greater contribution to group product or achievement.

*Self-assessment* refers to the learners’ own assessment of their progress in knowledge, skills, processes, or attitudes. Keesing-Styles (2003) believed that students, in engaging in self-assessment which involves objective action and reflection enhance their opportunities to become knowing subjects. In this case, the element of self confrontation helps the learner to appreciate the teacher’s feedback after individual assessments. However, there is reservation over the efficacy of self assessment as research findings suggest that students tend to over-score themselves when given the opportunity for self evaluation (Lovegrove, 1975; Anikweze, 1998).

*Peer-assessment* is a situation in which a learner is assessed by a colleague or group of colleagues. Thus, peer-assessments can be conducted either individually or collaboratively in groups. A teacher has to be very cautious in using peer-assessment to ensure that it does not become an opportunity for exhibition of biases and prejudices among learners.

**Principles of assessment procedures**

A relevant aspect of assessment practices is the observance of pertinent principles which are basic to realizing the full benefits of the various assessment procedures. The contributions of Alonge (1989) and Ebel (1991) to these principles include as follows:
i. Awareness on the part of the examinees in terms of time-table provision and their readiness to take the examinations;

ii. Development of valid instrument (the questions or stimuli) in an artful and skillful manner bearing in mind the table of specification or test blue print;

iii. Evaluation of the responses of the examinees using standard marking scheme. The marking scheme thus becomes the ‘legal instrument’ within the classroom that could be used to protect the integrity of the teacher;

iv. Multiple observations of the attributes by other examiners to justify the rating of the testees; and

v. Using the test results to predict individual’s ability or capability of doing certain jobs.

Forms of assessment procedures

An appraisal of assessment practices in most African countries shows that four types of assessment procedures are traditionally adopted. These are:

a) the **Closed Book Assessment Technique** in the form of final examination that lasts for more than one hour during which students are required to answer a number of questions that are not known in advance;

b) the **Continuous Assessment** involving periodic assessments of the learners’ attainments in the cognitive, affective and psycho-motor domains and are expected to be systematic, objective, comprehensive, cumulative and guidance-oriented;

c) the **Practical work** which involves students in practically demonstrating their knowledge and skills in performing tasks in the laboratory, workshop, studio or field; and

d) the **Open-Time (Take Home) Assessment Technique** in which tasks and projects are assigned to students to accomplish at their own time and submit by a specified date thereby assessing students’ ability to find and utilize references.

There are however, other forms of assessment procedures suggested by Ebel (1991). These are:

i. the **Open Book Assessment Technique** in which students are permitted to make references to their textbooks and notebooks during the examination thereby enabling assessments to measure the highest level of the cognitive domain in application and evaluation of information as well as the skill in knowing where to locate relevant material to use in answering questions;

ii. the **Pre-published Assessment Technique** in which some or all of the questions for the final examination are ‘published’by giving them out to students as revision questions weeks before the examination dates;

iii. the **Oral Assessment Technique** which involves face-to-face type of assessment in a sort of interview operational mode and best applicable for testing fluency in language education and usually adopted in thesis defence for higher degrees.

To the foregoing, we may add Group Work Assessment Procedure and On-line Assessment.

a) **Group Work Assessment Procedure** is adopted as a strategy for coping with large classes. When properly organized, it ensures cohesiveness, enhances peer learning, enables students to understand concepts through discussion among peers, and at the same time, facilitates development of team dynamics and leadership qualities.

b) **On-line Assessment Procedure** is mostly practiced in developed countries with widespread internet services. It is done for diversity and to broaden students’ range of skills and in some cases, to meet students’ special expectations.

Recommendations on assessment practices for teachers of the 21st century

What cannot be easily contradicted is that teachers generally teach as they were taught. Therefore, improvements in assessment practices must begin with the teacher producer centres. For improved assessment practices, teacher education...
institutions should insist on a comprehensive assessment system based on a coordinated plan for periodically monitoring the progress of student-teachers at multiple grade levels in a variety of subjects. According to the University of Illinois (1994) a comprehensive assessment system should specify the procedures to be used for assessment; when and how those procedures would be administered; and describe the plans for processing, interpreting, and using the resulting data. Such a system also takes cognizance of information collected at various levels and situations and should include:

- a schedule for assessing the student-teachers throughout the academic session and at various levels,
- the use of a variety of assessment procedures which must be appropriately applied,
- institution of technical and ethical standards for protecting the quality of assessments, the validity of interpretations and uses of ensuing data, the reliability of performance-based procedures, and the fairness of various assessments,
- provisions for collecting other relevant information such as analyses of performance at micro-teaching, the actual teaching practice, and judgments about computer literacy, and
- opportunities for accurate and constructive feedback on learners’ attainments, progress and areas for development.

It is further recommended that the assessment of African teachers of the 21st century should be based on team work and collaboration. Teachers should be groomed to work as team members and to identify opportunities for working with colleagues both in instructional delivery and in assessment practices thereby sharing the development of effective practice with colleagues. In this regard, efforts should be made to ensure that colleagues working together are appropriately involved in supporting learning and that they understand the roles they are expected to fulfill in objective assessments.

Finally, whichever type of assessment that is adopted particularly in continuous professional development of teachers, every effort must be made to ensure the provision of feedback that would improve the professional capacities of the assessed.

Conclusion

The assessment practices of teachers could be related to accountability from the brains behind teacher education programs. Accountability, in this sense, refers to the various strategies devised in order to improve the quality of education since assessment practices constitute a veritable means by which quality is achieved. Sato, Wei & Darling-Hammond (2008) examined how mathematics and science teachers’ classroom assessment practices were affected by the National Board Certification process and found out that the National Board candidates experienced pronounced changes in their assessment practices due to the National Board standards and assessment tasks. They therefore concluded that teachers’ assessment practices could be improved through professional development. Hence, experts involved in the accreditation of teacher education programs should demand accountability from the operators of the institutions by considering their assessment practices as evidence of quality assurance. External assessors such as educational administrators, professionals, and educational researchers can also pass judgement on the effectiveness of teacher education curriculum through monitoring the activities of the teachers and the quality of their assessment practices including the manifestation of learning achievement of their students in tests and other assessment instruments.
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