



Quality Assessment in Higher Education in Nigeria: Input, Process and Outcome Approaches

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Abstract

Sustainability of any meaningful growth at all levels in any nation is achieved through education. Consequently, higher education is where the knowledge that sustains a nation is nurtured. This thus underscores the importance of quality in higher education. If this is the core mandate in National Policy on Education, who then defines what constitute quality in this context, how is it assessed, maintained and how have all these played out in higher education system in Nigeria. This contributory piece towards a quest for quality education in Nigeria therefore seeks to attempt addressing these questions through the prism of the input, output and outcome approaches with a view to suggesting direction for actualizing quality in higher education in Nigeria.

Introduction

Education is as old as man. It entails a process of teaching and learning for societal sustenance economically, developmentally and socially for the empowerment of its citizenries. What blood is to the body is analogous to what education is to any nation. This is to say that the life of any nation is largely dependent on education. Development in science and technology and in art and culture is as a result of education. In Nigerian the value of education as a vital instrument for the socio-economic and political development of the nation has been emphasized in the National Policy on

Education in which the Federal Government of Nigeria sees education as an instrument for national development and social change. Hence, the government of Nigeria invests in the education of her citizens. Thus the importance of education as the life-wire of any nation, Nigeria inclusive can never be over flogged.

Nigeria Educational Research and Development Council (NERDC, 2008) stated that Nigeria's education is laid out into two basic parts, namely; *Basic education* which takes care of childhood education given to children 0-15 years and *Post-basic education* which essentially covers senior secondary and tertiary education (NERDC, 2008). Post-basic education is primarily designed to make available opportunities for higher learning regardless of demographic, social and religious status of the recipient. It offers broad spectrum of curriculum to cater for heterogeneity replete in humans. In addition, it is geared towards manpower development particularly in critical areas of need such as science and technology.

Within post-basic education, tertiary education occupies a pivotal position in the overall development of a nation. It is where constructive knowledge is bred and nurtured for human advancement. In the numerous goals of tertiary education articulated by NERDC (2008 p.50), the central theme that punctuated every of the goals stated is "quality" as exemplified thus;

"Provide accessible and affordable quality learning opportunities in formal and informal education in response to the needs and interest of all Nigerians;"

This thus underscores the importance of quality in higher education. If this is the core mandate in National Policy on Education, who then defines what constitute quality in this context, how is it assessed and maintained and how have all these played out in our higher education system. This write up therefore seeks to attempt addressing these questions through the prism of the input, output and outcome approaches with a view to suggesting direction for actualizing quality in higher education in Nigeria.

Quality Imperatives

The word quality may be considered one of the most used words in any organisation and institution that offers services to the public. Semantically, the word denotes the standard of a thing when compared with others; like how good or bad it is. It is further conceptualised as the value we attach to a product and the price we are willing to pay for it. All things being equal,

people, individuals or corporate bodies go for the best. What gives “best” meaning is the quality of the thing one goes after.

However, there are wide disparities in what constitute quality. The concept of quality tends to speak with many voices depending on the perspective of the definition. Giving strength to the statement above, Adindu (2007) opines that what constitute quality in health is seen differently from the patient, health professional and management views. In a very simple way Ajayi and Awe (2007) defines quality as what everyone considered good and wants to have. Crosby (1979) expresses quality to working in line with laid rules and regulations. Its importance in human endeavours has generated a lot of views and definitions. For instance, in the business arena, quality is regarded as “the totality of features and characteristics of a product or service that bears its ability to satisfy stated or implied need” (International Standard Organization (ISO, 1986). Roemer and Montoya-Agiullan (1988) sees quality in the health sector as “the degree to which resources for healthcare and services provided corresponds to specified standards, when applied, lead to desired results”. In other words, quality is conformity to established standards. For whichever spheres of life quality is being considered, the central issues revolve around services or products meeting laid down specifications and their capacity to fit the purposes for which they were set (Obiekezie, Ejemot-Nwadiaro, Essien and Timothy, 2016). The key question is, how does quality operate in this context?

Quality Management

Quality management implies a process of making tangible the abstract nature of quality. There are two dimensions to quality management; quality control and quality assurance, both of which have a part to play in quality management system. Quality control is concerned with checking the work output in order to ensure that it is of an acceptable standard, and takes place after the service has been produced (Crosby, 1979; Maduwesi, 2005; Okebukola, 2010). Quality control is product oriented, internally focused, negative and backward facing. It is product oriented because it is concerned with checking whether the service that has been produced or offered meets the internally generated design specification.

Quality assurance on the other hand is concerned with ensuring that good work is done in the first place and attempts to limit the need for and cost of quality control by ensuring that there is less failure (Okebukola, 2010; Obiekezie et al, 2016). It involves doing the job right first time. It is process

oriented because it does not only focus on the service that has been delivered but on the process by which it is produced. Okemakinde (2014) reported that quality assurance may then be surmised as the process of ensuring and maintaining of set standards.

Quality Education

Quality education provided in Nigeria has come under severe disparagement. Higher education in Nigeria today is fraught with all sorts of negative labelling such as, comatose, nose-diving and plummeting; an indication that could as well be described as being in a bad shape (Saint, Hartnett and Strassner, 2003; Woodhouse, 2013). In the institutions of learning, the stature of the institution is measured by the quality of services rendered by the staff and the quality of the products (students). Quality education is benchmark for sustainability of general progress in a nation's development. Instead of living out this reality, the Nigerian higher education basks in mirage and has thus come under significant criticisms particularly for its poor quality. This poor quality is indicated by Nigerian higher education's abysmal world ranking and very poor competitiveness that its products exhibit in the 'market place' (Okebukola, 2008; Adegbesan, 2011, Okojie, 2013; Ejemot-Nwadiaro, Timothy and Obiekezie, 2016). These held opinions have led to the commonly used term for Nigerian higher education graduates as 'half-baked bread' produced by health risk additive '*Bromate*' akin to poorly qualified and poorly remunerated teachers. This leads to the inevitable consequence of low employability status and astronomical high number of unemployed higher education graduates which are indices of poor quality education.

Currently in most Nigeria's higher institutions of learning quality has been sacrificed, typified in awarding unmerited marks to some students. This has led to transactional compromises of quality in higher education that is referred to as 'sorting'. It is a quality crippling syndrome in which transaction is either in cash or in sex-kind or both. This chiefly takes place to upgrade the exam results of students. There is also Threat-induced sorting whereby some lecturers force students; females in particular to sleep with them for marks. Therefore, there is no gain-saying that quality has been jettisoned from the education offered in our institutions of higher learning.

Consequently, quality education continues to be a critical topic globally. It has been suggested that quality of education provided by a country, impacts profoundly on its developmental advancement in governance, politics, science and technology (Rowe, 2003; Adegbesan 2010; Tawil, Akkari and

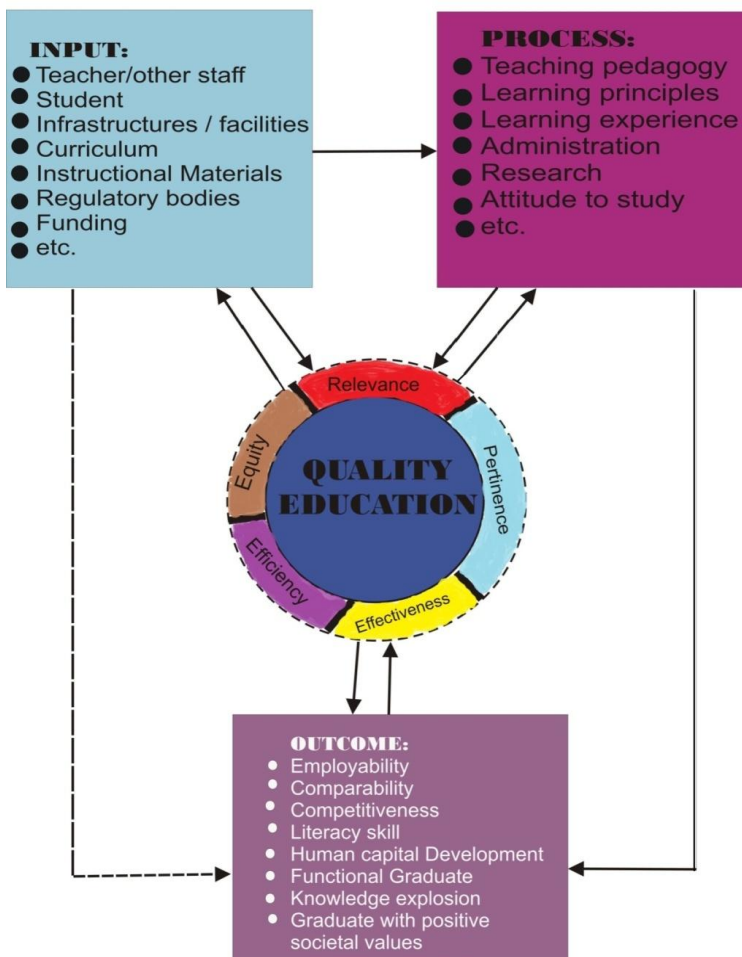
Macedo, 2012). Quality education contextually refers to education that adheres to laid down specifications and with capacity to fit the purposes it is meant to serve. According to VVOB as cited in Ali and Saleen (2014) “a good quality education is one that provides all learners with capabilities they require to become economically productive, develop sustainable livelihood, contribute to peaceful and democratic societies and enhance individual well-being.” Thus, quality education does not occur in isolation. It is achievable through the presence of good budgetary allocation; good accountability by the dispensers of the money allotted to education business, qualified and trained education care givers and availability of educational recourses, sensitivity to public services, observing ethical codes in student admission, staff recruitment and establishment of educational regulatory agencies.

Mosha (1986) opined that quality in education is the degree to which the recipient of the education can utilize and apply all the experiences gathered in real life situations. Education quality seen from an all encompassing standpoint was surmised by Maduewesi (2005) as entailing proper and stringent scrutiny of learning content, its management and organization, activities in the learning environment and the product of learning. Furthermore, Ciwar (2005) identifies the following as indices of quality in tertiary education: admission policy, supervision, quality of teachers, standard of instructional and infrastructural facilities, programme duration, course content, quality of examination items and the university environment.

Education that could be termed quality should possess the five dimensions or characteristics of quality education; *relevance*: relevant to the individual and responsive to the need of the society; *pertinence*: should be all-inclusive both in pedagogy and curricula caring for the needs of individuals that participate therein; *equity*: should be made accessible and available to all; *effectiveness*: ensure that intended learning outcomes are achieved and *efficiency*: that resources inputted match the desired outcomes or performance (Ajayi and Awe, 2007; Okebukola 2008; Tawil et al, 2012; Ali and Saleen, 2014; Okemakinde, 2014). Three major environments interact synergistically to produce good quality education with its five characteristics (UNESCO, 2012; Tawil et al, 2012). They are home and community environment: Educational level of the parents, parents’ support for learning, books in the home and a place for study; enabling policy environment: national debate, teacher development and incentives, assessment, monitoring and evaluation, relevant and inclusive curriculum, text books procurement and distribution and targeted finance support and school environment: school based

professional development, school self evaluation, infrastructure and resources and structured and inclusive pedagogy (EdQual, 2010; Tawil et al, 2012; UNESCO, 2012) . The impact of the two latter environments in producing quality education will be explored using the input, process and outcome quality approaches as depicted in Figure 1. The variables in the input approach arm drives the process which when applied inhibits or facilitates the attainment of the outcome variables. The input variable may sometimes directly produce outcomes stated.

FIGURE 1: INTERRELATIONSHIP OF QUALITY ASSESSMENT APPROACHES



Input Approach

The input approach in quality higher education assessment embodies the ingredients that make quality possible. Among these numerous ingredients include; teachers both in the qualification they have and their number and distribution, students and their requisite background, curriculum, infrastructure/facilities, regulatory bodies and financing of education. These critical inputs are very essential in quality education attainment.

Teacher occupies an important position in the development scheme of any nation. This thus underscores the pivotal role teachers play in enhancing or impacting quality education (Saint, Hartnett and Strassner, 2003; Ciwar, 2005; Okebukola, 2008, Adegbesan, 2010; Tawil et al, 2012; Obiekezie et al, 2014). Teachers could rightly be referred to as '*Oga*' (top dog) in ensuring quality education. One of the banes of already stated poor portraits of higher education in Nigeria is the quantity, quality and cadre-distribution of teachers (Ajayi and Awe, 2007; Federal Ministry Education (FME), 2009; Alechenu, 2012). Okojie (2013) in citing the National Universities Commission (NUC) Programme Audit Report (2007) reported a total of 30,452 members of academic staff in 128 universities in Nigeria then. When this total was spread among those existing universities, one would glaringly observe that the numbers were grossly inadequate. In concordance with the above scenario, Alechenu (2012) culling report by the Federal Government Committee on Needs Assessment of

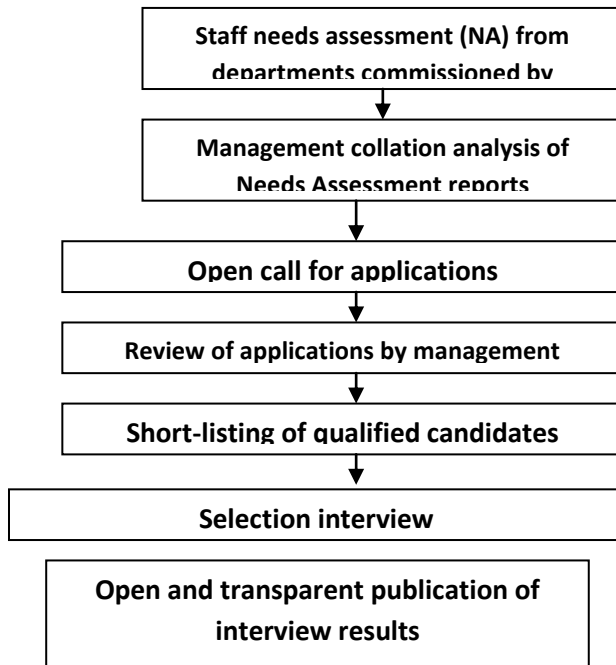
Nigerian Public Universities reported there were 37,504 academics. The article surmised that Nigerian universities were experiencing manpower catastrophe. The current state of affairs in higher education in Nigeria has anecdotally not changed significantly from these situational analyses, though the absolute numbers may have increased. This inadequacy in quantity of teachers, gives rise to overbearing teacher-to-student ratio, with its concomitant high teacher workload and consequent teacher burnout. For most of the highly ranked universities in the world the teacher-student ratio exemplified by Harvard University and Cambridge is one-to-four and one-to-three respectively. Dissimilarly, in Nigeria the ratio for National Open University of Nigeria and Lagos State University is 1 to 363 and 1 to 144 respectively as cited by Alechenu (2012). These invariably compromise quality and Nigerian higher education global comparability.

When the issue of teacher quality is added to the mix above, a picture of ill-equipped, poorly trained graduates emerge. There's no gain saying in the fact

that no education institution can rise above the quality of its teachers (Obiekezie et al, 2016). The effect of poorly qualified teacher is analogous to the common cliché, *'garbage in, garbage out'*. Backed with this understanding, it is pertinent that quality should be extremely considered in the recruitment and promotion of teachers in the higher education institutions. Unfortunately this is often overlooked and neglected. Of the 37,504 academics in Nigeria public universities reported by Alechenu (2012), 44% were within the lectureship position category of Senior Lecturer and Professors. This raises concerns as these set of lecturers are not only the drivers of teaching and research but also provide leadership and mentorship. In addition, the report stated that only 43% (16,127) had PhD. This is in spite of NUC guidelines, recommendation and stated minimum qualification of PhD for recruitment of lecturers (Ajayi and Ekundayo, 2008; Okebukola, 2008; FME, 2009; Alechenu, 2012).

Arbitrary adherence to this guidelines, lays foundation for “in-breeding”, mediocrity, incompetence and ineffectiveness. To mitigate these negative impacts on quality from the teacher/staff variable in the input approach, having the best way of recruiting the best is imperative. Figure 2 is our proposed elixir for staff recruitment process for higher institutions. It starts with needs assessment from the department which must have been commissioned by the management of the institution. The next exercise will be collation of the findings by each department to the management. The findings will be cascaded down to the public by requesting for applications from qualified individuals through open channels like national dailies (open call for application). The applications turned in, should be reviewed by the management with inputs from the department for validation of needs. After this, the qualified candidates will be shortlisted for interview by unbiased Appointment and Promotion Central Committee. At the end, the result will be published openly. The advantage of this process it that the best qualified will be select

Figure 2: Staff recruitment-due process pathway



Another vital input is the students from whom the direct impact of teaching and learning such as access, retention, completion and learning achievement are assessed (Rowe, 2003; Okebukola, 2010; Tawil et al, 2012; UNESCO, 2012; Okojie 2013). These insights warrant that critical attributes and characteristics of this input should be well understood, properly harnessed and channelled. Unfortunately several factors collude in making this understanding difficult. For instance, every year the number of students sitting for the Unified Tertiary Matriculation Examination (UTME) increases exponentially without requisite carrying capacity which simply means availability of human and material resources to cater for the students' intake (Okebukola, 2010; Okpa, Okoi and Ekaette, 2014). In the bid to absorb the high number of students churned out from secondary school seeking for admission into higher institutions year, the government introduced the higher education bill in 1993(NERDC, 2008) which encouraged multiplication of higher institutions, yet this has not helped in absorbing the ever increasing number of students yearning for admission. In addition to this, Federal government keeps approving these higher institutions without a thorough assessment of the quality and quantity of the human and material resources

on ground to cater for the expected students. In this case the quality of education offered to the students becomes questionable.

In addition, the poor education background from secondary school further compromises the students' structural integrity of learning capacity. Many students are not serious with their academic work because they believe that their parents will register them in some "special centres" where West African Examination Council (WAEC) or National Examination Council (NECO) Nigeria exams are written by the students with the aid of hired agents. Such students litter their SSCE Certificate with 'A's (excellent performance) which in practice they cannot defend. With this, admission is gained into the higher institutions of learning. These crops of students perform poorly academically. This is like building on shaky or defective foundation. There are equally cases of outright forgery of these certificates in different business centres. It is not hidden that the students' requisite requirement for entry into higher institutions is many a time falsified. The resultant effect is the vicious circle. This has led to different academic frauds. This is because the students concern cannot defend the certificate because they have not gained sufficient knowledge in their course content. This picture does not make for quality in post basic education. As an element in the in-put approach to quality assurance, well-grounded student with genuine WAEC or NECO certificate should be fed into the higher institution of learning bolster quality in higher education.

Funding and investments in higher education both in their volume and management are at the nucleus engendering and ensuring quality (Okebukola, 2010; Okemakinde, 2014; Obiekezie et al, 2016). They dictate the quantity and quality of teachers to be recruited, their retention or staying rate, the number and quality of research conducted, availability and functionality of infrastructure and learning environments. In addition, good funding of higher education institution also attracts the best students and dictates their capacity and potential for study completion. Okojie (2013) in concurring to the aforementioned statement underscores the pivotal role of funding and its management in the promotion of quality education and thus submitted that;

"Funding affects the facilities to be provided for effective teaching, learning and research activities. The quantity and quality of learning resources to be provided to make for conducive learning environment is dependent on the volume of financial resources made available to

the institution.” (p.14.)

UNESCO (2012), reported global increase in investments in education particularly in low-/middle –income countries but noted regrettably that this does not seem to match with the expected outcomes for such huge investments. Irrespective of these well recognised roles, poor funding has been decried as the major bane of quality education in Nigeria. It permeates the whole higher education system (Ayo-Sobowale, and Akinyemi, 2011; Obiekezie et al 2016). We acknowledge that improvement in quality education is not exclusively driven by financial resources input but because its effects imprint on the whole teaching and learning outcomes demand that government need not only to allocate sufficient funds but to pay greater attention to the process of disbursement.

Furthermore, one of the essential elements under input variables for entrenching quality in higher institutions of learning is regulatory bodies roles . one of such regulatory bodies is National Universities Commission,(NUC). Nigerian university education is largely regulated by National Universities Commission. The NUC was established in 1964 with the core mandate to ensure quality in input, process and outcome (Okebukola 2010, Okojie 2013). Specifically, their core role is to accredit degree programmes in Nigerian University. What may guarantee quality is adhering strictly to the laid down rules and regulations guiding accreditation of programmes across board.

Process Approach

Though good input is required to feed into the process of producing high quality output, it should be acknowledged that this does not necessarily guarantee quality education. Quality education can only be guaranteed when there is an interface between the input and the process approach. Process approach dwells on what we do with the input deployed to the organisation. These include; teaching pedagogy, learning principles, learning experience, administration, research and attitude to learning (Okebukola, 2010; Obiekezie and Timothy, 2011; UNESCO, 2012; Ejemot-Nwadiaro et al, 2014).

Teaching pedagogy deals with methods, strategy, skill and techniques available to a teacher with which to transfer the learning experience to the learners (Rowe, 2003; Saint et al, 2003). These are fundamental to teaching and learning and thus no meaningful transfer of learning can take place without the teachers’ knowledge and application of these fundamentals. The

knowledge of subject matter and the rudiments to its transfer is important for quality learning to occur (Obiekezie and Timothy, 2011). This thus necessitates that appropriate and current trends in teaching pedagogy should be employed in the delivery of every subject. For quality to be achieved, monitoring and evaluation of workable teaching pedagogy should be a top priority.

Furthermore, to enhance quality education via the process approach, pre and in-service training for teachers should be underscored. Closely stringed to the above process approach is learning principles. In the classroom, learning principles must come to play since classrooms are virtually heterogeneous. To make for an enriching learning experience that produces quality, these learning principles: pre-learning preparation, individual differences, instructional conditions, motivation, active participation, successful achievement, knowledge of results, practice, rate presentation, vocabulary/technical terminology, diagnosis, remediation, learning concepts and presentation/format should be finely incorporated in the process teaching and learning (Obiekezie and Timothy, 2011; Tawil et al, 2012; Okojie, 2013). Contingent to the aforementioned, students' attitude to study crucial to quality education will be enhanced. Equally, utilization of research results to improve and innovate teaching and learning cannot be overemphasized (Ejemot-Nwadiaro et al, 2014).

Administration is critical in process approach to quality education (Okebukola, 2010; Okemakinde, 2014; Okpa et al, 2014). It provides enabling environment for inputs approach variables to interface properly for harnessing quality outcome. Quality indicators akin to process include; manageable number of students with commensurate facilities on ground. Modulation of the examination by established internal and external bodies, enhanced examination integrity checks, timely publication of examination results, judicious administration of funds provided and striving for excellence in all ramifications.

Outcome approach

The input and process approaches in quality education engenders the ultimate goal of quality education. This includes; employability of graduates, functional learning and education that equips them with skills to meet everyday life challenges, literary skills empowerment, graduates with critical thinking skills, labour market competitiveness: the ability of the product of education to stand the test of time and not phase out because they cannot contribute to match the demands of the time (Woodhouse, 2013; Obiekezie

et al, 2016) In other words; it is the ability to survive the ever increasing new innovations with boldness and confidence.

Conclusion

Higher education is very essential to the construction of a knowledgeable society in all nations. Having well-trained, motivated teachers that offer rich current-trend pedagogical skills, well-designed curricula, good instructional materials, education funds that are efficiently administered and managed, students with favourable requisite academic background and willingness to study, Web based biometric capture of students data, web based exam, due process in recruitment and admission, regular monitoring and evaluation, providing tools for teaching and learning, mentorship and training, establishing directorate for quality assurance and such like, would lay good foundation for a winning combination of good quality education. The narrative of this article indicates that this is far from what obtains or the status quo of higher education in Nigeria.

However, we submit that this article is not an attempt at being fastidious nor doing an intrusive analysis on higher education in Nigeria, but, that assessing its quality using the input, process and outcome approaches would make for review and greater focus on critical factors in these approaches that positively impact quality. This then calls for strict and consistent commitment to set standards and specifications. This would not only make for achieving satisfying excellence, problem-solving and development oriented results, but would serve as good '*Global Positioning System (GPS)*' for navigating the education road map drawn by National Policy on Education.

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