

ACADEMIC PERFORMANCE IN AN ARCHITECTURE SCHOOL: THE STUDENTS' DOMAIN CONCEPT

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ABSTRACT

Frequently, in the academia and in other enlightened circles there are discourses, treatises and debates on the falling standard of education in Nigeria, especially when comparing the colonial / immediate post colonial era on one hand with the early 1990s to the present day period on the other hand. There seems to be a general consensus that the standard has fallen and it is still falling, what is however a source of discordance are the factors that have led to this trend. This paper is a contribution to the discourse by contributing a concept that has the potential of reversing this ugly trend. The "Student Domain Concept" is an idea enunciated by this paper that relates to what the architecture student can and should do within his/her sphere of influence, control or jurisdiction with respect to enhancing good academic performance. The special nature of architectural education was underscored and compared with some other professional courses. Aspects of attitudes to life and approach to architectural studies that inhibit or enhance good performance were examined. It is hoped that the application of the provisions of this study and recommendations by the student of architecture will put him / her in good stead to not only perform well academically but also be instrumental in reversing the ugly downward trend in Architectural Education.

Keywords: Academic Performance, Architectural Education, Educational Standard, Student Domain Concept.

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Introduction

With the steady and sharp decline in the value of the Naira (during the military rule years – especially from 1985-1999) coupled with the fact that quite a substantial number of indigenous graduates had been produced by institutions of higher learning to pick up the challenge as lecturers, almost all the foreign lecturers left. Within this period and up till now (2014), the percentage budgetary allocation to the Educational sector by successive Federal and State governments took a sharp downward inverse dive in relation to establishment and enrollment of students. This is evident not only in the Departments of Architecture but also in other departments

in tertiary educational institutions. Atte (2006) remarked that public expenditure allocation rapidly declined in forty Sub Sahara African countries (including Nigeria) from 10 billion dollars in 1960 to 8.9 billion dollars in 1983 against the run of school enrolments that had increased by over 50%. On this enrollment explosion, Nnoli (2001), citing Durusaro, (1999), submitted that whereas the total enrolment in Nigerian universities in 1960 was only 1,400 by 1995 the figure had shot to 307,999 students. These and other factors have militated against the optimum performance of students and also have ripple or domino effect.

There are several other factors responsible for the downward fortune of Education in Nigeria and Suleiman (2001), gave the most salient ones as the quality and discipline of teaching staff, teaching resources and materials, methods and techniques in teaching, cooperation between educationists, educational institutions and stakeholders at home and abroad. This paper while conceding that there are other multifarious factors responsible for poor academic performance of students, is however concerned with intrinsic factors at the domain of the students - architecture student which if complied with, have the potentials of reversing the ugly trend. This is what this study refers to as the **Student Domain Concept** – that is what the architecture student can do positively using means at his disposal to enhance good academic performance.

Studies in this direction are necessary because there is a need for renewed attention on how the student can deliver optimally through using means at his disposal. Buttressing this line of thinking, Morley, 2003, submitted that one of the growth areas in higher education has been by those involved in the management and quality assurance of teaching and learning as well as research (lecturers and researchers) in higher education to take proactive steps. Obekpa (2007), explains Educational Guidance to be means and techniques of attaining the end of education through which guiding quantifiable behavioural objectives of education are realized. Additionally, Goodlad and Klien, 1970, pointed out that the failure of academic curricula stem from the fact that students and teachers were not involved in their development. This research is akin to a direct response to this call to get students and teachers involved in their development academic and curricular issues.

Statement of the Problem

Many architecture students perform poorly academically and some even get withdrawn after spending four to six years and without obtaining the bachelor's degree. A cursory observation reveals that most of the problems that lead them to this situation are those that have their roots in their first two years of studentship and are usually issues that could have been addressed by the students themselves. Additionally, there are several other problems militating against the good academic performance of students of which they can do nothing, conversely, there are others

problems which it is only the students that can do things to help themselves – at the domain of the student.

Research Questions

What are those factors that are responsible for the poor performance of academically low performing students as adduced by such students?

What is the face value of such submission?

Based on epistemic and cognate knowledge, what are the reasons for the poor academic performance?

Aim and Objectives of the Study

The aim of the study is to find out what is responsible for poor academic performance of students proffer reasons for how the ugly trend could be surmounted or mitigated.

To achieve the aim, the following objectives were considered:

1. To identify the factors for poor academic performance of students with low Cumulative
2. Grade Point Aggregate (CGPA) as adduced by such students?
3. To identify the plausibility of such given factors by those students. .
4. To identify reasons and also proffer advice on such given factors based on epistemic and cognate knowledge of the working of the system.

Significance of the Study

1. This study is significant and desirable as its provisions would be of use to the society, prospective, old and fresh students in the following ways:
2. If students get to know and strive to avoid the pitfalls responsible for poor academic performance, a new crop of students that would be sound academically and technically would emerge.
3. It is only well-trained and disciplined Architecture students that could translate into good and disciplined architects in future which would equally translate into a better and safer built environment.
4. Most of the pitfalls and shortcomings that lead to poor academic performance of students in the department of architecture are due largely to ignorance and dearth of information on how to go about the course which this study sets out to provide.

5. If students therefore get to know the factors that could enhance good performance, they would be better placed to take definite, effective or proactive action to achieve it. Secondly, it is only when the student is intrinsically prepared to help himself that other factors affecting academic performance could assist him in achieving that desired good result.

Materials and Methods

The materials and method adopted for this research was the use of statistics obtained from two surveys of two representative samples of students (in two successive years) at the Departments of Architecture, University of Jos, Jos. The students were selected based on their inglorious performance after three years – at the end of 300 level which was obtained from the examination office with their GPA and CGPA as indicator. Group A was undertaken in 2011 while Group B was undertaken in 2012. The strategy used was to take them into confidence and also reward all of them at the end of the survey with offer of advice and general guidance on their career. In the first year of the survey, 22 students were invited to participate in the survey but 20 responded. In the following year, and in order to achieve parity, 20 students with similar academic fortunes (or misfortunes) were surveyed after their 300 level also, using the parameters or variables generated by the first group.

The type of survey used is longitudinal survey design using Trend Studies. According to Uji (2009), citing Olotuah, (2005), trend studies is where different samples are taken from the general population and studied at different points in time - in this case, the year 2011 and 2012 respectively. The focus was to elicit reasons for their abysmally low academic performance from their own views. The study then either reasoned along with them where the reasons were cogent or debunked them based on facts and epistemic knowledge.

Results and Discussion

Several factors were adduced for poor academic performance by the students but the salient ones are:

- a. Novelty nature of the architecture course/some course units
- b. Diversity of mounted courses
- c. Problem with pre-requisite courses
- d. Problem with core departmental courses
- e. Extra departmental compulsory courses
- f. Inadequate or absence of information at matriculation and/or orientation exercises
- g. Poor performance in architectural studio.

In the survey, tables 2 and 3 show the extent to which the identified and itemized factors affected the students while table 4 shows the percentage of the surveyed

students that were affected by those factors. In the two groups of students were highly affected by the itemized factors between 70% and 90%. The high percentage attained by the respondents stem from the fact that they were all selected based on their poor academic performance.

Novel Nature of the Architecture Course / Some Course Units

80% and 70% respectively referred to the novel nature of Architecture Courses and course Units (subjects) as the cause of their poor academic performance. Unlike most other courses, not much is known of the course of Architecture to students in the primary and secondary schools. This leaves the required skills, interest or knowledge about the course hidden until the tertiary education level when / if he is admitted to study architecture. That a student was good in subjects, say, Geometry, Technical drawing, or Mathematics at the secondary school level is not a tell - tale sign that he would perform well in the entire gamut of the courses units in the Architecture course. Almost all the course units are therefore novel; it is therefore the sharpening and quick adaptation of skills, interests, intelligence and knowledge in these novel course units and their application by the student that will translate into good or poor academic performance in the course of Architecture.

Diversity of the Mounted Courses

70% and 80% respectively were also of the opinion that their misfortunes were as a result of the diversity of the course units. As a background to this claim, it is necessary to explain that in the training of the architecture student it is required that diverse course units which are seemingly unrelated, and usually from different knowledge blocks are taken. A look at the Architecture curriculum reveals that course units have their roots in several other bodies of knowledge, departments or faculties leading to an assortment of courses. It is important to point out that it this potpourri of knowledge that is responsible for the versatility and good working knowledge in several fields by the architect. It is this diversity that the students claim was responsible for poor academic performance. The students looked at only one side of the coin. For instance the students could not readily appreciate that *structures on one hand* and *components and methods* on the other hand complement one another or that knowledge in *components and methods* would be of great advantage in *architectural studio* and *structures* and vice versa.

Table 1: Some Course Units in Architecture Course Showing Mother Knowledge Blocks

Mother Knowledge Block	Course Units in Architecture
Fine and Applied Arts	Freehand Drawing, Sculpture & Model Making, Visual Communication
Social Sciences	Sociology, Economics, etc.
Engineering	Structural Mechanics, Surveying, Building Materials
Natural Sciences	Computer Science, Mathematics, Physics.
Law	Building Law, Law of Contract.
Building	Building Maintenance/Management. Building Technology, Building Construction (Building Components & Methods)
Geography / Urban and Regional Planning	Urban Planning Theory, Planning the Built Environment, Introduction to Rural and Town Planning, Environmental Planning and Management, Environmental Impact, Analysis, Principles of Urban Design, Urban Design.
Quantity Surveying	Quantities and Cost Planning, Building, Introduction to Cost Control and Appreciation
Estate Management	Real Estate and Building Facilities Management
Land Surveying	Surveying for Architects

Source: Research Effort

Failure in Prerequisite Course Units

80% and 85% claimed that pre requisite course units were their weak points. For some good and obvious reasons courses are made pre requisite to others at a higher level. Structures and architectural forms I, for instance, is a pre requisite to Structures and architectural forms II which is at a higher level. In tables A and B, 80% and 85 % of the students failed one or more Pre - Requisite Course Units which means that they would not be permitted to register for the higher versions of those courses until they passed the lower ones which they had failed. Depending on the semesters they come up, it could mean an outright extra year and definitely a lowering of both GPA and CGPA. A single course thus carried over, may compel the student to stay behind an extra year or forfeit the taking of other courses to which the course in question is a pre requisite. This pre requisite requirement could actually constitute a problem to academically weak students. Students should therefore strive and make it a point of duty to pass the pre requisite courses as and when due.

Problem with Some Departmental Courses

80% and 90% had problems with some departmental courses. For some reasons, many students have problems with some courses mounted in the department and taken by architecture lecturers. Reasons given for their poor performance range from the fact that they never knew they would fail the courses to the subject being too

difficult. This is once again a good example of where the student has no excuse to fail since the courses mounted are for their level, and taken by the lecturers.

Difficulty with Compulsory Extra Departmental Courses Units:

Of groups A and B, 80% and 90% respectively were yet to pass their Compulsory Extra Departmental Course Units which they should have passed between 100 level and 200 levels. The compulsory extra departmental courses are those mounted by other departments or faculties.

Tables 2: Showing Identified Factors that Affected the 20 Students (Group A - 300 level, 2011)

Factors Students	A	B	C	D	E	F	G
1	*	*		*	*	*	*
2	*	*	*	*	*		*
3	*	*		*	*	*	*
4	*	*		*	*		*
5	*	*	*		*	*	*
6	*	*	*	*			*
7		*	*	*	*	*	*
8	*	*	*	*	*	*	
9	*		*	*	*	*	*
10	*	*	*	*	*		*
11			*		*	*	*
12	*		*	*		*	*
13	*	*		*	*	*	*
14		*	*	*	*		*
15	*		*	*		*	*
16		*	*	*	*	*	
17	*	*	*		*	*	*
18	*		*	*		*	*
19	*		*	*	*	*	*
20	*	*	*		*		*
Percentage	80	70	80	80	80	70	90

An asterisk (*) connotes that the itemized factor affects the concerned student

Source: Researchers' Field Survey

Like Introduction to Computer Sciences, Computer Programming, Physics (Theory and Practical) Mathematics (Calculus and Algebra) and General Studies; this portends great risk as the failure or absence in courses they should have passed keep lowering their GPA and CGPA.

Students should therefore endeavour to strike a balance between the time allotted to their Compulsory Extra Departmental Course Units and Departmental Courses and also seek to pass them as and when due.

Insufficient or Absence of Information at Matriculation and Orientation Exercises

Of the two sets of students 70% of each group had problems that were related to dearth of information thereby contravening Basic Departmental or University Rule and Regulation. A student for instance claimed that he did not know that he had to register a minimum of 36 credit units while another one claimed that he did not know that he needed to notify the department / university of his ill health through authentication of sick report from the University Health Centre. Needless to say, all these had negative consequences on their academic performance by lowering their GPA and CGPA or slamming them with an extra year.

When students come into the Department of Architecture, most have only faint idea of what to expect. Matriculation in the university system is an induction ceremony for freshmen (and women). where the Vice Chancellor, Deputy Vice Chancellors, Registrar, Bursar, Deans, Directors, University Librarian and other Principal Officers address and offer advice on how to behave and the modus operandi of the institution such that they would not get into problems. It is however paradoxical that whenever this all - important exercise was going on majority of the students miss it by being busy taking photographs and celebrating their 'freshmanship' outside the very venue they were supposed to be receiving these information. Needless to say, they would miss the important information all the resource persons have for them. Similar exercises known as Orientation for Fresh men are also supposed to take place in the respective departments. Attendance at departmental orientation for freshmen (and women) is usually scanty, thereby missing out on important career – saving pieces of advice and information on modus operandi of the department by the Head of Department, Examinations Officer, Level Coordinators, Student Adviser and a host of other Staff members. If a student misses important information usually given out during these exercises, chances are that he would continue to.

Tables 3: Showing Identified Factors that Affected the 20 Students (Group B - 300 Level, 2012)

Factors Students	A	B	C	D	E	F	G
1	*	*	*		*	*	
2		*	*	*	*		*
3	*		*	*	*	*	*
4	*	*		*	*		*
5	*	*	*	*	*	*	*
6		*	*	*	*		*
7	*	*	*	*	*	*	*
8	*	*	*	*	*	*	*
9	*		*	*	*	*	
10		*	*	*	*	*	*
11		*	*	*	*		*
12	*	*		*	*	*	*
13	*	*	*	*	*	*	*
14			*	*	*		*
15	*	*	*	*	*	*	*
16	*	*	*		*	*	
17	*	*	*	*	*	*	*
18		*	*	*	*		*
19	*	*		*	*	*	*
Percentage	70	80	85	90	90	70	85

An asterisk denotes that the itemized factor affects the concerned student

Source: Researchers' Field Survey

Table 4: Percentage of Surveyed Low - Performance Students

Factors Students	A	B	C	D	E	F	G
Group 1 %age	80	70	80	80	80	70	90
Group 2 %age	70	80	85	90	90	70	85
Total	150	150	165	170	170	140	175
Average	75	75	82.5	85	85	70	87.5

Source: Summary of Tables 1 and 2 Above.

Grope in ignorance, oblivious of important Departmental or University Rules and Regulation until he is enmeshed in their infraction to the detriment of his academic performance.

Poor Performance in Architectural Studio

In table A, 90% of the students had problems with architectural studio while in table B, it was 85%. The Architectural Studio is the hub around which the entire studies and practice of architecture both as architecture student and practicing architects revolve. In the study of Architecture, the Architectural Studio Course Unit is appropriately heavily weighted. While the average credit load of all the other courses units is either two or three, architectural studio carries the weight of 10 credit units. Secondly studio is a prerequisite course to Structures, SIWES, Components and Methods and Studio at the higher level and vice versa. What this means is that a student of Architecture who desires to pass well cannot afford to fail studio or its prerequisites in any of the levels. Many students however do not even know this fact and as such go ahead to accord it low esteem leading to poor academic performance in the Architecture course to their own chagrin.

Conclusions and Recommendations

This research and its findings bring to lime light existing phenomenal and self inflicted problems plaguing some architecture students. The interesting thing however is that all the factors being considered are those that the student can act and make a visible difference hence the concept of student domain. All students do not have the same perception, orientation and vision of what architecture (either the course or the profession) entails – especially in the first two years. It is therefore necessary that the findings of this nature be made available to prospective and new students so that they may know the pitfalls to avoid and the strongholds to strive for and uphold. University Matriculation and Departmental Orientation should be made mandatory. Effort should be made by the department to allay the fears and apprehensions of prospective and new students to the effect that irrespective of all other factors that militate against good academic performance, there are things he could still do within his domain to enhance his own performance academically.

Students should endeavour to accord Studio its rightful place in the schedule of their activities. Proportionately, more time should be devoted to studio assignments so that the studies, analysis and design will come out well. Additionally, the student should have Good Drafting Tools from the onset. If and when briefs are given, some students are not quite certain on what to do or the information they should go after. If they are in doubt, they could ask any of the studio supervisors to throw more light on the brief or ask specific exercises where they have doubts. They could also meet any architecture lecturer for clarifications.

Delay in starting studio assignment on time is the bane of many architecture students. Some students do not meet with their supervisors on their progress and by the time the latter gets to see them either they have proceeded in the wrong direction or have not done anything tangible in any direction at all.

Studio Design Plagiarism

Some students are in the habit of stealing, copying of designs of their mates or past students. A student could derive insight or inspiration from the work of other students' or even those of other architects but to out rightly copy and pass it off other people's works as theirs tantamount to outright plagiarism.

Error of Concentrating on Drafting Only

Good manual drafting alone cannot not make a good Architecture student. If an Architecture student does good drafting of a poorly analyzed and poorly resolved problem, bad work ensues. He may be commended for his good drafting skills and prowess but he will be poorly rated in performance in other sectors of the studio work. It is the all - round good and balanced performance that the supervisors are on the watch out for. A student therefore has to do the following:

- Strive to have a good understanding of the problems and state them.
- Analyze these problems.
- Think out several proposals to tackle these problems
- Select the best options, giving reasons for their choice.
- Undertake a proper synthesis of the selected proposal or options
- Bring same out with good graphics and delineation.

Additionally a studio design should integrate the ideas and concepts learnt from other courses taught to the student in the department namely; structures, building components and methods, services Landscape design, History of Architecture and a lot of other courses. This is because it is the aggregation of all the knowledge that gives the Architect his seeming all round understanding.

Design and Modeling Materials

In some schools of Architecture in the years past, there used to be Departmental Materials Store. This should be reintroduced in all schools of Architecture because they bring materials within the reach of students. There is no doubt that architecture course is costly when compared with other courses. Apart from buying books, the student has to contend procurement of studio materials. There is therefore the need for universities and departments to look inwards and fund a material store that may be subsidized by 50% or more. The advantage of this is that materials now come within the easy reach of students through requisition as and when required. Students have complained that they could not do construct or models because of lack of materials. Some of them do not even have money to feed at times when they are required to produce models.

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