Presenting a Two-way Grid for Assessment of Quality Assurance in Higher Education

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Abstract
The literature in education is replete with instances of poor standards at the various levels of education in the Nigerian experience, and indeed in the other developing economies. But the literature is almost mute about instances of search for lines of empirical evidence which could converge to attest to poor educational standards. A problem identified in this study is lack of instruments for procuring such empirical evidence. This problem is addressed in part by providing a two-way grid for assessment of quality assurance in higher education. It is recommended that psychometric integrity of this instrument be investigated by further studies.
Keywords: Higher education, quality assurance, qualitative education.

1. Introduction

Education is recognized all over the world as both an instrument of change in the positive direction and a condition for change. National Policy on Education in Nigeria (Federal Republic of Nigeria, 2004) amplifies the need for education to be relevant, practical and for acquisition of appropriate skills needed for the development of the society. It provides the substratum for social, cultural, economic and technological change. By implication, if the quality of education in any country is poor, national development will be impaired. In this case development programmes like Vision 20-2020 in Nigeria in which the country hopes to join the first twenty strongest economy in the world cannot be actualized. Qualitative education is therefore an imperative for development in any country. It comes through quality assurance which is an empirical concept and which has been described by Ajayi and Adegbesan (2007) as closely related to accountability which along with it is concerned with maximizing effectiveness and efficiency of educational systems in relation to the contexts of their missions and stated objectives.

1.1 What is Qualitative Education?

Programmes that are offered in higher educational institutions, and indeed all levels of education, should be qualitative for them to contribute meaningfully towards national development. It is necessary at this point to conceptualize qualitative education. According to Webster New International Dictionary of the English Language (1986), the word "quality" can be severally defined as peculiar and essential character of a thing; degree of excellence; the degree of conformity to standard; an attribute that obtains only after a certain level has been reached; merit or superiority because of a combination of good characteristics; and inherent or enduring good traits that makes one somewhat superior. But Okebukola (2002) sees quality to mean "fitness for purpose". In this sense, quality addresses the ability of a product to fit the purpose for which it was produced.

Concern for qualitative education has followed the direction of assessment using parameters for credibility, scientific and/or professional value of each of the three academic cycles in Nigeria. Bajah (1998) notes that the quality of any education is judged by the effect, which it has on learners and society. Little (1994) describes the concept of quality education as "elusive". In some situations, it means being literate and numerate. Yet in other places, according to him, quality could imply the need for the acquisition of technical and vocational skills necessary for economic growth and sustenance. Also, related to this is the level of acquisition of fundamental knowledge, skills and attitudes the individual needs to function efficiently in a given society.

Nwana (2000) suggests that quality in education may simply refer to the scale of inputs (resources) in the forms of funds, equipment, facilities, teachers, pupils and the like; and to the fact that the transactions and the outputs of the institutions in form of their products, are acceptable, desirable, beneficial, efficient or effective from the point of view of the school stakeholders – government, society, private agencies, parents and international bodies. In this context, and as endorsed by Tamuno (1995), quality covers acceptable standard of excellence concerning the total environment of a school system.   Majasan's (1998) conception of qualitative education is relevant education which is brought about through diligent learning and research that can produce sound and useful knowledge and creative skills for production and development. The quality or characteristics of qualitative education, according to Majasan (1998), is a composite of the elements of culture, morality, manners, art, science, technology, application of knowledge, creativity, valuable skills and positive personal values as personal freedom, handiwork and self-organisation. He is of the view that a society that functions with this type of qualitative education among its members is the type that can extend the frontiers of human development.

By implication, sound quality of education relates more to the extent to which the educational system assists the society to realize its social and developmental objectives, along with the level of efficiency and effectiveness with which the various sections of the system relate to produce persons of such value that can help build the society and also enhance functioning of the institutions that produced them. When there is qualitative education, learners become adequately equipped with skills to perform their operations. But in recent times, many scholars in the natural, physical and the social sciences have questioned what higher education is trying to achieve. This question has arisen for several reasons and in attempt to provide answer to this question, let us examine the meaning, goals, and challenges of higher education in Nigeria.

2. Higher Education in Nigeria

The Federal Republic of Nigeria (2004) in the National Policy on Education, says tertiary education means the education given after secondary education. According to Dozien (1993), higher education is made up of four (4) major sectors, namely, University Education given by the conventional Universities and Universities of Technology; Technical Education (Polytechnics, Colleges of Technology and Technical/Vocational Colleges); Teacher Education (Colleges of Education (Technical) and professional schools (monotechnics). This level of education is provided for students who have successfully completed their secondary education (grade 12) and have demonstrated by that the aptitude for higher education.

Goals of Higher Education in Nigeria

For higher education in Nigeria to be relevant, the National Policy on Education has stipulated the following goals:

i.   To contribute to National development through higher level relevant manpower training.

ii.   To develop the intellectual capability of individuals to understand and appreciate their local and external environments.

iii.   To acquire both intellectual and physical skills which will enable indvidiuals to be self-relevant and useful members of the society

iv.   To promote and encourage scholarship and community service.

v.   To forge and cement national unity and

vi.   To promote national and international understanding and interaction.

The above goals, as enunciated by the Federal Republic of Nigeria (2004) are laudable. However, the question that arises at this point is, "To what extent have the beneficiaries of higher education acquired both physical and intellectual skills, which will enable them to be self-reliant and useful members of the society?" Two other questions which are relevant to this paper are, 'To what extent are these goals being achieved?' and, 'Which instruments can be used to assess the extent and make valid judgment about the achievement of these goals?'.

It is the belief of many that the Nigerian economy, science and technology are grossly underdeveloped because the country's three levels of educational system (primary, secondary, tertiary) are not equipping the beneficiaries with the knowledge and skills necessary for economic, scientific and technological development. It is axiomatic that the economic, scientific and technological development of any country depends on the quantity and quality of skills offered by the school system to the citizenry. Despite this, Nwagwu (2007) noted that most beneficiaries of tertiary education are without necessary skills for self-reliance and that this situation has led to high rate of unemployment among Nigerian graduates. This could be attributed to several factors that have impaired the quality of higher education in Nigeria.

A major challenge of higher educational programmes in Nigeria is to ensure that quality of the programmes they run is maintained. In this attempt, higher education is faced with numerous problems/challenges. According to Arubayi (2011), challenges of higher education in Nigeria include: Poor staffing and low teacher quality, poor funding, inadequate infrastructures for high student population, cultism, corrupt practices in students graduation and certification, poor students' commitment to learn, national insecurity and attendant issues.

Igwebuike (2010) emphasizes the following as challenges of quality assurance in Colleges of Education:

a.   Poor quality of the pool from which students are admitted;

b.   Inadequate funding;

c.   Geometric increase in student intake;

d.   Decline in provision of equipment, materials and facilities for teaching and research;

e.   Inadequate books and current journal subscription;

f.   Truancy among students;

g.   Political factor;

h.   Problem of coordinating educational policies;

i.   Lack of commitment and poor attitude to work by staff;

j.   Inadequate supervision and monitoring of lecturers and other staff;

k.   Inadequate compliance to ICT by Colleges of Education;

l.   Electricity and energy crisis;

m.   Lack of, or inadequate provision of hostel facilities;

n.   Shortage of academic staff;

o.   General poverty in the land; and

p.   Corruption from the society at large.

In support of Igwebuike (2010), Onohwakpor (2012) says that literature search has shown that a number of challenges facing the education sector have been identified and well documented. He is supported by Obanya, 2002; Bagudo, 2004; Egboh, 2009; Odu, 2009; Okebukola, 2009; Federal Ministry of Education (FME), 2011 in cataloguing the challenges. Among these challenges are: reduced or inadequate funding, inconsistent education policy implementation, poor curriculum delivery; inadequate education policies; manpower inadequacy; limited capacity of education supervisory authorities to regulate the sector; limited capacity of education authorities to provide effective policy articulation; crumbled educational infrastructure, social vices, cultism, examination misconduct, gangsterism and terrorism etc.

2.1 Inadequate Funding

Funding of higher education in Nigeria at both the State and Federal Government Institutions have always been a major and persistent problem. Ekpo (2002) asserted that there has never been a time that adequate money is provided to match the wage bills. He noted that, education is not given top priority in Nigeria as the recommended 26% of national budget allocation to education by UNESCO is not met. He is supported by Academic Staff Union of Nigeria Universities. (ASUU, 2000). Nsa & Aniekan (2007) stated that learning facilities are not available in higher education and lecturers are most of the times on strike as a result of inadequate funding. This is an indication that the products of such academic programmes may not meet the standards required.

2.2 Structural Deficiencies:

The President of Nigeria, Goodluck Jonathan vowed to correct all the structural deficiencies in the education sector that have resulted to the inefficiencies of Nigeria education system. In the President speech at the 2012 convocation ceremony of Federal University of Technology (FUT) Minna, Niger State, Nigeria, the President lamented that the education sector has for long been faced with structural deficiencies. It is clear that the challenges of depreciating quality of education in Nigeria have been a recurring issue. Stakeholders have also become more concerned and disturbed by the lingering decay in the education sector. Also the vice chancellor of Federal University of Technology, Owerri, Nigeria, (Asiabaka 2011), at the 30th matriculation ceremony of the institution lamented out over poor quality of products of tertiary and other levels of education in Nigeria. According to him, the poor quality is occasioned by "Instability, poor service delivery, corruption, recurrent strikes, indiscipline among staff and students, inadequate funding and dearth of essential infrastructures and facilities". Nwadiani (2012) stressed that the low relevance and poor quality of education in Nigeria akin to schooling or learning shock; educational system failure and dysfunction are traceable to some observable rots in the following forms such as: infrastructural decay, obsolete laboratory facilities, and poor quality teachers.

2.3 Infrastructural Decay:
Learning facilities in Nigeria are not only deteriorated but highly dilapidated making schools joyless places and very unsafe for teaching and learning. Nwadiani (1989; 1999, 2008) carried out several studies on the state of learning facilities in Edo, Delta, Imo, Plateau, Bauchi and Sokoto States. The studies showed that learning environment in Nigeria are unconducive for and inhibitive to learning. Nwadiani (2012) lamented that, classrooms are dilapidated, overcrowded, uncompleted, without doors and windows; inadequate number of chairs and desks for both learners and teachers. He further noted that, in tertiary institutions, lecture halls, classrooms, staff offices and students residential accommodation are grossly inadequate.

2.4 Obsolete Laboratory Facilities:
Nwadiani (2012) observed that, in most Nigeria's higher institutions, laboratory facilities are not found and where the facilities and equipment are available, they are obsolete, over utilized and vandalized. He noted that, many students of science and technology graduate with little or no exposure to experiments and practical experiences.   It is difficult to say that such graduates make meaningful contribution towards national development.

2.5 Poor Quality Teachers:
Today the crisis is that of quality of teachers and not quantity or number. Some teachers exhibit intellectual ignorance, incompetence and low imaginative thought. The level of commitment to work by many teachers is very unsatisfactory. At the tertiary level, according to Nwadiani (2012) very many unholy things and behaviour are common. These have resulted to declining quality of education.

2.6 Evidence of Declining Quality:
Over the years, higher institutions have suffered from several disruptions arising from labour unrest as well as students unrest. These cause inactivity in campuses, sometimes for several weeks. When this happens, students are rushed through the academic session haphazardly. Also, insecurity caused by cultism in the campuses make learning environments unfriendly and unsafe for intensive

teaching/learning activities. These factors contribute in no small measure to poor quality of higher education and poor implementations of programme objectives. According to Onuh, (2007) in most higher institutions, the same lecturers handle pre-degree, degree, part-time degree programmes and sandwich programmes, diplomas, as well as post-graduate courses. This situation makes them not to put in their best and in essence quality of the programme is affected.

Poor workers' salaries and conditions of service (poor office accommodation and furniture and other remuneration) can conspire to bring dissatisfaction in higher education and this can lower productivity. This can also lead to brain drain to greener pastures, strike actions by trade unions, examination malpractices and so on. Nwadiani (2012) lamented that the existing stock of education personnel at all levels are poorly motivated hence the current wave of brain drain. Close examination of the ills arising from poor conditions of service in higher education, reveals that the quality of a programme is low if the staff members lack motivation. But where, the staff members are comfortable, their productivity will consequently be high. The number of qualified staff at both academic and non-academic cadres affect the productivity of the staff in higher education. From accreditation reports, (Ekpo, 2002) concludes that the number of academic staff is not sufficient and the available staff are over-loaded thus leading to poor productivity in higher education. It was noted that the staffing conditions of most higher institutions are broad-based, that is having more junior staff than senior staff which affects the quality of the programmes of most higher institutions.

It is evident that the quality of programmes in higher education is declining. Nwadiani (2012) affirmed that Nigerian education has very low relevance. He emphasized that Nigerian schools at all levels have not been able to inculcate the right type of values to both learners. He also noted that, education quality in terms of knowledge gain, retention, recall, both quantitative and qualitative application at work and daily living is very low in Nigeria among learners.

Quality education is akin to good education. It has no substitute anywhere. The assessment of quality assurance of educational programmes becomes imperative. But much to the authors' chagrin, not much has been done towards providing empirical paradigms for assessing quality assurance in higher education in the Nigerian experience.

The Need for Assessment of Quality Assurance of Programmes in Higher Education
In an attempt to ensure quality in Nigerian educational system, the Federal Government established institutions to determine the quality of education at various levels. In 1989, the National Commission for Colleges of Education (NCCE) was established to supervise all programmes for teacher education, accreditation of certificates and academic awards as well as approval of guidelines for accreditation at the Nigeria Certificate of Education level. In 1985, the National Universities Commission was incorporated and its charter was amended in 1988 and empowered to articulate minimum standards for universities in the Federation and to accredit their degrees and other academic awards after obtaining approval through the Minister for Education with the approval of the President.

-       All these efforts were aimed at setting and maintaining standards at the higher level of education, and building the confidence of stakeholders in the quality of the system. Nwankwoala (2007) stated that the quality of the educational system can also be assessed by how adequate and accessible the facilities and materials needed for effective teaching and learning are available. In order to ensure that educational programmes meet the national objectives, the Federal Republic of Nigeria (2004) states that the quality of instruction at all levels of our educational system should be oriented towards inculcating the following values:

-       Respect for the worth and dignity of the individual;
-       Faith in man's ability to make rational decision;
-       Moral and spiritual principle in inter-personal and human relations;
-       Shared responsibility for the common good of the society;
-       Promotion of the physical, emotional and psychological development of all children; and
-       Acquisitions of competencies necessary for self-reliance.

By implication, if the instructions given in the educational system, particularly in higher education, are not designed in line with the stated values, the quality of individuals being trained will in no way make any positive contribution to the well-being of the society. If the programmes of the instruction adhere strictly to the stated values, it means that the educational system offers quality education programme (Nwankwoala, 2007). The quality of education makes the difference both for individual consumers and the entire society. According to Nwadiani (2012), the survival and quality of lives of school leavers and the overall development of any nation are very dependent upon the quality of the educational programmes provided and acquired. This is why assessing the quality of programmes in higher education is a major prerogative of any educational system.

3. **Presenting A Two-Way Grid for Assessment**
As mentioned earlier, quality assurance is conceptualized as "the systematic monitoring and evaluation of the

various aspects of a system to ensure that standards are being met" (Oniyama, 2006). In this sense, quality assurance is systematic and by implications involves planning and "working out" the plans to achieve the desired result. Monitoring involves working out the plan that is put in place. Evaluation, which is also a characteristic of quality assurance, involves the process of gathering, studying by analysing and interpreting results to enable us take administrative decision about the worthwhileness of something. It involves assessment which is assigning numerals to variables, measurement which is the practical application of assessment, sometimes, test which is almost the same thing with measurement, and finally, decision making on the basis of data and information from assessment and measurement. It is when these somehow different constructs are integrated in an exercise that one can rightly say that evaluation has taken place. This elucidation here is necessary because, sometimes the operational meaning of evaluation is misconstrued. A model of an evaluation exercise, as presented by Igwebuike (2008), is given below:
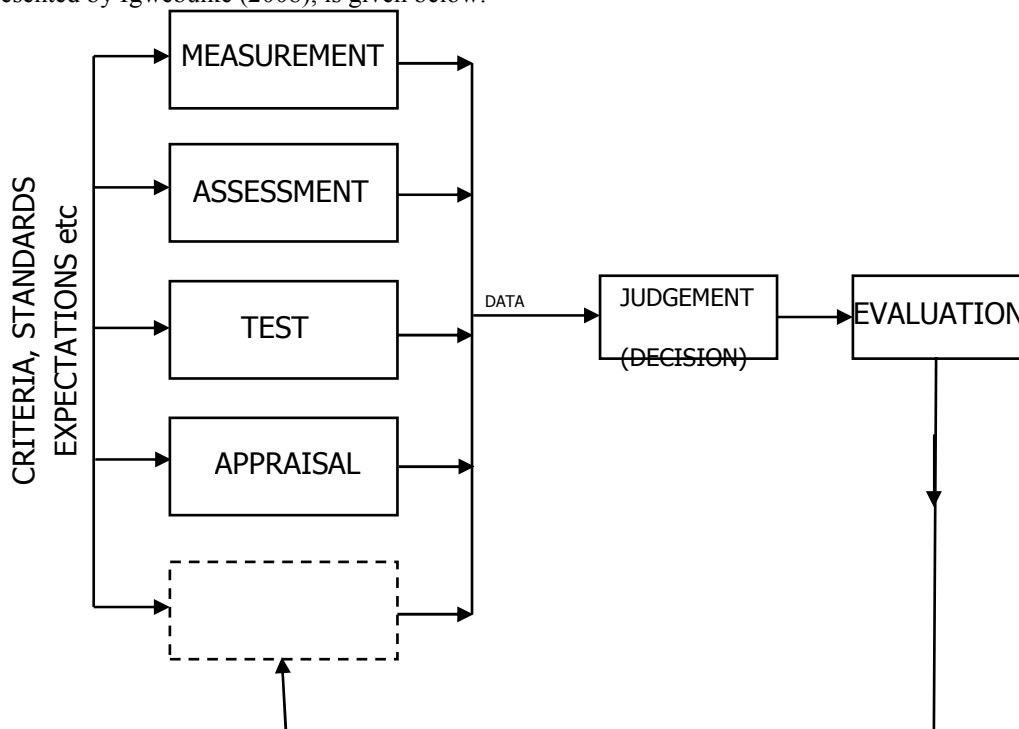

Fig. 1: Elements of Evaluation (Igwebuike, 2008)

Despite the importance of quality assurance in higher education especially in respect of national development, it is disturbing to observe that it is like weather which many people discuss and yet little or nothing is done about it, especially in the Nigerian or developing world experience. The literature is almost mute abut how to guarantee and provide indices for quality assurance. Quality is not permanent. It varies with time and space. Ekhanguere (2005) supports this and elaborates further by saying that quality is not some kind of fixed, immutable target or destination that may just be attained merely by striving sufficiently hard, but a dynamic or moving target whose attainment at each point in time is facilitated by a set of strategies that are also dynamic. By implication, quality assurance should be carried out regularly with strategies that suit the time in question.

This observation complicates the challenges of assessment of quality assurance because evaluation techniques for it are rare and even when they are available; they have to be dynamic and not static. But it is heart-warming to observe that Ekhaguere (2005) has outlined some attributes of quality. These are:

- Fitness of Purpose which can be assessed by the extent to which an institution's provisions align with, or fit national priorities, goals, objectives and aspirations. All these are development-oriented.
- Fitness for Purpose which is measured by the extent to which each higher education product fits its envisaged purpose. In other words, the product of a higher institution is measured bearing in mind, the predictions or expectations about the product.
- Value for Money which is in terms of efficiency. Measurement here is in terms of the extent to which more is achieved with less.
- Perfection which is as the attainment of a near flawless product. This sound utopian but it is an aspect of the evaluation.

- Excellence which is considered as the attainment of exceptionally high standards.

Fitness of purpose and fitness for purpose address the fundamental issue of effectiveness while value for money refers to efficiency. In this case, Nwana's (2000) opinion about quality in education as something that refers to the scale of inputs (resources) in the forms of funds, equipment, facilities, teachers, pupils and the like; and to the fact that the transactions and the outputs of the institutions, in form of their products, are acceptable, desirable, beneficial, efficient and effective is more or less in consonance with Ekhaguere's (2005) position. It is also corroborated by Tamuno's (1995) view that quality covers acceptable standard of excellence concerning the total environment of a school, as highlighted earlier. The impetus is now created for the use of these Ekhaguere's (2005) attributes of quality on one of the axis of the proposed two-way grid for evaluation during quality assurance process.

Goals of higher education in Nigeria, as stipulated in the National Policy on Education (Federal Republic of Nigeria, 2004) have been highlighted earlier. The second axis of the grid is constituted from these goals. These two axes constitute the two-way grid for assessing quality assurance in higher institutions in Nigeria.

Table 1: A Two-way grid for assessing quality assurance

S/N	Goals	Attributes of Quality				
		Fitness of Purpose	Fitness for Purpose	Value for Money	Perfection	Excellence
i.	To contribute to national development through higher level relevant manpower training					
ii.	To develop intellectual capability of individuals to understand and appreciate their local and external environment.					
iii.	To acquire both intellectual and physical skills which will enable indivdiuls to be self-reliant and useful members of the society.					
iv.	To promote and encourage scholarship and community service.					
v.	To forge and cement national unity.					
vi.	To promote national and international understanding and interaction					

An overarching question that arises at this point concerns how this 2-way grid can be used during the process of quality assurance. The "X axis" (the horizontal line above) contains the scales or clusters which are: Fitness of Purpose, Fitness for Purpose, Value for Money, Perfection, Excellence. The "Y axis" contains the criteria which should be used for structuring the items within each scale or cluster. For example, if the scale under reference is Fitness of Purpose, items under it will be structured to reflect the extent to which an institution in question is contributing to national development by providing higher level manpower training for example. Such items should be indicators of the level to which the institution is meeting this particular goal. The other scales should be treated using the example provided here.

This exercise will give rise to an instrument whose psychometric integrity should be ascertained using the relevant techniques which include factor analysis. Studies using the instrument will provide empirical evidence about the level or extent of attaining the goals of higher education programmes as stipulated in the National Policy on Education. The evidence will align our gaze on the causes of absence of quality assurance.

4. Conclusion

This paper highlights a major challenge of quality assurance in higher education programmes in Nigeria. It decries the inability of the educational system to provide dependable empirical evidence of the extent to which goals and objectives of higher education programmes are being met. It provides a two-way grid for measuring this but does not encourage an unquestioning application of the instrument. It therefore recommended determination of the psychometric integrity of the instrument using relevant techniques.

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