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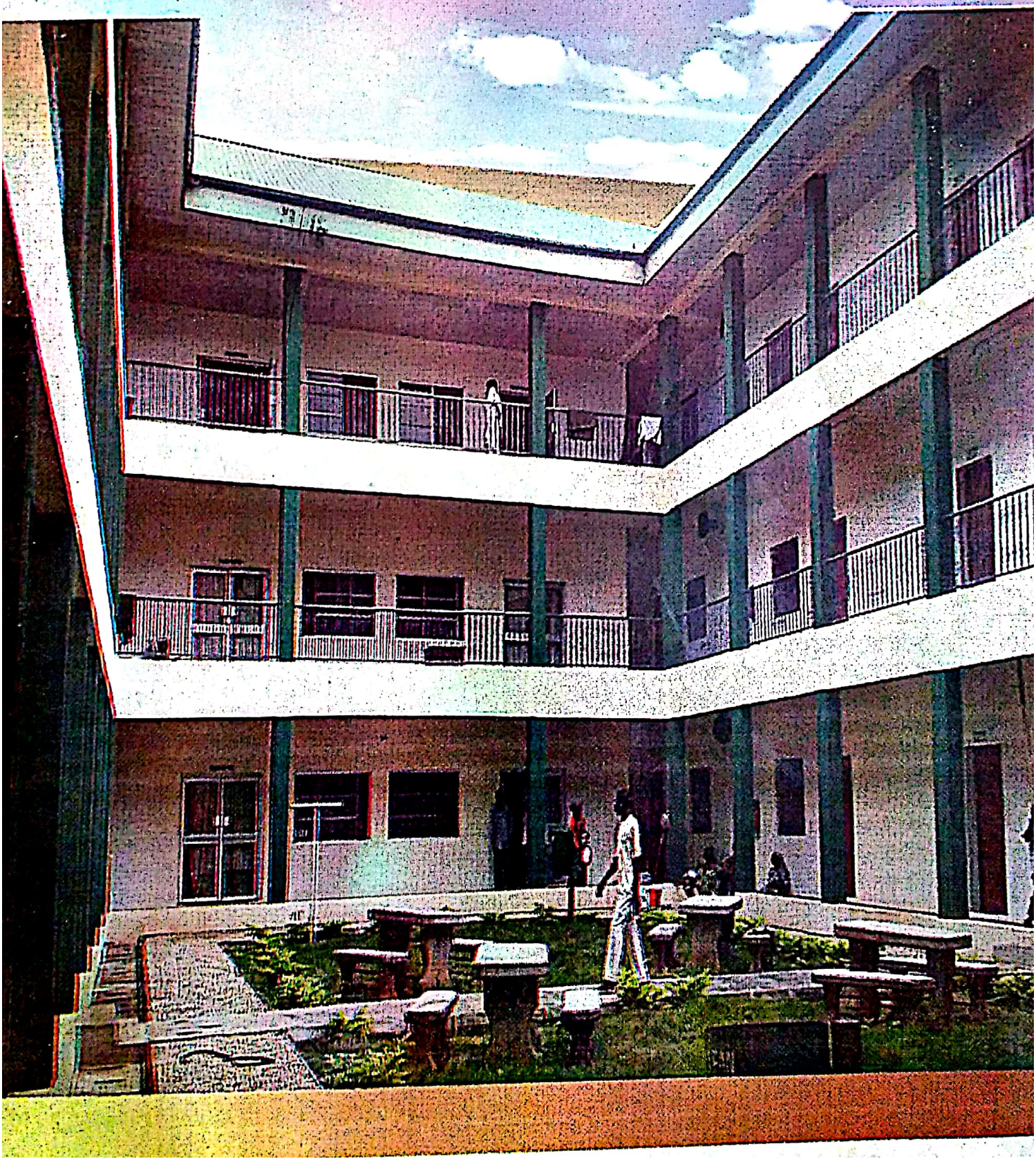

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TOWARDS A NEW ADMISSION POLICY INTO SCHOOLS OF ARCHITECTURE: a rethink for architectural educators

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Abstract: *As the pace of change and challenges in the 21st century continue to increase, likewise, there is increase in complexity of the role of the architectural educators in training of architects that are competent both professionally and intellectually. These challenges should oblige architectural educators to take into account the need to consider certain criteria for admission into schools of architecture as part of the process of striving for continuous improvement in architectural education in Nigeria. The focus of this paper is to bring to the attention of architectural educators some admission procedures and criteria along with existing ones in order to check the uncontrolled admission into architectural schools. The paper traces the historical background of admission into schools of architecture since the institutionalization of architectural education. Competencies required by prospective students of architecture and factors to be considered in various schools when making selection for qualified candidates in architecture are suggested. It concludes that to successfully control admission to school of architecture in Nigeria, architectural educators will need to establish and conduct entrance examination with questions relating to architecture and insist on conducting interviews for the prospective students in order to reveal their spatial intelligence, visual aptitude / reasoning and their suitability for a career in architecture.*

Key words: *admission, architecture, criteria, educators, policy.*

INTRODUCTION

Globally, in recent times there has been wide spread interest in environmental issues and the built environment, this has led to increasing number of candidates seeking admission to study architecture in higher institutions. Consequently, admission to architecture programme has become highly competitive and only the best qualified candidates can be assured a place. In Nigeria schools of architecture, there are considerable number of misconceptions regarding both the study and practice of architecture. For instance, some students study architecture because it is a lucrative profession. While some others are prompted by parents or sponsors to study it, many others take architecture as the last option when all attempts to study the course of their choice in the university fails.

All these misconceptions have led to overpopulation of many architectural schools and have thrown architectural educators into great concern of how this could be controlled. Other consequences includes: overcrowding of classrooms and studios, low quality of architect graduate in the labour market either as a lecturer or a practitioner of the profession, over labouring of lecturers, inadequate facilities and shortage of staff.. Ideally, the intending students of architecture should have a solid background in the physical sciences, including mathematics and should be able to "conceptualize" at an above-average level; have a strong proficiency in oral and written communication, demonstrate a breath of interest in the humanities, and be able to draw and sketch with ease. As rightly observed by Oluigbo (2005), candidates seeking admission into schools of architecture are absorbed into universities with the notion that they have acquired the necessary preparatory education in subjects believed to be most relevant and constitute basic foundation knowledge for their proposed fields of study.

Architectural education, as one of the distinctive branches of education, requires the development of creative capabilities

hence; the admission requirements can not be placed at the same level with other pure science courses. Meanwhile, most admission requirements for the study of architecture in Nigeria Universities as noted by Chukwuali (2001) gives the impression that architecture is a pure science and many writers have criticized the efficiency of those requirements for selection of competent candidates to study architecture. While Orji (1990) described these requirements as rigid, likewise, Chukwuali (1990) observed some deficiencies in the admission requirements and pointed out the lack of aptitude test for creativity. This implies that prospective students in architecture must go beyond the regular requirements for admission which students in the science related courses should have, but rather should be able to demonstrate at the point of entrance, a high level of organizational ability, creativity, and or other unique capabilities. This cannot be discovered and actualized except architectural educators will rise up to implement the recommendation of Chukwuali (2001) that Association of Architectural Educators in Nigeria (AARCHES) should develop an aptitude test to control admission to schools of architecture. The aim of this paper is to make useful suggestions and introduce to architectural educators various missing procedures and criteria used in other schools of architecture outside Nigeria to screen the applicants in order to ascertain the competency of students admitted.

HISTORICAL BACKGROUND OF ADMISSION IN SCHOOLS OF ARCHITECTURE

Architects obtain their education qualification and training in hundreds of schools of architecture around the world. However, little is known about students of architecture, and even less about ways in which schools exercise control over their intake of students via admission criteria they practice (Goldschmidt *et al.*, 2000). Tracing back the history of admission in schools of architecture, one can find three different mechanism adopted by the Beaux Arts in France, the Bauhaus in Germany, and the Vkhutemas in Russia. Hence, a brief look at prominent historical exemplars is necessary:

Ecole des Beaux Arts

The Ecole des Beaux Arts ran like a confederation of ateliers. Each atelier had its distinct character through the leadership of a patron, usually an accomplished architect. Students joined the atelier where they are trained toward the entrance competition that consisted of three parts (Catlhian, 1979). The first two parts presented sketch problems "Esquisse." In the first part, candidates were asked to design a simple architectural structure using classical motifs. In the second, candidates were asked to produce a large scale accurate drawing of a decorative architectural element such as a capital of column (Salama, 1995). The third part of the competition was a comprehensive written test that examined the scientific knowledge of the candidate.

Bauhaus

The Bauhaus and Vkhutemas adopted different polices. However the focus was still on the skills required for carrying out different art and design assignments. In the Bauhaus, proof of adequate previous education was a determining admission factor to be complemented by what is called today "portfolio" for those who wish admittance as apprentices. According to Wingler (1981) candidates with more experience could apply as journeymen or junior masters. In this case, they were required to submit certificates of previously completed training in crafts.

Vkhutemas

The Vkhutemas implemented an entrance exam policy where prospective students' abilities in drawing, painting, modelling and technical drawings were tested. Entrance examinations were not mandated by constraints of the school intake capacity as in the Bauhaus rather as observed by Lodder (1985), they were meant to establish an adequate threshold of preparedness. Salama (2005) points out that while these schools have influenced architectural education worldwide with varied degrees, it would appear that not

much has changed as far as admission policies to architectural schools are concerned. He further reported that what has changed is the complexity and diversity of tools used to determine suitability and appropriate performance. On the hand other, Goldschmidt *et al.*, (2000) in their research identified eight admission criteria that are now carried out by schools of architecture which are exemplified by high school records, general scholastic aptitude test, special architecture aptitude tests, interviews, portfolios, essays, written statements, and letters of recommendation.

DESCRIPTION OF ADMISSION CRITERIA INTO SCHOOLS OF ARCHITECTURE

Practically, in all schools of architecture, the number of applicants exceeds the number of places that can be offered and in order to ascertain competency, schools screen applicants by using a variety of procedures and criteria. As observed by Goldschmidt *et al.,* (2001), studying admission criteria offers wealth of information and insights on systems of beliefs, norms, values and biases of different micro and macro cultures regarding design. However, in the survey they carried out in which they extracted an exhaustive list of eight different criteria for admission into schools of architecture, it was observed that no school admits applicants without proper scrutiny. The criteria are general and each includes many variations as highlighted below:

High School Records

According to the norms in each country, high school records may consist of average grades such as the GPA (Grade Point Average). In the USA, a State administered final examination such as the matriculation or a Baccalaureate (there even exists an international Baccalaureate certificate) to scrutinize admission into schools of Higher learning.

Psychometric Tests/General Scholastic Aptitude

In many countries of the world, university entry applications require that the candidate submit records of a general scholastic and/or psychometric test. Such test examines various cognitive and scholastic abilities to estimate future success in academic studies. These tests are normally administered by the State or by the universities, examples are the SAT (Scholastic Assessment Test) and ACT (American College Test) scores in the USA.

Special Architecture Aptitude Test

The aptitude test in architecture measures aptitude of applicant for specific field of study i.e. architecture. The test measures aesthetic sensitivity and critical thinking that have been acquired over a long period of time and that are related to specific field of study i.e. architecture. Some schools use this special test that is believed to reveal candidates aptitude for architectural studies. Tasks given in the test pertain to visual memory, spatial organization, drawing, simple designs, and so on. In most cases this test is administered by the Architecture Departments themselves.

Interview

Interviews of candidates by staff members are conducted in several schools. The weight of the interview results varies largely among schools. Sometimes the interview includes the presentation of a portfolio of creative / design work. In some cases interviews are not held at the point of entry into the school, but as part of the process of controlling admission into a higher phase of studies.

Portfolio

A portfolio of design work (where applicable) or other creative work is reviewed in quite a number of schools as part of the requirements for admission into first year or a subsequent year. In some cases, a portfolio is required at more than one point along the way to graduation. Sometimes a portfolio is presented as part of an interview. In some schools, the submission of a portfolio is rather voluntary.

Essay

A few schools required essays and mostly short ones (approximately

500words). In some cases a longer writing assignment is given. The purpose is to test the candidate's ability to clearly communicate ideas and make proper reasoning about those ideas.

Written Statement

Some schools require personal statements explaining why the candidate wishes to study architecture. This may reveal their intentions, capabilities, level of interest, reasons for their choice and even misconceptions they may have.

Letters of Recommendation

Letters of recommendation from former or present teachers or persons who are acquainted with the candidate's work and personality may also be required, sometimes in conjunction with a personal statement.

Post JAMB Screening

In Nigeria, the federal government through the Minister of Education introduced the policy of Post-Jamb screening by the universities. This policy is a measure to cut down the number of admitted students into Nigeria universities especially the unqualified ones who seeks all means to get admission into higher institution. The policy is made mandatory for all tertiary institutions to undertake further screening of candidates after their Jamb results before giving admission. The screening test is in form of aptitude tests, oral interview or another examination. Some schools of architecture in Nigeria have taking advantage of this Post-JAMB screening to determine candidate that are qualified to study architecture.

Though some of the above listed criteria have their inherent weaknesses and may not all be applicable to Nigeria schools of architecture, however there are some that can be contained and considered for adoption for controlling the quality of students admitted into schools of architecture. The Table below illustrates an analysis of admission criteria adopted by over 100 schools of architecture at the end of the 20th century as researched by Goldschmidt *et al.*, (2000) and Salama et al (2002).

Table showing admission criteria as adopted by 118 schools of architecture in different regions

Region	Country	Schools Response	High School Records	Aptitude Tests	Special Exams	Interview	Portfolio	Essay	Statements	Letter of recommendation
Africa	Egypt**	22	22	5	0	0	0	1	1	0
	Nigeria**	1	1	0	0	0	0	0	0	0
	Sudan**	1	1	0	0	0	0	0	0	0
	South Africa	2	2	2	0	2	2	0	0	0
Asia	Bahrain**	1	1	0	0	0	0	0	0	0
	India*	3	2	1	3	1	0	0	0	0
	Israel*	4	4	3	4	2	1	0	0	0
	Kingdom of Saudi Arabia**	5	5	0	1	0	0	0	0	0
	Kuwait**	1	1	0	0	0	0	0	0	0
	Oman**	1	1	0	0	0	0	0	0	0
	Thailand*	2	2	2	2	2	0	0	0	0
	United Arab Emirates**	2	2	0	1	0	0	0	0	0
Europe. W.	Belgium*	1	0	1	0	0	0	0	0	0
	Denmark*	2	2	0	2	0	2	0	0	0
	Finland*	2	0	0	2	0	0	0	0	0
	Netherlands*	1	1	0	0	0	0	0	0	0
	Spain*	1	1	0	1	0	0	0	0	0
	Sweden*	1	1	1	1	0	0	0	0	0
	Switzerland*	2	2	0	0	0	1	0	0	0
	UK*	5	5	3	0	3	4	0	3	2
Europe. E.	Poland*	1	0	0	1	0	0	0	0	0
	Slovakia*	1	1	1	0	0	0	0	0	0
North America	Canada*	3	3	0	0	1	2	1	0	1
	USA**	44	41	37	2	8	22	9	4	9
Oceania	Australia*	5	5	1	0	0	0	0	0	0
	New Zealand*	1	1	0	0	0	1	0	0	0
South America	Bolivia*	1	1	0	0	1	0	0	0	0
	Costa Rica*	1	1	0	0	1	0	0	0	0
	Guatemala*	1	1	1	0	1	0	0	0	0
	Total Nos	118	110	58	20	22	35	11	8	12
	Total %	100	93.2	39.2	16.9	18.6	29.7	9.3	6.8	10.2

*Survey results based on Goldschmidt et al (2000), in an unpublished manuscript, University of Delft, Netherlands

**Survey results (Salama et al, 2002)

From the table above, it is obvious that some criteria are more dominant than others. Emphasis is placed on high school records (93.2%) by most schools of architecture in most of the countries. While about 40% of schools adopt a skill-based aptitude test, Nigeria is obviously absent. Though these numbers cannot be generalized, however, the different admission policies that emerged from the analysis reflect a sustained emphasis on the skills needed for enrolment. Meanwhile, the knowledge and criteria thinking abilities of applicants as they relate to the built environment appear to take a back emphasis on skill in drawing and form manipulation. This is an aspect of architectural pedagogy that continues to be emphasized throughout the duration of study in schools at the expenses of other pedagogical aspects and learning outcomes.

Salama (2005) notes some responsive attempts that are taking place to balance the two categories in entrance tests and exams. He cited an example in the approach adopted by Rizvi College of Architecture in Mumbai, that while the first part of the exam heavily emphasizes on the students' abilities in drawing and conceptualizing spaces, the second part of the exam measure the way in which applicants can critically understand issues that pertain to the city and its underlying social, cultural, and human elements. Another approach he quoted is that adopted by MISR international University in Cairo, where an aptitude test is developed in a manner that reflects the student's understanding of three dimensional objects while at the same time test student's background of art and architecture as well as their understanding of the environment in which they live.

21ST CENTURY ARCHITECT GRADUATE: QUALITY OR QUANTITY

It is not out place to mention that today's students want more from their lecturers and lecturers even want more from their students. Teachers want creative designers with souls in the air, but minds firmly rooted in the practical, they want them to be strategic thinkers and masters of the design and construction details and process. Students on the other hand want more from their education-especially a studio culture that frees them to explore their essence inside and outside the architecture world, more attention and more teachers student attention etc. Hence, at the minimum to be successful in the society today in their educational career, there is need for the students to graduate comfortably possessing these competencies as highlighted by Abramowitz (2003) as follows:

(i) To be an educated person one needs:
Thinking competencies, requiring knowledge of science and the liberal arts, research, ethics critical thinking, i.e. the ability to analyze, synthesize, integrate and apply and appreciate how to learn.
People competencies, requiring grounding in negotiation, persuasion/sales. Listening, diversity appreciation, collaboration, teaching and conflict management

(ii) To be a practitioner of architecture, one needs:
Design competencies, requiring grounding in history, theory, design structure, life safety, life cycle / eco-economics, aesthetics, and problem solving.
Making competencies, requiring grounding in technology, drawing, construction, codes and standards legal aspect of architecture and time management.

(iii) To be influential in society one needs:
Business competencies, requiring grounding in building/project economics, project management, accounting principles, firm management, and entrepreneurship.
Public competencies, requiring grounding in advocacy, government, community building, outreach, leadership and oral and written communication.

If these competencies are necessary for survival in the present increasing quality focussed society and the labour market, then

the future of the students and the profession calls for rethinking on controlling admission, producing competent graduates, and even accrediting architecture schools. The question then is can these be realized with the current admission policy and students' intake that has not paid attention to the qualitative aspect of education in Nigeria?

FACTORS FOR CONSIDERATION WHEN FORMULATING ADMISSION POLICY IN ARCHITECTURE

The need to evaluate the preparedness of incoming students in architecture before enrolment is essential to improving their quality at graduation. Successful career in architecture is partially dependent upon the student's readiness to engage in learning and to endure the rigour of training required by the profession. Students should be realistically and constructively assessed in a timely fashion before being registered in the department. Meanwhile, those who lack the prerequisites should be quickly identified and dropped. Furthermore, the following factors such as motivation and ability, spatial intelligence, verbal reasoning, abstract/visual reasoning, critical thinking, communication competencies (verbal and non-verbal) information competencies and mathematical/ computational competencies should be considered when formulating admission policy in architecture.

Motivation and Ability

Broadly speaking motivation is either intrinsic/expressive (doing something for its own sake) or extrinsic /instrumental (doing something for some other reason) hence, it account for the success or failure of a student (Akande, 2004).A candidate's motives may be revealed when is asked to write a short and concise written statement explaining why he/she wishes to study architecture. Ability to draw and sketch, to identify and analyze problems and then develop appropriate solution can also reveal a candidate's natural talents, gifts, endowments and creativity. These two factors should be taken into consideration when considering criteria for admission.

Critical Thinking

There are basic general skills encompassing critical thinking that students whose intentions is to study architecture must demonstrate. Such skills will require the ability to bring information together in unique ways to solve problems, integrate disparate facts, generate something aesthetically valuable, or simply create an interesting new synthesis or compound.

Communication Competencies: Verbal and Non verbal

Being in possession of English languages and knowing its shapes and possibilities are essential to life and learning in any endeavour. For a person to be admitted into architecture, verbal communication skills (writing and speaking) which are in turn based on reading and listening are necessary. It is pertinent to know that many architecture students do not posses this quality even at higher level where this is required in writing a dissertation. Communication competencies involves ability to read actively, analytically, critically, and aesthetically, understanding the basic feature of the writing process, writing clearly, organized, well focused grammatical English at sentence, paragraph and essay level. It also involves ability to express oneself verbally with clarity, organization and confidence and also ability to argue soundly and in detail.

All these and others should not be overlooked when admitting students into architecture. It is however recommended here that architectural educators should take advantage of the introduction of Post Jamb examination into university to prepare questions relating to the above factors for prospective architecture students. These will streamline the influx of incompetent students wanting to study architecture by all means in our institutions. Other areas include:

i Post JAMB examination for prospective students in architecture should consist of special architecture aptitude test with questions related to architecture and prepared by architecture department.

ii Forum of all heads of architecture

schools should be resuscitated to look into some factors militating against schools architecture in all higher institutions most especially the issues related to admission policy.

iii AARCHES executives should establish implementation committee that will constantly deliberate on how to implement some of the recommendations and suggestions made in AARCHES conference and published journals.

CONCLUSION

Admission criteria to universities at large and to architectural programmes in particular are affected by the orientation of those who have the power to determine admission policies. In yesteryears, design skills, mostly technical presentation skills were an overriding measure of adequacy (Beaux Arts tradition).Today, creativity (following the Bauhaus and Vkhutemas heritage) as well as reasoning power and high general aptitude (prevalent in higher education in general) should play a significant role in determining who will be allowed to acquire architectural education. Hence, special aptitude for architecture tests, interviews and entrance examination that will look for evidence of non-verbal, or Visio/spatial intelligence will be required to know those suitable for career in architecture and to successfully control admission into schools of architecture. Likewise, it will provide the admission committee with the means to identify those candidates who exhibit the strongest motivation and the greatest talent for architecture. However, the admission test must consist of exercises designed to call forth the candidate's visual memory and logic, and ability to order space, form, pattern and colour.

REFERENCES

Abramowitz, A.J. (2003): "Focus on the Future: Rethinking Architecture Education". Design Intelligence Knowledge Reports. Design Futures Council. USA.

Akande, O.K. (2004): "Teaching Architecture in Higher Institutions". Ph.D seminar paper presented in the Department of Architecture, Federal University of Technology, Minna, August.

Chukwuali, B.C. (2001): "A theoretical base for the education of the contemporary Nigeria architect. Journal of the Association of Architectural Educators in Nigeria, 1(1), 6-9

Chukwuali, B.C. (1990): "Some Aspects of Architectural Education and Their Implications on the Practice of the Profession". Journal of the Association of Architectural Educators in Nigeria, 1(1), 43-45

Goldschmidt, G., Sebba, R., Oren, C., and Cohen, A. (2000): "Who Should Be a Designer? Controlling Admission into School of Architecture". Unpublished Research, Delft, Netherlands: University of Delft.

Lodder, C. (1985): Russian Constructivism, New Haven, Yale University press

Oluigbo, S. (2005): "Improving the Quality of Architecture Graduates from Nigerian Universities". Journal of the Association of Architectural Educators in Nigeria, 4(1), 72-76

Orji, C.O. (1990): "Thought on architectural education and NUC minimum standard". Journal of the Association of Architectural Educators in Nigeria, 1(1), 10-14

Salama, A. (1995): "New Trends in Architectural Education: Designing the Design Studio, Raleigh, North Carolina, Tailored Test and Unlimited Potential Publishing", PhD dissertation, North Carolina University.

Salama, A. (2005): "Skill-Based/Knowledge-Based Architectural Pedagogies: An Argument for Creating Humane Environments". A paper presented at 7th Intl Conference on Humane Habitat-ICHH-05.

Salama, A., O'Reilly, W. and Noschis, K. Eds. (2002): Architectural Education Today: Cross Cultural Perspectives. Lausanne, Switzerland: Comportments.

Wingler, H.M. (1981): The Bauhaus Cambridge, MA: MIT Press