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ACADEMIC EXCELLENCE IN ARCHITECTURAL EDUCATION AND OPPORTUNITIES AND CHALLENGES FOR THE ARCHITECT GRADUATE

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Abstract: *The growing awareness in falling standards of education in Nigeria's educational system has resulted in many changes within the higher educational system. These are evident in multiplication of new Universities, the search for competent lecturers with basic educational qualifications and introduction of modern technologies for teaching and learning in higher education. These changes coupled with various internally and externally directed academic audits and quality assessment exercise have led to the competitions to attain academic excellence in all areas of educational training in Nigeria. Architects in higher institutions of learning are not left out in these battles to cope with rapidity of these numerous changes. Likewise, they are faced with the challenges to facilitate rigorous academic development of their students. To attain this, sound academic training must go along with professional training. This paper focused on how this could be achieved, by examining the concept of academic excellence and its implication for architectural education. It highlighted the factors militating against architectural training in Nigeria. It suggested among others reviewing, re-evaluating and reforming of architectural curriculum for all schools of architecture to give and accommodate academic orientation. Recommendations were given on positive steps that could be taken to attain academic excellence in architectural education. It concluded that academic excellence, when attained with professional training will provide both the intellectual foundation and professional development needed by the graduate architect to make future decisions which may not exclusively rest on architectural practice alone.*

Key words: *academic, excellence, challenges, curriculum, education.*

INTRODUCTION

University Education is aimed at producing the total man with balanced sense of values and capable of priority rating of competing attractions. A good university education should produce men and women, who are highly innovated, attain academic excellence and who, by a process of self - reliance and high integrity should be able to explore the opportunities around them in a healthy manner - thus guaranteeing their survival without compromising self-respectability. According to Ojo (1990) the general purpose of education is to prepare people to improve society in which they live. The interest and concern for excellence in education is therefore timeless and pervasive among educators, public and the government. The achievement of excellence is the ultimate goal of any productive undertaking, and education is one of the biggest large-scale enterprises of modern society.

The goal of architectural education is essentially to advance the profession of architecture while its important aim is to promote academic excellence as well as provide research opportunities that are appropriate for the development of natural resources and technological skills geared towards meeting national demands (Olotuah, 2002). As worthy as this aims of architectural education are, their realization appears to be a mirage and this is because the aims and objectives of architectural education seem not to have been affected by time. Falling standards in academic performance of both architectural students and lecturers in our institutions of higher learning has become an issue of concern and have raised an outcry for improved standards and quality of education for the architects.

Employers of labour both within and outside of the profession are becoming more and more dissatisfied with the professional competence and academic ability of architectural graduates from our institutions.

Even within the University, where academic excellence is believed to be the main concern of the people residing in the ivory tower the professional and academic competencies needed to disseminate knowledge to the students is lacking among some lecturers. These falling standards are pushing the attainment of excellence to the back burner as public confidence in our educational system is eroded by these emerging facts. This perception of falling standards coupled with escalating incidence of examination malpractices has cast serious doubts abroad on the credibility of Nigeria's degrees and certificates with architecture inclusive. This is both ugly and unhealthy for the future of architects in the country.

In order to avert the looming consequences of this, architectural educators in higher institutions must take up the challenge of pursuing academic excellence both in teaching and training of architects in all its ramifications. Their focus should be on facilitating a holistic education of the students through a variety of sound academic and architectural training and experiences. While at the same time facilitating the development of all those who are involved in that process (i.e. the lecturers). This paper therefore provides a framework for architects in education to expand upon and to stimulate thoughts, discussion and actions and points out the opportunities and challenges academic excellence in architectural training has for the architect graduate. If that occurs, its main goal will be achieve and this will move us forward to further enhance a profession that is concerned with academic excellence along with the attitudes, thoughts and actions that give rise to it.

CONCEPTS OF ACADEMIC EXCELLENCE

Academic excellence as defined by Akande (2005) is the demonstrated ability to perform, achieve, and/or excel in scholastic activities. It is the maximum development of intellectual capacities and skills in a service to humanity. When it pertains to a lecturer in teaching, academic excellence is striving for excellence in teaching whereby the lecturer shares his or her scholarly inquiries with students in a systematic and meaningful way so as to promote excellence together with professional education. If involved in the area of research, the lecturer engages his / her discipline with an attitude of intellectual curiosity and a desire to make meaningful contributions to the field of architecture for the advancement of knowledge and for the sake of the common good. In providing architectural services, the architect teacher will cultivate professional relationships and share his expertise with colleague in their respective department, across the university, and in the wider academic and civic community to work towards the integration of knowledge and towards the full flowering of the human community.

Academic excellence can also be defined as it pertains to students, in terms of students' ability to meet the challenges of academic rigor and intellectual inquiry as modeled by the lecturer. Attaining academic excellence by the students will mean that the students will place high priority on their academic responsibilities and be motivated to engage in intellectual discourse with lecturers and their peers on regular basis within and outside of the classroom in such a way that there will be a growth in their ability to wonder, to understand, to contemplate, to make personal judgments, and to develop a moral and social sense. The knowledge, attitudes and skills that should constitute academic excellence among students are highlighted by Akande (2005)

as follows:

(i)   Ability to acquire knowledge independently (e.g. read books and attends educational events without being required to do so).

(ii)   Ability to analyze complex situations and phenomena carefully and correctly

(iii)   Ability to identify and solve problems effectively

(iv)   Ability to integrate knowledge gained from different sources.

(v)   Ability to read carefully, critically and insightfully.

(vi)   Ability to think clearly and critically and to argue persuasively

(vii)   Ability to write and speak with clarity and precision.

(viii) Active engagement in their area of study.

(ix)   Appreciation of the integration of learning and career preparation.

(x)   Appreciation of the responsibility of persons to contribute to the community and societies in which they live.

(xi)   Basic knowledge and appreciation of the subject matter of the core curriculum.

(xii)   Capacity for creativity and curiosity.

(xiii) Respect for and appreciation of perspectives and worldviews different from one's own.

(xiv)   Specialized knowledge, attitudes and skills necessary to enter a career and / or graduate school.

(xv)   Understanding and appreciation of the moral and ethical implications of the acquisition of knowledge and the scientific and technical discoveries that result from it.

(xvi)   Understanding of the epistemological foundations of the major area of study.

GENERAL OBSERVATIONS ON ARCHITECTURAL TRAINING

A close observation of the above mentioned qualities will reveal the shortcomings of the educational exposure of the architects. Many of these qualities are far below expectation because the curricula of architectural schools in Nigeria focuses on training in design skills and less of intellectual development through scientific research. This has only led to more of creative / design excellence than academic excellence. Therefore, there is certainly no problem in finding evidence that architecture is not performing up to expectation in the area of academic like other academic discipline, whose functions invariably taken to be knowledge – production. If architecture were as research oriented as the average university discipline, it would have graduated almost ten times as many doctoral students each year as it actually does. Even home economics, not usually regarded as the most intellectual of areas, produce more. It is pertinent to know that over the entire period of 1920 to 1974, American Universities graduated only 56 people with a doctorate in architecture, a minuscule figure. Perhaps one quarter of American academics in architecture schools hold a PhD, a degree which in other fields is mandatory for even lowest ranks. The situation in Nigeria universities presently is worse compared to that of America. This implies that architectural academics do little research, because neither they nor the profession found it relevant as there are no much emphasis placed on research.

Another reason why architects fall far short of the above mentioned qualities is due to the fact that most architect –teachers are

often without research experience because of low motivation emanating primarily from ill-equipped academic background as observed by Ogunrayewa and Agbo (2001). They pointed out that most teachers are not prepared for prolific writings/ publications - a primary requirement for upliftment in the academic environment and of course a ladder to attaining academic excellence. This is due to the fact that the course contents in schools dwell more on design than research work, architects that accidentally find themselves in the classroom are highly deficient in research methods and consequently the basic skills to conceptualize researchable topics and techniques of research analysis. It was further noted that the basis of research – sampling, hypotheses testing and techniques of data analysis-most times are strange vocabularies ostensibly because throughout some teachers' education, they were never exposed to the element of statistics. They therefore lack the zeal to develop their career along academic/ teaching line as they neither present papers at conferences nor publish in journals (Ogunrayewa and Agbo, 2001).

Furthermore, the fall in standard of education which also affect architectural education, coupled with incompetence and inability to perform both in teaching and practice consequently will result to the production of half - baked architect graduate who will not be able to make a career out of the profession after graduation. Most especially affected are students in the university who are there to build for themselves the intellectual foundation that is required as the platform they need to base their future actions which may not rest exclusively in architectural practice.

FACTORS MILITATING AGAINST ARCHITECTURAL EDUCATION IN NIGERIA

In addition to the general observations noted above on architectural training, there are myriads of factors militating against architectural education in Nigeria. Among many of these factors include:

Uncontrolled admission into schools of architecture

This is the bane of most schools of architecture in Nigeria. In practically all schools of architecture, the number of applications exceeds the number of places that can be offered. Added to this problem is the pressure being mounted on heads of departments of architecture by university authority that pushed students who could not meet up with their requirement for their choice of study in medicine, pharmacy or architecture as an alternative course of study. However, in order to satisfy the university management, the heads of departments yield to the pressure of admitting more students than the facilities and staff available can serve. The resultant effect of this is either having higher number of unqualified candidates or overcrowded students most of whom are neither motivated nor skilled to study architecture which in the long run may be pushed all through the levels to graduation.

Inadequate and incompetent staffing

Attaining academic excellence entails that architecture departments be supported by a range of qualified staff that will be able to meet the requirements of programme delivery. In most schools of architecture, staff to student ratios is so low and cannot ensure quality standard of learning as the lecturers are been overworked and will not be able to give attention to all the students as required. Likewise, academic excellence can not be attained by staff that barely made it through their first degree and narrowly passed in their masters' degree and later employed as a lecturer.

Inadequate facilities

Most schools of architecture suffer from general under funding. Many of the Universities offering architecture do not give adequate attention to the need of the department and as a result of this most architecture departments are not given necessary financial support for resources and facilities needed to enable programme delivery. For example studio based teaching is a resource intensive model that is fundamental to education of students in architectural design, hence students should have access to adequate studio space. Likewise departmental library facilities and learning resources, both physical and digital that should be accessible to students are not available in some architectural departments. Such facilities should provide books, learned papers, current journals, standards and codes, magazines and technical literature from within Nigeria and Overseas relevant to architecture and allied professions. In addition, computing and information technology facilities are totally absent in some architectural departments. Many architectural students are not exposed and encourage to exploring both current and emerging information technologies. With these deficiencies, architecture students can not square up with the current technological advancement and latest discoveries in the field of research and practice in architecture going on in the rest of the world.

Obsolete curriculum

The curriculum proposed for most of the schools of architecture are patterned after the European and American University's semester model and the credit system of hours. This was as a result of the period when colonial masters headed the schools with mainly foreigners as academic staff. However, several authors have been unanimous in their belief of the inappropriateness of architectural curriculum and educational system (Oruwari, 1995,

Umeune, 1996). Yet, some appropriate modifications to reflect indigenous cultural patterns, geography and climate and research have not been effected.

Inadequate number of doctorate degree holders and professors

Nigerian architecture schools have one of the lowest number of lecturers who are doctorate degree holders and professors. Hence most teachers have never tasted the service of an indigenous professor and never exposed to the elements of statistics. The resultant effect is that most lecturers in architecture cannot effectively supervise both undergraduate and postgraduate students in architecture. This is because their own training also dwells more on design than research work. This makes them highly deficient in research methods and skills to conceptualize researchable topics and techniques of research analysis for and by themselves let alone mentoring their students to do so. Hence the students supervised are without direction; therefore most project writing and presentations are haphazard and lack real academic content.

CHALLENGE FOR ARCHITECTURAL EDUCATORS

The presence of a split between "research" and "practice" that is currently evident in architectural profession as noted by Anderson (1988) is being centrally concern with the current structure in architectural training and practice which ought to fulfill the goal of the profession to the highest standards. The split between research and practice can largely be attributed to the problems associated with educating professionals in a university or academic setting. Tigerman (1996) focusing on the status of architectural schools, pointed out that "the people who make things look down on those who think and, of course those who think look down on those who make. This distinction even exists within architectural

academia between the practitioner/teacher and the researcher/teacher. Practice–oriented lecturers are educationally unprepared or intellectually disinclined to do scholarly work as their colleagues in other disciplines have been trained to do.

Unlike their colleagues, architecture lecturers have not been trained in the skills basic to almost every other academic discipline. As an example, in the areas of refereed journals, most practice-oriented lecturers are unprepared to write manuscripts to the satisfaction of editorial board members who have been selected to review their papers. Teaching in the all-too-exalted design studio, these lecturers exert a tremendous amount of influence over their students and often encourage the future architects to turn their backs on research.

As a professional programme, unsure of its role in academia, architecture has tended to resist other outside influences. Lecturers in other departments often complain about how students are unprepared for the vigorous requirements of their courses. Lecturers in architecture are seen as "amateurs, teaching elementary courses"(Rinehart, 2005).Without the training in the basic methods of research in the sciences or the humanities, or even the ability to formulate a written argument clearly, architecture students are never able to enroll in anything more than introductory level courses in other departments. This only serves to perpetuate the problem that architecture student encounters as they are currently being trained but never learn how to conduct research like other fields.

The dichotomy of research and practice seems to have rendered our educational system "mute, unable to voice direction, and worse yet, not even seeing the need to do so (Dutton, 1991).The insufficient attention given to research in our own discipline has created several crippling obstacles. Schools of architecture will continue to be perceived by the humanities

as a professional programme which train practitioners incapable of understanding the more philosophical and epistemological concerns of the academic world. On the other end of the spectrum, scientists will continue to view architects as "artists," unaware of the complexities of the scientific world and, as a result, unable to conduct true "research".

Architectural design problems are currently seen as being of an intuitive nature and requiring an "integrative rather than analytical process". Scientific problems (both in the physical and social science) require systematic and analytical methods of investigation where the researcher is "trained discursively" (Sutton, 1984). While the university strives in the "pursuit of knowledge, the production of those who will continue that pursuit, the production of educated people for society, and the preservation and transmission of society's values, architectural education draws from an "artistic profession" and has had as its dominant goal the production of design practitioners "introducing" students into the profession of architecture, instilling.... Skills appropriate to membership in that profession (Porter, 1979).

CREATING OPPORTUNITIES FOR THE ARCHITECT GRADUATE

Currently, the primary goal of an architecture programme is to train practitioners, with such a narrow view of what the profession is and what it can be, it is imperative for us to educate students who can help to form a bridge between research and practice. Reforming our current system and curriculum of architectural education is a first start in bridging this gap (Rinehart, 2005).Ultimately, we are designers. This does not imply, however, that the design studio should be the end - all and be - all of an architecture school. The studio - centered system, as it currently exists, "commands the hearts and minds (and time) of students,

while the so-called "support' courses...often get short shrift" (Crosbie, 1995). Therefore, if there must wider.opportunities for architect graduate to explore we must seek to integrate research oriented courses into our curriculum that will enable our students to take interest and be grounded in research aspect of the profession, thereby providing opportunity for them to choose to go into academics or practices after graduation.

RECOMMENDATIONS

Based on the current view of profession and its future opportunities, the following recommendations are made to the profession and architectural educators. To accomplish this, we must be willing to alter our programs of architecture in ways that some may consider being drastic such as:

(i)   Introducing rigorous entrance requirement that is more stringent to keep the population in architecture within the necessary limit. For example, special architecture aptitude tests that can reveal candidates' aptitude for architectural studies can be carried out. Tasks given in these tests should pertain to visual memory, spatial organization, drawing, simple designs and so on. And these tests should be administered by the architecture departments.

(ii)   Advocating for faculty of architecture with various department offering courses in specialized areas of architecture such as conservation, Housing, and Urban design.

(iii) Reviewing, reevaluating and reforming of all architectural curriculums for all schools to accommodate six (6) years for Master of Science for those who are interested in going into professional practice and seven (7) years to obtain Master of Philosophy for those interested in going into academic/research areas of architecture.

(iv)   Discouraging the employment of graduates who are not academically inclined especially those with third class and below in their degree and less than B grade in research project at masters' level. The other alternative is to request from them at the time of their interview to show evidence of their competency through publication(s) in any peer review journals

(v)   Teaching students to think for themselves by providing them with a rigorous intellectual foundation.

(vi)   Promoting a challenging curriculum which has a focus on other academic fields. Entire programs must be willing to embrace a change of attitude and advocate the necessary curricular revisions to improve the ability of our graduates to take within the increasingly complex profession.

(vii) Providing courses which focus on the importance of research in the architectural profession and the fundamental methods of conducting research, thereby making students better equipped to bridge the gap between the professional fields," such as architecture, and the "research fields" such as environmental psychology. These courses can be team – taught by architecture lecturer, their colleagues in other fields and those specifically trained in research methods such as reference librarians. Course requiring a final research paper or practicum should be introduced this will give students more experience in presenting their thoughts in a clear written form: a skill that seem to elude most architecture students.

(viii) Integrating and incorporating research and its methods early into architectural education will allow students to grow to understand the role of research in architectural design.

(ix) Opening up more Ph.D. progarmme in our institutions while frequent admission should be encouraged and made more accessible for those qualified/research oriented graduates.

(x) Funding and provision of adequate facilities (e.g. Information Technologies) should form one of the bases of accreditation of schools of architecture.

CONCLUSION

Like any other profession or industry, architecture faces a changing future; however it does have choices over how it views and responds to this future. The success of the profession and its practitioner relies partly on their approach to the future: they are well placed to take advantage of future opportunities but must act proactively to do so. The ultimate goal of architectural education should not be to merely train practitioners, but to help students see the vast potential for interrelationship between ideas and discipline to encourage them to confront all new problems of design in terms of dialectic (as opposed to formula), to generate a spirit of cooperation and intellectual respect for other fields that will ultimately help them work in a profession that requires collective inputs (Wines 1984).

Architecture educators should focus on producing graduate who are "well educated" and able to apply a full body of knowledge to solve problems and adapt to new circumstances. This is in opposition to the "well trained" students that we try to produce today, whose skills are limited to specific task relevant to the temporal demands of the profession. Our graduates cannot survive by knowing only the practicalities of the profession as it currently exists, but must possess' intellectual capacity to be able to go into research oriented jobs such as lecturing. Architecture is growing incredibly complex, and without the ability to evolve and contribute new knowledge to the field through involvement in research oriented jobs, our graduates have no way of surviving (Kroloff, 1996). Academic excellence, when attained along with professional training will provide both the intellectual foundation and professional development needed by the architect graduate to make future decision which may not exclusively rest in architectural practice alone.

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