TRAVAILS OF THE POLYTECHNIC ARCHITECTURAL TECHNOLOGIST IN NIGERIA

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ABSTRACT

This paper discussed the travails of Polytechnic Architectural Technologist in Nigeria which starts from the difficulties in securing admission, registration protocols, securing of accommodation, and others. It assessed the rigors within the residency period for National Diploma and Higher National Diploma programmes, the additional one year compulsory Industrial training as well as the pre and post National Youth Service Corps experiences. Data were mainly from the secondary source. The study revealed that in the whole of the North-East Geo-political zone, only Federal Polytechnic Bauchi was qualified to run National Diploma and Higher National Diploma in Architectural Technology and hence making admission very difficult for even the qualified students who want to study the course. Based on the above, it was recommended among others that the construction industry, Nigerian Institute of Architects and the various Polytechnics running Architectural Technology programmes should collaborate with relevant authorities in order to shorten the period of the tutelage (training) of an Architectural Technologist right from the onset.

Keywords: Technology, travail, professional, education

INTRODUCTION

The vocational concepts, such as architect, architectural technologist also known as building technologist and architectural technician have been used in some cases interchangeable or interrelated, but in some instances, they are used to denote their status in the construction project process. As a matter of fact, Cook (2010) asserts that the jobs of both architectural technologist and architectural technician professionals are similar in many ways to that of an architect. However, the architect is more concerned with the aesthetic properties of a building, whereas the technologist and technician are involved with the technical side of what goes into the making of the building.

When asked what do they do? Cook (2010) opined that architectural technologists work closely with architects, although they are also qualified to take sole responsibility for a project from beginning to end. They form a link between the architect's design and the finished building, making sure that the correct materials is used and that any planning and building regulations are complied with. They are also responsible for quality and cost control, as well as ensuring that the project

deadlines are met. Architectural technicians have a narrower, specialised range of skills and provide support to both architects and architectural technologists. Online information states that:

> *"If you major in architectural technology you'll train to become a vital link between architect and construction crew. You'll rely on your mastery of computer-aided-drafting software to fill in the fine details of an architect's drawing. You'll also learn how those blueprints become buildings. You'll understand the physical laws that keep a building standing. You'll also know how to test materials, estimate costs and evaluate mechanical and electrical systems"* (www.collegeboard.com)

However, some problems are associated with becoming an architectural technologist emanated from the educational background to practice as a professional. In Nigeria to become an architectural technologist one must acquire either HND from a National Board for Technical Education accredited Polytechnic or College of Technology provided he/she is a member of Architects Registration Council of Nigeria (ARCON professional body).The bone of contention in this case is that while an architectural technologist can set up their own practice, architectural technicians cannot. The travails of architectural technologist are the acquisition of both academic and professional qualifications.

The word travail according to Emmanuel (2002) is a Middle English from old French travailier and the French verb travaillier itself is ultimately from medieval trepalium instrument of turture. Hornby (2006) defines "travail" as painful or laborious effort especially in childbirth. It is synonymous word to describe the stressful nature of a potential architectural technologist from the cradle of his education to acquiring certificate or license to practise by Architectural Registration Council of Nigerian (ARCON).

The latest definition of architecture according to Architects Registration Council of Nigeria (ARCON, 2001) is the art and science in theory and practice of design, erection, commissioning, maintenance and management and co-ordination of allied professional inputs thereto of buildings, or part thereof and the layout and master plan of such building or groups of building forming a comprehensive institution, establishment of neighbourhood as well as any other organized space, enclosed or opened required for human and other activities.

A cross examination of the definition above stipulates that an architectural technologist travails pass through two main phases of training in Nigeria before they are qualified for professional practice as stated by Musa (2002). These consist of the formal training in the schools of Architecture, where they acquire the requisite knowledge that will allow them to practice the profession and tutelages training.

According to Adebayo (2010) the curriculum of the Department of Architecture is based on philosophy that architectural works are primarily solutions to problems within resource envelopes rather than objects to be fashioned. In the

views of Arayela (2000), architectural education ought not to be limited to designing of schemes alone, but also the acquiring of broad field in other areas of architectural skills such as Computer Aided Architectural Drafting (CAAD), photography and model-making, hard and soft landscaping, block making, Plaster of Paris (P.O.P,) furniture making, painting and decoration among others.

A careful analysis of this contemporary situation raised above is a pointer to the fact that the travail of an architectural technologist will be on the increase until all stakeholders in the education sector take a decisive positive step to revamp entrepreneurship education. Adebayo (2010) outlined the specific objectives of architectural education programme in Nigeria to include:

(a) To prepare students for professional practice in the field of architecture. In this regard, emphasis is placed on understanding conceptual principles and patterns as well as on developing operational skills necessary for practice.

(b) To help students in developing a high level of architectural design competence through sequential courses and studio projects under rigorous but non-doctrinaire academic leadership.

(c) To expose students to global human settlements issues and in particular the complex problems of designing for a country like Nigeria undergoing rapid cultural and economic changes. To this end, emphasis is placed on acquiring knowledge to solve the practical problems of the Nigerian society.

(d) To accommodate through flexibility in course offerings, the interests of two categories of students are provided for, namely: (i) the academic and research oriented students, and (ii) the action-oriented students with a strong vocational motivation.

Students of architectural technology learn the skills they need to assist architects and others in the construction field (www.collegeboard.com). Adebayo (2010) validated the fact that an architectural curriculum within the frame work of a formal educational system affords scope for the introduction and articulation of the ends and means, skills in their employment is expected to be perfected in the world of practice. The architectural student according to Adebayo (2010) has to think and act comprehensively, more so than any other member of the environmental design team to create a total work which can be defined as an amalgam of intent, skill, technology, material, personal insight and special moment in time; in doing this, his basic tools are a set of clearly defined ends and an effective command of means plus the skill to achieve determine ends, in specific cases, aptly and economically in the design context agreed. This study is specifically designed to explore travails of polytechnic architectural technologist in Nigeria.

RESIDENCY PERIOD: FORMAL TRAINING

Prior to the online registration, a student who gains admission to study architectural technology courses has to spend a minimum of one week in order to finalize his registration that will qualify him as a student in his department. It is always very traumatic when it comes to issues of where to sleep within the week of

registration, long queue for either collection of admission letter, verification at the department, payment of registration fees at the Bursary, Medical center, signing of oath of good behaviour at the High Court and submission of final registration forms at the admission office.

According to the National Board for Technical Education (NBTE), of 1990, the minimum residency period is two years for either National Diploma or Higher National Diploma for architectural technology, while the maximum residency period is four years. Some of the major travails a student of architectural technology undergoes during his residency period include: problems of accommodation; high cost of purchasing architectural text books, drawing equipment and materials; inability to carry out his design and assignment diligently due to erratic power supply as well as high cost of feeding.

According to National Board for Technical Education Board (NBTE) of (1990), the National Diploma in Architectural Technology minimum period is two years, then one year of industrial training which is a compulsory pre-requisite for admission to Higher National Diploma. Higher National Diploma in architectural technology minimum residency period is two years, plus one years of compulsory National Youth Service Corps (NYSC). These put together make a total of six years of formal training in a given Polytechnic with accredited programme in its architectural technology Department.

TUTELAGE TRAINING AND REGISTRATION WITH ARCON

To become an architectural technologist, a three year diploma (or equivalent) in Architectural Technology is required, followed by structured professional and occupational experience (www.collegeboard.com). The qualifications and regulation for the registration of Architects and Architectural firms of 1997, demands that a graduate of Higher National Diploma (HND) from an accredited school has to undergo the followings travail before he/she become a fully registered architects.

i. Two Years tutelage training and passing of part I examination of Nigerian Institute of Architects.

ii. Another two years of tutelage training and passing of part II examination of Nigerian Institute of Architects.

iii. Another additional two years of tutelage training to take care of filling of log books, Technical report writing on a particular project and passing of Professional Practice Examinations (PPE) examination organized by Nigerian Institute of Architect (NIA).

A careful study of Joint Admission and Matriculation Board for guidelines for admission to programmes in Monotechnics, Polytechnics and courses in Colleges of Education in M.P.C.E brochure of 2009/2010 shows that there are twenty two Federal Polytechnics, Twenty five State Polytechnics, fourteen Private Polytechnics and twenty eight Innovation Enterprise Institutions making a total of one hundred and fifteen Institutions. But out of these, only twenty one Institutions offer admission into architectural technology courses.

The table 1 indicates that in the whole of the North-East Geo-political zone, only Federal Polytechnic Bauchi is qualified to run National Diploma and Higher National Diploma in architectural technology and hence making admission very difficult for even the qualified students who want to study the course.

CONCLUSION AND RECOMMENDATIONS

The significance of Polytechnic education in the development of any economy is not debatable. While the universities prepare individuals who will suit into the labour market, the Polytechnics on the other hand basically impart technological skills on individuals preparing them to become employers of labour and self-reliant rather than job seekers. As provoking as it has been, the polytechnic students, specifically the architectural technologists are, suffice it to say, going through hell to acquire the needed skills. Following the trend of the travails of the polytechnic architectural technologist, one may purse to inquire: which way Nigeria technologically? To give succor, it is believed that the following recommendations will go a long way in alleviating the travails of Architectural Technologists.

i. Adequate funds should be provided by States, Federal Government and the Private Sector in order for each state to have its own independent power source.

ii. The construction industry, Nigerian Institute of Architects and the various Polytechnics running Architectural Technology programmes should collaborate with relevant authorities in order to shorten the period of the tutelage training of an Architectural Technologist right from the onset

iii. Adequate funds should be set aside by all stakeholders in the Polytechnic education in order to make the study of Entrepreneurship Education a success.

iv. The private sector especially the consultancy companies in each school should dwell on hostel accommodation building so as to alleviate the shortage of hostel accommodation for our students that need acommodation after graduation.

v. The N.B.T.E, NIA, ARCON and Association of Architectural Educators in Nigeria (AARCHES) should work hand in hand in reviewing the current curriculum, which the Polytechnics are using since 1989 because it is outdated with the current reality of our time.

vi. Introduction of Virtual Reality (V.R.) in Computer and e-Libraries is highly recommended to all Department of Architectural Technology throughout the federation in order to give the students a wider and easy understanding of what Architecture is supposed to be now and in the future.

Table 1: Accreditation Status of Nigerian Polytechnics offering Architectural Technology Programme

S/N	Institution	Programme	Accreditation Status
1.	Federal Polytechnic, Bauchi	ND	Reaccredited
		HND	Reaccredited
2.	Federal Polytechnic, Bida	ND	Reaccredited
		HND	Accredited
3.	Federal Polytechnic, Ede	ND	Reaccredited
		HND	Accredited
4.	Federal Polytechnic, Idah	ND	Accredited
		HND	Approved
5.	Federal Polytechnic,	ND	Approved
	Kaura Namoda	HND	Reaccredited
6.	Federal Polytechnic, Nassarawa	ND	Reaccredited
		HND	Reaccredited
7.	Federal Polytechnic., Offa	ND	Reaccredited
		HND	Reaccredited
8.	Federal Polytechnic, Oka	ND	Reaccredited
9.	Kaduna Polytechnic, Kaduna	ND	Not Accredited
		HND	Reaccredited
10.	Kano State Polytechnic, Kano	ND	Reaccredited
		HND	Reaccredited
11.	Kwara State Polytechnic,Kwara	ND	Reaccredited
		HND	Reaccredited
12.	Lagos State Polytechnic, Lagos	ND	Reaccredited
		HND	Reaccredited
13.	Moshood Abiola Polytechnic,	ND	Reaccredited
	Abeokuta	HND	Reaccredited
14.	Nunu Bamalli Polytechnic, Zaria	ND	Approved
15.	Osun State College of Technology	ND	Not Accredited
	Esa-Oke	HND	Not Accredited
16.	Ramat Polytechnic, Maiduguri	ND	Not Accredited
17.	Rivers State Polytechnic, Bori	ND	Reaccredited
18.	Rufus Giwa Polytechnic, Owo	ND	Reaccredited
		HND	Reaccredited
19.	The Polytechnic, Ibadan	ND	Reaccredited
		HND	Reaccredited
20.	Waziri Umaru Polytechnic,	ND	Reaccredited
	Birnin Kebbi	HND	Reaccredited
21.	Yaba College of Technology,	ND	Reaccredited
	Yaba, Lagos	HND	Reaccredited

Source: *O.B.A Baiyewu, Jalaoso and O.A Onolaja, AARCHES J6 (3) (2007)*

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