Enhancing Architectural Education and Practice in Nigeria

Okafor, Chika Nonyelum (MNIA)

Abstract

An architect’s formal education ends with the award of bachelors and masters’ degree in Architecture, at this point practice begins, a graduate of architecture needs to be versatile in theory and practice upon entering the workforce. This paper explored the shortcomings of the products of architectural schools, challenges of the practice environment, demands of architectural practice and the way forward to being a desirable graduate and a successful architect in practice. It also identified and explored the missing links in what should be a continuous chain of architectural education and practice and offered suggestions for reshaping the development of emerging professionals as they embark on the path to professional registration and licensure. Observations and suggestions for broadening the educational experience offered include: Curriculum development, application of information and communication technology (ICT) on architectural education and practice, improved schools of Architecture, adoption of e-learning system, introduction of international programmes, collaboration with alumni; practitioners and professionals, and more practical exposures for improved architectural education and practice.

Keywords: Architect, Education, Architectural, Practice, Curriculum, Professional, Schools

Introduction

Becoming a successful architect, possessing the knowledge, skills, competence and ability to undertake architectural practice is a rigorous process which is a combination of academic education and professional training. It is a lengthy process that requires commitment by the individual embarking on it. Interestingly, despite the complexity of the learning programs and the hard work it requires, most architecture students find the experience exciting, motivating and eventually a fulfillment of their endeavors. The scope and methods of practice provides the architect with the opportunity to operate across a wide variety of activities covering the entire process which includes: design, construction, maintenance, repair and conservation of buildings. Whether the architect is involved in urban master planning or the detailed design of a building, problem solving is a key activity and together with delivering a professional service, architecture can be a rewarding occupation (Chappell & Willis, 2010). I am particularly inspired by a pseudonymous letter of a quantity surveyor to the Builder, 9 March 1951. “I have a great admiration for an architect who does his job well, because he has one of the most difficult jobs in the world. He must be an artist but at the same time in his administration of a building contract be a business man, and in interpreting it even something
of a lawyer”. The question is how does architectural education prepare students for all of these tasks and more?

Education is a process of imparting or transferring knowledge from a person to another through interactive learning while architectural practice is the actual application or use of an idea or methods that one has learnt. Education provides broader sphere of mastery while training concentrates on the acquisition of skills. Architectural education is presently being offered in quite a number of universities and colleges in Nigeria. With the advancement in technology, trend and times, there is urgent need for an improved standard of architectural education in Nigeria. Advancing architectural education in Nigeria requires continuous research and update and ensuring a good learning environment as well. Teaching must go beyond classroom lectures to regular practical exposure. Schools of architecture should endeavor to provide diverse and qualitative learning experiences for their students so as to adequately equip and prepare them for practice. Some architectural scholars are of the opinion that Architectural education passes on a narrow concept of art which translates into an emphasis on the individual’s creativity, questioning and problem solving skills (Kangasoja, Malkki, Puustinen, Hirvonen, and Mantysalo, 2010). Already in existence is a scheme for field exposure; the Students’ Industrial Works Experience Scheme (SIWES) which is beneficial, but improving architectural education goes beyond this scheme as it involves improving the existing infrastructure, improved curriculum for more practical exposure and entrepreneurial development of the students as architectural education globally is multi-disciplinary and the practice versatile.

The main objective of this paper is to provide answers to the following questions:
1. To what extent does the quality of graduates from schools of architecture in Nigeria impact on architectural practice?
2. How does the practice environment affect architectural profession in Nigeria?

This paper explores the challenges of architectural practice, the quality of graduates from schools of Architecture in Nigeria and the demands of practice and proposes a pathway to emerging a desirable graduate and a successful professional in practice.

**Architectural Education and Practice - Challenges**

There are some challenges that have made architectural education in Nigeria unable to measure up globally to its counterpart. One could argue that architectural education in Nigeria is good or better the way it is now or in fact that it is the best that it has ever been, but it is not good enough. There is adequate talent supply problem as we take a broader look. There is challenge of continuous change in the work of architectural designers. Many educators acknowledge the fact that higher education has not kept up with the rapid change in the design profession. The reality of change and uncertain future face us all. Blaming one another cannot get us anywhere as architects, it is time for architects and educators to adopt a learning and no finger pointing approach to change and problem solving. We live in a time of change in Nigeria and globally? We should project and imagine the future of architectural education and practice in Nigeria in terms of changing trends in technology, innovations in design and information technology, construction delivery, globalization of architecture, unstable and recessionary economic trends, urbanization and demographics, a variety of project-delivery modes, diminished responsibility and authority of architects in the construction industry and the rise of specialization. Professional practice is changing, it could
become stronger or weaker and education has a significant role to play in future success levels. Quite a number of strategic fronts need to be addressed. Integrated and multi-disciplinary practices have ever changing business models. The trend now is that designers and practitioners are even learning to offer more services and experiences for the money. Contractors and other professionals and even non professionals are establishing architectural design studios. Technology is rapidly evolving, exhibiting signs of artificial intelligence that will not just disrupt but will also alter value systems. Sustainability is driving designs. We are at crossroads (Cramer, 2012; Pressman, 2006).

Change will never again be as slow as it is today, the pace of change will continue to be on the increase and thus we must act fast. Some say that architectural education has become self-concentrating without looking into the future, if this is taken slightly without serious action, then it can only lead to decline in the quality of architectural education in Nigeria. Consequently, the future of architecture profession will be in danger. The profession will not be highly regarded in the near future if it does not start to get the best talents and harness their potentials through continuous improvements and developments, we should try another approach this time (Cramer, 2012). To take a peep at what the outcome will look like, take a look at the best performing professional firms in the industry; innovation is the watchword of these firms. There should exist a better alignment between architectural education and practice, this would go a long way to re-invigorate professional practice. Leadership dynamism should be made to align with the construction industries and environmental realities. This will provide an opportunity for schools to align with and lead the changing profession.

Architectural theory as currently taught in modern universities throughout the world no longer provides a tenable basis for the discipline and practice of architecture (Salingaros and Masden, 2008). Students are left to their own innovations if they really desire to gain a degree in architecture. In their quest to produce contemporary design with outstanding aesthetics, students often copy fashionable images without the understanding of their geometry or they invent forms that seems to possess a contemporary sense of architecture while realistically, such forms are irrelevant to human needs and functions and in fact do not work. Contrary to belief, this practice does not provide a broader base for creativity but rather restricts choices to a very narrow design vocabulary. Most architectural schools continue to promote and propagate a curricular model that has sustained their particular ideals and ideologies for decades. There exist quite a number of innovative materials and ideas for revising the architectural curriculum, but they are often overlooked and ignored. If implemented, these new ideas would drastically improve the architectural model, allowing students to participate in a learning experience specific to their immediate and local context and prepare them to effectively compete with their counterparts all over the world (Adegbile, 2010).

Architecture profession in Nigeria is constantly being challenged with issues like quality of graduates, battle of relevance in the society, scarcity of commissions, increasing competition among practices for the few opportunities available and contentions over the traditional role of the architect (Dare-Abel, Alagbe, Aderonmu, Ekhaese, Adewale, 2015). The number of registered Architects in Nigeria has risen to 3,817 fellows/ full members as at November 2016 (Nigerian Institute of Architects Annual General Meeting, 2016). The number of architectural firms has since been on the increase. This simply states that there has been a gradual growth in the profession and practice in Nigeria. The formal structure of architectural
practice is laid down by the Architects Registration Council of Nigeria (ARCON) established by decree No. 10 of 1969. The establishment of ARCON gave a legal backing to the vision of the Nigerian Institute of Architects (NIA) and since 1969 there has been an existing inter-
relationship and cooperation between the two professional bodies. It is observed that the opportunity available in architectural practice in Nigeria does not match the growth rate experienced. It then means that Nigeria with a population of over One hundred and eighty two million, two hundred thousand (182.2million) people in 2015 (the Nigerian latest census figures, 2015) with about three thousand eight hundred and seventeen (3817) registered professional architects (Nigerian Institute of Architects Annual General Meeting, 2016). It is clear that the number of professional architects in Nigeria is not enough to cater for the housing needs of the rapidly growing population. In my interactions with some professional architects, it is clear that they are not getting the jobs. The question is: where are the jobs? Are they rather going to foreign firms, non-architects and non-professionals?

This situation is not prevalent in Architectural education in Nigeria alone; in United Kingdom for instance the RIBA’s (Royal Institute of British Architects) education review panel is presently brainstorming on ways to improve the quality of architects who train in the United Kingdom. The main point in their proposed changes is to integrate practice and academia more intimately. However, practitioners are of the notion that giving students more practical experience is a step in the right direction, but it could place an unbearable burden on small firms (Jolliffe, 2015). In United States, in 2012 a seminar was held on “Bridging the Gaps: A Collaborative Discussion on Restructuring Architecture Education, from Graduation to Licensure” by AIA (American Institute of Architects) National Associates Committee, the primary topic was: “How do we bridge the gap between architectural education and practice? They embarked on two prominent campaigns: repositioning Architects and creating a White paper to guide the curriculum of architecture schools in a more appropriate direction.

Arc. Roti Delano, the President of the Association of Consulting Architects of Nigeria (ACANigeria) identified that the bane of architectural practice in Nigeria is the over-reliance on expatriates to work illegally on projects at the expense of qualified indigenous practices (Njoku, 2011). He asserted that before now, projects were awarded to “Nigerian architects provided they showed they have the technical experts”. In this sense, the Nigerian practice gets the project and “then engaged his counterparts from anywhere in the world because probably at that time, they didn’t have the skills to design some of those large projects”. He observed however that the reverse is now the case. Arc. Delano asserted that “Nigerians are now going out to get architects from outside who are coming to work here despite the fact that they have a lot of Nigerians who can do the job even better than the foreign architects” (Njoku, 2011).

In a paper presented at the Architects Colloquium organized by the Architects Registration Council of Nigeria (ARCON), Arc. Ibrahim Abdullahi Haruna identified architectural practice to include any sector that is involved in the shaping or re-shaping of the built environment (Haruna, 2008). He identified that success in professional practice is built on certain foundation. The first is the tutelage years which involves the period spent in school acquiring education. The second is the associate/apprenticeship years, which is the period spent developing experience and confidence in the practice of the profession. The third and final stage is the specialist age which involves years of professional practice where a practitioner struggles to maintain relevance through coping with new developments. He
enumerated the ideals of architectural practice in his presentation, and further established some of the absurdities witnessed in architectural practice in Nigeria in the last 20 years. Some of the absurdities identified are non-compliance with requirements of the NIA Code of Conduct and the ease with which anyone (qualified or unqualified) can register a construction business (Haruna, 2008).

Way Forward
Schools of architecture should teach leadership and entrepreneurship in addition to design education. Professional office management skills, presentation and communication skills should be taught to every student before graduating. Every graduate of architecture should be able to express themselves perfectly in meetings and public gatherings should be able to use eye contact and the professional practice language to express themselves. They should be able to head and coordinate a team for team work design, reports and presentations. Students should be encouraged to enroll in debate and performing groups to help boost their confidence and to improve and master communication skills. Students should learn that designers are communicators, communication is key to being in control, without which the value of designers in the society and in business would be lacking in energy and voice to advance the future and be in control (Cramer, 2012; Dare et al, 2015).

Improved instructional management and jury, introduction of project management courses and experience, professional office management trainings, as well as team work experiences are important. Certain areas of architectural study such as detailing, entrepreneurship, planning laws and regulations should be given maximum attention in the training of architects in various architectural institutions in Nigeria.

Keep current: there should be a program for the campus, faculties, schools and staffs that keeps everyone updated with the latest metrics and statistics in the profession. Students and staff should have a forum for discussing the current realities and trends in the profession. Students should be educated with the latest on design compensations, bonuses and ownership. Architects should learn from failure and study success. There a lot of successful architects and their success stories, this should serve as motivation to students (Cramer, 2012).

Continuous research and update: “The best way to face the global challenges of the 21st century is with a well-rounded education that establishes a foundation for lifelong learning” (ACSA, 2011). In enhancing the teaching and learning of career courses in architecture, continuous research and updating is required.

Teaching of the current trend and innovations in professional services and operations: management, business, marketing and finance; the Design + Enterprise model should be adopted (Cramer, 2012). This culture should be inculcated in projects for every studio work. The studio work should structured in such a way that it looks like real practice, such that it involves; architectural consulting for the three stages (schematic/conceptual, preliminary and detailed design), presentations and project management for all the phases of construction, Architectural Programmes should be structured to allow students work full-time during studies (Onyegiri, Okofu, Alozie, 2014). Students should learn by adopting practical approaches, for example, design and build programs. This would not be easy but if it is adopted, the value will be tremendous. When it comes to building and supervisory experience, cost analysis, fee and business adjustments to scope changes and day to day
project management, the best way to understand how building come about is not by studying but rather practicing and experiencing it (Cramer, 2012). I agree that this will not be easy in the face of the current economic recession which has affected all sectors of the economy, the education sector and student’s internship program is not left out, but this is a very necessary consideration. The reality is that emerging a successful architect or efficiently running a design enterprise are not endeavors that evolve only from academic studies, it goes a lot beyond this.

Create programs that bring the practitioners into schools both digitally through the web and on campus. A program that brings together practice and education should be created. This ranges from social to intellectual programs. Quite a few architects in professional practice actually teach, this needs not be so, these skills and experiences need not remain in practice alone, they should be brought back into architectural education as architectural education needs the impact of experienced practitioners as well as educators (Cramer, 2012; Dare et al, 2015).

Some schools admit to inefficient programs, something can be done about this. An exchange programs should be established for old schools needing something new for the educators and the students alike. This change should be locally as well as globally; this would bring about regeneration to the schools. Educators, practitioners and students should have an unsatisfied appetite to learning and design, they should be eager to participate effectively in the evolving future of the profession (Cramer, 2012).

Excursions and travels and tours are essential for exposure of staff and students. Some students of architecture do not have a holistic knowledge of the profession and what practice entails. Field trips and travels to places with interesting architectural masterpiece will help in motivating, inspiring and educating the students.

Successful and outstanding practices as well as the best designs and their designers should be used as examples and motivators to students. This can be achieved by making them part of the introductions to every lecture. The objective would be to make the students to not just study to graduate, but to learn the principles of success and excellence in practice. The students should be made to understand what the firm does, its outputs, how the firm does it and its processes as well. The firms should also provide information on value migration and strategic planning, fee shifts, social responsibility, new delivery process strategies, budget, costing, profits, owner/leader transition issues in their firm and if they achieved their aims and fulfilled their goals at the end of each project and year (Cramer, 2012).

Every firm should be encouraged to plough back into the educational system by making a financial commitment to the school of architecture or sponsor their programs and or projects on a yearly basis. Practices could have this provision in their budget as a percentage of their net profit at the end of a practice year. These contributions should be made by firms to schools of their choices. This would bring about more development flowing from practice to education (Cramer, 2012). Once this form of endowment is established, the resultant effect on education in my projection would be invaluable; architectural programs would become stronger, and be more valued within the context of building the profession for the future. The future of schools architecture depends on this.
Schools of architecture should be encouraged to establish formal relationships with practice firms and organizations. This platform will enable educators to get into firms on a regular basis. Educators can either be part of the policy board, advisors on technology to the firm on specialty areas such as acoustics, lighting, contract negotiation, ethics or they should be taken in as research fellows for the firms. Firms would be required to pay for these policy and advisory services. Schools should set the goal that every policy member becomes an advisor to a construction firm, an architectural consulting firm a product manufacturer, specialty firm or the like. This would give new insight into the system, create a good relationship and add more value to the system (Cramer, 2012).

A reward system for excellence and for meritorious service to staff and students based on high performance and innovation should be established. Institutions can provide an endowment funds for this.

Facilities in colleges and universities should be upgraded to what one would find in the practice environment. There should be a clean and conducive environment for learning (Cramer, 2012). The schools should be of good and functional design that would reflect what architecture entails, it should be able to inspire as well as motivate. It should not be allowed to deteriorate with time; there should be a maintenance and conservation culture.

With the advancement in technology, digital and online learning is now on the rise. This should be adopted as one of the learning processes in Architecture. Schools of Architecture in Nigeria will do well with their own websites, online student’s portal equipped with educational tools, e-books, design learning nets with hybrids of design examples for architectural education and experience. Internet based applications to facilitate knowledge transfer, online interactive forums for lecturers and students and a portal that would enable students submit their assignments and projects in some courses online through the school of architecture website would be beneficial (Cramer, 2012; Adegbile, 2010).

There should be set in place a marketplace to enable schools that are still operating on analogue technology to upgrade to digital. Study shows that many schools are open to sustainability; international programs which would be open to students from other schools should be introduced. Some schools have established exchange programs with international schools, have offices that help in placing students in international programs or are engaged in community service projects and efforts among others, this should be promoted (Cramer, 2012; Adegbile, 2010).

Lastly, the Architects Registration Council of Nigeria (ARCON), the regulatory body established by the architects Act Chapter A19, the laws of the Federation of Nigeria 2004, to regulate the training of architects and practice of architecture in Nigeria is implementing the new ARCON Project Registration Number (APRN) system which entails the process of numbering all architectural projects in Nigeria. According to the process, all Architectural Projects/ Drawings are prepared only by fully registered architects; they are submitted to ARCON and assigned the ARCON Project Registration Number (APRN) before submission for Planning/ Implementation Approvals. This achieves the aim of ensuring that all Architectural projects/drawings are designed only by Architects who have undergone architectural education and training in recognized higher institutions, undergone the compulsory two years tutelage (working with a registered architect or in a registered firm),
written and passed the Nigerian Institute of Architects Professional Practice Examination (NIAPPE), are full member of Nigerian Institute of Architects and fully registered with ARCON (ARCON, 2014).

Conclusion
There should be a never ending relationship between education and practice in the areas of advancement, projections for the future and sustainability. This will create a great opportunity for change. It can re-invigorate the architectural education and practice in the future. Regard and relevance for design education can be greatly enhanced and a pathway for sustainable education and practice will be established. We are in the era of change and as new value systems are discovered, we need to grasp and harness them.

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About the Author

Chika Nonyelum Okafor is a professional practicing Architect. She has worked with a good number of recognized firms in Nigeria. She’s an expert in building drawings and designs.

Email: chikchikaokafor@gmail.com