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# Students' Perspective of Design Studio Assessment: An Experience in Bangladesh

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**Abstract:** Architecture education has been based on the design studio model focusing on learning by doing. In this academic program, critique is a vital component and inseparable from studio learning. Although widely practiced, critique has been a neglected area in design education and is often criticized for affecting the students' learning experience. Using a grounded theory approach and mixed-method analysis, this article studies the student's perspective of intermediate assessment and final evaluation of design studio courses in the form of desk critique and jury respectively with a case study of the Department of Architecture at the Military Institute of Science and Technology, Bangladesh. This study uses participant observation involving both the educators as well as learners and a questionnaire survey involving only the students. The results indicate that the learners' and educators' perspectives may not always be aligned. This can be useful to improve the studio-based learning program.

**Keywords:** Assessment, Critique, Jury, Design studio, Architecture education.

## Introduction

In the academic education of architecture design studio is the core of learning and widely recognized for active learning environment (Bailey, 2005; Blair, 2007; de la Harpe et al., 2009; El-Latif et al., 2020; Goldschmidt, 2002; Hassanpour, Utaberta, Abdullah, et al., 2011; Olweny, 2020; Utaberta et al., 2013; Utaberta & Hassanpour, 2012). Originating from the Ecole des Beaux-Arts in Paris, a consequence of the French Revolution-led academic reform, studio-based education in art and architecture emerged with the intent of guiding students in addressing design challenges under close faculty supervision (Alagbe et al., 2017; Bailey, 2005; Salama & El-Attar, 2010). Initially these studios focused on sketch problems that were evaluated in final critique sessions usually excluding student participation (Alagbe et al., 2017; Bailey, 2005).

Until the advent of Bauhaus in the early 20th century, the Ecole des Beaux-Arts held sway as the model for architectural education on both sides of the Atlantic (Bailey, 2005). The Bauhaus school, founded by Walter Gropius in 1919, represented a modernist response to the Ecole des Beaux-Arts. Despite its perceived radicalism, the Bauhaus school shared the fundamental principle of learning through hands-on experience. Scholars often attribute the proliferation of modern-day design studio practices to the influence of the Bauhaus School (Hassanpour, Utaberta, Zaharim, et al., 2011; Lackney, 1999; Salama & El-Attar, 2010). Bailey (2005) believes that the philosophical

underpinnings of academic education have been integral to architecture schools since the early 1960s. Over time, the critique-based assessment introduced at the Ecole des Beaux-Arts has evolved into various formats, remaining a fundamental aspect of studio learning worldwide (Ardington & Drury, 2017; Bartholomew et al., 2019; Belluigi, 2016; Blair, 2006, 2007; Dannels et al., 2008; El-Latif et al., 2020; Goldschmidt, 2002; Graham, 2003; Healy, 2016; Lackney, 1999; Oh et al., 2013; Olweny, 2020; Orr & Bloxham, 2013; Salama & El-Attar, 2010; Schön, 1983, 1987; Smith, 2011).

In architecture education, design studios are concerned not only with characteristics that are appreciated, but also those that need to be refined or rejected; therefore, the studios focus on the process, product and person simultaneously (de la Harpe et al., 2009). This multifaceted challenge amplifies the difficulty of studio assessment in addition to the 'creative' nature of studio exercise (de la Harpe et al., 2009; Orr & Bloxham, 2013). Orr & Bloxham (2013) highlight the complexity of assessment in design fields, where it serves as both an assessment for learning and a concurrent evaluation of the student, their exercise, and the presented work. In architecture education, assessment is inseparable from the carefully cultivated studio culture (Cennamo et al., 2011). Although widely recognized and practiced, assessment is a neglected area in design education and rarely challenged (de la Harpe et al., 2009; Utaberta et al., 2013). However, this research gap is gaining recognition in academia, with increased momentum in the research field.

On this background, this research aims to investigate the design studio assessment of architecture education in Bangladesh. Formal academic education in architecture was introduced in 1962 in Bangladesh. In this long time, there has been very limited research in the field of studio pedagogy and studio assessment is, perhaps, not studied. To fill this research gap, the Department of Architecture in Military Institute of Science and Technology (MIST) was taken as a case study. With a structured investigation of this comparatively new architecture school, this study focuses on the assessment practice and particularly on the students' perspective of the studio assessment.

**Literature Review**

The primary aim of design studio is to impart essential architectural design skills, although the inherent complexity, influenced by various interconnected aspects, of this process is recognized (Ledewitz, 1985). While established models like analysis-synthesis, concept-test, and conjecture-analysis exist, the widely practiced analysis-synthesis model undergoes contextual adaptation globally (Bamford, 2002; Ledewitz, 1985). This model typically encompasses stages such as briefing, analysis, synthesis, and evaluation. Studio-based learning, aligned with problem-based learning, addresses challenges reflective of real-world professional scenarios (Burroughs et al., 2009; Moody, 2011).

In the realm of studio exercises, the roles of faculty and students often overlap and take different forms, such as such as master, coach, reflective practitioner, critical friend, liminal servant, and analyst (Belluigi, 2016). However, the assessment of studio exercises introduces complexities and often conflicts arise instructors transition into assessors (Anthony, 1991; Belluigi, 2016; Blair, 2006, 2007; Goldschmidt, 2002; Graham, 2003; Oh et al., 2013; Salama & El-Attar, 2010).

Assessment in the design studio is more complicated due to its creative nature and focus and particularly challenging because students are expected to acquire additional capabilities that may not always be assessed with measurable technical solutions (Alagbe et al., 2017; de la Harpe et al., 2009; Orr & Bloxham, 2013; Utaberta et al., 2012, 2013). Despite its complexities, the educational value of assessment in enhancing professional performance is widely acknowledged (Anthony, 1991; Dannels et al., 2008; El-Latif et al., 2020; Olweny, 2020; Salama & El-Attar, 2010).

Studio assessment is usually known as critique, which is also called crit. Crit is perceived in various formats such as desk critique, formative critique, summative critique, peer critique, external critique, group critique, public critique, formal final critique, written critique, online critique, interim review, seminars, panel discussions, and informal interactions (Bailey, 2005; Blythman et al., 2007; El-Latif et al., 2020; Hassanpour, Utaberta, Abdullah, et al., 2011; Utaberta et al., 2013). Desk critique, the most common form of assessment, occurs at the student's desk, for both individually and in group exercises, during the design development phase before the final submission. Formative critique, providing feedback for intermediate assessment, is also widely used. Panel discussions are prevalent in higher education and the final stages of design development, involving participatory discussions where a panel of studio instructors provides feedback. Interim reviews are given to the entire class during the development phase. The final critique, also known as jury or big crit, is a formal evaluation, often conducted as a panel discussion. The jury panel may include external members and experts from the relevant field.

Usually, the studio space is utilized for both intermediate assessment and final jury, some schools often have designated jury space for the grand jury of graduating students. Physical setup of assessment and its impact on the students is not well researched, there are only a few mentions of spatial arrangement (Goldschmidt, 2002; Oh et al., 2013; Olweny, 2020; Salama & El-Attar, 2010; Utaberta et al., 2010). Some studies have argued that the physical setup of assessment significantly impacts students' learning and development (Goldschmidt, 2002; Olweny, 2020). Desk critique, occurring on a one-to-one basis, proves beneficial for student learning and designer development, although it may pose challenges for some students (Goldschmidt, 2002) . Olweny (2020) highlights that the spatial arrangement of a jury reflects power dynamics between jury members and students, while Salama and El-Attar (2010) further reinforces mentioning that the jury setup resembles a trial and this can lead to a defensive role for students and an attacking stance for jurors, potentially escalating tensions. Students, most if not all, feeling intimidated when standing alone in front of the jury is acknowledged (Blair, 2006; Gray & Smith, 2016).

Grading constitutes a crucial aspect of assessment, and the meticulous selection of grading criteria holds equal importance, though grading norms remain understudied in design studio pedagogy (Sadler, 2002, 2005; Utaberta & Hassanpour, 2012). Studios typically pratice holistic grading and analytic grading. Holistic grading, commonly employed in fields like architecture, considers overall quality, proficiency, and understanding when there is no definitive correct answer although faces criticism for potential misjudgment and nonuniform evaluation on the same platform (Mertler, 2001). Analytic grading, also known as criteria-based grading, is favored for its identification of project-relevant criteria, simplified judgment and aiding students in designing accordingly. Yet, defining and communicating criteria are crucial to avoid misalignment and perceived unfairness (Sadler, 2002, 2005; Utaberta & Hassanpour, 2012).

Critique, despite its undeniable educational value in studio learning, is not without condemnation. Desk critique, being more informal, involves instructors taking on the role of a critical friend. However, final jury sessions are often associated with negativity (Blair, 2006; Graham, 2003; Gray & Smith, 2016; Parnell et al., 2007; Salama & El-Attar, 2010). While negativity is not universal, certain students may possess inherent capabilities, some learn how to learn, and others may face 'learning binds,' as described by Schön (1983) – a condition hindering students from progressing in their learning. Studio teaching is itself a matter of designing and it is the task of the studio instructors to nurture all the students regardless of their inherent or acquired abilities, and therefore, careful design of assessment is utterly vital.

**Materials and Method**

This research followed grounded approach (Corbin, 1990; Strauss & Corbin, 1990, 1997)

and was conducted in two phases. The first phase included participant observation (Spradley, 2016) of design studio courses, desk critique, jury sessions and faculty perspective of studio teaching which developed two hypotheses. These were tested in the second phase through a questionnaire survey with the students. The research was approved by the Research and Development Wing of MIST.

**Participant observation**

The authors, as faculty members in the Department of Architecture at MIST, conducted participant observation for this research with active participation in the academic environment. The observation spanned two years, covering four semesters, and included 20 faculty members and 8 design studio courses. A total of 53 desk critiques and 24 jury events were observed.

This study broadly aimed to understand, how do the students perceive assessment in the design studio? The answer to this question was first explored with participant observation. Observation topics included faculty conceptualization of studio learning and assessment, physical setting of studios during regular class, assessment and evaluation, desk critique and jury events and students' reaction to the desk critique and jury expressed through verbal communication and physical expression. Faculty conceptualization includes understanding of certain features such as goal of studio learning, dissemination of knowledge, studio modality, stipulation of assessment, distinction between intermediate critique and final jury, considerations about the students' workload, grading criteria etc. In addition to the desk critique and jury events, faculty conceptualization was studied with formal (with semi-structured questions) and informal interviews and group discussions with the inhouse faculty members, guest faculty and invited external jurors. Students' reactions were observed at different occasions, such as during the critique or jury events, in follow-up discussions with the students' feedback on the studio exercise and occasional informal dialogue with the students.

Observation data was collected as field notes and diagrams which were analyzed following the norms of qualitative field research in an inductive way (Denzin & Lincoln, 1994). The steps in the analysis process include preparation of data, coding, categorizing and abstraction(Dey, 1993; Ford, 2004). This phase had led to the hypotheses.

**Research objectives and hypotheses**

The broader goal of this study was to gain a deeper understanding of students' perceptions of design studio assessments. Specifically, the study aimed to explore the impact of the spatial setup of assessment on students, examine their perspectives on grading, and assess potential differences in their reactions between intermediate assessments and final evaluations. Based on the observation of studio practice, two hypotheses regarding student concerns were formulated and subsequently empirically tested through a questionnaire survey. The hypotheses are outlined below.

- Students feel more uncomfortable in jury. This happens for several reasons, such as the jury setup, stress of evaluation, concern of grade, concern of jurors' critical attitude, anxiety of poor performance etc.
- Students are deeply concerned about grade. They work better with association of score. Therefore, they take intensive preparation for jury.

**Online survey and questionnaire design**

The second phase involved an online questionnaire survey among the students with Google Forms. The questionnaire was provided to the students' groups for three weeks and they were asked to fill it anonymously to elicit honest opinions, as both the authors and participants were part of the same architecture school as faculty and students. The questionnaire asked about the students' preference for assessment and grading strategy as well as their feelings in critique and jury events. All the questions were designed as structured questions, except one that asked for suggestions to improve the assessment system. Responses were prepared, based on observation and relevant literatures, as Likert items with five levels. The questionnaire was meticulously

designed to exclude any trace of individual identity.

With all questions, except one, structured, employing Likert items with five levels, the sole open-ended question sought suggestions for improving the assessment system. Responses were carefully structured based on observations and relevant literature. The questionnaire was meticulously designed to exclude any trace of individual identity.

**Survey respondents**

Six batches of participants, comprising one batch of recent graduates and five batches from level 1 to level 5, participated in the survey. The questionnaire was accessible to 126 individuals and 88 responses were received making a response rate nearly 70%. Notably, the response rate was relatively lower from level 1 students and fresh graduates, potentially due to the early stage of the academic program for level 1 and the post-graduation engagements for the fresh graduates. Responses from different groups and gender composition of the respondents are presented in Figure 1.

**Statistical tools**

Survey responses were analysed both qualitatively and quantitatively aligned with the specific context and relevant literature. Descriptive statistics interpreted the survey results, inferential statistics was employed only to check significant differences between responses.

Statistical analysis for this dataset posed its own challenges. appropriate statistical analysis for Likert scale responses, being ordinal data, was challenging specifically regarding the choice between nonparametric and parametric tests (Sullivan & Artino Jr, 2013). In this dilemma, this study opted for a parametric approach considering the argument by Norman (2010) that that parametric tests are equally applicable to Likert items and yield superior results compared to nonparametric tests.

**Result**

This section summarizes the observation and survey results regarding the studio practice, physical setup for desk critique and jury, characteristics of the survey respondents, preference of the students for assessment type and grading strategy, students' feelings in the desk critique and jury.

**Observation of design studio praxis and faculty perspective**

The Department of Architecture at MIST adheres to a traditional studio-based education program, primarily adopting the analysis-synthesis model. Studio exercises were observed to follow a homework-based approach with close supervision from instructors, who provide lectures, presentations, literature, and organize additional sessions like workshops and field visits as needed. Design problems of varying complexity, aligned with course objectives were assigned to the students. Design problems included project requirements, site

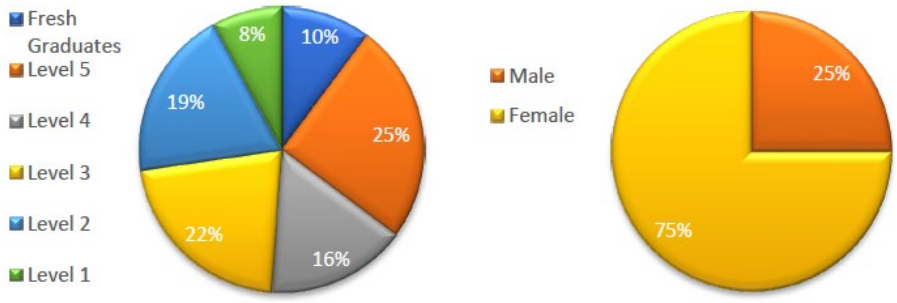


***Figure 1:*** *Batch and gender composition of the respondents.*

conditions, clients' demands, and technical specifications. Students often conducted detailed investigations before proposing solutions, guided by studio instructors who assessed progress through regular desk critiques and final jury evaluation.

Desk critiques were observed to take place at predefined intervals, serving as milestones for the entire studio exercise, focusing on supporting students to develop their design solutions. Such crits were usually graded and targeted specific project segments with clearly identified requirement, rather assessing the whole project. Final jury served as the ultimate evaluation of students' design projects. The faculty often considered jury as a platform for self-assessment of the teaching-learning process, while students considered to showcase their creativity and skills to instructors and peers, fostering lateral learning.

Assessment scoring in studios incorporated both holistic and criteria-based gradings. Holistic grading, offering a quicker method with wider scope and more freedom, was more frequent than analytic grading, involving multi-tiered scoring and rubric design efforts. An example of scoring rubrics for holistic and analytic grading, derived from a level 2 studio project designing an elementary school, is illustrated in Table 1.

***Table 1:*** *Evaluation sheet for holistic and analytic grading.*

| **Holistic Grading** | | **Analytic Grading** | | |
|---|---|---|---|---|
| Design criteria | Score | Design criteria | Quality | Score |
| Conceptualization<br>Functional arrangement<br>Environmental considerations<br>Presentation | | Conceptualization<br>• Thematic development<br>• Innovation<br>• Contextual responsiveness | Excellent<br>Good<br>Acceptable<br>Poor<br>Fail | 10% |
| | | Functional arrangement<br>• Zoning organization<br>• Classroom design<br>• Circulation pattern<br>• Service efficiency | Excellent<br>Good<br>Acceptable<br>Poor<br>Fail | 50% |
| | | Environmental considerations<br>• Classroom environment<br>• Light and ventilation<br>• Indoor-outdoor relationship<br>• Heat gain factors | Excellent<br>Good<br>Acceptable<br>Poor<br>Fail | 25% |
| | | Presentation<br>• Composition<br>• Quality of drawing<br>• Quality of model<br>• Oral presentation | Excellent<br>Good<br>Acceptable<br>Poor<br>Fail | 15% |
| Total score | 100% | Total score | | 100% |

In the studio practice, the faculty role was observed to be overlapping among atelier coach, reflective practitioner, critical friend and analyst while the role of students can be categorized as collaborator, reflexive practitioner and occasionally emotional/intuitive artist-student. The results of observation are summarized in the following remarks, that had led to the earlier mentioned hypotheses.

- Studio instructors considered the typical classroom arrangement suitable only for desk critique. They emphasize the necessity of a conventional jury setup to facilitate display, delivery, and create an evaluative environment.
- Faculty members preferred holistic grading due to its freedom and scope of assessing a wider spectrum of skills, creative thinking and the intended design project. While acknowledging the benefits of analytic grading, they occasionally practiced it.
- A faculty consensus existed on the belief that all forms of assessment, particularly jury, significantly benefited students and facilitated knowledge dissemination, with critical thinking development as a key learning goal.
- Faculty recognized the educational value and potential adverse effects of assessments on students' learning experiences. They accepted certain degree of informal assessment and advocated for formal jury sessions to induce stress, fostering hard work and preparing students for the demanding professional world.
- Disagreement persisted among faculty regarding the structure, organization, and norms of assessment, specifically for jury sessions, with a perception that set norms and criteria were not absolute necessities.
- Drawing on the professional or study experiences in other architecture schools in Bangladesh, many faculty members considered the overall academic environment, particularly the jury setting, to be friendly and supportive to students compared to many other schools.

**Physical setup for desk critique and jury**

In the final jury, the students, typically, submitted their design with all required elements, such as presentation drawings, models, technical details, investigation report etc. requiring ample display area. MIST allocated a distinct jury space specifically designed for the grand jury of graduating projects. This space was occasionally utilized for regular studio project juries at the discretion of the studio instructors. The physical setup of studios accommodated drafting tables, stools, display boards, audio-visual facilities, computers, internet connections, storage areas, and conventional demonstration arrangements like whiteboards, daises, rostrums, document cameras, and working desks for studio

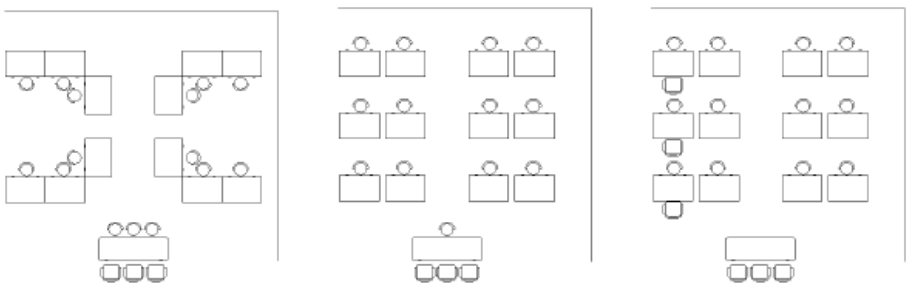

***Figure 2:*** *Desk critique arrangements, in group work students come to instructors (left) and in individual work either student comes to instructors (middle) or instructors go to student (right).*

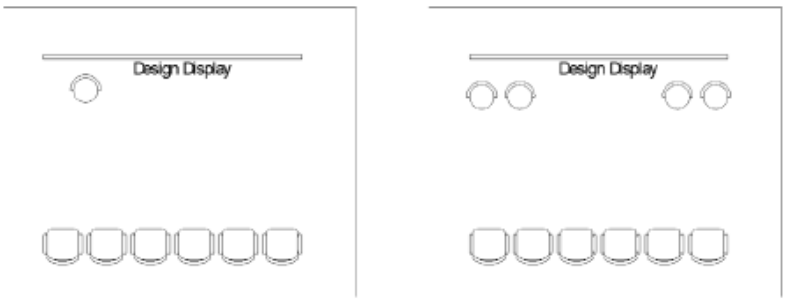


***Figure 3:*** *Jury arrangements for individual (left) and group (right) projects.*

instructors. Students could arrange the physical setup in their studios, facilitating various activities such as model making, design discussions, and displays for assigned projects, as well as providing space for interaction, socialization, or recreation. Figure 2 and Figure 3 illustrate physical arrangements for desk critique and jury, while Figure 4 depicts a jury session for graduating students and a regular studio.

It was observed that the regular studio setup remained unchanged for desk critique, with occasional minor adaptations to accommodate specific design exercise needs, such as multimedia presentations, large models, long drawing sheets, installations, or special elements like fire, water, lighting arrangements, and performances. Final jury sessions were almost always had conventional setup. These sessions were open for other faculty members and students, with occasional participation from faculty and students from other departments and schools. The jury environment was observed to be formal, compared to the desk critic, and the students exhibited some tension. However, faculty and external jurors perceived the jury environment as cozy, friendly, and supportive.

**Students' preference for assessment and grading**

The survey aimed to understand students' perspectives on assessment methods that aid their design development. Despite varied assessment methods, there was no preference, suggesting that all forms contribute to design development. Notably, support for desk critique slightly exceeded the final jury. Students showed a preference for desk critique without grades, indicating concerns about grading, as such critiques allowed for necessary corrections and further design development without

***Figure 4:*** *Ongoing jury of a graduating student (left) and a regular studio (right).*

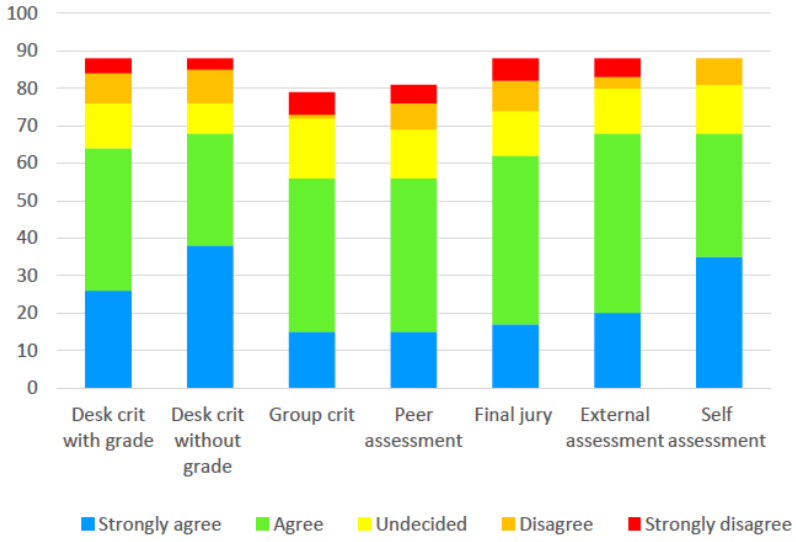


***Figure 5:*** *Students' preference for assessment that help them for design development.*

affecting the final grade because the final grade usually considered the assessment scores. Survey responses also highlighted students' reliance on self-assessment and peer assessment acknowledging lateral learning, confidence building, and enhanced critical thinking abilities. Figure 5 visually represents the students' responses.

Regarding grades, the faculty perception was not reflected in the student responses. Students reported almost equal frequency of holistic grading and analytical grading in studio and a remarkable preference for analytical grading supporting their concern for grade. Figure 6 portrays the survey responses.

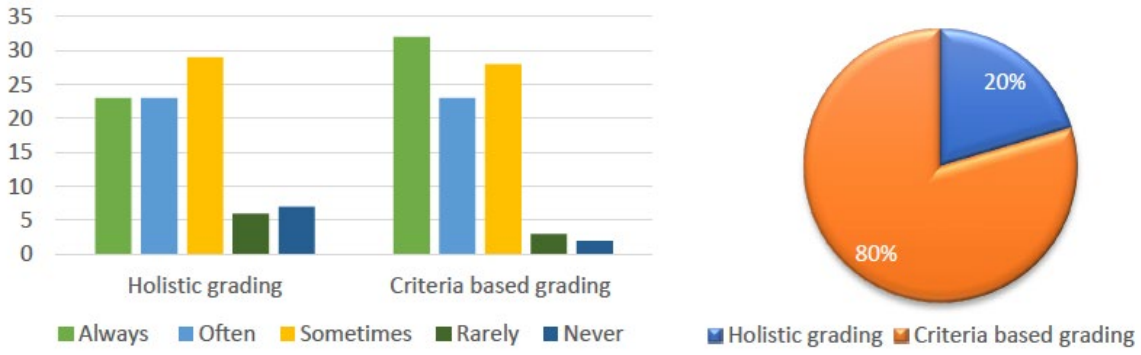


***Figure 6:*** *Grading practice in studio courses (left) and students' preference (right)*

**Students' Reaction to Desk Critique and Jury**

A major concern of this study was to distinguish the students' feelings in the desk critic and formal jury. This was asked with a simple question, 'How do you feel in the desk critique/jury?' with 14 structured responses based on similar studies (Blair, 2006; Blythman et al., 2007; Graham, 2003; Hassanpour, Utaberta, Zaharim, et al., 2011; Orr & Bloxham, 2013; Salama & El-Attar, 2010; Smith, 2011) with five frequency levels always, often, sometimes, rarely and never.

Although, desk critic was perceived, by the educators, to support the students, the survey responses yielded intriguing trends. Positive spirits were notably diminished, with students feeling less appreciated and encouraged during critiques. However, they demonstrated a clear willingness to try new things and openness to feedback despite confusion, nervousness, and frustration. Survey results are presented in Figure 7.

Regarding the final evaluation, the survey responses were aligned with the observation. A higher proportion of students expressed feelings of nervousness, disappointment, and frustration compared to those who feel appreciated, inspired, and confident. Yet, a glimmer of hope as students demonstrated willingness to take advice Survey results are illustrated in Figure 8.

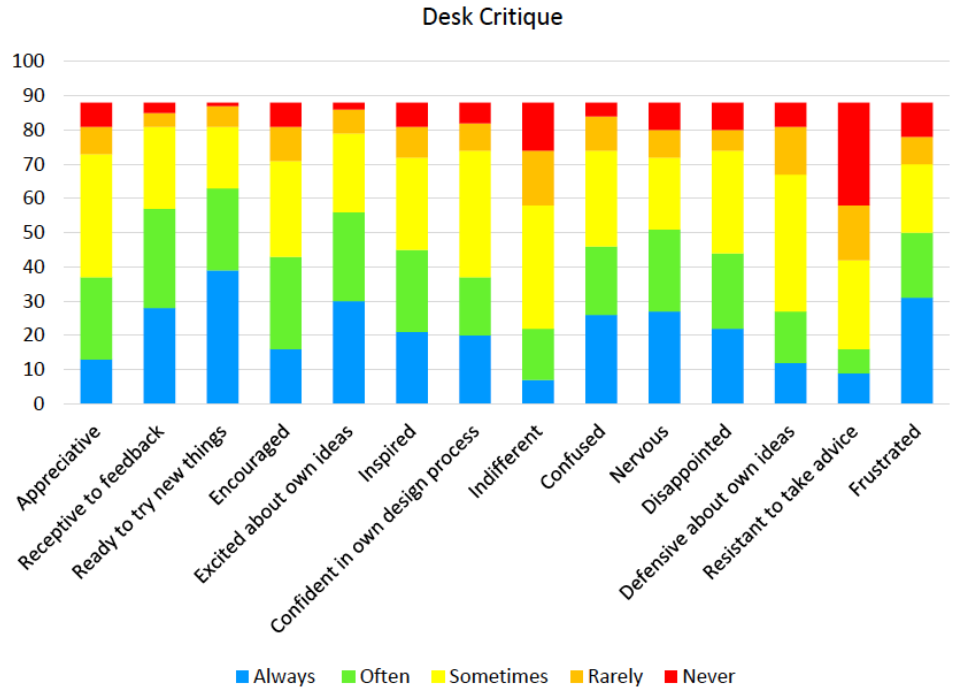


***Figure 7:*** *Students' feeling in the desk critique sessions.*

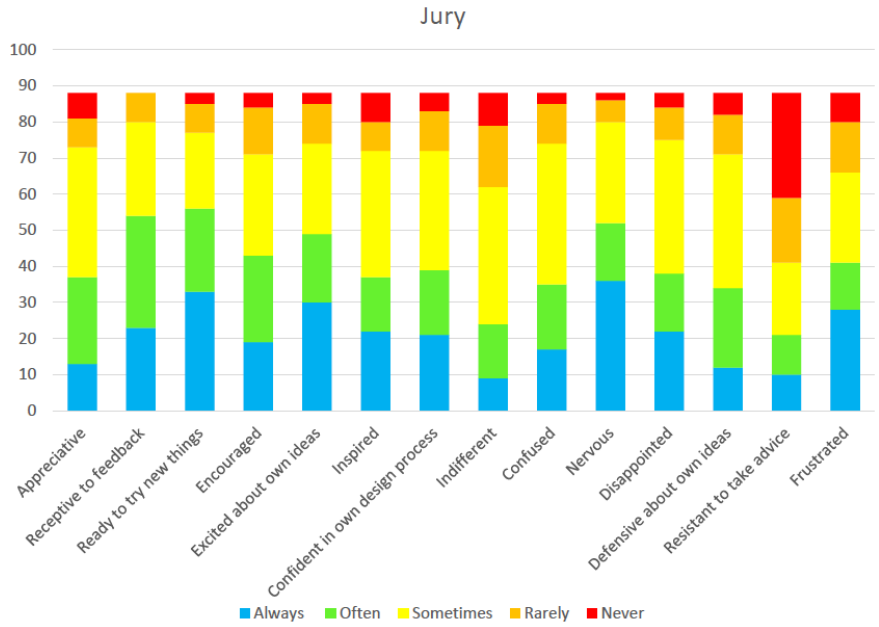


***Figure 9:*** *Students' feeling in the final jury sessions.*

The research hypothesis postulated that students would likely feel more confused, nervous, disappointed, and frustrated in jury sessions compared to desk critiques.

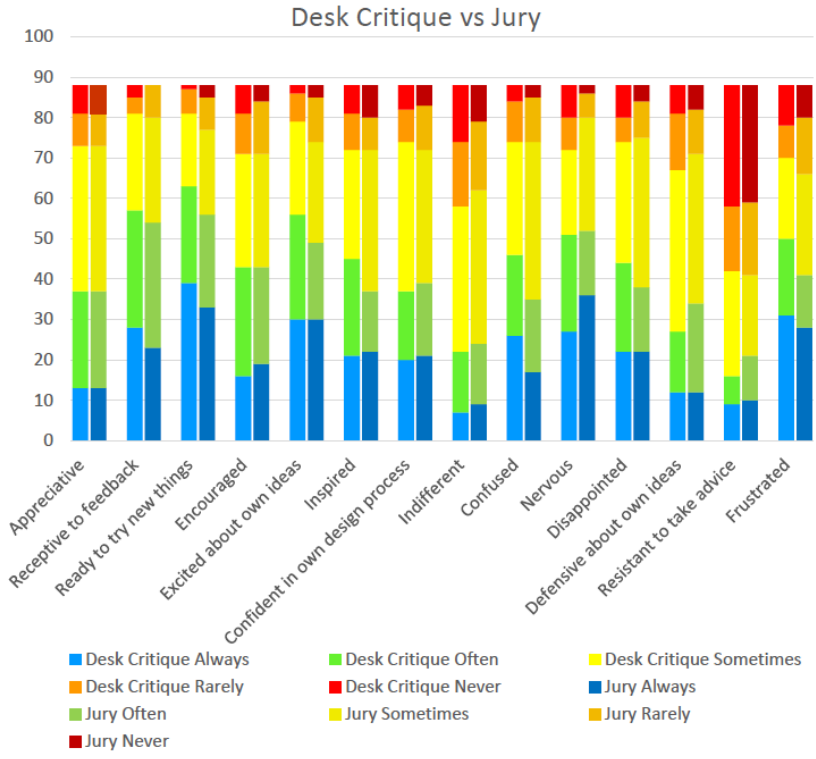


***Figure 8:*** *Comparison between students' reaction in desk critique and jury sessions.*

Surprisingly, the survey results did not support this assumption, revealing minimal variation between the two datasets and the responses appeared almost identical. A visual representation of the survey responses is depicted in Figure 9.

To assess the statistical significance of this marginal difference, a parametric test was conducted, following Norman's suggestions (2010). Frequencies were counted, and a contingency table was prepared for each category, treating them as interval data according to Likert scale norms. A 2-tailed paired sample t-test was performed for each category, with a significance level of $\alpha = .05$. The results, as presented in Table 2, designated that the difference between responses for desk critique and jury was not statistically significant.

**Discussion**

Testing the hypotheses formulated from observation data yields interesting results in this study. Survey responses on various topics are interrelated and should be considered holistically. Contrary to the assumption, students perceived both desk critique and jury sessions with nearly equal intensity. This finding is interconnected with the other observed trends.

Firstly, the impact of the jury setup on students seems minimal. Despite studies suggesting potential unfavorable effects, survey responses indicated equal discomfort and positive spirit in both jury and desk critique settings. However, this research did not consider jury in other different setup and therefore further investigation is recommended, perhaps employing different spatial setups for juries to explore potential impacts on student performance and jurors' attitudes.

Secondly, students expressed a clear preference for analytic grading, contrasting faculty preferences for holistic grading. This discrepancy is possibly driven by students' concerns for grades, which was also evident in

***Table 2:*** *Statistical comparison between deck critique and jury*

| Reaction | Always | | Often | | Sometimes | | Rarely | | Never | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Crit | Jury | Crit | Jury | Crit | Jury | Crit | Jury | Crit | Jury |
| Appreciative | 13 | 13 | 24 | 24 | 36 | 36 | 8 | 8 | 7 | 7 |
| Receptive to feedback | 23 | 28 | 31 | 29 | 26 | 24 | 8 | 4 | 0 | 3 |
| Ready to try new things | 33 | 39 | 23 | 24 | 21 | 18 | 8 | 6 | 3 | 1 |
| Encouraged | 19 | 16 | 24 | 27 | 28 | 28 | 13 | 10 | 4 | 7 |
| Excited about own ideas | 30 | 30 | 19 | 26 | 25 | 23 | 11 | 7 | 3 | 2 |
| Inspired | 22 | 21 | 15 | 24 | 35 | 27 | 8 | 9 | 8 | 7 |
| Confident in own design process | 21 | 20 | 18 | 17 | 33 | 37 | 11 | 8 | 5 | 6 |
| Indifferent | 9 | 7 | 15 | 15 | 38 | 36 | 17 | 16 | 9 | 14 |
| Confused | 17 | 26 | 18 | 20 | 39 | 28 | 11 | 10 | 3 | 4 |
| Nervous | 36 | 27 | 16 | 24 | 28 | 21 | 6 | 8 | 2 | 8 |
| Disappointed | 22 | 22 | 16 | 22 | 37 | 30 | 9 | 6 | 4 | 8 |
| Defensive about own ideas | 12 | 12 | 22 | 15 | 37 | 40 | 11 | 14 | 6 | 7 |
| Resistant to take advice | 10 | 9 | 11 | 7 | 20 | 26 | 18 | 16 | 29 | 30 |
| Frustrated | 28 | 31 | 13 | 19 | 25 | 20 | 14 | 8 | 8 | 10 |
| p value | .718025 | | .139595 | | .084376 | | .028704 | | .020932 | |

their preference for desk critique without grade. Faculty perception was observed that that analytic grading results in higher score than holistic grading, probably the students also believed the same, further research could probe into exploring these discrepancies.

Thirdly, the unexpected finding arises from comparing desk critique and jury sessions. Contrary to faculty perceptions and existing studies, survey responses indicated almost equal sentiments, with no statistically significant differences. Despite recurrent mentions of tense jury environments negatively impacting students, the survey revealed similar levels of worry and positive spirit for both settings. Possible explanations include the supportive jury environment acknowledged by faculty and external members. This suggests for comparative studies with other schools to explore the impact of jury attitudes on the learning experience. Another factor could be the influence of desk critiques, which, as part of MIST's continuous assessment strategy, take place multiple times before the jury. This frequent exposure helps students to build confidence and refine their projects, making them less likely to feel nervous and confused during final jury. This suggests an interesting topic of research, if the number of intermediate assessments has any impact on the jury performance of the students. A logical explanation is students' concern for grades; MIST's practice of assigning grades for all critique sessions and a maximum of 50% of the final jury grade to the cumulative project grade underscores students' serious approach to desk critiques. This grading practice is intended to ensure the project's authenticity and prevent 'Pinterest submission' or 'expat submission' in juries. This is an interesting finding; it will be a very inquisitive topic to know what the case with different composition for final project grade could be. Lastly, the similarity in sentiments between desk critique and jury sessions might be a chance occurrence, although such a possibility is limited.

In conclusion, one hypothesis regarding students' concern for grades holds true, while the other, suggesting greater discomfort in jury sessions, is contested. Empirical data indicate that students feel equally uncomfortable in both desk critique and jury sessions. This is important to understand the underlying reasons behind the worries to improve the assessment practice. Although the survey responses show a mix of emotions, the feedback on improving assessment practices reveals a glimpse of some students' intimate feelings and very emotional estate of mind which appears to be, unfortunately, gloomy.

Similar studies are found in other counties, for example in Malaysia (Hassanpour, Utaberta, Abdullah, et al., 2011; Hassanpour, Utaberta, Zaharim, et al., 2011), Nigeria (Alagbe et al., 2017), Egypt (Salama & El-Attar, 2010), Kenya, Tanzania and Uganda (Olweny, 2020), Australia (Ardington & Drury, 2017), UK (Blair, 2006), USA (Graham, 2003) etc. While not all studies are on the same scale, qualitative comparisons suggest that the situation at MIST appears relatively brighter. Students here receive multiple intermediate assessments that contributes to design improvement along with fostering confidence, critical thinking, and overall grooming as a designer.

**Conclusion**

This research attempts to understand some features of the complex design studio pedagogy in architecture education, using MIST as a case study, and unveils several noteworthy insights. Firstly, there is no explicit evidence of any impact of jury setup significantly impacting students. Secondly, students demonstrate seriousness and preparation for both desk critique and jury, with an indication that multiple critique sessions positively enhance design quality and confidence. Thirdly, it appears that grade plays as motivating factor for students in studio exercises.

Moving forward, the findings raise new questions and widen the scope of additional research involving multiple schools and varied issues such as spatial arrangements, juror attitudes, grading compositions, number of critique session etc. While these findings open avenues for further exploration, certain limitations must be acknowledged. The

research focused solely on one school, limiting direct applicability, and therefore generalization should be approached with consideration for contextual differences. Being non-experimental and reliance on events that have occurred compromises its ability to explain results in diverse situation offering plausible correlations rather than causation.

The insights garnered from this study, considering MIST as a case study, can be valuable for this institution and also for other architecture schools in Bangladesh and neighbouring countries that follow similar design studio-based program. This may contribute to various issues like studio evaluation, students' motivation, workload, and stress management, building confidence, grooming etc. and is expected to contribute for a comprehensive understanding of architecture education's pedagogical landscape.

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