AN APPRAISAL OF JURY SYSTEM AS AN ASSESSMENTINSTRUMENT FOR STUDENTS' PORTFOLIO EXAMINATION IN THE DEPARTMENT OF ARCHITECTURE, UNIVERSITY OF JOS

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ABSTRACT
The jury system of architectural evaluation is well documented method of student assessment since the early 20th century. With the advent of architectural education in Nigeria in the 1950s, the jury method was introduced by the pioneer expatriate lecturers. Although this method of evaluation is the primary assessment instrument in Nigerian Universities, it is not without its problems. This study critically examines the jury systems through a rigorous review of literature and an empirical study of 300 and 400 level students and their lecturers in the Department of Architecture, University of Jos, contributing to knowledge by filling the gap in information about the practices in Nigeria, The study also reveals students have largely negative perception to this system in the Nigerian context, It concludes with recommendations geared towards improving the jury system and making it more acceptable to Nigerian students of architecture.

Keywords: Assessment Instruments, Architectural Education, Design Studio, Jury System

INTRODUCTION
Architectural education in its current form is a relatively recent phenomenon. It is commonly accepted for architectsto receive formal instruction and periods of academic study constructed in an educational institution. The history of architectural education shows a progressive move from the workplace into the university or college studio (Ola-Adisa, Enwerekowe & Umar, 2012). Physically, the studio is a place where students gather and work under the supervision of their lecturers. The studio is often assumed to replicate architecture firms in the academic domain. However, one of the perennial problems here is that so much of the real professional world is very difficult to replicate in schools of architecture. In particular, there is usually an absence of clients with real problems, doubts, budgets, and time constraints (Lawson, 2006). Pressman (1997) captured some of these value differences; architects in practice, for instance often accomplish their best design efforts through contributions from their clients, users, and society. Students' however owe their allegiance more to their lecturers or grades. Students also have the luxury to respond purely to theories, and as to what they and/or their lectureres deem as good.Thestudentsdesigns'can be social, ethical, or aesthetic, and can avoid some of the inherent complexities of practice that must resolve a variety of needs, hopes and dreams, as well as contradictions.In practice, design creativity is usually achieved through teamwork, but this is not so with students, except in group works. Students are often torn between reality and theory.The students must decide whether their

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studio projects should respond to the real world, or purely to academic, hypothetical theories. There is a dichotomy that may not have been clarified by their lecturers. Within this mix, it is imperative to identify what potential studio jurors be looking for in students' work and at what level the work should be evaluated (Ilozor, 2006). It is often difficult, therefore, for architecture students to develop a process that enables them to relate appropriately to the other stakeholders in the design. Rather it is easier for them to develop very personally self-reflective processes aimed chiefly at satisfying themselves and possibly their tutors. Thus, the educational studio can quickly become a place of fantasy removed from the needs of the real world in which the students will work when they graduate. Not only does this tend to distort the skill balance in the process, but also the sets of values that the students' acquire. Architecture education, like architecture in general, will probably always be controversial. Traditions have grown up which show structural variations not only between countries but also between the various design fields (Lawson, 2006; Uji, 1994 and 2002).

LITERATURE REVIEW

An evaluation framework was articulated in the 1930s and 1940s by Ralph Tyler (1949), who believed that assessment was an integral component of curriculum and instruction planning. Tyler developed a multistep model of curricular and instructional design that began with the consideration of what the educator expected the student to be able to know and do after teaching had occurred. He termed these end results of education, "instructional objectives". This he stated should be crafted by considering both the mental skill, such as "applies" or "creates," and the subject matter content the student will develop (D'Agostino, 2009). Evaluating architecture students requires inherently different methods than existing models available in other disciplines; as such incoming students are required to adjust. The primary difference between architecture education and training in other disciplines is that design is not often achieved with a single correct solution (Roberts, (2006) in Seymour, (2008)). The purpose of design studios is to aid students in exploring creative solutions, as opposed to finding the single correct answer. This type of process-based teaching often creates confusion for beginning architecture students who may not be exposed to this method at the secondary education level. Research suggests that a beginning architecture student's confusion associated with process-based critiques causes learning difficulties (Roberts, (2006) in Seymour, (2008)). The primary types of assessment instruments as outlined by Seymour (2008) are:

a. *One-on-one desk critique(s), which* are verbal critiques between the studio mentor and the architecture student in the studio of the design process. Of the eight feedback techniques presented, the one-on-one desk critique is the only assessment method that occurs simultaneously during the *entire* design process.

b. *Studio Pin-up(s),* (lecturer and peers) which are informal critiques occurring during the design process that typically involve the whole design class or large groups within the class, studio mentors, and guests.

c. *Peer evaluation(s)* (written) which are written critiques of a completed design project by architecture student peers. This assessment may be conducted by one or more architecture student peers.

d. *Self-evaluation(s)* (written) which are written critiques of student's own completed project.
e. *Traditional Design Juries* (verbal) which are oral and graphic presentations of a completed project to a panel of qualified professionals.The panel includes including studio mentors, additional faculty, practitioners, or other invited guests, as well as the architecture students classmates.
f. *Written evaluation(s)* (lecturer) which are in-depth written critiques of a completed project by the studio mentor(s).
g. *One-on-one evaluation(s)* (lecturer and student) which are written and/or verbal critiques between a studio mentor and a architecture student occurring upon completion of the project.

As an important form of learning assessment, jury critique is a widely accepted practice in architecture design reviews. The Jury critique helps to achieve this purpose. However, attainment of this ideal has been minimal within most architecture schools' studio settings. The reason lies in the value differences between practice and the classroom. Salama & El-Attar (2010) assert that perhaps there is no greater controversy in design education than the architectural jury system; especially in the past twenty years or so Documented studies found that jury systems were first developed and implemented as part of art education and training in the French regime of the Ecole Des Beaux- Art in Paris in the 18th century and later adopted in architectural education in 1795 (Carlhian 1979 & 1980; Chafee, 1977; Egbert 1980; Kostof, 2000; and Middleton, 1982 in Salama & El-Attar, 2010;Ola-Adisa *et al.,* 2012). Earlier assessments of students' work were made behind closed doors where students were not allowed to be a part of the evaluation process. However, by the time the jury system was imported into the North American architectural education system in the 19th century, the exercise had been changed to allow students participate in the assessment exercise. For good measure, most schools of architecture in the US continued to involve "Paris-trained professors" in order to maintain the authenticity of the jury system (Esherick, 2000).

By definition, the word "jury" often gives off a negative connotation because of its association with "judgement", "verdict" or "criticism".These, in many ways, seem contrary to the real intent and purpose of the jury exercise. The jury execise is to assess design projects of the students aimed at learning, reflecting, discussing ideas and ultimately, improving students' performance. It encourages competition among students resulting in beautifully drawn projects in traditional and classical styles that were often defensible on the grounds of "good taste and intuition".Assessment criteria were based on the quality of presentation and drawings, often ignoring many of the variables that influence architectural design or proper clarification of the criteria used to assess students who are asked to defend their work. Juries, reviews or critiques are the three terms used interchangeably in schools of architecture. In each case the students present their completed design work one at a time in front of a group of faculty, visiting professionals, their classmates and interested passers-by (Salama & El-Attar, 2010). With all the misguided preconceptions and scepticism surrounding the effects of incorporating jury systems in the architecture education program, the relevance of the exercise is under greater scrutiny. The need for greater scrutiny is vital as the design process, and the eventual product, increases its

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dependency on computer aids.The primary educational value of the jury system lies in enabling students to acquire effective knowledge of solving architectural problems. The students are at the same time offered sufficient framework of guidance, either to complete their projects (as in the case of interim jury), or to consider such a knowledge in the future as in the event of the final juries (Salama & El-Attar, 2010). The educational value of the jury system has a central position in the learning process, especially in design education (Salama, 1995; Salama and Al-Amir, 2005). In addition to others, Akande and Odiawa (2007) highlighted the effects of the forum (or open discussion) as an instructional strategy to teaching architecture. The jury is an essential component, as spectators to the jury presentation stand as much to gain from the jurors' comments and criticisms as the student actually giving the submission. Salama and El-Attar (2010) state that the aim of the jury system as an educational tool is for four main purposes; viz

1. Introduce constructive criticism of the students' designs, drawing the students' attention to the pros and cons of his/her design.
2. Provide general instruction on official design issues that pertain to the students' projects under evaluation.
3. Initiate scholarly dialogue, seminar-like exchange between faculty members and students', and among students'.
4. Measuring the degree to which the student was able to achieve and apply knowledge in the form of a design solution in response to a hypothetical or real-life architectural or urban problem.

What remains without a doubt in most institutions of design education is that the culture of design studio is central to the theory and practise of architecture. The jury exercise is merely prerequisite to the professional practise of client briefing, advocating a proposal or financial negotiations; all of which involve the architect demonstrating the confidence to present and defend his work to the client, who may or may not be clueless. Abdulkarim (2005) identified six-post graduate skills required by every student which includes:

1. Thinking competencies consisting of knowledge of the sciences or the arts, research, ethics and critical thinking;
2. People competencies made up of negotiating, persuasion, sales, listening, diversity, appreciation, collaboration, teaming and conflict management;
3. Design competencies requiring grounding in history, theory, design, structures, ergonomics, safety, economy, aesthetics and problem-solving;
4. Making competencies encompassing technology, drawing, construction, codes and standards, legislature and time management,
5. Business competencies consisting of building/project economics, project management, accounting principles, firm management, and entrepreneurship;
6. Public competencies are requiring abilities in advocacy, government, community building, outreach, leadership and oral/written communication.

If the jury system were in the truest of forms, these skills are developed and honed by architecture students each time they present their work for assessment. The jury exercise is meant to serve as a training ground to the real-life combination of all the

above-mentioned skills.Because the jury calls upon the student to be prepared to keep all the considerations in view when trying to resolve the issues brought up in the design brief. Figure 1 show the ideal jury constitution based on expertise in the different disciplinary areas from where it is essential to draw and assign jurors for comprehensive design project reviews.

Figure 1: Ideal Jury Constitution for Comprehensive Design Studio Review
Source: Adapted from Ilozor (2006)

As Ola-Adisa *et al.* (2012) outlined, juries can be an emotional environments, and not all fun and games. Ambitions are crushed, and tempers can flare. Things can go wrong with both the jurors and students. Though the merits of the jury system far outweigh its exclusion from architectural education, the procedure is not without its fair share of criticism and appraisal. In their 2010 research examining Arab architecture students in Middle Eastern universities, Salama and El-Attar highlighted some of the criticisms of the jury exercise from the standpoint of both the students and the jurors:

    a.   Jury Composition
    b. Conflicting Feedback/Opinions
    c. Subjectivity
    d. Submission Requirements

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e. Cost Implication and Time Constraint

The criticisms are summarised in Table 1 as follows:

Table 1: Summary of Jury Criticism

Criteria	Students Perceptions
Jury Composition	• 90% Preferred jury of external members. • 50% preferred jury composition of studio mentors, faculty lecturers, and visiting architects Reasons for preferring a diverse jury composition are expressed in the desire for "vibrant dialogue" or "(getting) multiple viewpoints and opinions".The diversity is valuable to the actual learning part of the jury exercise.However, a majority of the students preferred the "open door" method of the jury.Numerous, and perhaps conflicting, opinions or feedback from the jurors in such a public manner leaves that student feeling more chastised and confused that actually informed. In many cases, the conflicting feedback causes the design priorities to be altered drastically from the original requirements of the brief. Almost 78% of the students expressed a desire to be given a written report of the feedback from the jury as against the oral report which is the norm.
Subjectivity	Over 90% of the students surveyed felt that personal appreciation and impressions havea substantial impact on the final grade. Subjectivity and particular interest, therefore, appears to play a considerable part of the jury that handicaps the overall learning process as it seems to favour a select group of students and leaves the rest at a disadvantage.
Submission Requirements	Perhaps the most contentious (and possibly, inclusive) point in the jury debate centreson the conditions or requirements for submission needed to attain maximum scores. 75% of the students responded that they felt that strict compliance with the demands of the brief gives better grades. The students goal is to propose a design solution of their own understanding that would meet the demands of the brief but in a way that would appeal to, or be of interest to, the lecturers or tutors.
Cost Implication and Time Constraint	On the part of the jurors, insufficient time to view each studio project thoroughly creates an environment for weak grading due to the high number of students presented to participate in the jury exercise at any given time. This also appears to be the opinion of 70% of the students who stated that they are either interrupted by jurors' questions while they are in the middle of their presentations. Students aslo feel in some cases they are not given sufficient opportunity to complete their submissions, or go into a conversational mode beyond the scope of their project.

Source: Salama and El-Attar (2010) in Ola-Adisa *et al.* (2012)

METHODOLOGY

The pedagogical approach of the Department of Architecture, University of Jos revolves around project-based learning, which is mentor-centred. A team of three to four lecturers mentor a class, with each lecturer, allocated a group of between 15 to 18students per project. Student/lecturer interaction occurs in various formats, ranging from group to individual face-to-face critiques, mostly sit-down, but often pin-up presentations. Calculating student perceptions of alternative critique approaches is challenging for a number of reasons. Upper-level architecture students have a greater understanding of the inner workings of a studio than lower students. As assessments are a fundamental component of life in the studio, both levels of students have varying preferences based on the amount of time in the studio. 300 and 400-level architecture students are more prepared than 100 and 200 level

architecture students to stand in front of a traditional jury because upper-level students have done so before. Also, personality type affects preference of critique method — regardless of education or age level. For this reason, this research tested a sample population of 300 and 400 level architecture students at the University of Jos. The research method for this study was survey-based, in the form of a paper questionnaire.

RESULTS

50 questionnaires were distributed though only 28 were returned representing a 56% return. The questionnaire that was used to gather primary data was divided into three broad sections, with each section containing variables such as demographics, actual assessment instruments and students perception. The perceptions were categorised into two groups; useful assessments or helpful assessments. Undergraduate students in the third and fourth year (300 and 400 level) made up the sample frame. Figure 2 show that most students observed that the principal instrument of assessment was the traditional design jury. A few observed written evaluation by their studio mentors. Neither self-evaluation by the students nor peer evaluation (written or verbal) was ever done in either of the levels. From figure 3, the students preferred one-on-one assessment by their studio mentors whom they felt would be more helpful to assess their performance and present more efficiently. Figure 4 reveals that respondents preferred both one –on-one assessment and the traditional jury as a helpful instrument of assessment. When comparing Tables 3 and 4, traditional design jury is perceived by the respondents more useful than effective while respondents perceive that one-on-one assessments are the most helpful.

Table 2:   Students Observations of Assessment Instruments

Actual Assessment instruments	Average Score
1. One-on-One Evaluation (Mentorand Student)	1.5
2. One-on-One Desk Critique	1.5
3. Written Evaluation (Professor)	2.5
4. Traditional Design Jury	7.5
5. Studio Pin-up (Mentorand Peers)	1.5
6. Peer Evaluation (Verbal)	0.0
7. Peer Evaluation (Written)	0.0
8. Self-Evaluation (Written)	0.0

Source: Authors Field Studies

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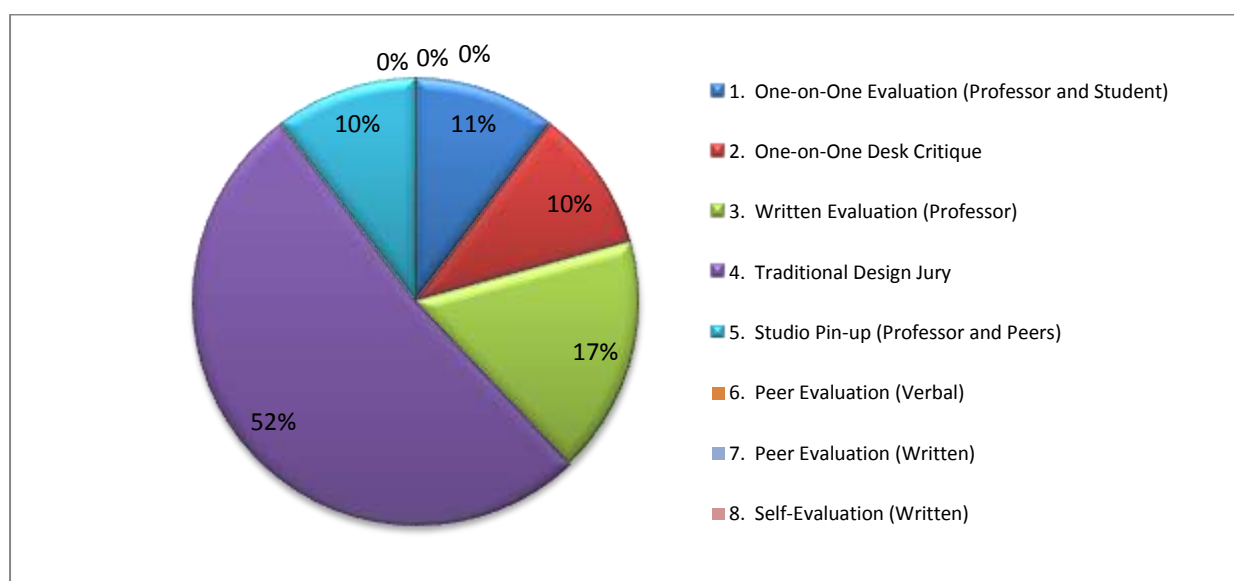Table 3: Students Preferred Assessment Instruments

Preferred Assessment instruments by Effectiveness	Average Score
1. One-on-One Evaluation (Mentor and Student)	5.5
2. One-on-One Desk Critique	1.5
3. Written Evaluation (Professor)	2.5
4. Traditional Design Jury	2.5
5. Studio Pin-up (Mentor and Peers)	1.5
6. Peer Evaluation (Verbal)	0.0
7. Peer Evaluation (Written)	0.0
8. Self-Evaluation (Written)	0.0

Source: Authors Field Studies

Table 4: Students Preferred Assessment Instruments

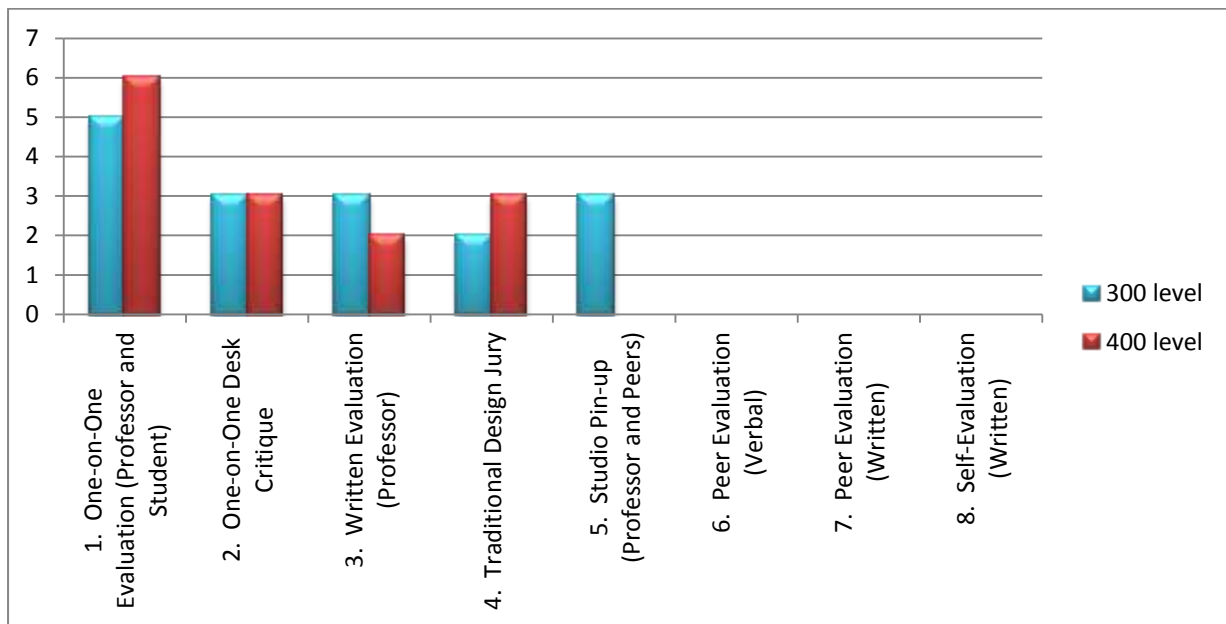| Preferred Assessment instruments by Helpfulness	Average Score
1. One-on-One Evaluation (Mentor and Student)	4.5
2. One-on-One Desk Critique	1.5
3. Written Evaluation (Professor)	2
4. Traditional Design Jury	4.5
5. Studio Pin-up (Mentor and Peers)	1
6. Peer Evaluation (Verbal)	0.0
7. Peer Evaluation (Written)	0.0
8. Self-Evaluation (Written)	0.0

Source: Authors Field Studies

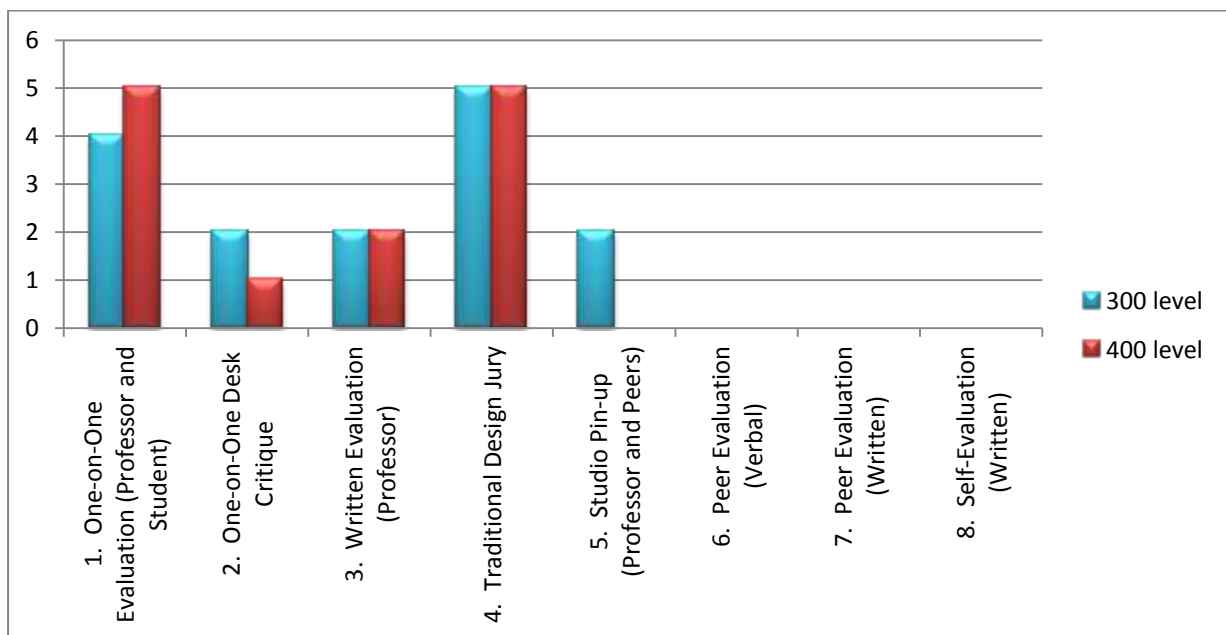Figure 2: Students Observations of Actual Assessment Instruments
Source: Authors Field Studies

Figure 3: Students Observations of Actual Assessment Instruments based on Effectiveness
Source: Authors Field Studies

Figure 4: Students Preferred Assessment Instruments Based on Helpfulness
Source: Authors Field survey 2011

DISCUSSION

One limitation of the survey is quite evident—survey respondents were not demographically diverse. This restriction does not make this study any less successful though, in fact; it reveals preferences unique to a particular demographic. One-on-one assessments were consistently the highest rated evaluation methods amongst the respondents in nearly every category. One-on-one Evaluation (Mentor and student) was the most preferred instrument of evaluation by the respondents. This assessment technique received favourable rankings based on both "effectiveness" and "helpfulness," as well as the other factors including motivation, encouragement,

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and understanding. Written responses revealed that students felt less pressure, felt less likely to be embarrassed, and felt more attended to than other evaluation methods. One-on-one desk critique (Mentor and student) was the second highest rated evaluation method based on student perception. This method, occurring during the design process, allows students and lecturers to discussion issues and resolutions as they arise—before completing the project. Respondents preferred this instrument of on-going or developmental assessment to post-project completion assessment. Purely for objective reasons, respondents preferred on-one-one assessments. Though if they had to attend a traditional jury, students tended to prefer this method for final defence (400 level) and appreciated the fact that external jurors constitute a balance in the jury selection by bringing different perspectives and approaches on how they look at the project. Students at the 300 level however expressed concerns that uninformed or ill-advised external examiners complicate matters when they come unprepared and thus address issues that go beyond the scope of their projects under assessment.

The frustration of negative assessment often creates misunderstanding between the students and the jurors especially during interim juries. This is because the students are graded as an exercise of compliance to previous constructive criticisms rather than as assessment on a finished project. Provided the jury was conducted in a "proper" manner (i.e. devoid of targeted vindictiveness or humiliation), most of the students lauded the practice of juror-feedback upon conclusion of the jury exercise. In like manner, the inclusion of a grading policy which would see scores assigned to clearly defined categories (including the presentation itself) would reduce any form of bias in the final assessment. Again the respondents preferred the one-one that would decrease the frustration of public negative assessment. Like the Salama and Attar study of 2010, respondents were not comfortable with the conditions or requirements for submission needed to attain maximum scores. Three-quarters of the respondents believe utilising impressive presentation techniques has a substantial impact on the final grade irrespective of the design concept or idea. Thus, the debate still rages as to whether or not a student performs better if there is no deviation from the program or if there is a good command of graphics and the individualistic talent. Students also felt that insufficient time was given for assessments to enable them effect corrections and comfortably present work. Again the one-one method was preferred to the jury processwhere students often felt the juror questions often took more time than their presentation time and often took them on a tangent (Salama and Attar, 2010).

CONCLUSION

It should not be surprising students prefer that of the eight evaluation techniques, the two methods classified as "one-on-one". Not only are the one-on-one methods more personal to the student, with the intense attention of the studio mentor, this method also proved less embarrassing for the students. What is surprising, however (based on the overwhelming success of the one-on-one methods) is that students still view traditional design juries as a usefulassessment tool. While students prefer the psychological ease of the one-on-one discussions, there is a sense of satisfaction following a traditional design jury that is not inherent to other assessment techniques. Also, while peer and self-evaluations are not treated preferentially by students, these methods should not be neglected. In fact, they should be used by

lecturers to teach students how to build critical skills. Teaching students how to critically evaluate their work, and their peers work will inevitably create better designers. Most of all, this study reinforced the fact that every critique method has some merit. The purpose of the study is not to suggest that one method is more valuable than another, nor should it suggest that studio mentors always tailor their critique process based on student preference. Understanding why students prefer certain methods over another make it easier for lecturers to utilise a particular method based on his or her situation. Certainly, during the course of the semester it is possible to use all of the techniques. Because student perception always varies, studio mentors using a variety of assessment methods are the most successful educators appealing to the largest population of students (Seymour, 2008). Jury critique is a vital form of assessing and improving students' design studio learning and knowledge. However, there is a concern with how the function or role of the jurycritique is organised, and the kind of knowledge that is privileged by this type of set-up. The problem is to a lesser degree associated with the assessment instruments, butrather with the organisation or structuring of the reviewers, the jurors.This paper has offered an ideal representative juryconstitution or composition and assignment for constructive, productive, andcomprehensive design reviews (Ilozor 2006). The conclusion is that a more representative jury critique would offer a greater value, and enrich students' learning experience and exposition, rather than over-emphasise their inadequacies.

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