REFOCUSING POLYTECHNIC EDUCATION FOR SUSTAINABLE NATIONAL DEVELOPMENT

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Abstract

There is no doubt that polytechnic education plays a very vital role in the development of any nation. Any nation that wants to be in the fore-front in the 21st century definitely must pay very close attention to its polytechnic education with respect to the curricula, admission criteria, staff quality and development, infrastructure facilities, means of generating fund, relation of the polytechnics with their host communities. This research works deals extensively on students industrial training, course materials the availability of communication and information technology facilities, the relevance of cause to the general society mental, social and psychological soundness of the products of the polytechnics. These issues are all analyzed in this article with a view of refocusing polytechnic for the sustainable development of our nation.

Definition of Polytechnic

From Wikipedia, the free encyclopedia polytechnic is a technical institute, which imparts technical education. In Nigeria, polytechnics are not affiliated to any university. They are offered 2 years duration diploma course in engineering only. The course offered in polytechnics can be said to be aborting version of decree courses offered in engineering schools in Nigeria. The courses are designed in such a way that students are able to perform basic engineering tasked. The diploma holders in engineering are generally employed as supervisors or junior engineers in the companies. The minimum qualification for admission into polytechnic in Nigeria is mainly four-credit pass in SSCE. The polytechnics are been monitored by National Board of Technical Education. (NBTE).

Transformative Polytechnic Education

Transformation is a multifaceted concept and does not have a precise definition and meaning to many people. Vera 1999, cited in Bikes (2003), see transformation as the process through which changes is initiated within existing forms and in the view of Vera (1999), also cited in Bikes (2003), it is fundamental changes while the Longman dictionary of contemporary English (1995), defines transformation as a "complete changes in someone or something. Transformation refers to opening up to novel ideas and ways of seeing the world, with the purpose of enriching that which has been "inherited". Transformation is necessary to open up new vistas and to bring each person and each society into the wider horizon to a fast-changing world. Bikes, believes that, with transformations, most cultures will become mere museum pieces, as they will be denied enrichment, dynamism of the capacity to adapt to changing times (Banyan, 2004).

That is why transformation entails creating something new or different through the reshaping or reconfiguration of the constituent element of the old (Obikeze, 2003). In the context of this paper, transformation education is refocusing and re-energizing the educating system which will bring about quality research, governance and administration and above all aligning with individuals' needs aspiration and goals towards a better society. That is why Ngwee (2003), has suggested the following as critical area of reform in polytechnic education in order to improve upon the outcomes and results.

1. Quality of secondary school leavers, class size and student Radio.
2. Polytechnic curriculum and learning facilities and materials.
3. Time Utilization and management, discipline and character formation

While Adele (2004) believes that critical reforms should be in area of diversifying the sources of funding in our schools, reviewing of the role of some institutes and their curricular. Above all research must be accorded it highest priority.

The Goals of Tertiary Institution

The goals of tertiary education as enshrined in the national policy of Education, (2004), in its section 8, are to:

a. Contribute to National development through high level relevant manpower training.
b. Develop and inculcate proper value for the survival of the individual and society
c. Acquire both physical intellectual .skills, which will enable individual to be self-reliant and useful members of the society.

The policy states further that tertiary education institutions shall pursue these goals through the followings:

a. Teaching
b. Research and development
c. Virile staff development programmes.
d. Access to training funds such as those provided by the Industrial Training Funds (ITF)
e. Student Industrial Works Experience Scheme (SIWES)
f. Maintenance of minimum education standards through appropriate agencies.
g. Dedicated services to the community through extra mural and extension services.

As we have seen from above, the guiding philosophy of tertiary education of commitment to knowledge and knowledge has four dimensions, which constitute the four university functions namely:

a. Knowledge production I.E. discovery and extension, this knowledge is achieves through research publications and is generally regarded as pure scholarship.
b. Knowledge interactions: This is the dissemination of knowledge from one individual to another through research and publication that is how knowledge is passed from one person to another.
c. Knowledge presentation and retrieval; this fundamental and specialized knowledge function is very often ignored or at best subsumed under leaching and research is carried out through the library achieves and museums and
d. Knowledge applications: which is public service and social commitment and entrepreneurial undertakings. (Obikezie 2003)

Organizations Principles of Polytechnic Transformative Education

These principles as highlighted by Obikezie (2003) are as follows:
(1) High emphasis on Commitment or People Oriented Research: This is the process of harnessing and galvanizing all intellectual and scientific forces of inquiry and discovery towards the solutions of perceived societal problems so as to ensure an overall improvement in the conditions of life of the people.
(2) A blend of general with specialist knowledge: this is an integration of knowledge in science, political, economic, information, and technology with disciplinary specialization.

For transformative polytechnic education to be effective in the country, the following must strictly be adhered to;
(1) Review of the curricular: this is necessary to integrate a general knowledge based on incorporating new courses based on the dynamism of the society and the needs of the country. E.g. Entrepreneurial Education, HIV/AIDS Education.
(2) The recruitment and retention of high quality staff in appropriate numbers and mix. Those to be recruited, as academic staff into the polytechnic system should be allowed to sit for examination and students should be allowed to rate their lecturer performance in the teaching and learning processes. This will encourage commitment and scholarship.
(3) Funding of research and dissemination of the research findings should be made know to the public or companies. This will provide an alternative funding to (he schools
(4) There must be learning competencies in which the learner is able to organize, regulate his own learning, to use time efficiently to solve problems, to plan, carry out findings, evaluate, reflect, acquire new skills and knowledge. NUC, (2004).

Issue in Rebuilding Nigeria's Polytechnic Education

According to Professor Pat Utomi in his keynote address on "The Challenge of education Reform" (2007), the primary objective of the transformation strategy is to build upon the initial efforts of the Obasanjo administration around the introduction of the universal basic Education (UBE) policy. In other to consolidate the existing policy as part of introduction a number of new innovations, the following key factors should be adhered to:
(1) Increase investment in UBE and education to 10% of the consolidation Federal revenue, enabling an expansion in teacher compensation, resources, school feeding and student bursary across the country.
(2) Create new agencies to oversee an aggressive school infrastructure construction and classroom equipment program.

(3) Partner with universities and other tertiary institutions to commercialize technology and drive venture-backed innovation.

(4) Expand adult literacy programs in partnership with local communities, business communities and Open University.

(5) Expand citizen access to a revitalized, competitive and option rich educational sector.

(6) Help Nigerian students earn the global rankings and credibility the country was known for in the past.

(7) Cultivate a culture of excellence and success in education which could change minds within government, among teachers and parents about how to achieve success in educating polytechnic education in Nigeria.

**Polytechnic Education Policy: Licensing and Funding**

The higher education system needs to be able to absorb an average of 800,000 - 1 million new students each year. The current number of institutions including universities, polytechnics and colleges of education are insufficient in terms of quantity and quality of product. A number of private universities (Babcock, Covenant) have emerged in recent years to fill the service void created by the weakening of public university system. These institutions have become a success by offering a predictable service to their customers (students and parents), in a well-structured environment federal polytechnic were previously able to offer quality education, a predictable calendar, and high social quality to her graduants. It is vital that the efforts of the private polytechnic continue, while the public polytechnic works to regain their position. Therefore, the Utomi administration should support additional licensing of private polytechnic, as well as support the restoration of the traditional product at public polytechnics by addressing open related issues.

**Teacher Compensation and Accountability**

The overall compensation system for lecturers in federal and state controlled polytechnics should be revised. The question of responsibility and process for compensation should be resolved permanently; with the idea of lecturers striking in order to obtain an increase in wages is an absolute thing of the past from May 2007. The revision will also include a shift towards individual compensation package as opposed to centrally negotiated rates. While some degree of commonality will exist, an incentive-based compensation system is expected to be at the heart of the compensation system. Lecturers should earn bonuses tied to a number of factors including: excellence in teaching and learning, students' graduation rates, partnership with parents, and local communities will be a new method or means of accountability including attendance record, student performance in common examinations and lecturer performance on surveys and continuing education programs.

**Funding of Transformation**

Broadly speaking, the funding polytechnic education in Nigeria has been woefully atrocious, according to (Pat Utomi, 2007). There are innovative steps regarding funding. First and foremost the share of polytechnic education in the federal budgets should be doubled in the recent administration with the intent of raising education's share of the budget to 10-12%. Secondly, the existing funding sources such as the Education Trust Fund (ETE) and the Petroleum Technology Development Fund (PTDF) should have a focus on a number of sources merged to reduce administrative costs, improve transparency and accountability and realign funding with local educational investment priorities.

Thirdly, the balance of funding and responsibility for polytechnic education in Nigeria should be negotiated with federal and state governments. The intent is to develop a comprehensive strategy and funding plan that would bring more students into the school system, put highly motivated and compensated lecturers to work with them, and provide them with supporting challenges throughout the school day.

**Recommendations**

The success of any education system hinges on proper planning, efficient administration, adequate funding and motivation. The government needs to provide an enabling environment for teaching and learning for Nigerian education to have its pride of play in the comity of nations: All stakeholders must contribute their quota with particular reference to the following:
1. Staff salaries and fringe benefits must be paid as when due, so as to reduce corruption within the education system.

2. All the stakeholders within the educational system must uphold the sanctity of examinations.

3. The government must make teaching to be lucrative by employing and retaining the best brains and till the shortfalls in teacher supply in our schools.

4. Institutions must periodically review educational system and present it to the policy makers. AH must be committed to change and be part of change.

References


