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BUTTERPAPER, SWEAT & TEARS: THE AFFECTIVE DIMENSION OF ENGAGING STUDENTS DURING THE ARCHITECTURAL CRITIQUE

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ABSTRACT

Considering how dominant a feature of architectural education the critique has been, and continues to be, little has been written about the affective dimension of engaging students during this key final stage of the design or documentation process. For most students, the critique is unlike any previous educational or life experience that they have ever confronted, and the abrupt change in the instructor's role, from tutor to judge, can be disconcerting at a time when the student is feeling their most vulnerable. The fact that the period immediately leading up to the critique habitually entails not only a focused and sustained effort, but also sleepless nights of intensive work, further exacerbates this. The purpose of this paper is to recognise the affective phenomena influencing student engagement, during the critique.

The participants of this research were second to fourth year architecture students at a major Australian university. Following the implementation of trials in alternative modes of critique in architectural design and technology studios, qualitative data was obtained from students, through questionnaires and interviews. Six indicators of engagement were investigated through this research: motivation and agency, transactional engagement with staff, transactional engagement with students, institutional support, active citizenship, and non-institutional support. This research confirms that affective phenomena play a significant role in the events of the critique; the relationship between instructor and student influences student engagement, as does the choreography and spatial planning of the critique environment; and these factors ultimately have an impact on the depth of student learning.

Keywords: *Architectural Education, Affective Dimension, Engaging Students, Critique*

INTRODUCTION

The studio has a long history as a preferred environment for architectural education. With that history come a range of traditions and cultural expectations about the relationships between student and teacher. This historic relationship bears heavily on the design, development, and implementation of the activities and procedures with which the student engages (Glasser, 2000; Stevens 1998). Typically, within the studio environment, the academic takes the role of mentor and master to the student's apprentice. The student, in response to a brief/assignment set by the studio leader, will produce architectural designs, and the academic will review those designs. Such review might include critical comment, suggestions for modification, the offering of design direction, and the discussion of supporting theoretical propositions and theories. Much of this studio activity can be pedagogically framed as dialogue; all be it dialogue in which one of the parties speaks from a position of authority.

This privileged position of authority comes with a strong aspect of social acculturation in which the teacher models a range of acceptable architectural behaviours, both consciously and subconsciously (Nicol and Pilings, 2000, p. 8). There is a 'hidden curriculum [of] unstated values, attitudes, and norms which stem tacitly from the social relations' of teacher and student or from master and apprentice (Dutton, 1987, p. 16). This hidden curriculum, which operates so freely within the structure of the architectural design studio, is in many ways just as significant as the formal curriculum within the process of students *becoming* architects (Stevens, 1998). Research by Sadker and Sadker identifies this hidden curriculum of exclusion, intimidation, isolation, and condescending behaviour, 'so elusive that most teachers and students were almost completely unaware of its influence' (in Vogt, Hocesvar, & Hagedorn, 2007, p. 340). This paper seeks to explicate the affective dimension of these 'hidden' behaviours during the emotionally charged activities of the design critique.

THE AFFECTIVE DIMENSION

The relationship between student learning, engagement and emotional experience is well recognized and well documented. The Australian Council for Educational Research's (ACER, 2010, p. ix) research into learner interactions and student engagement highlights a number of indicators of engagement, leading to improved student learning. These indicators include the socially constructed relationships between staff and student, with particular attention given to feelings of support and legitimation within the academic community.

The individual and situational characteristics of learning environments, such as anxiety and self-efficacy, play an important part in the motivation to learn. Furthermore, such motivation is directly related, along with cognitive ability, to learning outcomes and skill acquisition (Colquitt and LePine, 2000). Research into the favourable psychological states that enhance engagement shows that 'safety' is one of the significant conditions for enhanced learner motivation (Kahn, 1990; Noe, Tews & Dachner, 2010). In this context, safety refers to a situation that can be characterized as trustworthy, secure and predictable in which the learner is 'able to express oneself without fear of negative repercussions' (Noe, Tews & Dachner, 2010, p. 283), or a situation that is nonthreatening and secure in which a learner may express various parts of self (Kahn, 1990, p. 705). The perception of trust and fairness is also a significant determinant in the emotional response to a social situation and the student's ability to learn (Noe, Tews & Dachner, 2010, p. 295). As we shall discuss later, such safety and trust are seldom characteristics that a student feels during the traditional architectural critique. Research has shown that negative emotion, especially anxiety, can be demotivating and distracting (Bell and Kozlowski, 2008) and indeed that such negative emotions can actually hinder learning (Kanfer and Ackerman, 1989).

From a thorough review of the literature, and from their own empirical research, Leach and Zepke (2010) propose a model for the conceptual organization of the differing perspectives of student engagement. This 'conceptual organiser' highlights a number of indicators, many of which, as will be discussed later, relate to the socially constructed relationship between tutor and student; a relationship that typically changes dramatically from one of guidance, academic challenge and constructive collaboration during the design process, to confrontation and judgment during the critique. What we will show later in this paper, is the significance of the 'transactional engagement' with academic staff. In particular, how the transactional engagement with staff during the critique influences student's emotional responses, which in turn affects their potential to use the critique as a learning experience.

THE CRITIQUE

The traditional model of the critique is that of a formal presentation by the student of an architectural design project, at which time the project is usually assessed by a team of academic staff. This typically involves a rigid and hierarchical arrangement of furniture and participants, timetabled presentations, a structured program of presentation by the student and feedback or comment by the academic staff, followed by a formal summative assessment. The critique, as a learning environment, offers a somewhat unique activity with significant opportunity for dialogue and conceptual exchange between teacher and student. As such it is a highly useful pedagogical tool that can expose architectural design process, model workplace behaviours and professional practice, and allow students to develop the ability to verbally and visually critique their own work (Dannels and Martin, 2008; Webster 2006). As we will show however, it does not always achieve this potential.

If emotions may help or hinder the potential for learning, then the heightened emotional environment of the architectural critique requires further consideration. Within the studio environment, based so heavily on dialogue and the constructed relationship between teacher and student, the critique becomes in many ways an anomaly in which the instructor and guide becomes the judge and juror. The constructive environment and team like relationship of the tutorials gives way to a strongly segregated relationship of authority and judgement. 'The jury system of evaluating design work in schools of architecture is abusive, undermines teamwork, and should be reconsidered' (Mitgang, 1999, p.4). This somewhat antiquated activity, as it is traditionally performed, is no longer aligned with recognized good educational practice.

Fredrickson's (1990) research into design juries shows that during the critique there are significant barriers to open dialogue; largely associated with perceived, and at times hidden, systems of power and authority. Social prejudices and power games often interfere with the free interchange of ideas as students experience feelings of anxiety and defensiveness (Stevens, 1995; Webster, 2006). Such emotionally restricted dialogue limits the learning opportunities of the student during the critique (Melles, 2008). Students are not open to feedback at this time and are not achieving quality learning outcomes (Percy, 2004).

Using Foucault's writing on power and education, Helen Webster's analysis of the design studio and the critique identifies a range of 'microtechnologies of power' (2007, p. 21) that are used, both consciously and subconsciously, to socialise or acculturate students into architects. Students are coerced into conforming to expected models of behaviour through a critique process that is 'profoundly de-motivating and competitive' (Webster, 2006, pp. 286-7). Webster is just one of a number of researchers and academics (Wilkin, in Nicol and Pilings, 2000) who have found the architecture studio and the critique to be 'a very incomplete system of education' (Mitgang, 1999, p. 4). This outdated environment and its hidden curriculum inadvertently promotes an emotional response that hinders learning, rather than a cognitive response that assists learning.

Lawrence (2008, p. 75) notes that 'learning is a holistic process that involves cognitive, affective, somatic, and spiritual dimensions'. While emotions effect motivation which effects learning (Bye, Pushkar and Conway, 2007, p. 153-155), it is specifically creative people (such as architecture students) who do their best work when they tap into their emotions, through transformative and emotional learning (Lawrence, 2008, p. 67). This connection between reasoning and emotional intelligence is one aspect of a supportive learning environment that architectural education and the critique in particular does not deal with well (Gonczi, 2004, p.

26). The power game of such critique juries removes control from the learner and leaves the student in an emotionally vulnerable state. If the interplay of thinking and feelings (cognition and emotions) gives rise to intentions and motivations and behaviours (Buvoltz, et. al. 2008, p. 27), then such de-motivation will not result in good learning outcomes.

As well as the interpersonal interactions, the spatial pattern of the critique can also work to limit the learning opportunities as the formal arrangements of furniture, students and staff can reinforce the symbolic power of the academic during the critique (Salam and El-Attar, 2006, p. 189; Satherley, 2010; Webster, 2006, p. 12). The traditional arrangement of the critique in many ways imitates that of a court house with judges, jurors, the public, and the accused; a situation in which the student feels the need to defend their design in what is a traumatic and intimidating experience (Blair 2006; Webster 2006).

METHODS AND ANALYSIS

Over 500 undergraduate architecture students enrolled in second, third and fourth year design and technology classes completed a survey about their levels of engagement in these classes. Using a qualitative grounded theory approach, the data were coded and four key indicators for engagement emerged: student attendance, participation, performance, and learning. Following the surveys, the researchers worked with unit coordinators to facilitate the implementation of alternative critique approaches within some of the units. These alternative critique formats focused principally on modifying relationships or the choreography of the critiques. The alternative formats can be summarised as follows: Theatrical performances to the whole class and within a public environment; Three day design exam with no oral presentation; Formal board-room table client presentation format; PechaKucha 20x20 presentation format; Informal board-room table client presentation format; and United tutor and student jointly presented work to the critique jury.

Following the end of semester critiques and using the four indicators for engagement as an organisational structure, the researchers conducted in-depth interviews of small focus groups with over 20 students and staff. The interviews focused specifically on the affective dimension of student engagement during the critique. Participants were asked to discuss their feelings regarding attendance, participation, performance and learning during the critique.

In recent research into the varying dimensions of student engagement, Leach and Zepke (2011) have proposed a model for conceptually organising the complex process of engagement into a number of discrete but interrelated perspectives: Motivation and agency, Transactional engagement with staff, Transactional engagement with students, Institutional support, Active citizenship, and Non-institutional support. This conceptual organiser was used to code and analyse the data collected during the interviews. Particular attention was given to perspectives that related to Transactional engagement. Active citizenship was not explored, as there was no evidence to suggest that it had any direct bearing on the critique process.

FINDINGS

Motivation and Agency [*students are intrinsically motivated and exercise their agency*]

When discussing the critique, participants identified 32 emotions relating to motivation and agency, as a perspective of engagement. A major hindrance to this perspective was when students felt *overwhelmed*: ‘the complexity ...and the amount of themes that we had to

respond to in one design project at times just felt overwhelming ...and it took me quite a lot of research and extra work to come to grips with how to marry all of those things together ...they just stacked up. Definitely at times I was terrified about that ...it's like it just stepped up exponentially' [7.22]. *Fear* also presented a significant hindrance: 'it was just terrifying ...I almost tuned out for most of it. I would stand there and nod vaguely and want it to be over' [1.49]. *Frustration* was also a substantial finding: 'the structure, although it was there, it was just frustrating to get through' [8.02]. Finally, *hopelessness* was a recurring theme: 'I have done it now ...can't do anything about it ...and they will say stuff and ... a lot of the time you just want it to be over' [1.43]. Other significant negative emotions inhibiting Motivation and agency included *confusion*, *lacking confidence* and *anxiety*.

On a positive note, many of the students found the critique process very *satisfying*: 'extra rigour creates a better equality project ...it's really healthy to have discussions with people about an idea ...you might get negative feedback but that just helps you to refine that idea ...when I was younger it was harder but as I have gotten older it's become easier' [7.14]. Several students also said that they found crits *enjoyable*: 'crits are my favourite part of [design] ...I love getting up and sharing with someone my ideas and my favourite part is answering the questions ... even if it is not the right decision ...or if they think it's wrong and you could have done something better, it's having that discussion which I like ...[fear] works as adrenalin which makes me more focused' [6.26]. Other significant positive emotions aiding Motivation and agency included *confidence* and *reassurance*.

Transactional Engagement with Staff [*students engage with teachers*]

Participants noted 30 emotions relating to transactional engagement with staff, as a perspective of engagement. A major hindrance to transactional engagement with staff was when students felt *frustrated*: 'the most frustrating criticism I have ...is [when] the person can't direct you to text/exemplar. If you aren't getting substantiated feedback, that's very frustrating; particularly when you have put work up that is researched, that has some kind of basis, that's very frustrating' [7.25]. Another common negative inhibitor was that students feel *exposed*: 'when it comes to a design, it's all subjective and that's when you have to open yourself up ...I find it hard to deal with criticism ...it's awful ...it is easier when someone likes it' [1.33/9]. Further significant negative emotions inhibiting Transactional engagement with staff included *boredom*, *disappointment* and *intimidation*.

Positive emotions were more noteworthy when discussing this perspective. *Satisfaction* of students is a significant aid when engaging students: 'I enjoyed the panel because you get so much more from it ...basically, I find that with the whole constructive criticism ...if someone says something and ...it could be taken personally ...you will see the tutor or another person trying to explain what they mean, if it seems that the actual student isn't getting the point' [7.26]. *Reassurance* was also cited as a major contributor to engagement: 'she encouraged us and she pushed us and she let us go and the results showed in the end' [2.27]. Additional contributors aiding Transactional engagement with staff included *enjoyment*.

A specific component of Transactional engagement with staff that the researchers further investigated was the theme of interpersonal relationships. Three key negative emotions inhibiting engagement were evident; firstly *intimidation*: 'he said something ...to a couple of girls who have weren't participating and one of them got really scared and backed off completely and didn't say anything for the rest of the class ...sometimes people will say something to deliberately get people involved ...sort of shutting someone down to encourage

them' [8.11]. The second key emotion identified was *frustration*: 'the week before our actual assignment was due, we were still having to change the design and I just got incredibly frustrated by that ...I didn't feel like I was being supported by ...my group members and ...my tutor was supporting me and giving me feedback ...but frustrating me ...so I was getting frustrated from both ends' [6.22]. The final key emotion was *disappointment*: 'but the disappointment from the tutor, when you don't have anything ...that makes you feel so guilty ... why have I not done something? ...I have let them down ...I always felt that' [7.10]. One key positive emotion aiding engagement through interpersonal relationships was evident; *reassurance*: 'I turned up even if I didn't want to ...my tutor was really good and ...asked ...where I was stuck and talked me through it ...good at crystallising my thoughts' [1.06].

A second specific component of Transactional engagement with staff that the researchers further investigated was the theme of choreography; modification of the physical setting. Two key positive emotions were evident; firstly, *satisfaction*: 'people presenting their work in front of other people, it was less stressful ...or out of the way it's been done the last few years ...it was refreshing and [students] engaged with the challenge' [3.26]. The second key positive emotion aiding engagement during the critique was *enjoyment*: 'I loved the performance thing because it was such a contrast and it was another creative outlet ...it was so different, more exciting, added more adrenalin' [7.28].

Transactional Engagement with Students [*students engage with each other*]

18 Emotions relating to transactional engagement with students as a perspective of engagement were identified during the interviews. By contrast with transactional engagement with staff where positive emotions were generally more apparent, transactional engagement with students had a more negative focus. The most substantial emotion hindering engagement was that of *intimidation*: 'there are some people ...who have quite big egos when it comes to themselves within their field and you don't feel like they appreciate anyone else's work but their own ...you are doubting your own because you feel that they doubt you ... [you] do feel judged and [you] don't feel equal' [7.19]. Students also spoke about *lacking confidence* as an important contributor to reduced engagement: 'I think it is because you are open not only to the tutors ...you are open to all the students ... someone is going to pull me up on this ... once they say something, they don't think it will work, I believe it won't work' [1.52]. Additional negative contributors which emerged included *awkwardness, disappointment, distraction, exposure, fear and withdrawal*.

From a positive perspective the emotion of *satisfaction*, stood out: 'every student needs to do a critique ...it was brilliant because all of a sudden my confidence came back because ...I realised there is a lot ...that I know' [2.22]. Other positive perspectives included *confidence, reassurance* and *reduced inhibited*.

Institutional Support [*institutions provide an environment conducive to learning*]

By contrast with the other perspectives of engagement, only 9 emotions relating to institutional support were identified during the interviews. *Fear* stood out as a significant emotion: 'If someone told me two or three days out of a critique that it was going to be different than what I planned for, I would freak out' [1.36]. Another noteworthy emotion was *frustration*: 'that's a lot to do with how much time we have ...when we don't have that much time ...we can't communicate whatever we are passionate with ...it comes back to contact hours' [3.22]. There were no notable positive emotions concerned with institutional support.

Non-institutional support [*students are supported by family and friends to engage in learning*]

Only one significant emotion emerged when considering the perspective of non-institutional support; *overwhelmed*: '[we] are extremely tired because we do work and we have got the pressures of the office ...so up early, you are at work, you are working back long hours to make up for the fact that you are out of the office for a day or two ...sometimes by the time you actually get to uni ...I hate to say it, you are exhausted' [2.08]. It is important to note that every instance of students feeling overwhelmed or overloaded within this criterion, related to external work commitments and pressures.

CONCLUSION

While the value of the design critique as a learning environment is clear, it is also clear that it is an emotionally charged environment in which many students experience a heightened affective dimension, especially to the interactions between student and staff. It is also evident that when such interactions are unmanaged and students experience excessive negative emotions, that their capacity to learn from the critique can be significantly affected. It is not the purpose of this paper to discredit the critique but to highlight the affective dimension such that academics may better manage that aspect of the environment. Feelings of *frustration*, *intimidation* and *being overwhelmed*, the most frequently mentioned negative emotions, need to be minimised, while feelings of *enjoyment*, *support* and *satisfaction*, the most frequently mentioned positive emotions, need to be reinforced. The first step in dealing with this affective dimension is recognition, and in particular recognition by all academic staff, especially casual tutoring staff and guests at the critique, of the significance of emotions in this learning environment.

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