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Author:

Quinlan, Ann; Marshall, Nancy; Corkery, Linda

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Ann Quinlan, Nancy Marshall and Linda Corkery

Faculty of the Built Environment, University of New South Wales, Sydney, NSW, 2052, Australia

ABSTRACT

In universities there is a quality assurance focus on describing and implementing academic performance standards. Design educators are required to demonstrate the integrity of student-centred learning experiences in design studio in relation to the qualitative learning outcomes expected from such an educational experience. In meeting this expectation the design community is challenged to reflect upon their emphasis on subjective experience and aesthetics, articulate internalised knowledge, practices, habitual assumptions and values as well as review jury assessment practices, in terms of learning outcomes and students' acculturation into the discipline and its professions. This paper reveals student perceptions of the qualities of excellence, prioritized in to 11 characteristics of an excellent design project. This paper aims to inform design education assessment practices. With the overall aim of enhancing design learning, teaching and assessment practices through student and staff shared understanding of academic excellence it introduces an evidence-based, action-research project undertaken in undergraduate Built Environment design degree programs at the University of New South Wales and discusses key results of the study.

CONTEXT

In an increasingly competitive higher education climate, universities face growing demands for accountability and integrity in student learning outcomes. Although it is important to articulate learning outcomes clearly for students, research demonstrates that it is assessment practices that indicate most strongly to students what and how they need to learn (see Biggs, 2003). Moreover, assessment practices have a powerful role in communicating to students what is valued and expected in the learning culture of a disciplinary community:

Assessment always performs functions other than the ones teachers and examiners normally think about and take account of. It is always about more than judging the achievement of the learning outcomes for a given module or course. It is an act of communication about what we value. It transmits not only our views about what is important in our subject, but is an act of cultural communication transmitting what the collective 'we' intends (Boud 2000, p.153).

The values and intentions communicated through assessment are often only tacit, so an important challenge for academic teachers is making them explicit (Price, 2005, Higgins et al., 2002) as part of the process of acculturating students into the disciplinary community (Snodgrass, 1998).

This might be particularly challenging for the disciplinary community of design. The Romantic tradition and the ideology of aesthetics (Kristeller, 1951), deliberately promotes implicit standards and values associated with subjective experience, the emotions, imagination, and "genius" (Coyne, 1997). In the university context, such values are channelled through design studio teaching, with its background in the ateliers of the nineteenth-century French Ecole des Beaux-Arts. In this system, the cultivated but intuitive taste of the atelier "master" patron was critical in judging the excellence or otherwise of project presentations. This emphasis on aesthetics, subjective taste, and the role of the expert continues to shape the contemporary educational setting of design studio and its jury-based assessment practices.

On the other hand, design studio is also cited as an exemplary model of student-centred learning (Boyer & Mitgang, 1996). Its small-group Socratic traditions of robust and lively questioning and discussion, along with its emphasis on active, project-based and experiential learning, can help students construct and reflect on their own understanding of design knowledge and practice. In affirming the complexity of this engagement, Thomas Dutton (1987, p.16) suggests that, "design studios are active sites where students are engaged intellectually and socially, shifting between analytic, synthetic and evaluative modes of thinking in different sets of activities, (drawing, conversing, model-making)".

Because of its potential for deep, student-centred learning, the studio setting rightly occupies a central place in university design education. This advantage might be undermined, however, by the discipline community's' diffidence in articulating their internalised knowledge, practices, assumptions and standards of excellence in terms of learning outcomes. This problem is exacerbated by a tradition of valorising the authoritative but subjective taste of the "master" when judging the excellence of artefacts designed by undergraduate "novices".

This suggests that there might be troubling discrepancies and inconsistencies between the values and expectations design educators think they are teaching and those that are understood by undergraduates. This is problematic in an institutional climate that demands transparency and accountability and an educational climate that promotes an outcomes-based approach. It also means that the design disciplines cannot be sure of how effectively design studio—and, in particular, its assessment practices—are acculturating students into the disciplinary community as future professionals.

In this paper, we discuss an aspect around the question of student perceptions of design excellence. This was part of an evidence-based, action-research project undertaken to assist the faculty in its efforts to articulate qualities of excellence shared by students and staff and prioritized in the assessment of student design studio projects which did not align in perspective. The Faculty recognised these differences and created opportunities and funding to study this issue.

I. RESEARCH PROJECT DETAILS

Commencing in 2003, the original research, from which this paper stems, was an action-based, interdisciplinary research project undertaken at UNSW, in the Faculty of the Built Environment under the auspices of the Quality Task Force. It uncovered perceived characteristics of excellence in student design projects – denoted with a High Distinction grade which is equivalent to an 'A' in other grading systems, (which is reported on in this paper), perceived student strengths and weaknesses and the components of an ideal design teacher as understood by students and teaching staff in three undergraduate design programs – Architecture, Landscape Architecture, and Interior Architecture.

The overall aim of this aspect of that project is to enhance FBE design learning, teaching and assessment practices through student and staff shared understanding of academic excellence.

The project used a phenomenological approach undertaken in an action-based context, triangulating methods consisting of quantitative and qualitative staged techniques, (Corkery et al. 2003). The research (process, techniques and data reporting procedures) used the FBE's Human Research Ethics Advisory Panel's guidance and ethical research procedures as standard practice. First, the techniques of discourse analysis of existing literature and materials were employed to contextualise material. Second, a student survey in which students reflected on their educational experiences within their program was conducted. Third, five structured discussion groups were conducted with students, staff and graduates. Discussion in these sessions corresponded with topics in the student questionnaire.

In light of a traditional disciplinary emphasis on the master's perspective, the project methodology was particularly concerned to give students a voice and so the survey component of the broader research is unpacked in this paper. Using standard quantitative survey administration procedures and data analysis, 539 students in years 2, 3 and final year of the three degree programs were surveyed through a written questionnaire at the start of the first academic session in 2003. Of these, 341 (63 per cent) voluntarily responded.

The research team was satisfied with the overall response rate and its representation of the [design] student body. There is no reason to believe that the respondents who completed a questionnaire were any different to those design students who did not. This is based on the fact that all students were given the opportunity to answer a questionnaire and that more than half of that base population were in fact surveyed. A high response rate was achieved in each program and across the years of study.

The student responses identified the qualities students associated with design excellence in their design studio projects, which in turn, help FBE staff to align these qualities with statements of academic performance levels, such as those proposed in Biggs' SOLO Taxonomy (1982, 1991). Biggs' framework suggests a correlation between deep learning approaches—which, at its best, design studio promotes—and qualitative learning outcomes such as synthesis, reflection, and speculation. These learning outcomes represent the highest levels of academic performance and students operating at such levels would expect to be rewarded with excellent grades.

II. RESEARCH PROJECT RESULTS

In the 2003 questionnaire, students were asked the following question: "What are the characteristics of a high distinction design studio project?" At UNSW, the highest grade is the HD, which corresponds with a numerical mark in the range 85 to100 per cent and a descriptor of "outstanding performance" (UNSW, 2002). These qualitative responses were closed off into 11 descriptors and entered into SPSS software from which comparative frequencies were run. Across the three programs, there were mutual student perceptions of what constitutes academic excellence in design projects. However, student responses indicate significant variations within programs and across years. The analysis of student responses aggregated across all programs produced the following 11 descriptors of academic excellence, ranked in order of importance to the students:

Descriptor	Brief Description	%
Presentation	graphics, drawings, attention to detail, images, and visual appeal	24%
Communication	able to communicate ideas clearly, project has clarity	22%
Great design	great design, project knowledge, well-researched	21%
Synthesis	high quality from beginning to end, complete, holistic, synthesised, and responsive to all aspects of the brief,	18%
Innovation	unique, innovative, creative, thoughtful, insightful, original, something new, daring, going beyond the brief's criteria	15%
Conceptualisation	excellent, strong and sophisticated ideas and concepts	11%
WOW factor	amazing, exceptional, outstanding, best in the class, 'perfect', unpredictable, exceeds expectations, WOW	11%
Conforming	Responds to and meets the criteria of the design brief	10%
Functionality	practical, realistic, functional, sustainable, solves an problem, and is sensitive to the site	9%
Resolution	resolved theoretically and conceptually	8%
Other	other time, money, effort, passion, and favouritism	5%

III. DISCUSSION

The language students used to describe characteristics of High Distinction (HD) design studio projects did not surprise the research team. Indeed, much of this language resonates with scholarly descriptors of academic performance at the HD level particularly characteristics, project knowledge and understanding, synthesis and innovation as listed in points two, three and four.

Presentation quality is a familiar assessment criteria in university education (Gurel & Basa, 2004, Orsmond et al, 2004), so the research team was not surprised that these were perceived by students to be a most salient characteristic of an HD project. However the consistently high ranking given to visually appealing presentation reveals the emphasis on visual literacy, craft practices, creativity, and graphic representation in design disciplines and their professions (Cowdroy 2005). It also confirms the continuing influence of the patrimony of fine Arts and the Beaux-Arts tradition of jury assessment with its emphasis on artisanship and the aesthetic presentation of design artefacts.

The perception that an excellent project is a functional project suggests that many students value design studio learning that is purposeful, related to real-life contexts, and directed towards their future professional careers. A sobering finding was that many students perceived other determinants—such as time, money, effort, passion and favouritism—as characteristics of a HD project. These findings suggest that some students find their involvement in the FBE design learning culture challenging. The perception of favouritism was troubling but not unexpected in a context

where teachers, who occupy the traditional role of the "master" make judgements about students project work. On the other hand, students need to understand that personal effort alone does not automatically result in a HD grade.

The research team noted there was a change in students' perception of the importance of meeting the criteria set for the design brief as they progressed towards degree completion. Very few final-year students perceive that this characteristic is a component of an outstanding design project. This result was not unexpected because final-year students in all three programs engage in self-selected thesis and design project research in their graduation year. This finding alerted the researchers, however, to the role of penultimate design studio courses in assisting students in the transition from teacher-formulated design project briefs to student self-directed design research and projects.

Students in the Interior Architecture Program mentioned the 'wow factor' much more frequently (Gordon, 2004). This language resonates with some institutional descriptors of high-quality academic performance. Perhaps more importantly, it is consistent with a discipline where the practitioner's creative expertise is publicly demonstrated in magnificent spaces, landscapes, and buildings and are easily available in magazines that focus on iconic design projects. This privileges an ambitiously high standard of academic performance for undergraduates to strive to achieve and may explain the use of superlatives in the language of designers.

Ideas and concepts are commonly stated assessment criteria in course handouts, so the researchers were surprised that conceptualisation was not a highly ranked characteristic. Indeed, it ranked lowly across and within the three programs. This suggests that at this performance level, staff expect students to explicitly demonstrate an ability to construct and coherently visualise a rationale for a particular design approach. Students might not be supported, however, in developing these skills. Even though conceptualisation might be stated as an explicit assessment criterion, it might well be undermined by an assessment practice that privileges the synthesis of ideas and their representation in design project artefacts.

The finding that only a few students viewed theoretical resolution as important further revealed this tension. This suggests that students might feel that, to achieve a high distinction, they are not required to explain the rationale for their design project decisions with reference to the disciplines' body of design knowledge. Theory and concepts might only be deemed useful by these students if they are persuaded that these will add new dimensions to their personal design project approach.

The research team noted that students' perception of the importance of communication shifted over the duration of the degree. By their final-year students in all programs perceived communication as an important characteristic of a HD design project, thus demonstrating a familiarity with the written, verbal, visual, and interpersonal capabilities expected in

professional practice performance (Lawson, 2004). For this group of students this also suggests that they perceive that academic excellent performance occurs when these capabilities are simultaneously directed to the confident explanation and visualisation of their design project and its intentions.

IV. CONCLUSION

This paper draws attention to academic excellence as understood by students who engage in design studio learning in three FBE programs. Currently, the faculty does not consistently set out performance standards; neither does it regularly publish or exhibit exemplars that demonstrate excellence at the level of High Distinction, where innovation and risk–taking was encouraged and celebrated. It is perhaps not surprising then, that students often feel that judgements of their academic performance are subjective and unrelated to stated assessment criteria. In order for staff and students to share the same understanding, the way forward in design education may involve the exposition of a diverse range of student design project exemplars to facilitate articulating a design specific performance rubric. As student responses revealed that there are significant variations within programs a comparative analysis of assessment criteria in relation to performance standards in design studio courses in the FBE design programs would be timely.

Previously embedded in tacit knowledge and practices, the disclosure of these understandings provides the FBE and our design community colleagues and institutions with well-grounded research to meet the challenge of advancing, enhancing, and articulating the vitality and distinctiveness of student design learning in universities. In the current quality assurance climate, this section of the project alerts academic and design practitioner staff to the importance of reviewing the assumptions and values upon which their habitual practices are based, and working collaboratively to implement evidence-based assessment strategies. This work supports ongoing institutional Faculty commitment to continual improvement of the student lived experience, the lack of research in learning and teaching in a design studio and staff reflections on design assessment criteria and process.

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