

STUDENTS' PERCEPTION ON THE QUALITY OF TEACHING OF ARCHITECTURE IN SOUTH-EAST NIGERIA

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The past decade has witnessed a decline in the quality of graduates from architecture schools in Nigeria in terms of knowledge and skills in architectural design and project execution on site. This notion supports the need to evaluate the distinctiveness of design education in these schools. This paper is a study carried out with the aim of determining students' perception on the quality of teaching of integrated architectural design considering the following assessment factors; learning experience, assessment of learning, curriculum content and lecturer quality of architecture schools in south-east Nigeria. The objectives include; to ascertain the specific assessment factors that students consider most important in the quality rating of lecture delivery of integrated architectural design and to determine if the overall teaching quality rating of students is dependent on the lecturer's gender. A set of questionnaires (totalling 120 copies) were evenly distributed to sort for information in the schools studied. The Cronbach's Alpha, used to determine the reliability of the sample size, revealed that the sample size is reliable and adequate. The Mean and Variance statistic were used in the test while Chi-square test of independence and ANOVA were carried out on objective two. The results show that the students perceive the relevance of their learning experience (exhibited in the lecturer's dedication, confidence, punctuality and knowledge of the course content) highly with a mean score of 4.08 in developing skills, knowledge and experience as the most important factor in their learning of integrated architectural design, closely followed by the curriculum content with a mean score of 4.04. The values obtained shows that the overall teaching quality rating by students is independent on the lecturer's gender. The study recommends that students' evaluation of teaching quality should be considered for the annual performance appraisal of lecturers' promotion so as to improve the quality of teaching in architecture schools. It further suggests that there is the need to review the curriculum and encourage continuous professional development (CPD) in order to make necessary changes to ensure quality delivery of the integrated design module.

Keywords: architecture, assessment factors, gender, quality of teaching, students' perception

INTRODUCTION

Scholars Asiyai (2016), Ikoli(2018), Masaruf and Mohammed(2016), Olotuah and Adesiji (2005), Onyegiri, Okofu and Chinedu (2014), have reiterated that schools of

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architecture exist to equip students with the education required to make them contribute to the promotion of an orderly development of the human environment. Architectural education leads to the production of professionals who are sensitive to human needs and aspirations and who have the requisite knowledge, intellectual and aesthetic skills to evolve expressive design solutions of problems of the built environment and the society at large. Architecture students acquire these professional skills required for effective shaping, re-ordering and articulation of the built environment through the process of teaching and learning in architecture schools.

The study of architecture in Nigeria is categorized into seven instruction modules namely; architectural design, arts and drawing, historical and theoretical studies, building systems technology, humanities and social studies, environmental control system and physical sciences. Greater emphasis is however placed on the architectural design module which is considered as the nucleus of the entire programme in which the students are equipped with the knowledge and skills required to solve environmental problems. More than 40% of the required credits for the degrees are earned from the architectural design module (Olotuah, 2000).

Teaching is defined as the ability to increase students' knowledge and skills in reading, critical thinking, reasoning and personality traits. It has been further asserted as the most important school based factor that affects learning (Bietenbeck, 2017). Research by Fapohunda (2015) indicates that the primary duty of the university academic revolves around teaching, knowledge impartation and creation of human resources for national development. Learning in the words of Banks and Banks (1995), is a relatively permanent change in the behaviour or attitude of a person over time. It is the expansion of what one may already know or perceive. It is the accumulation of knowledge but more importantly the application of this knowledge by the learner. It is therefore evident that the student is a core participant, or the key user of the knowledge acquired in this learning process. Hence his/her input in appraising the quality of learning received is of utmost importance.

Dauda, Jambo and Muhammad (2016) submitted that more often than not, students' perception and opinions on the quality of learning in architecture schools receive little mention in literature and academic discourse. This assertion is further corroborated by Gallistel (2008), who submitted that there are not many research works concerning students' opinions and perceptions on education. It is often assumed that the students are not able to express their needs in terms of their quality of learning in an academic environment. In the words of Agbonye, Igboekwe and Ugo-Okoro (2015), performance appraisal is a systematic process through which employees are given feedback on their performance, reward and promotion. They further stated that the criteria for academic staff appraisal in Nigerian universities fall under three broad categories of teaching research and service. Teaching which is classified by what and how it is done is the primary assignment of the academic.

It is however observed that the performance appraisal of lecturers in Nigerian tertiary institution give low priority to teaching as a criterion for promotion of academics rather emphasis is placed on research and publications as depicted by

Ofoegbu(2001) and Oranu(1983).This is spelt out in the criteria weighting of their appraisal process as presented by Okafor (2005): quality of teaching=15%,length/tenure=5%,workload=10%,currentresearch=30%,qualityofpublication=30%, contribution to university/country=5% and community service=5%. Nakpodia (2011) further suggested that there are methodological weaknesses in the current ways of evaluating the performance and progress of lecturers and teachers. This evaluation is currently carried out by the means of the Annual Performance Evaluation Report (APER) part of which is completed by the evaluated personnel and the other part by his head of department or unit head.

This evaluation is carried out for the sole purpose of promotion. However, this evaluation report does not put into consideration the physical evaluation of each staff progress performance during the period under consideration. It does not provide information on the evidence of effective teaching, good character, loyalty to the institution and personal integrity. This notion supports the argument of Bartlett (2000) and Bennett (1999) that assessment of competency of academics based on publication records is not enough as academic quality begins with excellence in teaching. Fapohunda (2015) explains that this undue emphasis and rating of one aspect of the academic's work(publishing) above the other aspects of teaching and community service is likely to result in diminished commitment and poor performance in the long run.

Research by Adomi(2007),Baird and Jones(2017) which was supported by findings by Ansfield, Cappuccini and William(2007),Hill, Lomas and MacGregor (2003), posited that students in tertiary institutions are the primary consumers of the quality of education delivered in these schools hence their views on all aspects of their learning experiences are essential to the effective monitoring of quality in the universities. Studies by Curtis (2002), Emery, Kramer and Tian (2003) show that students in the USA, Europe and other developed countries of the world participate in teaching evaluation as part of faculty members performance evaluation criteria. In Nigeria, performance evaluation with respect to the teaching quality of academics by students does not form part of the criteria for their assessment. Agbonye, Igboekwe and Ugo-Okoro (2015) suggested a remodelling of the current performance appraisal structure such that students' input is incorporated in the assessment criteria. This approach as suggested by Tomlinson (2014) will see to the rise in standards and quality of higher education.

Aim and objectives of the study

The aim of this study is to determine students' perception on the quality of teaching of integrated architectural design considering the following assessment factors; learning experience, assessment of learning, curriculum content and lecturer quality. The objectives include; to ascertain the specific assessment factors that students consider most important in the quality rating of lecture delivery of integrated architectural design and to determine if the overall teaching quality rating of students is dependent on the lecturer's gender.

LITERATURE REVIEW

In the words of Aniya and Lawal (2006), the teaching of design in schools of architecture presents special needs and challenges as design in itself is an

extremely complex process which requires mental exertion, skills and innovations. Coe, Aloisi, Higgins and Major (2014) observed that good teachers have deep knowledge of the subjects they teach, and when teachers' knowledge falls below a certain level it is a significant impediment to students' learning. This implies that the quality of teaching will inextricably reflect in the quality of learning that takes place. Onwuegbu (1979) succinctly stated that qualitative teaching is one in which the teacher has adequate knowledge of the subject matter, relates cordially with the learner and has a delivery method that emanates from research, experimentation, discussions, individual and group activities so as to get the knowledge intended to the learner.

Several researches (Clark (1995), Marsh and Roche (1993), Ralph (2003) and Ryan and Harrison (1995) have shown that the evaluation of teaching quality in universities by students based on their perception of the strength and weaknesses of the delivery of various teaching components should form part of the learning management system to ensure quality of knowledge delivery in tertiary institutions. Three basic approaches have been identified in the teaching of architecture designs namely: theory and project approach method, studio module method and the integrated module (Nkwogu, 2001). This paper deals with students' perception of the quality of teaching of integrated architectural design in architecture schools of South-East Nigeria.

The integrated architectural design module has been found to be procedural, contextual and at congruence with the environment having potentials for developing a research based architectural practice culture that is sustainable (Ukanwa, 2004). It is broken down into various pedagogical stages namely: community study, reconnaissance (study of base map and survey of selected area of the chosen community) documentation and graphical presentation, analysis, synthesis and identification of needed architectural projects within the area of study and finally the design of the public facility/non domestic project and housing project which are products of the established needs that arose from the analysis and synthesis.

Research (Berk, 2005; Harvey, 2003 and Kwan, 1999) has shown that obtaining feedback from students is an essential requirement of evaluating the quality of teaching effectiveness and educational activity in any institution of learning. This will ensure professionalism and quality assurance in university evaluation procedures. Crosier, Purser and Schmidt (2007) further stated that improvement of the learning process, promotion and recognition of teachers will require inputs by students on their quality of learning as supported by Dalton, Denson and Loveday (2010). In their discourse, Collins, Filer, Moore, Onwuegbuzie, Wiedmaier and Witcher (2007), indicated that evaluation of the academic quality delivered by the teaching staff, is an important element in the learning process.

Location

This paper evaluates students' perception of the quality of teaching of architecture in schools of south-east Nigeria. With specific focus on the integrated architectural design module of the Architecture Departments of Abia and Imo States Universities.



Figure 1: Map showing location of Southeast Nigeria
Source: <https://www.researchgate.net/figure/Map-of-Southeastern-Nigeria> (uploaded by Ugboma (2017)



Figure 2: map of southeast Nigeria
source: <https://www.researchgate.net/figure/Map-Southeastern-Nigeria> (uploaded by Okonkwo (2014)

South-eastern Nigeria is located between latitude $04^{\circ}15'1$ and $07^{\circ}N$ and longitude $05^{\circ}50'1$ and $09^{\circ}30'1E$ (Chukwu and Mbanaso,1999).It is bounded in the north by Kogi and Benue states of North-Central geo-political zone and on the east, west and south by cross River, Akwalbom, Rivers, Bayelsa, Delta and Edo States of South-South geo-political zone. It covers the present Abia, Anambra, Ebonyi, Enugu and Imo States.

Research questions

The literature review identified some existing gap in knowledge regarding students' perception on the quality of teaching of architecture in South-East Nigeria. This paper seeks to answer the following questions:

- I. Which specific factor do students consider most important in the quality rating of teaching integrated architectural design?
- II. Is the overall teaching quality rating of students dependent on the lecturer's gender?

Research method

The study adopted case study research methodology in which a sample of 120 respondents comprising of students in year three, four and five of their university education in Abia State University (ABSU) and Imo State University (IMSU) was taken for investigation via purposive sampling technique. The rationale for this choice is predicated by the fact that only these two universities in the South-East offer the integrated architectural design module. Of the 120 structured questionnaires sent out only 106 were completed and returned (response rate of 88.3%) while the secondary data constitute information obtained through extant literature. The Cronbach's Alpha, used to determine the reliability or internal consistency of the data set, revealed that the sample size is reliable and adequate. The Mean and Variance statistic were used in the test while Chi-square test of independence and ANOVA were carried out on objective two.

The Cronbach's alpha is computed by correlating the score for each scale item with the total score for each observation (usually individual survey respondents or test

takers), and then comparing that to the variance for all individual item scores. The resulting coefficient of reliability ranges from 0 to 1 in providing this overall assessment of a measure's reliability. A Cronbach alpha less than 0.5 is assumed to be unreliable while a Cronbach alpha value of 0.5 and above is assumed to be reliable. However, the closer the Cronbach alpha value to 1, the more reliable the data set is said to be. The Cronbach alpha value obtained from the analysis was 0.6. The data is then concluded to be reliable as well as valid.

Table 1: Reliability Statistics using Cronbach's alpha (SPSS 23)

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	No of Items
0.6	0.6	4

RESULTS

Table 2: Frequency distribution of respondents

Data Collected	No of questionnaires administered	percentage	No of questionnaires collected	percentage
School				
Abia State University	60	50%	47	39.1%
Imo State University	60	50%	59	49.2%
Total	120	100.0%	106	88.3%
Academic level				
Year 3	40	33.33%	37	30.8%
Year 4	40	33.33%	30	25.0%
Year 5	40	33.33%	39	32.5%
Total	120	100.0%	106	88.3%
Age				
17-21			54	45.0%
22-25			32	26.6%
26-35			20	16.7%
Total	120	100%	106	88.3%
Gender				
Male			73	60.8%
Female			33	27.5%
Total	120	100%	106	88.3%

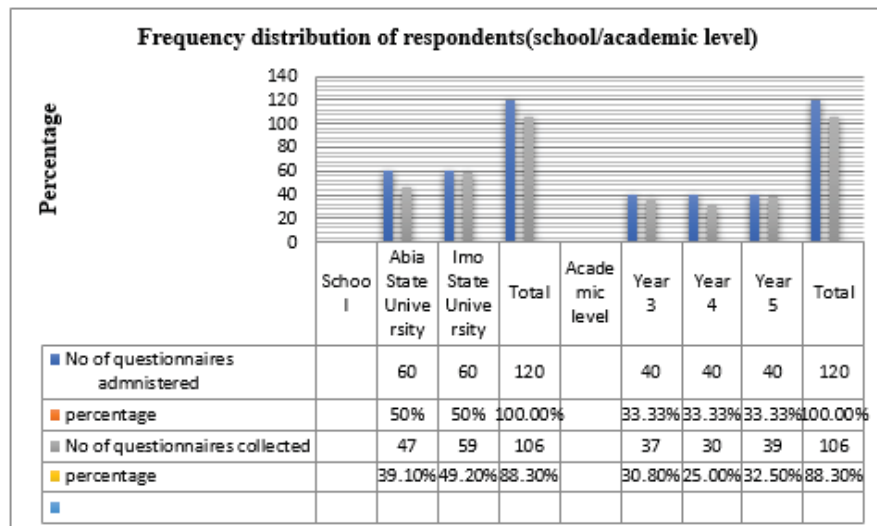


Fig.3: Frequency Distribution of respondents

Results from table 2 and figures 3 and 4 imply that the questionnaires were evenly distributed (60) to each school studied, 20 per class cumulatively 40(33.33%) for each class across both schools. More questionnaires 59(49.20%) were returned from Imo state University as against the 47(39.1%) of Abia state university. More questionnaires were picked up from the 5th year class (39(32.5%) and the least was from the 4th year class 30(25%).The result further showed that more students fall within the age range of 17-21 years which is 54(45%) while the least percentage is in the 26-35 years range of 20(16.7%) students. There are more male respondents (73=60.8%) than females (33=27.5%).

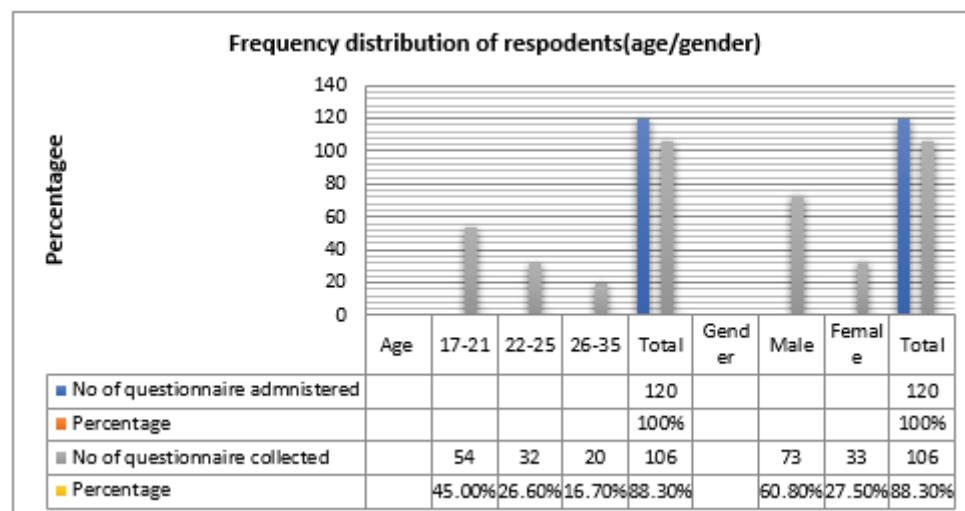


Fig.4: Frequency Distribution of respondents

RESEARCH QUESTION 1: Which specific factor do students consider most important in the quality rating of teaching integrated architectural design?

Data was collected on Four factors(Using a five point Likert scale; Strongly Disagree(SD),Disagree(D),Neutral(N),Agree (A) and Strongly Agree (SA).these factors are outlined as follows: 1.Learning experience; the course content is presented in an effective and engaging way, variety of methods was employed in the course content delivery. 2.Assessment of learning; the assessment method is

clear, transparent and valid. 3. Curriculum; the curriculum develops skills, knowledge and experience relevant to the programme. 4. Lecturer Quality; the lecturer is professional, punctual, dedicated and confident in lecture delivery. Adopted from Marsh and Hocevar (1991).

Table 3: Data on rating of teaching quality of integrated architecture design

S/N	Teaching quality rating	Strongly Disagree(d)	Disagree(d)	Neutral (n)	Agree (a)	Strongly agree (sa)	Total
1	Learning experience	5	6	8	68	19	106
	%	4.7	5.7	7.6	64.2	17.9	100
2	Assessment of learning	5	9	17	49	26	106
	%	4.7	8.5	16.0	46.2	24.5	100
3	Curriculum content	0	10	11	46	39	106
	%	0	9.4	10.4	43.4	36.8	100
4	Lecturer quality	0	7	21	37	41	106
	%	0	6.6	19.8	34.9	38.6	100

Data (as seen in table 3) on rating of teaching quality of integrated architecture design was collected and analyzed using the mean and standard deviation statistic. Data from table 3, figures 5,6,7 and 8 show that students considered their learning experience of the integrated design course as the most important factor in the teaching quality (82.1%) followed by the quality of the curriculum content (80.2%). Assessment of their learning was the least rated (70.7%). This submission agrees with the result of the analysis on teaching quality rating presented in Table 5. The learning experience has a mean of 4.08 followed by the curriculum content of mean 4.04.

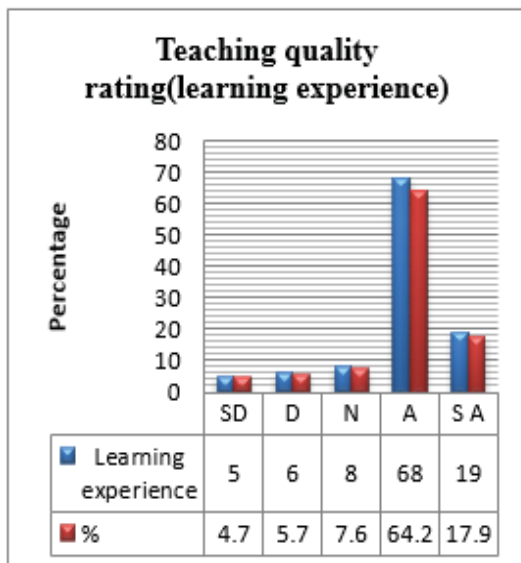


Fig 5: Teaching quality (learning experience)

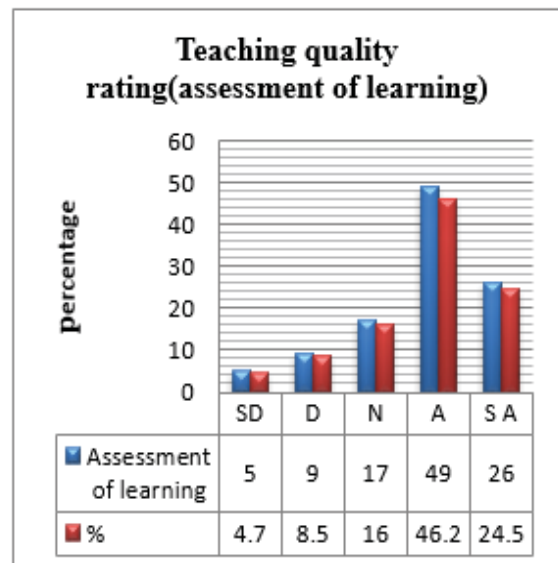


Fig 6: Teaching quality (Assessment of learning)

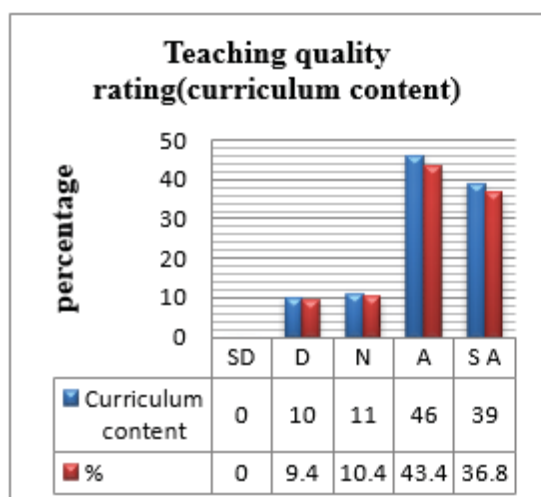


Fig 7: Teaching quality (Curriculum content)

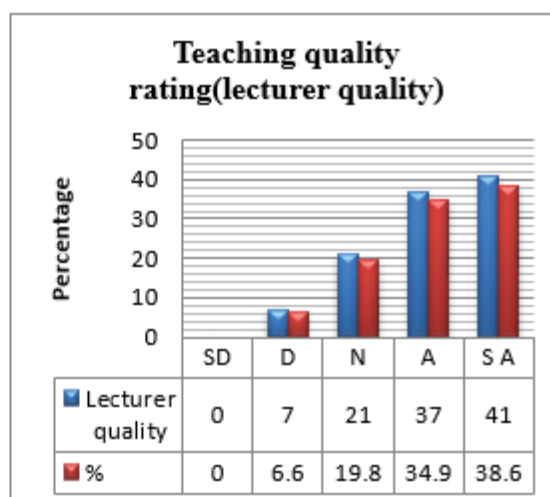


Fig 8: Teaching quality (lecturer quality)

RESEARCH QUESTION 2: Is the overall teaching quality rating of students dependent on the lecturer's gender?

Data was collected using the 5-point Likert scale SD=Strongly disagree, D=Disagree, N=Neutral, A=Agree and SA=Strongly Agree.

Table 4: Data on dependence of teaching quality on lecturer's gender

S/N	Gender	SD	D	N	A	SA	Total
1	Male	43	14	0	16	0	73
	%	40.56	13.21	0	15.09	0	68.86
2	Female	20	0	3	9	1	33
	%	18.87	0	2.83	8.49	0.94	31.14

Table 4 shows that 53.77% of the male respondents (40.56%; strongly disagree, 13.21%; disagree) and 18.87% of the female respondents disagree with the notion that gender is connected to the lecturer's teaching quality of integrated architectural design course. This finding is further confirmed by the chi-square test presented on table 8.

ANALYSIS AND DISCUSSION OF RESULTS

Table 5: Analysis on teaching quality rating

Item Statistics	Mean	Std. Deviation	N
Learning experience	4.08	.923	106
Assessment of learning	3.77	1.063	106
Curriculum	4.04	.975	106
Lecturer's quality	3.90	.816	106

Table 6: Scale Statistics

Mean	Variance	Std. Deviation	N of Items
15.78	6.152	2.480	4

Table 7: ANOVA with Cochran's Test

		Sum of Squares	df	Mean Square	Cochran's Q	Sig
Between People		161.502	105	1.538		
Within People	Between Items	6.083	3	2.028	8.703	0.034
	Residual	216.167	315	.686		
	Total	222.250	318	.699		
Total		383.752	423	.907		
Grand Mean = 3.95						

A significance value of 0.034 (< 0.05 level of significance) in table 7 revealed that the test carried out is significant and the mean of rating teaching quality is significantly different.

Table 8: Chi square test

	Value	Df	Asymp.sig. (2-sided)	Exact Sig.(2-sided)	Exact sig. (1-sided)
Pearson chi-square	1.964 ^a	1	.161		
Continuity correction ^b	.873	1	.350		
Likelihood Ratic	3.442	1	.064		
Fisher's Exact Test				.351	.181
Linear-by-linear association	1.945	1	.163		
N of Valid Cases ^b	106	1			

Table 8 shows results obtained from the analysis of research question two (table 4). The values obtained in table 8 shows that overall teaching quality rating by students is independent on the lecturer's gender.

CONCLUSION AND RECOMMENDATIONS

Teacher quality by research is said to be the ability to increase students' knowledge and skills which ultimately brings about human capital development in the society. Hence the rating of lecture quality by the direct recipients (the students) is beneficial in improvement of the quality assurance of pedagogy of architectural design education as well as teacher performance. The paper found out two key areas of importance in enshrining quality into architectural design education; the curriculum and the teacher quality. It hence concludes on the need to review the curriculum in order to make necessary changes to ensure quality delivery of the integrated design module.

It further submits that there is need to encourage continuous professional development (CPD) of architectural educators to ensure quality in their

dissemination of knowledge. Finally, the paper submits that students' evaluation of teaching quality should form part of the consideration for the annual performance appraisal for lecturers' promotion as a way to improve the quality of teaching in architecture schools.

This study recommends a comparative research on students' perception of the quality of other architectural design modules in order to reach a logical conclusion and develop a model for assessing quality delivery of architectural education.

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