

Navigating student stresses in the interface between creative and technological competence: a case study in Interior Architecture

Final Report 2014

Curtin University

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List of abbreviations and acronyms used

ALTC	Australian Learning and Teaching Council
IA	Bachelor of Arts (Interior Architecture)
OLT	Australian Government Office for Learning and Teaching

Executive summary

Observations of contemporary university students studying interior architecture indicate that they are becoming more focused on aspects related to how they respond to learning situations (such as studios, tutorials, project work and self-directed activities) rather than the content, the learning potential for their personal and future development, or inquiry about or interest in their core discipline. Students increasingly couched their conversations about the coursework and associated activities in terms about stress—being stressed or being stressful. Associated with this discourse, the project team observed behaviours that complement the common attributes of Interior Architecture students: perfectionism, over achievement, procrastination, or self-criticism. Such attributes can in themselves lead to pressure, and therefore, stress.

In response to these observations, this seed project *Navigating student stresses in the interface between creative and technological competence: A case study in Interior Architecture* was conceived. The study's **primary aim** was to gain an understanding of contemporary university students' experience of a creative discipline where investigations, outcomes, and critique are continually in the public gaze of their peers and staff; and as a result, the potential for situations deemed to be stressful is high. This response is envisaged to be particularly true for newer students, who are yet to learn about what it is to undertake a design-based course or to join the associated professions. The **secondary aim** was to identify situational influences that could reduce negative pressures and foster the positive.

Within these two aims, the study's objectives were to:

- identify Interior Architecture student and staff perceptions of student stress in the course
- develop a stress scale which captures the terms used in relation to the emotions experienced (whether positive or negative)
- improve understanding of the characteristics and impact of learning situations that foster stress for students
- determine if there are strategies that are employed by students to reduce the stress.

An Action Research approach was applied to this project in order to identify insiders' perspectives on their learning experiences. The research consisted of three major stages and one minor stage. Each stage built on the findings and insights gleaned from the previous stage.

The main insights that arose were:

1. **Learning situations are not inherently negatively stressful for contemporary university students.** Across a cohort of students the same situations are experienced very differently, eliciting responses such as 'stimulated and excited', 'experiencing discomfort', and 'debilitated'. These findings indicate that changing the particulars of units and projects may not be the most significant intervention possible and that alternative approaches to decrease the negative and increase the positive responses are needed.
2. **Comparatively, some learning situations are more stressful than others.** Therefore, situations described by students as being the most stressful can still provide stimulating and very positive outcomes. This raises the question: Does the experience of a particular scenario (unit, project, studio), become negative over time in the context of the whole course? And, vice versa?

3. **Where situations are negatively stressful, expectations were often involved.** Student and staff responses demonstrated that irrelevant, inappropriate, ill-informed and/or misinformed expectations of immediate, contextual, and professional issues or requirements can lead to outcomes such as unrest, frustration, anger, and lack of engagement. Associated with these responses, negative aspects of stress (emotional, cognitive, physical or behavioural) can present. Therefore, the importance of clarity about the context is potentially of more importance than the logistical aspects (for example, hand-in dates and assessment schedules) to establish a stimulating and secure setting.
4. **Where situations are negatively stressful, miscommunication was often involved.** Learning, where there is a mismatch in the conceptualisation of the situation, leads to discomfort and unrest—and potentially stress. A deeper understanding of the core principles of how a discipline operates, and what its members believe in, is essential. For example, if students do not experience and understand *what a studio* is and *how a studio operates* then they cannot come to terms with what it is to undertake professionally based creative learning. This may involve core aspects such as: public critiques and open tutorials; recognition that designing involves inquiry and exploration of ambiguous and complex scenarios; and criteria of good/bad design exist which are professionally based and not subjective (including the intangible qualities) for designs with potentially numerous resolutions. In association, if students are not introduced to the discipline and how these principles become embedded within a practitioner's habitus, content and process, relevance may not be comprehended. A unit is developed based on a discipline's habitus—or way of being—that a student may not yet be privy to. Consequently, there is a mismatch between implicit understandings and these 'hidden' differences will influence learning experiences.
5. It is well documented, **the more mechanistic course aspects**, such as clarity in project presentation requirements, consistency in grading criteria and scales, and reliability of access to resources and electronic management systems, can influence levels of frustration and respect for the unit or staff member, and therefore, students are more likely to become dissatisfied, frustrated or stressed. Although not the main focus of the responses, this study complements the previous work.

The longer terms goals are that this seed project:

- develops strategies to maximise student engagement with the course and likelihood of successfully completing it
- supports students to navigate the tensions inherent in being creative and innovative whilst attending to practical aspects of a profession such as technology and functionality
- shares the findings and recommendations of this study with Interior Architecture staff and students at Curtin as part of the ongoing course development and refinement plans
- shares findings with the broader academic community across Australia, to encourage the inclusion of teaching and learning strategies which reduce student stress in creative professional courses
- stimulates discussion and action in an area of research and practice that potentially impacts on student and graduate's short term and long term wellbeing.

The project has been shared through a paper submitted for publication as well as the following report. The results will also be disseminated through academic and student forums and to IDEA educators (Interior Design/Interior Architecture Educators Association).

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Chapter 1: Project overview

Introduction

In recent years there has been considerable activity in Australian higher education in relation to curriculum renewal, and the focus continues as universities strive to meet the increasing demands for, and expectations of, quality tertiary education from multiple stakeholders (James, 2002). A significant reduction in resourcing for higher education along with a changing student cohort with different learning needs, levels of engagement and motivation for learning are also major factors in curriculum renewal. One of the main drivers for curriculum change, therefore, is to improve outcomes for a key stakeholder group: students. By improving student learning through providing a quality, relevant, consistent program of study it is assumed that student employability and general outcomes will be enhanced.

Research has demonstrated that a major factor in student success in higher education is their level of stress, which is influenced by academic expectations and performance, and feelings of “too much to learn” (Abouserie, 1994). Friedlander, Reid, Shupak, and Cribbie report that students find the transition to tertiary education harder than they anticipate and note that it affects their physical and psychological health. “Decreased stress predicted improved overall, academic, personal-emotional, and social adjustment. Increased global, academic, and social self-esteem predicted decreased depression and increased academic and social adjustment” (Friedlander et al. 2007, p.259). Robotham (2008) draws from the literature key variables influencing the form of student experience including: differences between individuals’ interpretations of the same situation (Omura, 2007) and the consequences of perceived demands (Ross, Neibling & Heckert, 1999), resulting in positive response to a challenge or negative response as a threat (Shields, 2001); and thereby student behaviours adapt.

Students experiencing high levels of stress (and associated depression) are more likely to withdraw from their course of study (Dixon and Robinson Kurpius, 2008). At Curtin University, the Bachelor of Arts (Interior Architecture) underwent significant curriculum change in 2011, and many innovations to the course design were implemented; these included the integration of the curriculum both vertically and horizontally, the introduction of intensive or block teaching delivery modes, the reduction or streamlining of units, and the introduction of a reconfigured model of studio-based learning. The aims of these innovations were multidimensional; however, a major driver was to reduce negative influences of variables implied or discussed by students in terms of “stress”. In association the university strove to build on the positive stimuli that lead to high engagement while being stimulating and challenging. Overall the aim was to aid learning for students typically attracted to Interior Architecture.

The research aimed to address a gap in the literature pertaining to university student stress and teaching and learning in creative professional courses. Both documented and anecdotal evidence indicate that a number of Interior Architecture students display characteristics that induce a desire to overachieve, which can often result in them seeking counselling support to cope with a number of responses to university study in a contemporary context. In addition to this subgroup, it had become evident that students seem to discuss the ongoing demands of university study and the course requirements in terms of stress. The concern that this may lead to conditions that would impact on student wellbeing was a driver for the conception of the project. By understanding the context and the students’ experiences more deeply, it is envisaged that strategies involving curriculum design, unit management and student support could be refined or altered to address the emotional and behavioural triggers to stress and improve levels of learning without compromising student wellbeing.

A brief summary of the project design follows, prior to a description of the main issues arising from the literature drawn from the research fields pertaining to stress and

university learning, as well as creativity and interior architecture education.

Aims

- to gain an understanding of contemporary university students' experience of Interior Architecture (a creative discipline); that is, an insider's perspective
- to identify situational influences that could reduce negative responses and foster positive responses to pressure or stressful learning situations.

The objectives of this case study were to:

- identify Interior Architecture student and staff perceptions of student stress in the course
- develop a stress scale which captures the terms used in relation to the emotions experienced (whether positive or negative)
- improve understanding of the characteristics and impact of learning situations that foster stress for students
- determine if students employ strategies to reduce the stress they experience.

The longer terms goals are to:

- develop strategies to maximise student engagement with the course and likelihood of successfully completing it
- support students to navigate the tensions inherent in being creative and innovative, whilst needing to attend to practical aspects of a profession, such as technology and functionality
- share the findings and recommendations of this study with full time and sessional Interior Architecture staff and students at Curtin as part of the ongoing course development and refinement plans
- share findings with the broader academic community, to encourage the inclusion of teaching and learning strategies which reduce student stress in creative professional courses
- stimulate discussion and action in an area of research and practice that potentially impacts on students' and graduates' short term and long term wellbeing.

Methodology: An action research cycle of four stages of activity was developed.

Major Cycles:

- a) to identify student attributes and course characteristics that underpin issues related to the definition and experience of stress (*Staff Conversational Interviews; Literature Review*)
- b) to identify students' descriptions and responses regarding a number of aspects relating to contemporary Interior Architecture education; including (i) definitions of stress, (ii) emotional responses ; (iii) interpretation of learning experiences as scenarios in terms of stress indicators and (iv) link between the project work and student sense-of-self (*Online Survey*)
- c) to explore and clarify the six key insights arising from steps a and b of the synergistic focus groups

Minor Cycle:

- d) to identify if students consider that physical environment impacts on their motivation and creativity as well as on their level of stress (*Paper-based Survey*)

The data was analysed for common themes and patterns. The insights arising are reported in Chapter Four.

Chapter 2: Background literature



Nature of stress in general

Definitions of stress generally include two notions. The first is the inability of the individual to meet a demand placed on them, and the second is the judgement made by the individual that they are unable to meet this demand; for example: “stress occurs when the individual believes that they cannot meet the demand being made on them by the environment, i.e. it is a subjective self-evaluation of not being able to cope, of feeling overwhelmed to some degree” (Burns, 1991, p. 67); and the earlier view that “stress is the result of an individual's perception that they do not have the resources to cope with a perceived situation from the past, present or future” (Lazarus and Folkman, 1984, p. 19; or the more detailed “stress is a physical, mental or emotional reaction resulting from the subject's response to environmental tensions, conflicts, pressures and similar stimuli, and is the result of an imbalance between demands and the adaptive capacities of the mind and body” (Fontana, 1989, p. 22).

Different individuals view situations differently, and what one person might see as a challenge, another may view as a threat (Sarros and Densten, 1989). Events viewed as being a challenge tend to lead to positive responses (studying harder, for example), while those viewed as being a threat tend to lead to negative responses (avoidance or dropping out, for example) (Shields, 2001).

Different students experience the same learning situation in a variety of ways, depending on whether they view it as a challenge and respond positively, or view it as a threat and respond negatively.

Studies of stress in students

University students as a population did not feature prominently in stress-related studies before the mid-nineties (Abouserie, 1994, p. 324). Cvetovski et al. (2012, p. 457) found it surprising that few studies into the psychological distress of Australian tertiary students had been completed, bearing in mind the high percentage (42%) of 18 to 20 year olds who attend tertiary institutions (citing Birrell et al., 2008), and the prevalence of mental disorders being highest in the age group 16–24 years old (citing Slade et al., 2009). It was also noted that many Australian studies were based on small samples, and results hard to generalise for all university students (Cvetovski et al., 2012, p. 458). “Benchmarking against the general population is important in understanding whether or not university students are an at-risk population in regards to mental health” (Stallman, 2011, p. 249).

In a study of student stress in higher education in the United Kingdom, Robotham noted that much of the previous research focussed on students of courses with a strong vocational element, such as medicine, nursing, psychology and law (2006, p. 108). Robotham reported an upward trend in the stress of students and further noted that most previous studies had concentrated on a quantitative methodology, adopting self-reporting of stress measures using a variety of inventories that claim to measure stress, well-being or stressors. These studies produced quantitative data that rejected qualitative individual information, which may provide explanations for the existence of

student stress. “This gap in the knowledge base calls for research that is capable of providing a more subjective explanation of student stress in universities through in-depth interviews with individuals” (Robotham, 2008, p. 738). Longitudinal studies into student stress and a broadening of the disciplines investigated were also encouraged to help determine the most effective support mechanisms for students at university (Robotham, 2008, p. 743).

There is a need for future research into student stress to include qualitative and longitudinal studies and include a broader base of discipline areas.

Stressors: academic, social and personality related

Early studies into stress experienced by medical students identified two groups of stressors: academic expectations and performance, and social factors such as maintaining relationships with friends and family (Heins, Fahey and Leiden, 1984). Abouserie found academic stressors such as *examinations and their results, too much to do, the amount to learn and need to do well*, to be the most likely cause of stress in undergraduate students, although social-related stressors were also recognised as important (1994). Furthermore, the majority of students studied (88%) experienced stress, with female students more prone to report stress than their male counterparts. Females also self-reported higher stress levels than males in a study into psychological stress in graduate psychology students at Georgia State University by Cahir and Morris (2006). Two possible explanations offered were that females were either more likely to express their stress than males, even if the stress experienced was at similar levels to that of their male counterparts; or that females experienced more stress than males.

Students with internal control beliefs “students who believe in their abilities and in their control of their situation (rather) than those who believe that things happen by luck or outside agents” and with high self esteem were less likely to be stressed (Abouserie, 1994, p. 329). High self-esteem may reduce stress by fostering social resources and effective coping (Zuckerman, 1989).

As well as academic and social stressors, personal characteristics of students impact on the stress they experience. Improving internal motivation and self-esteem of students may help students to cope with stress.

A longitudinal study of stress in Swedish university students, into the connection between the health status of students and their academic performance, reported that not only was stress in students on the rise, but it was reportedly higher than among the general population and working peers (Vaez and Laflamme, 2008, p. 184). According to Cvetkovski, Reavley and Jorm, who examined the differences in psychological distress experienced between Australian university, Vocational Education and Training (VET), tertiary students combined, and non-students, using three national household surveys: there is evidence that tertiary students have a greater prevalence of moderate, but not high distress than non-students (2012). Although the impact of stress on students’ academic outcomes was not investigated, financial factors were identified as increasing the risk of high distress, which is “likely to take on more importance as the participation rate of socio-economically disadvantaged students increase and should raise concerns about the success of policy initiatives aimed at improving the educational experience and outcomes of these tertiary students” (Cvetkovski et al. 2012, p. 466).

The typical range of stressors impacting undergraduate students was outlined by Blackmore, Tucker and Jones (2005) during development of their Undergraduate Sources of Stress Questionnaire. Their study yielded three important factors: academic demands, personal issues and financial issues.

A sample study of student stress using a quantitative methodology is that by Cahir & Morris, (2006, p. 417). In this study, The Psychology Student Stress Questionnaire or PSSQ was developed to assess the impact of emotional, financial, and academic stressors of graduate psychology training on students. The largest factor found on the PSSQ was related to time constraints; “not surprising given the responsibilities of school, work, home, and family life for many students in the sample evaluated” (Cahir & Morris, 2006, p. 417).

Recent and current Australian research on student well-being is dominated by work in the law discipline. In 2009, the Brain and Mind Research Institute (BMRI), with the support of the Tristan Jepson Memorial Foundation (created in memory of law student Tristan Jepson, who took his own life in 2004 after battling severe depression), surveyed 741 law students from 13 Australian law schools, and found that over a third of the students experienced psychological distress while studying law (Kelk, Luscombe, Medlow, & Hickie, 2009)). The (BMRI) Report also found that education and information strategies in place at Australian tertiary institutions to address student health and well-being are largely the initiative of counselling, equity and disability support services (Kelk, et al., 2009, pp. 44–45). The BMRI report further identified the role of the academic community in promoting the psychological health of law students, rather than leaving students to deal with it on their own.

Access to professional support

Within a university setting, co-location of specialist mental health services can promote a team approach to mental health care, with GPs, psychiatrists and clinical psychologists working together to increase the availability of care to students in need. The recent introduction of Medicare items for psychological treatment also facilitates greater access to clinical psychologists and other mental health professionals. (Stallman, 2008, p.677)

Although this was a primary care study, not generalisable to all university students, it provided useful suggestions for prevention and self-help interventions, such as fact sheets and provision of access to e-health strategies, which might help benefit students reporting medium to high levels of distress (Stallman, 2008, p. 677).

Student stress is on the rise, and higher than among the general population and working peers. In addition to co-location of specialist mental health services on university campuses and availability of online support services, the academic community can promote the psychological health of students through intentional course design.

Characteristics of Interior Architecture students and link to student stress

Interior Architecture has a tendency to attract a particular kind of student. Students of Interior Architecture are typically female, perfectionists, high achieving, and have a high level of attention to detail; they are also visually-orientated in their learning (Demirkan and Demirbas, 2010). The nature of the context in which these students are studying, and will be functioning as professionals, is changing significantly with the influences of globalisation and rapid technological changes. Graduates of Interior Architecture,

therefore, need to develop life-long learning and interpersonal skills (Armarego, 2006) to survive and succeed in a changed and changing profession. Many of these conditions are not unique to Interior Architecture; however, the discipline—like other creative professions—requires a mature graduate to be able to balance creative and technical or professional demands; mature Interior Architecture graduates can navigate the stresses associated with a failure of inspiration as well as working through ambiguous ideas towards a functioning resolution. This includes being able to cope with more than one project at a time and working successfully through the multidimensional aspects of projects. Significantly, the RMIT University-led project, *Create.Ed.: Strengthening teaching and learning in the creative arts disciplines*, funded by the Office for Learning and Teaching, has identified that professional practitioners see these capabilities as key characteristics of an Interior Architecture graduate. To complicate matters, students often enrol in Interior Architecture with preconceived ideas about design, and view creativity/design in a binary system, where technological or professional competency is its opposite and not part of the creative individual (Bryant, 2010). The challenge to achieve the desired graduate capabilities, therefore, is to manage the tensions inherent in balancing creativity and risk taking with the technical competency needed to create a functioning design, along with managing students' motivation, engagement, expectations and associated stresses, given the typical profile of Interior Architecture students.

Stress is an increasing area of research; however, few studies into university students' stress exist, with the exception of studies of medical student (Abouserie, 1994). Anecdotal evidence suggests that students of Interior Architecture are frequently directed to University Counselling Services for stress related to academic performance and expectations, with perfectionism an underlying issue. In creative fields, students are often exposed to situations where they may feel vulnerable and negative feedback on their work can impact severely on their sense of self-worth, as students have difficulty disassociating themselves from their original creative work. Significantly, self-esteem has been consistently found to be linked to depression and perceived stress; similarly, a direct link between self-esteem and depressive symptoms in college students has also been found (Dixon and Robinson Kurpius, 2008). Within Interior Architecture, students are most vulnerable during studio practice and the studio "crit," where their work is publically presented for peer and tutor feedback. According to published research, the studio "crit" is a stressful experience (Blair, 2007) particularly considering the element of public peer feedback (Pope, 2005). Feldman (2003) argues that significant creative work requires "sustained focus, hard work, well-organised knowledge, persistence in the face of failure, and a coherent presentation of the work" (p. 220). This is obviously going to be difficult to achieve if one is experiencing poor self-esteem as the result of formative feedback on one's work and a perceived correlation between self and creative work.

The anecdotal evidence regarding Interior Architecture students' high use of University Counselling Services is validated, particularly considering that several studies indicate that female university students are less resilient to stress than their male counterparts (Abouserie, 1994) and that most Interior Architecture students are female. Rostan (2010), in a study of the motivation and competence of young art students in an extracurricular studio art program, suggests that there is a significant correlation between the number of years of study and the ability to problem solve and be creative. In turn, the ability to be creative and problem solve were predictors of motivation and continued attendance. Presumably, if Interior Architecture students disengage from their studio practice due to the stress related to the course, they will not be able to develop the desired graduate attributes.

Application of the concepts to manage stress arising

Reflection on the current Curtin University Interior Architecture course provided a baseline for the current study. Because the majority of strategies noted have been

considered during the curriculum design and ongoing reviews, what became of interest was not the fact that the course addressed many if not all of the recommended strategies into the curriculum. Rather it was how students understood, perceived and responded to what they believed was occurring as opposed to what the staff thought was being provided and facilitated.

Recommendations by Field include the following points. Firstly, positive curriculum strategies to address psychological distress in Australian law students (Field2010) are:

1. a focus on curriculum content (skills focussed),
2. curriculum delivery (promotion of active, experiential learning, blended delivery approaches and conversational framework) and
3. intentional assessment strategy (authentic, motivating and empowering).

More specifically, in relation to assessment and feedback, Field and Kift (2010) highlight the following three strategies. Design assessment should be clear about what is expected of students; a position supported by Ramsden (2003) who identified the need for students to be given clear goals to be effective. In addition, a developmental approach underpins the second strategy. That is, design assessment must allow for tasks that are cumulative and increasingly complex over time as well as engaging and scaffolding students. Finally, they propose students should be encouraged to be independent learners by offering them authentic tasks that integrate self-reflection and provide choice. The nature of design projects complements the theories of authentic learning and student engagement (Parnell & Smith 2012).

In the opinion of Duffy, Field & Shirley (2011), 'Educators need to support student learning by creating constructive learning environments and promoting the positive development of personal and professional identities for students (of law)'. The intentional inclusion of positive practical steps may support student learning and promote student wellbeing (Duffy Field & Shirley 2011, p 250). These include:

a. Creating opportunities for active learning

Promoting student engagement by focussing on active learning (in lectures) facilitates deeper levels of learning and allows students to become independent learners in a subject area (Race 2007, p 97) and promotes the well-being of students for the nature of design-based courses (such as Interior Architecture) are inherently active because the learning situation is predominantly the studio rather than lectures. Similar to Duffy's observations, the studio in contemporary public universities are challenged to maintain low students to staff ratios, to focussing on promotion of understanding and skill development through design process investigation and modelling rather than subject content delivery (Duffy Field & Shirley). Other aspects, discussion and interaction are also core practices in design students. There is the potential for natural synergies between the studio as a learning model and these recommended strategies.

b. Demonstrating concern for students and their learning

Duffy Field & Shirley (2011) argue that showing care and concern for students may be resisted by academics in the current research-intensive environment at university; but is worth the effort if it promotes student engagement and supports student wellbeing. Ramsden's notion of a learning colleague provides the constructive framework in which academics can show care, concern and respect for students while maintaining professional boundaries (Ramsden 2003). This strategy complements the overall explicit Interior Architecture Departmental philosophy. Ongoing discussion with full-time and part-time academics can ensure that this ongoing and reflective practice by all staff.

c. Skilful management of student expectations and the learning environment

Of particular interest are the observations by Hatfield, Cappiopo and Rapson (2008). Academics are exhorted to demonstrate positive regard for and set high expectations of students, in a positive classroom environment that encourages self-belief and success. Skilful management of the learning environment to manage the 'emotional contagion effect' and keep the learning environment positive is encouraged. And in association, those by Duffy, Field and Shirley (2011): 'A key to dealing effectively with student expectations is for (law) academics to make their expectations of students as explicit as possible, as early in the semester as possible and to reinforce them in a positive way throughout the semester'. An associated question that arose for us is: How can we ensure that students both hear and understand what is being identified and demonstrated? Being explicit is not synonymous with comprehension and communication of meaning.

d. Self-help for students

When coupled with student deployed resilience strategies such as mindfulness meditation practice, the measures (a – c above) represent an active first step in the fight against poor mental health amongst law students (Duffy, Field & Shirley, 2011).

Creativity, design and stress in studio learning

Williams and Askland, in their 2012 Report on teaching and learning in Interior Architecture, explored the complex concept of creativity and how it is assessed.

Although well researched, the concept of creativity which is often portrayed as an abstract, objective phenomenon, is also a phenomenon embedded in personal experience and subjective practice. Hence, creativity is a personal concept that reflects past experiences, knowledge, familiarity, ideas, values, practices and attitudes. It is emotional—suggesting an affective response or transcendent reaction to something, whether or not this “something” is singularly connected to the self or can be experienced by others—and it is contextual; that is, it is, as any affective reaction, placed within a framework of particular social, cultural and historical circumstance. (Williams & Askland 2012, p. 6)

In the project team's study of previous research for this project, the link between the stress that academic staff and students experience concerning the creative aspects of their work was noted (e.g. Bachman & Bachman, 2006; Ostwald & Williams, 2008a, 2008b, as cited by Williams and Asland, 2012), as well as the uncertainty and ambiguity that surround creativity in design education.

Two distinct discourses on creativity were identified by Williams and Askland (2012), the first being the subjective, personal, lived or experienced version, and the second a more objective, theoretical or academic discourse. The tension between the two discourses is noticeable in the field of education, where students undertaking a creative professional course need to draw on both theoretical or academic input and the experience of the learning opportunities. The model for assessing creativity developed by Williams and Askland (2012) incorporated both summative and formative aspects of assessment, and showed how both discourses on creativity could be addressed concurrently. “This requires an objective and transparent framework that simultaneously provides room for reflection, subjective feedback and critique” (Williams & Askland 2012, p. 24).

Two factors critical for success were noted:

...the need to maintain a dialogue with the student about their creative

processes and, subsequently, enhance their understanding and judgement of what constitutes creative design solutions in an evolving field.

... the need to carefully consider how creativity—as a skill, tool or method guiding the design process and/or a characteristic of the final product—forms part of the assessment task and its learning objectives and the need to employ means that lead to objective, transparent, fair and equal assessment of the student's creative efforts. (Williams & Askland 2012, p. 24)

A set of benchmark statements outlining effective studio practice was drawn up by Zehner, Forsyth, Musgrave, Neale, De La Harpe, Peterson, & Frankham (2009), to be used by staff involved in curriculum design, development and review for producing successful course outcomes and graduates. These benchmarks included: quality projects; quality staff; positive studio community; student engagement and commitment; high level of interaction; effective collaboration amongst students; reasonable class and group sizes; connection with industry and the profession; a variety of studio outcomes; and provision of appropriate studio spaces and facilities (Zehner et al., 2009, p. vii).

Whatever the discipline and whatever the setting, the essences of the studio are seen to include creative and reflective thinking, a focus on integrative design in the context of a project, and an opportunity to absorb the culture of one's chosen area of endeavour. (Zehner et al., 2009, p. vii)

In their final report on Curriculum Development in Studio Teaching, Zehner et al. (2010) reported that academics surveyed valued “the things which would make the studio a more vibrant and compelling experience” above concern about physical spaces and equipment. Highly regarded studios were described as those based on a good project, one which was challenging, inspiring, multidisciplinary and relevant. Studio teaching academics were urged to be more flexible and creative in the design of their teaching:

[Need to] encourage advanced outcomes that are open-ended and speculative ... allow space for unpredictability ... rather than ticking boxes in teaching as well as the more career-driven curricula that are currently becoming fashionable.

[... and academics] have to take risks, to innovate, to design fresh and challenging programs, to question our mode of operation and the way we teach. (Zehner et al., 2010, p ix)

Providing support for students experiencing stress:

- Prevention: designing a learning environment that is supportive - intentional curriculum design and nurturing resilience
- Management: services that provide support – counselling and mentoring and opportunities to talk with staff.

Practical strategies to support the development of creativity depend on which theory of creativity underpins the pedagogy. For example, a basic design course that demonstrates student-centredness, thought provoking and life relevant approaches, acceptance of different viewpoints with emphasis on research grounded experimentation rather than on final products, accompanied by collaborative class critiques, appears to be highly compatible with the constructivist learning theory (Kocadere & Ozgen, 2012). In the constructivist view, learning is constructed by the learners, who are able to express what they have learned in different ways, even if they

have shared the same learning process with others (Phillips, 2000). Trademarks of a constructivist learning environment, according to Jonassen (1999, as cited by Kocadere & Ozgen, 2012) include: a question, case, problem or project as focus of the environment; related cases, information resources, and cognitive tools for supporting students to understand the problem; conversation/collaboration tools for negotiation of the problem; and social/contextual support systems.

Strategies noted within the literature to be important in pedagogical approaches to creativity include:

- having adequate space and time
- fostering self-esteem and self-worth
- offering mentors in creative approaches to learners
- involving children in higher level thinking skills
- encouraging the expression of ideas through a wide variety of expressive and symbolic media
- encouraging the integration of subject areas through topics holding meaning and relevance to the children's lives.

Developing independent learners by providing opportunities to peer review

Bryant (2010), in her paper on teaching high school students computer skills, included peer conversations as a problem-solving learning strategy that fosters creativity while allowing for development of technical skills. "Peer conversations can provide collaborative environments in which creativity flourishes: students seemed to not only enjoy the practice; they benefited artistically and emotionally from giving and receiving advice" (Bryant, 2010, p. 46).

Peer Review is also strongly recommended by Nicol (2010), as one of the assessment and feedback practices used to enable students "to become self-regulated learners, able to monitor and evaluate the quality and impact of their own work and that of others" (Nicol 2010, as cited at www.reap.ac.uk).

Research in higher education shows that learning is deeper, more sustainable and satisfying when students become responsible partners in their learning. The most powerful way to achieve this is to involve students actively in assessment processes, that is, by giving them regular opportunities to make assessment judgements about their own work and the work of others. This will develop their ability to monitor, evaluate and manage their own learning without relying on the expertise of the teacher. Over time, students will become independent and self-regulated learners with the confidence, self-reliance and collaborative skills necessary for life beyond graduation. (www.reap.ac.uk)¹

During the Peer Evaluation in Education Review (PEER) Project led by the University of Strathclyde, Scotland, and reported on by Nicol (2010), course modules were redesigned to include innovative formative assessment/peer review practices. By generating their own feedback, students not only helped scaffold the development of peers, but contributed to learning and staff efficiencies that demonstrated the value of technology. The PEER Project showed that:

- learning will be significantly enhanced when students engage in regular activities

¹ Taken from the Re-engineering Assessment Practices in Higher Education project, funded by the Scottish Funding Council, website: www.reap.ac.uk, an outcome of the REAP and the PEER Project (Peer Evaluation in Education Review), funded by Joint Information Systems Committee (JISC) under its Innovation Grants scheme that followed.

where they make evaluative judgements about their own and others work

- making judgements and giving feedback is cognitively more productive for learning than receiving feedback.

Sadler (2010) argued that reciprocal peer review develops in students the essential skills for employment and for life beyond higher education, where they will invariably set goals and evaluate their own and others' achievement of these goals.

The Calibrated Peer Review™, or CPR Tool, a Web-based writing and peer review tool developed at University of California, Los Angeles in 2002, enables students to learn by writing and peer critiquing (<http://cpr.molsci.ucla.edu/Overview.aspx>). The CPR tool is claimed to teach students higher-order thinking skills by evaluating calibration submissions and submissions from their peers, providing an opportunity for students to gain a deeper understanding of the topic.

CPR allows instructors to spend their time effectively on teaching and adjudicating the few student submissions that require the more advanced expertise that only they bring to the classroom. It is a much more rewarding and effective use of time. (<http://cpr.molsci.ucla.edu/Overview.aspx>, 2002)

Budge, Beale and Lynas, in a study into the undergraduate textile design programme at RMIT University, recognised "that studio-based learning environments (involving peer feedback and critique as a critical component of the creative process) need to consider the group dynamics at play and carefully design learning interventions accordingly" (2013, p146).

If we want students to develop critical thinking, judgement and autonomy in assignment production they should be provided with high-level evaluative experiences similar to those of experts. Peer review, students evaluating and commenting on each other's work, is one way to achieve this. (Nicol, 2010)

The successful transition to work – educating successful graduates

The *Professional Education in Built Environment and Design* Project, an OLT funded project led by Queensland University of Technology, studied the transition-to-work experience of recent graduates and identified several factors that determine the quality of this transition, including the preparation received from their university experience, personal characteristics of students and those in the workplace around them, and the willingness of the workplace to support students in making the transition from graduate to new professional.

The study found that the challenges of transition to work are best supported by authentic undergraduate experiences both on and off campus, inside and outside classrooms, and that commencing professional life is made easier for new graduates when university courses and workplace settings develop, sustain and support high standards and high expectations of students. (Savage, Davis & Miller, 2010)

Recommendation 3 of this project was to develop and implement better transition-to-work strategies, including strategies to:

- improve student interpersonal and social capabilities such as leadership, confidence and humility
- develop ways of improving graduates' capacity to engage in good judgement,

critical thinking and lifelong learning

- develop ways for universities and professional associations to work together to better facilitate successful graduate transition to work.

Conclusion of case study

The aim of this case study was to gather information from Interior Architecture students and staff that would enable the researchers to better understand perceptions of student stress in the course and how it was linked to the various learning activities. Armed with this knowledge, strategies to maximise student engagement and support students to navigate student stresses in the interface between creative and technological competence will be identified.

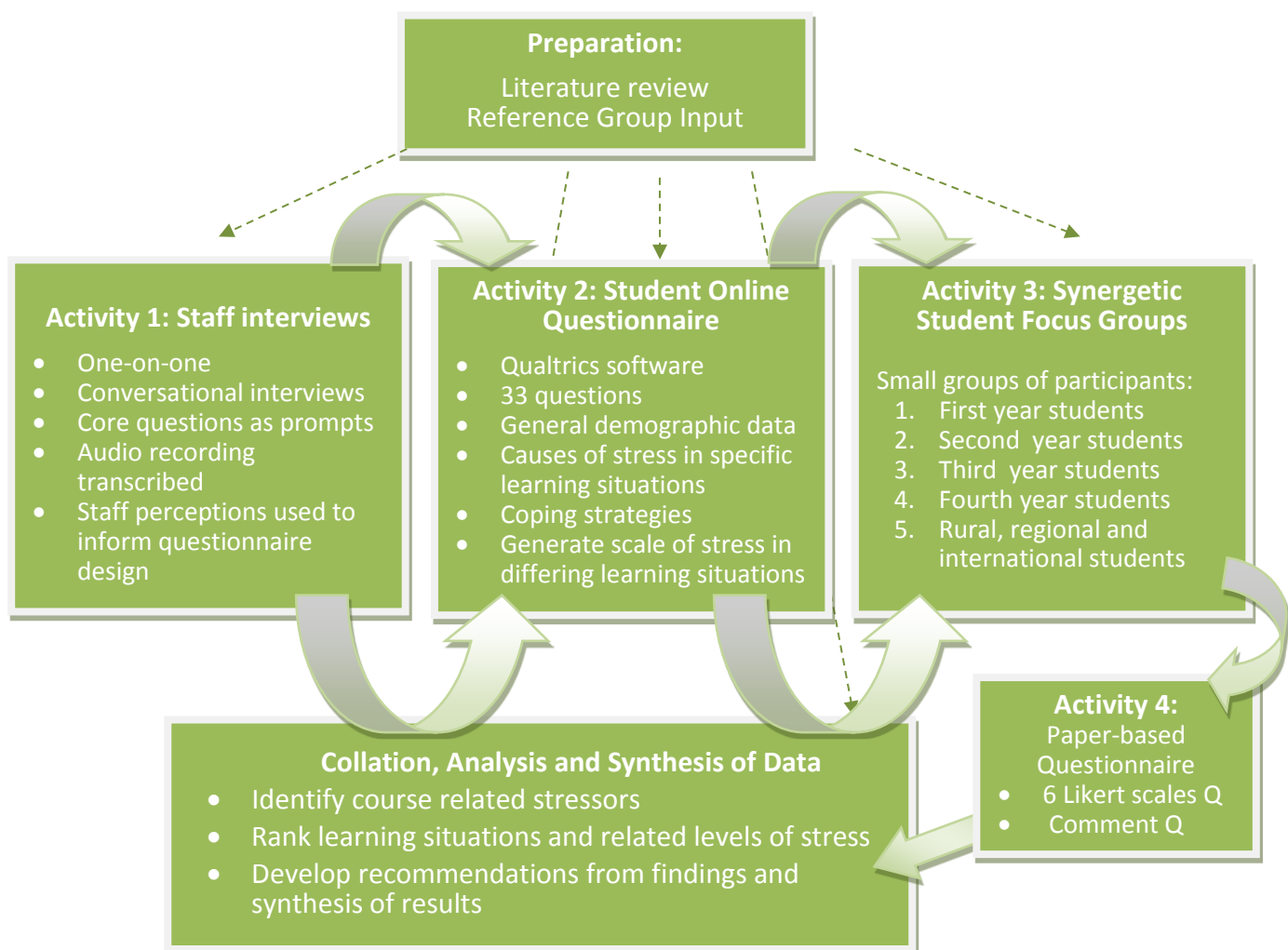
Chapter 3: Research methodology

3.1 Phases of the project

As summarised in Figure 1 below, there were three phases of the project:

1. **Preparation:** Included a review of current literature and discussion with an informal Reference Group.
2. **Data collection:** Staff and student perceptions of stress were collected during three core activities, which included staff interviews, student focus groups and an online student questionnaire. A paper-based student questionnaire was added to clarify responses in relation to an issue that arose during activities 2 and 3.
3. **Collation, analysis and synthesis** of the information collected, in order to develop recommendations for curriculum design and teaching practices in creative professional courses that reduce student stress and increase learning.

Figure 1: Summary of research methods employed in the three project phases



3.2 Phase 1: Preparation

A review of the literature, including refereed papers in journals and resources from previous and current funded Australian Learning and Teaching Council (ALTC) or OLT funded projects was conducted, as presented in Chapter 2 of this report.

Specific research questions were identified and included:

1. What are the stress triggers in differing learning experiences for students of creative professional courses?
2. What levels of stress are related to different learning experiences in creative professional courses? For example, distinguish between discomfort, stress and distress and their triggers.
3. What are the effects of stress on students in creative professional courses? For example, withdrawal, poor performance, lack of motivation and engagement.
4. What teaching and learning strategies counteract stress and enhance engagement with creative professional courses?
5. How does one foster risk taking in creative exploration without engendering stress?
6. What modes of feedback and expression are positive and negative for particular types of learners within creative professional courses?

An informal reference group, comprising two members of staff from Curtin Teaching and Learning and one from the University Counselling Service, provided input to the project design at the beginning of the project and individually during the course of the study, as appropriate.

3.3 Phase 2: Data collection: perceptions of stress

Qualitative research methods including individual and group interviews were adopted, as “they allow the researcher to gain access to the motives, meanings, actions and reactions of people in the context of their daily lives and this methodological approach facilitates an understanding of the informants’ perceptions” (Minichiello, Aroni, & Hays, 2008, p. 10). This methodology suited the nature of this case study, which was to collect staff and student perceptions of stress in the Interior Architecture course experience at Curtin University.

Staff interviews

One-on-one conversational interviews with Interior Architecture teaching staff provided an opportunity to gather staff perceptions of student stress. The aim was to draw on the collective experiences of people experienced in teaching across years and cohorts to gain an external yet informed perspective of issues and contextual attributes that may constitute students’ learning experiences and their experience of situations that may be perceived as stressful. Topics discussed included the causes of student stress, how teachers recognise stress in students, which learning situations were linked to different levels of student stress. and how students coped with stress.

An invitation to participate in the staff interviews was emailed to all teaching staff from Interior Architecture. Five teaching staff voluntarily agreed to take part in the study. Interviews lasted for between 60 to 90 minutes and were recorded. Focus questions used as prompts during the conversational interviews with staff are included in Appendix 1. Staff perceptions collected during the interviews were collated and analysed to discover common themes or issues revealed, and used to inform the design

of the Student Online Questionnaire.

The qualitative data was analysed for common themes, which were synthesised into common issues. A suite of circumstances and definitions arose which are described in Chapter 3.

Student online questionnaires

The objective of the online questionnaire was to gain an insider student viewpoint of the learning experience and how it may or may not be described or experienced as stressful. The Online Questionnaire for Interior Architecture students was designed and delivered using Qualtrics software, which collected responses that could be conveniently reported in Word or Excel format or exported into SPSS. Thirty-three questions in the online questionnaire captured basic demographic information and elicited responses about the students' perceptions of the nature of stress and the causes and impacts of stress in different learning situations in the course. Questions were designed to capture nuances in the meaning of the descriptors used by students when they talk about stress and also to explain what students believe to be the cause and impacts of stress experienced in their course.

Fifty-nine respondents voluntarily completed the online questionnaire, the contents of which are shown in Appendix 2. Qualitative analysis of the data followed and six main themes emerged. A summary of these topic areas acted as an introduction in the subsequent student synergistic focus groups, whose aim was to further clarify the issues that had emerged, or any other related topics the students wished to discuss.

The results were both quantitative and qualitative. The latter were analysed looking for themes and patterns of responses. In addition, umbrella concepts were built from this data to help describe and explain the responses given.

Student synergetic focus groups

Focus groups provide the advantages of gathering data more quickly and more economically than individual interviews (Minichiello et al., 2008, p. 60), with the intention to stimulate discussion among people and reveal responses that otherwise might lay dormant (Henn, Weinstein, & Foard, 2006, p. 164). The synergetic focus group method (Russell's (1993b) adaptation of Mackay's non-directed group discussion method (1993)) enables students to discuss issues freely in a permissive environment—thereby identifying what is important to them and allowing them to range beyond the initial prompts provided. The facilitator is not an active participant, but rather serves to introduce the objectives, establish the range and mode of operation. A preparatory statement (see Appendix 3) was delivered to students at the beginning of each group discussion, to outline the aim of the focus group and make suggestions about the kinds of topics they could talk about. Students were free to talk amongst themselves about any suggested or related topic they felt was important, and their experiences were recorded and transcribed to capture all content. Stewart and Shamdasani (1990, p 22) described the focus of the *synergetic group effect* as “the production of rich data more suited to understanding and explaining student stress than on reaching consensus about its causes or the best means of providing a supportive learning environment”. This phenomenographic approach, based on understanding (in this case, student stress) rather than explaining it, suited the aims of our case study.

The objective of the Interior Architecture sessions was to gain clarification from select groups of the issues identified through analysis of the online survey data. The data was reviewed to identify if new or extended insights into the issues were possible. Student mix influenced the different responses so that unique insights were potentially possible. Male students, part-time and mature-age students chose to attend with their year group peers rather than in a separate group. A large percentage of International

students in the IA course are currently in fourth year, so most of the international, regional and remote groups of students who attended a focus group were fourth-year students.

In total, 24 Interior Architecture students participated in five focus group sessions, as shown in Table 1 below. Focus group discussions lasted between 60 and 90 minutes. Due to the low numbers of contributing students involved, fewer groups were held than originally planned, and the results were pooled. Email invitations to attend focus groups were unsuccessful in garnering more than one or two students. Personal visits to classrooms to inform students about the project and invite them to share their experiences in the course proved vital to gain participation in the project. Participating students chose which groups they wished to attend, with most students preferring to attend in their year groups.

Table 1: Interior Architecture (IA) Student Focus Groups planned compared with those actually held

Planned student focus groups	Student focus groups held*
1. Part-time IA students	1. 4th year International, Regional & Remote IA students (5)
2. 4th year full-time IA students	2. 4th year IA students (6)
3. 2nd year full-time IA students	3. 3rd year IA students (3)
4. Regional & remote IA students	4. 2nd year IA students (4)
5. 3rd year full-time IA students	5. 1st year IA students (6)
6. International IA students	
7. 1st year full-time IA students	<i>* Participant numbers shown in parentheses</i>
8. Male IA students	
9. Mature age IA students	

The final data is not considered to be representative of the entire Interior Architecture student cohort; however, the groups' input was sought to clarify issues identified in the two previous steps of the project that required investigation. The data does reflect personal insights into the course experience at Curtin University and is used to enrich the researchers' understanding (while cognisant of the limitations).

Physical Environment Survey

The aim of the paper-based survey (shown in Appendix 4) was to identify if the physical environment influences learning with reference to motivation, creativity, identity and stress levels. Six questions with a seven point Likert scale were used, allowing for optional qualitative response for comments on the studio spaces' impact on learning. This was sought because it was reported in the literature that if people are stressed, poor quality environments can influence their ability to cope.

The data was analysed statistically. Ninety-five Interior Architecture students completed the survey. Twenty-three of these participants were in their first year of study, 30 were in their second year, 30 were in their third year, and 12 were in their fourth year. There were only nine international students in this sample; the remaining 86 respondents were studying domestically.

There were no significant differences in responses between each year group

Chapter 4: Findings

4.1. Introduction to findings

Conversational interviews one-on-one with six of eight available Interior Architecture staff yielded interesting insights into their perceptions of the nature and causes of student stress. These perceptions were gathered prior to surveying Interior Architecture students, to ensure that all aspects of student stress raised by staff were incorporated into the questions in the Student Online Questionnaire. Issues arising from the synthesis of the survey responses were then discussed in the subsequent Student Focus Groups to gather clarification and a deeper understanding of the concepts.

Topics Arising:

- a. Nature of stress
- b. Discourse of stress
- c. Potential for stress
- d. Symptoms of stress
- e. Issues arising

4.2. Nature of stress

4.2.1 Definitions of stress and a stress scale

Interior Architecture staff perceived that their students generally talked about stress in a negative sense, which aligned with the definitions of stress offered previously. For example, Burns (1991, p. 67) stated “stress occurs when the individual believes that they cannot meet the demand being made on them by the environment, i.e. it is a subjective self evaluation of not being able to cope, of feeling overwhelmed to some degree.” This definition complements the earlier classic definition of stress by Lazarus and Folkman (1984, p. 19): “stress is the result of an individual's perception that they do not have the resources to cope with a perceived situation from the past, present or future”.

Student definitions of stress were sought to gain insider perspectives. Q13 of the online questionnaire asked students to choose words (either words chosen from a word bank that was provided or their own choice of words) to describe how they feel when very positively, positively, neutrally, negatively or very negatively stressed. The aim of this question was to try and understand the language that students use when communicating how they feel when stressed and to create a scale of degrees of stress.

Table 2 shows the range of words used, in order of frequency from most used to least used against the scale of very positively to very negatively stressed. Stress therefore is understood in both positive forms as well as negative forms. Each form is described in terms of emotions.

Table 2: Words that students use to describe how they feel when stressed

FORM OF STRESS	Feelings associated with particular form of stress
Very positively stressed	challenged; excited; stimulated; explorative; artistic; comfortable; creative; imaginative; active; hopeful; inventive; visionary
Positively stressed	challenged; creative; enthused; active; excited; stimulated; comfortable; explorative; hopeful; innovative; happy; imaginative
Neutral	happy; capable; explorative; comfortable; nervous; open; anxious; blocked; overloaded/worked; confused; hopeful; stuck; uncomfortable
Negatively stressed	anxious; overloaded/worked; uncomfortable; nervous; blocked; fearful; frightened; challenged ; confused; dismayed; rapid-pulse
Very negatively stressed	overloaded/worked; distraught; insomniac; nauseous; depressed; overwhelmed; suicidal; nervous; aggressive; anxious; dumb; frightened; frustrated; panicked

4.2.2 Making distinctions in the discourse of stress

One of the goals of this study was to develop a list of words used by students to describe how they feel when stressed; and in association, to produce a scale of stress descriptors which can be used to identify and understand how students experience learning situations. This proto-scale was constructed from insights gleaned from the online questionnaire.

Figure 2 provides the condensed version of the proto-scale created from responses with the highest frequency. The full list generated by students is in Appendix 5, which includes descriptors that were used only once. The words identified related *very positively stressed* to being creative and excited while those linked to *very negatively stressed* related to deleterious bodily and emotional responses. The broad spectrum of words used by students to describe stress in different situations was evidence of the diversity of responses to different learning situations and the need to understand what students mean when they say that they are “stressed”.

4.2.2.1 Positive aspects of stress. Are they missing from daily discourse?

In order to gain a deeper understanding of the positive impacts of stress on students, Q16 of the online questionnaire asked: “Give an example of a time during your Interior Architecture course when you felt stressed and the stress acted in a positive way, for example, made you feel excited about a project or forced you to concentrate more on the task at hand.” Responses are summarised in Table 3 below.

Two-thirds of all respondents indicated that they respond positively to stress when: under pressure to perform; at the beginning of a project or topic that excites them; when passionate about a topic; and when receiving useful feedback. Students responded positively to tasks that were clearly articulated; that inspired or personally appealed to them; allowed them to control or “own” the work; and produced desirable outcomes, such as successful completion of group work or sampling professional practice during work experience.

Figure 2: Stress scale

STRESS LEVEL	DESCRIPTORS
Very Positively Stressed	Visionary
	Imaginative
	Innovative
	Challenged
	Stimulated
	Excited
Positively Stressed	Explorative
	Creative
	Enthusied
	Active
	Hopeful
	Comfortable
	Capable
Neutral	Open/Open-minded
	Happy
	Stuck
Negatively Stressed	Adrenaline/rapid pulse
	Uncomfortable
	Confused
	Blocked
	Nervous
	Anxious
	Sad
	Dismayed
	Over worked
Very Negatively Stressed	Insomnia
	Nauseous
	Depressed
	Overwhelmed
	Distraught
	Suicidal

Table 3: Student examples of when stress in the course acts in a positive way

When does stress act in a positive way?	% response
I worked well under pressure or working to a tight deadline	29%
When excited at the start of a project, course or topic in the unit	16%
When passionate about the subject (particular projects and units named)	12%
When I received constructive feedback on how to improve my work	10%
When tasks are clearly articulated and/or sufficient time allowed for completion	4%
When inspired	4%
When I have control or ownership of work	4%
During group assignments when we work as a team	4%
During work experience	2%
When I complete studio assignments with many components	2%
When I felt that mistakes were allowed	2%
I work harder when behind	2%
After poor marks received, motivated to work well	2%
SUB-TOTAL	94%
Stress does not have a positive effect on how I work	6%
TOTAL	100%

In Q22 of the online questionnaire, students were asked to identify the learning situations that impacted on them positively, during which they “were most stimulated, engaged or most creative and why?” First-year students identified the most positive learning situation and activity as: *Making models or creative pieces*. Second-year students nominated three learning activities in equal measure: *Talking to tutors generally, designing in my own home* and *having to work with people I choose*. The highest response from third-year students was for *self-directed sessions*. Fourth-year students nominated: *having to work with people I choose, making models or creative pieces* and *talking with tutors who prompt me to think rather than providing answers*; these were the situations that prompted the most positive responses.

Qualitative responses included the following quotes. It is evident that learning situations can impact on students through attributes identified as positive stressors. The impact of the stressors was described in terms of the students’ feelings, behaviours, sense of freedom or control and levels of creativity.

*When the deadline is approaching and I am forced to pick one idea and just see it through. I find it **quite freeing** and is when I am at **my most creative and productive**; Some level of stress can **force me to concentrate and focus** on the task at hand; it forces you to just do, **not to procrastinate**. In a recent brief, my high levels of stress were the driving force in **producing a much higher quantity** of work than I had been producing at times of lower stress. [Feelings; creativity; behaviours; outcomes]*

*I think **when you are enjoying a project**, stress is always positive as **you want to see the final outcome of your project**. [emotional context]*

*We were faced with **real clients** (during the field trip) and worked **as a team**. I felt this was positive stress and really challenged our skills in creative way. [Work practice context]*

*Short deadline but achievable assignment within deadline, ability to **push yourself creatively**, using unfamiliar workshop tools — **scary but exciting** and*

feeling of **achievement from gaining new skills**, tired and stressed but **feeling of achievement** at end of unit - natural high. [Feelings; outcomes; creativity]

During our Extreme Complex Bizarre studio last year there was a big expectation laid on us in terms of submission requirements but the way in which we were able to convey this **was totally in our hands** so it gave us **more ownership** of the work and allowed us **to set our own standards** rather than compare ourselves to others constantly. [Freedom; control]

I feel positively stressed when I find a tutor that can give you positive constructive feedback in your designs — they push you **and help you develop your ideas further** without causing you stress. This makes **me feel a lot happier** with my progress and design, which allows me to **become more relaxed and creative** in my approach. [Feelings; context; creativity]

First year design - There was (relative to the time) a lot of work that needed to be done, but an **openness to explore and make mistakes** (perhaps it was having the thought in my head that first years are allowed to make mistakes...?). That time made **me less nervous of getting things right** on first attempts and I **enjoyed the design process** a lot more - although I was stressed and working down to the last minute before I had to hand it in (**LITERALLY!**) I **felt confident** in my work, which I think promotes a positive stress. [Freedom; behaviours; feelings]

Staff reported in their interviews both positive and negative impacts of stress on student learning and noted that the same learning situation elicited different responses in students. For example: *There is stress before the student has a deadline. Some will be using it as a positive, a real driver; some will just be flipping out, avoiding and procrastinating and falling in to a bit of a trap in terms of handing work in, they can't deal with having a deadline.* Their observations complemented the researchers' assumptions that perception and discourse are major influences in the student's experience. The staff comments highlight the notion that it is the student's evaluation of a situation rather than the learning situation itself that can give rise to stress.

4.2.2.2 Common discourse of stress — the negative agenda

Interior Architecture staff interviewed described students variously as not coping with the workload or lacking the skills, confidence or motivation to complete projects or withdrawing from learning activities when they feel stressed.

Students [are] overwhelmed by workload, pushed beyond their skills or when they are missing something, not coping, or meeting deadline.

Many student respondents named multiple reasons for feeling negatively stressed while studying the Interior Architecture course. The three most frequently nominated items were: when there was a lack of time to complete work satisfactorily (23% of respondents), lack of clarity of expectations (20%) and lack of sleep (17%) due to staying up late to complete work when submissions are due. The next two items, workload or feeling overloaded (8%), and having assessments due too close together (8%), were also related to a lack of time to complete work satisfactorily. Table 4 summarises variables which students mentioned as situations when the stress is experienced to be negative.

The qualitative data indicates that negative stressful situations are linked to: discipline-based or personal work/study habits; impacts of the consequences of non-achieving; and personal standards and forms of self-evaluation.

Table 4: Examples of occasions in the course when stress impacted negatively on students

% responses	Stress impacted negatively on student/s when these conditions exist:	Time
23%	Lack of time to complete work satisfactorily	✓
20%	Students unsure what is required; lack of clarity of expectations	
17%	Lack of sleep due to staying up late to complete work	✓
8%	Workload/feeling overloaded	
8%	Assessments too close together	✓
5%	When final submission is due/deadline approaching	✓
5%	Scared of harsh criticism from staff	
5%	Sickness, caused students to miss work or directions	✓
6%	Miscellaneous	
3%	Feel stressed all of the time	
3%	Relationship issues	

Student responses include:

*With stress, comes sickness, and I have **fallen ill** many times in this course **due to sleepless nights**. This has had a negative effect on my work as I wasn't able to spend as much time as I liked on completing the project. [Habits; consequences]*

*I feel that stress almost always has a negative effect on my work as it causes me to **lose faith in myself**, become disinterested, and have less motivation to explore or try something new. [Engagement; confidence]*

*The week or few days before submissions are due literally drain me physically and mentally meaning that a lot of **the work completed later in the project** is not up to my usual standard and very rushed just to **meet time constraints**. This results in almost every assignment me pinning up something I am **not proud of** and hate presenting. [Habits; self-evaluation]*

*This final year, I always believed that if it's fail I **just need to put more effort** and work harder. I have **been reducing my sleeping** time to 4.5 hours every day, even sometimes stay all nighter but then the results at the end were still bad and end up I **felt lost**. I just don't know what to do and how to do. I had several meetings with different tutors to get more help but at the end I still feel lost. Maybe because **of communication skill** struggling and the higher expectation for final year student, everything went bad in this year. Sometimes I just want to drop out but then I **can't disappoint my parents**. The **money they spent** for my study is huge. [Habits; self-evaluation; consequences]*

4.2.3 Symptoms of stress

Stress manifests in a variety of ways, and staff were asked during interviews how they recognised if a student was stressed. The indicators displayed by students were described by the staff interviewed and included behavioural, cognitive, physical and emotional categories of responses. (These categories of stress responses complement those recognised by Misra et al., 2000, p. 238).

My reading is that they have lost confidence, so they must be feeling stressed. They are then asking too many other people and not trusting themselves.

Students were described as becoming really agitated or emotional, lacking self-confidence, displaying anger towards staff and peers, becoming tearful, disengaged or withdrawn and absent from class when feeling negatively stressed. Poor health, drug use and contemplation of suicide were noted as extreme responses to stress.

It (stress) disrupts your well being, so it affects eating, sleeping, relationships, just general well-being. (Staff comment)

4.2.4 Potential for stress

Staff recognised causes of stress as both course-related and external to the course, with the interplay of course-related and external factors escalating the stress experienced by students. Course-related causes raised during staff interviews included: dealing with multiple deadlines, time management, workload, talking in front of large groups, lack of resources or equipment and specific learning situations; these causes are outlined in more detail below. External factors identified included issues such as relationships with friends and family, health concerns, and financial factors such as course cost and the need for paid employment while at university.

4.2.4.1 Course-related influences

Student responses complemented the staff perceptions; however, there were a few additional aspects students indicated that could act as triggers.

As shown in Table 5, the most influential academic stressors identified by students in Q14 of the online questionnaire included: lack of time (17% of students felt there was too little time to complete work and/or to maintain a work/life balance); workload (17% of students reported that the workload was high); confusion or lack of clear directions provided (15%) in project briefs or work expectations by different staff; coping with multiple deadlines and fast pace of the course (9%); and deadlines associated with work submission (3%).

Table 5: Causes of student stress (as indicated in question 14 of the online questionnaire)

Course-related stressors: Reasons	Workload	Lack of time	Deadlines	Confusion/lack of clear directions	Dissatisfied with particular teaching staff	Multiple deadlines - course structure	Personal expectations	Lack of skills	Other students	Inadequate feedback	High staff expectations	Miscellaneous
1	14	11	3	6	2	7	2	4	1	1	2	4
2	10	11	1	6	4	6	1	4	2	0	4	12
3	5	8	2	14	3	3	5	2	4	2	2	7
Tota	29	30	6	26	9	16	8	10	7	3	8	23
%	16.6 %	17.1 %	3.4 %	14.9 %	5.1 %	9.1 %	4.6 %	5.7 %	4.0 %	1.7 %	4.6 %	13.1 %

Although some of these factors relate to course design or structure, the main influences relate to time and time management in some way (deadlines/multiple deadlines, lack of time, workload); and secondly to expectations and perceptions (quality of directions, personal expectations, required skill levels, feedback, staff expectations).

4.2.4.2 External influences

To understand the student in a holistic way, in Q15 of the online questionnaire, students were asked to name three things unrelated to their course that are most likely to cause them stress. Financial concerns, coping with paid employment in addition to study, family issues, relationship issues, and health concerns featured prominently. Some students found the travel distance to campus a stressor, and being away from home impacted others. Personal concerns included being uncertain about whether the course chosen was the correct one, being disorganised or lazy, maintaining self-esteem and striving to constantly achieve high grades. Miscellaneous concerns such as future job prospects and current living situations were also identified.

Student responses indicate that the struggle to balance competing responsibilities and demands on their time is the single most likely external stressor, as shown in Table 6. For example, three students wrote:

*Not able to take time to do the things I enjoy;
Time to run a household, food shopping, washing, cleaning;
The balance between work and earning money, and having time to study.*

Table 6: The three most important external stressors identified by students in the online questionnaire (by percentage of respondents)

THREE TOP STRESSORS							
First stressor	%	Second stressor	%	Third stressor	%	Overall	Rank
Life balance	17	Life balance	13	Life balance	20	17	1
Financial issues	15	Financial issues	15	Financial issues	0	11	5
Family	15	Family	15	Family	12	14	3
Employment	14	Employment	20	Employment	12	15	2
Relationships	12	Relationships	4	Relationships	10	9	
Health	12	Health	11	Health	17	13	4
Travel distance	4	Travel distance	0	Travel distance	0	1	
Personal problems	6	Personal problems	7	Personal problems	5	6	
Away from home	2	Away from home	2	Away from home	5	3	
Miscellaneous	2	Miscellaneous	13	Miscellaneous	20	11	
	100		100		100	100	

Therefore, the five main external influences in order of impact for students were life balance, employment, family, health, and financial issues.

4.2.4.3 Personal aspects of being a university student

In addition to the previous two categories, a number of other aspects that relate to the personal situation of a university student arose from the data and enrich this discussion on navigating stress and the students' experiences.

4.2.4.3.1 Being at university

The transition to university is highlighted by several staff as a major cause of stress as it is a totally new environment, as well as the discipline and course being new. As English is the only compulsory entry requirement, the entry-level skills are varied; and the level of individual student abilities was recognised as a stressor for both students and teaching staff.

*I think **most students coming in to university would have a certain level of stress because it is strange, it's new, it's different.** I think it is more noticeable when you have students who come straight from high school into university.....I think, some who have been told what to do for most of their lives..... So when they come in to university, as soon as they have to make a decision, or be resourceful, find information, take an approach, interpret a question or a project in a different way, they start to feel stressed.* (Staff comment)

4.2.4.3.2 Background

International students

This cohort were singled out for special concern by staff, due to stressors in addition to the transition to university faced by local students. For example, financial pressures on their families who are paying high course fees, plus living costs for students, lack of peer support, or the differences in culture. The following is a selection of staff comments:

*It often happens when there is a **family that cannot make the payments** [for the units]. Students are just beside themselves because they can't carry on with the units. Other students whose families are only just managing to pay and the students are failing. They are just beside themselves because of the cost to families. That causes—I think—in some instances plagiarism—that sort of pressure*

*She is an international student who has come over for her final year, so she hasn't really connected in with her year group and **doesn't have a lot of support** around her and I think there is a lot of home pressure. I think culturally it was a big shock for her and I don't know whether it was her first time living out of home as well.*

*With international students, it is a **real loss of face that they go to Counselling** and they won't do it. Yet you know they are under so much pressure from families.*

*A lot of students come from overseas partner campuses, so **they may not have the same background in our plagiarism systems, or academic integrity** even just interacting with staff and a difference in expectations there, as to how things are done. That is a very steep learning curve for them and I think there is a lot more we could be doing to support those students academically*

Regional students

Regional students, who are often not recognised by staff as being in a context that is very unfamiliar to them, were noted by some as having “a lot more on their plate” than local students. Staff commented:

*Regional students talk about the first time having to balance a budget, the first time having to find accommodation, and then your rental — you are told you have to move out and you’ve got to find a place while you are studying ... you’re tired, you don’t have the money and you can’t go home. All of those kinds of things. **It a whole other level of those external stresses**, which I think really influences external students, at least in the beginning. And dealing with Centrelink was their number one stressor.*

4.2.4.3.3 Personality characteristics

The characteristics of students (both as individuals and part of the current cohort of Interior Architecture students) were also perceived by the staff as impacting on student stress levels, as described in staff comments below:

*One thing that I think is quite particular to our cohort — **we attract a lot of perfectionists**, so we have a lot of students, particularly in the younger groups, that will not hand work in for **fear of failure**. So “it’s not perfect, not up to my personal standard”, but they disable themselves to such an extent that they can’t get through.*

*... dependent on whether it is course stress, which we try to minimise as much as possible, but then I guess it is just **dependent on the personality type**, their own stress with the home situation, the external things which are hard to manage.*

Students evaluate their work and abilities relative to the standards they set for themselves and in comparison with other students.

*And then there are those kids who have **really high expectations of themselves**, and so fear of failure and then they almost self-sabotage.*

*I was shocked when she burst into tears ...you can’t control that, that it is just the student, they are **just such high achievers** that they’re disappointed.*

4.2.4.4 Individual ways of working

4.2.4.4.1 Base-knowledge for level of course

The perceived lack of requisite skills (including drawing ability, information technology and language skills or gap between desired and existing skill levels) was also reported as a cause of stress in the course. In other words, the personal expectations of students added to their stress. Comparisons with, and the need to work collaboratively with, other students (during group work for example) were also reported as causes of stress.

*We have students who come into the course never having done hand drawing, who have never done an art course; **After the first year it pans out, you develop those skills or work it out**. That is an extra stress, kids who come out of art school, who have done the English lit, they’ve done history and they’ve done drawing and maybe have some computer knowledge; are well ahead of those other kids and you find they are always trying to catch up. (Staff interview comment)*

*Other people's **competitive nature**, making you feel like what you're doing is not achievable; relying on other people to get things done. (Student responses in online questionnaire)*

4.2.4.4.2 Temporal dimensions

Relative to previous years, current students were typically portrayed as time-poor by Interior Architecture staff: more likely to study part-time and consequently face rising external pressures due to paid employment, family and relationship commitments, financial pressures associated with running a home, and struggling to maintain a work-life balance.

In addition, the course structure, although designed to counteract these external pressures by reducing demands, can be interpreted in temporal terms as well. The current Interior Architecture course structure comprises of two six-week block units per semester in years two and three. This compacted delivery mode was regarded by staff as having both positive and negative impacts on students (It should be noted that most negative aspects the staff identified have been addressed during the normal course evolution. For example, the number of summative assessments have been reduced from three per six week block in some units to two in all units, combined with a folio in the design studios). Likewise, different students perceive the pace and focused attention of the intensive block units differently.

*The good thing is that they (students) are pressured, and **they don't have the time to stop and think; and just really have to produce...** they can produce pretty amazing things in the time, I think. That's **a real positive**. Also, it does mimic practice, so that is positive as well. The **down side is if someone is sick, you see they get very stressed**; because obviously if you have got two lectures and two four hour studios in one week, and you are sick (Staff comment)*

*in the block units, yes, we've only got two units to concentrate on, but there are **six major assignments and they are coming thick and fast**. (Staff comment)*

*The thing that stands out for me is **deadlines**: assignment hand-in. (Student comment)*

4.2.4.4.3 Workload

The definition of workload and the perception of the pressure involved is an individual construct. The subsequent pressure (or its absence, depending on individual perception) of **a heavy workload** or looming deadline was reported by teachers as driving activity for some students and killing creativity for others, suggesting that both the personal characteristics of Interior Architecture students and the type of learning situation experienced is individually dependent. Examination of what causes stress in university students in general, and in students of creative professional courses such as Interior Architecture specifically, yields the following staff observation:

*I think a lot of the students, particularly the ones we tend to attract get quite, you know we get a few kind of **perfectionists**, almost a little bit masochistic, kind of like workaholic type people who get a bit of an adrenaline-rush sometimes when doing those things. Part of the life is like that. **The pressure, you know, actually kind of fuels them**.*

Considerations raised capture a diversity of understandings:

*Work load; the work is do-able, but there is **a lot of it in a small time**; We have assignments worth 50% and we only have just under 3 weeks to complete it; **Fast moving pace** — get left behind; everything is always due at the same time.*

(Student comments)

Frustration at the ambiguity of the course — *that is, getting different feedback from tutors and not knowing which path to take.* (Student responses in online questionnaire)

These results raise questions about the variance in expectations between staff and students; and between students concerning a reasonable workload and concurrent deadlines or tasks.

4.2.4.4.4 Availability of real-time vs. virtual-time and its impact

Changes to the life situation of the current student cohort, reduced availability of studio space and greater reliance on technology and online learning were all possible explanations for the increasing trend for more students to spend less time on campus; and thereby, reducing opportunities to connect to their peer group and develop strong collaborative networks, factors regarded by staff as vital for student engagement. The following staff comments reflect the shifting context but also flag some of the impacts.

*The more socially connected they (students) are, the more likely they are to come back in to second year. **Grades are less indicative of their returning to second year than their sense of social belonging.***

*We had studios. We had a designated space that was ours and we could interact. **There was a lot more unplanned interaction.** If you're second year you go to the second year studio, you hang out, you work in there.*

***We used to do a lot of hand drafting and now everything is done on computer.** So they (current students) can work on a lap top on their sofa at home, they don't actually need to be here.*

*I think when students are here and working on something, being **guided by staff**, they're actually fine.*

4.3. Issues arising

4.3.1 Expectation and understanding

4.3.1.1 Conflicting expectations – university; staff; students

Staff perceptions of an optimal learning environment, or at least one that reduced student stress, included an environment in which teaching staff had consistent standards and expectation of students, provided clear instructions and timely feedback to students, kept the course workload manageable and scaffolded the learning experiences. Providing opportunities for student collaboration and peer support, modelling professional behaviour (including the separation of self and work), and reducing staff stress were deemed to be important inclusions of a supportive learning environment. Comments include:

*I think **a lot more students are studying part time now**, are working part-time and they have a very different expectation of service from the university. I think they are probably less independent, in terms of taking responsibility for their own learning. It's definitely that attitude that "I'll pick and choose" and I think is detrimental to the students, they are not as willing to go on the journey, but I think comes from all the external pressures. "I'm time poor, I've got commitments, I've got a mortgage, I'm trying to study and I turn up to a lecture that I think is a waste of my time".*

*The students need to know we (the staff) are all together; we're moderating and **what we expect from them right from the start**. I give them a marking sheet when I start the unit – all the marking sheets for all the assessments.*

*I think **peer support is a major thing, I think clarity in assessments, clarity of expectations and realistic workloads**. ... some past workloads have not been realistic.*

4.3.1.2 Indicators that students may not understand core discipline activities and culture

Some current students were also seen by Interior Architecture staff as reluctant to engage with the process of design or take responsibility for their own learning or deal with ambiguity — learning activities core to the discipline, that staff were keen to foster. Staff comments included:

*In third year they (students) are more willing to understand that, to be creative, they need to trust in the process of design and **understand that it is a creative process**. And by going through the process they might not necessarily know what the outcome will be, they have to work at the process and be present and not come up with something at the last minute.*

*Risk taking, students in first year are constantly pushing for us to tell them exactly what to do, and they can get quite angry and verbal about ambiguity; and **they see ambiguity not as their responsibility, as a problem to solve, but as our lack of clear direction**.*

4.3.2 Diverse responses to learning situations as potential stressors

Student responses in relation to the potential for learning situations to cause stress were diverse. Learning situations identified in early questions in the online questionnaire as stressful for some students were also identified as stimulating, engaging and encouraging creativity by other students in later questions. For example, several students viewed the **pin-up** as an opportunity to obtain feedback from peers and tutors and to gauge the progress of their work, rather than concentrating on the possible embarrassment of work not up to standard or speaking in front of others:

... although I feel uncomfortable having my work out for everyone to see, it's a good way to feed off one another and stimulate more creativity by being inspired looking at other works. (Student comment)

Figure 3: Varying student responses to the design studio “crit” or pin-up

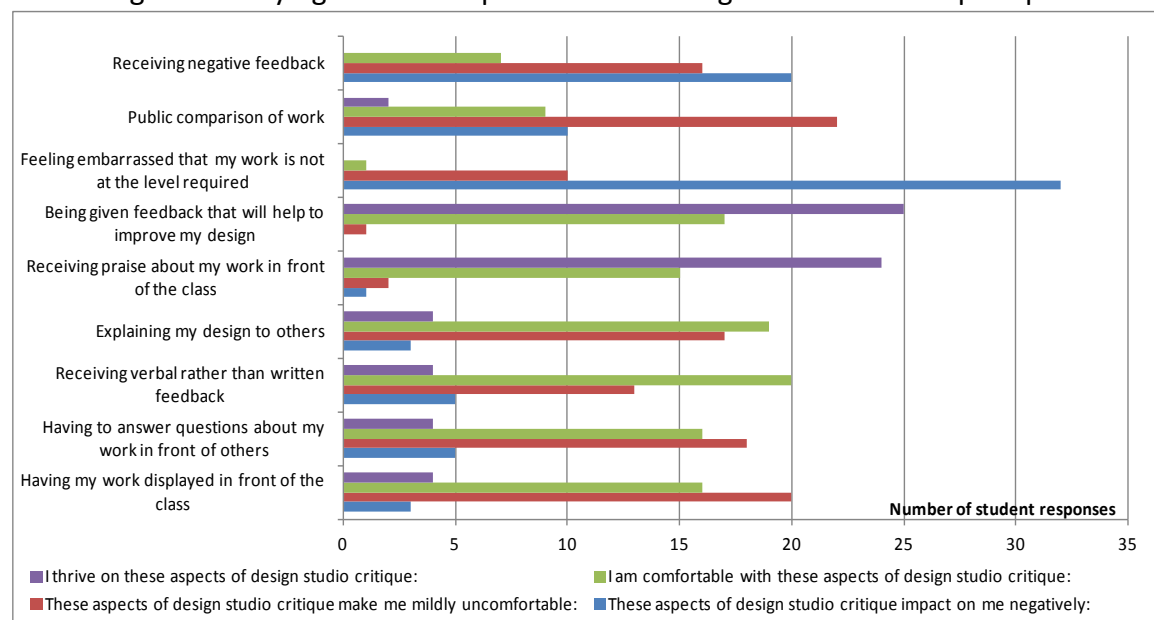


Figure 3 shows the contrasting student viewpoints relating to the design critique or “crit”, in response to Q26 of the online questionnaire. The main learning situations will now be discussed in terms of the data arising from the staff surveys and the online student questionnaire. These are the design studio or workshop, group work, self directed sessions, skill-based classes, and field and site trips.

4.3.2.1 Design studios

When asked to identify stimulating and engaging learning situations or those that encouraged creativity in Q22 of the online questionnaire, a third of all student responses nominated design workshops or an aspect of the design process. Students were stimulated by the freedom to explore and create; being inspired by, working with and receiving input from others, in what they perceived to be a creative environment. Receiving instant feedback on work, being in control of their work and workshoping new ideas to reach real-life solutions were all motivators in the design workshop or process. Making models and proto-types enabled new hands-on skills to be learned. Figure 4 summarises these student comments.

Figure 4: Wordle showing student descriptors of stimulating and engaging learning activities



However, in contrast, design workshops were reported to be stressful by other students because of the perceived high work load, inadequate time allowed, and instructions or project briefs that were not clear. Individual students also felt that they lacked the drawing skills or creativity to complete work to expected standard, felt feedback was not always useful, and disliked public criticism of their work during the “crit” or pin-up. A suggestion to hold the crit in smaller groups was put forward as a possible solution to overcoming the time taken and stress of presenting to a large audience. Selected student responses from the online questionnaire include:

*.... it would be **better to begin public critique in 2nd year** when students are more established and secure.*

*Design studio ... can often be a fraught environment. .. people present their work , people see other people’s work; I think that because of the nature of the course, work is pinned up on the wall and it is a public humiliation you’re kind of judged by your peers. **You are judged by your peers if you do badly, you are also judged by your peers if you do well.***

*Communicating and presenting my ideas to tutors and classmates and hearing what they think about my design **makes me want to work harder** to impress them next submission; You are able to push the boundaries and come up with something quite abstract and out-there; Imagination heaven!*

4.3.2.2 Group work

Group work prompted a diverse range of comments from students. It was seen in a positive light by students who valued peer support, sharing the workload, collaborative effort and learning from others. However, it elicited negative responses from other students due to the extra time taken to complete work in a group or deal with clashing personalities of team members. These differing viewpoints confirm the individual nature of each student's response to a given learning situation, and confirm Shields' notion that "what some students perceive as a challenge, others see as a threat" (Shields 2001, p. ?)

*I feel that **other students are supportive and give great advice in regards to research projects and design projects**; You are able to **relate to others** experiencing the same problems/stress as you; [I enjoy] working with people who have **a different style** of designing, aesthetics or presentation to me; Group work can **bring people together**, people who have never met before may become good friends. (Student responses in online questionnaire)*

***Group Work** is the learning activity that is the main issue, students are unable to deal with conflict and find it difficult having work judged in front of others; Group work ...can be very **stressful for students who do not have a collegial cohort** that they are familiar with and work happily with. (Staff comment)*

Reasons provided for finding group work stressful ranged from the difficulty faced in arranging group meetings outside of class time, to conflict and lack of trust between group members and the perception that there was always an unfair split in the amount of work done by group members. The negative impact on student grades and longer time taken to complete work in groups were also commented on. Language barriers and an inability to communicate with class members were found to add to the stress of communication by some class members. The student team-directed seminars drew similar comments to those noted above for group work.

***Groups where you can't choose the members are extremely difficult** as you're not used to someone's work ethic and they may be very reliant on the group to pull them through; Tutors not acknowledging the work of individuals within the group enough to mark people down who have clearly done no work; It is hard for people with English as a second language to communicate, they have the knowledge but are unable to apply it. Most times you have to edit over their work, makes twice as much work for yourself. (Student comments)*

4.3.2.3 Self-Directed activities

Fourth-year design research project

*Design research project – that would be undergraduate research thesis. That is where **scaffolding is definitely at its minimal**. (Staff comment)*

Students undertaking self-directed research noted the "limitless potential available" and others felt lost and under enormous pressure in terms of time and work quality expected.

Online self-directed

Professional practice modules caused stress when students had queries that they were

unable to have answered in a timely fashion.

4.3.2.4 Skill-based units

Drawing

Many students felt that they lacked confidence in their drawing skills to comfortably take part in drawing workshops.

I don't feel confident with my hand drawing, and would be fearful that my work would be "bad". (Student comment)

Students who nominated drawing workshops as creative environments enjoyed the opportunity to express themselves without constant concern for an end product and loved experimenting with new mediums.

Drafting — computer aided drafting (CAD)

Although the large majority of students were comfortable with most aspects of the computer-aided design classes, a few students commented negatively that basic concepts were not well taught, the pace of the course was too fast, the physical environment of the CAD labs uninviting and theory was not well linked to practical application. These students encountered problems later on as a result.

Tutorials

Students who found tutorials stressful did so because they were unsure of what was required and felt that expectations of staff were high. Tutorials were highlighted as stimulating and engaging environments by students who appreciated the feedback and fun atmosphere provided by teaching staff.

As tutorials are a more intimate forum than lectures that require both commitment and engagement, issues of expectations, preparedness, and communication are raised in relation to both students and staff.

Lectures

Lectures were largely reported as comfortable learning environments.

4.3.2.5 Site visits, field trips and industry placements

Site visits provided students with the opportunity to produce drawings in a relaxed environment, free from time constraints.

Community design field trips were found to be stimulating and worthwhile as designs were created in response to the needs of real clients, who interacted with students. The short timeframes available meant that students were forced to make quick decisions.

*We presented to a town full of people and received feedback from our client group; We had a good mix of people in [the] group with different skills — made for a **creative, encouraging work environment**.* (Student responses in online questionnaire)

Students who were stressed by **industry placement** had found it extremely difficult to find placements and others felt unprepared for working in a professional environment, as indicated in the student comments below:

*Industry placement can be quite stressful for students (who) don't have the confidence to actually call up and actually **finding a placement is getting more and more difficult**.*

In addition, some students did not understand the professional practice threads

running from Year one; the final units were skill based and very explicitly relating to aspects such law, specifications and the like.

*I found that **what we do in Uni doesn't necessarily benefit how we will work outside of University**, found that this has only been addressed in fourth year, for example online professional practice modules were great for this.*

4.3.2.6 Learning situations that were stimulating, engaging or encouraged creativity

When presented with a list of thirty-one specific learning activities in Q18 of the online questionnaire, students were asked to match each learning activity with a response that described how the activity made them feel. Eight possible responses were provided (three positive, three negative, one undecided, and one in case the student had not experienced the activity before). Table 7 details the diversity of student responses to this question.

Table 7: Diverse student responses to how specific learning situations made them feel

#	Positive responses:	57% of all responses were positive
22	Making models or creative pieces	Excited, positive, engaged and creative
21	Receiving verbal feedback	Interested, hopeful, eager
20	Talking to tutors generally	Interested, hopeful, eager
19	Individual tutorials in design	Confident, ready for feedback, inquisitive
19	Sitting in lectures	Interested, hopeful, eager
19	Working in the studio	Interested, hopeful, eager
17	Designing an interior in class	Excited, positive, engaged and creative
17	Group studio critique at our table	Interested, hopeful, eager
17	Having to work with people I choose	Excited, positive, engaged and creative
16	Receiving written feedback	Interested, hopeful, eager
16	Working in groups with people I am not friends with	Interested, hopeful, eager
15	Designing in my own home	Excited, positive, engaged and creative
#	Negative responses:	29% of all responses were negative
18, 12	Sitting for an exam	A bit ill, embarrassed, panicky / Insecure, uncertain, undecided
15	Presenting a PowerPoint presentation to the class	A bit ill, embarrassed, panicky
14	Design critique when work is pinned up	Insecure, uncertain, undecided
14	Discussions or debates	Insecure, uncertain, undecided
14	Working in groups with people I am not friends with	Insecure, uncertain, undecided
13, 11	Writing essays	Insecure, uncertain, undecided / Bored, uninterested, obliged to participate
13	Sitting in lectures	Bored, uninterested, obliged to participate
12	Researching through literature in the library	Bored, uninterested, obliged to participate
8	Completing online self-directed professional practice modules	Bored, uninterested, obliged to participate
14%	No experience of learning activity yet	I cannot judge, I have not experienced this situation before

Overall, the highest numbers of positive responses were for the learning activities *Making models or creative pieces*, *Receiving verbal feedback* and *Talking to tutors generally*. The highest numbers of negative responses were drawn for the activities *sitting for an exam*, *presenting a PowerPoint presentation to the class*, *design crit*, *discussions or debates*, and *working in a group with people I do not know*.

When asked in Q19 of the online questionnaire to rank the learning situations in the course from those that cause the highest levels of stress (Rank 1) to those that cause the least stress (Rank 12), the list produced by combining responses from all Interior Architecture students and students by year group is shown in Table 8. It is interesting to note how the ranked list changes by year of the student, with only fourth-year students able to gauge the relative stress levels of *all* learning situations listed, some of which may not have been experienced by students in earlier year groups (for example, self-directed research, which occurs in fourth year).

It appears that activities which cause most concern for students in years one to three are largely related to learning essential design skills (group work, design workshop, tutorials and drawing workshop). By fourth year, these have been replaced on the ranked list in Table 8 by learning activities which related more to preparing graduates for the workplace (self-directed research, team-directed seminars, industry placement and group work).

Table 8: Learning situations according to stress levels ranked by Interior Architecture students

Overall Rank	Learning Situation	Rank – 1 st year	Rank - 2 nd year	Rank – 3 rd year	Rank – 4 th year	Stress
1	Group Work	2	3	1	4	High
2	Design workshop	1	1	2	8	
3	Tutorials	4	4	3	7	
4	Drawing workshop	3	2	4	10	
5	Communication workshop	5	5	7	5	
6	Student - team directed seminars	6	7	10	= 2	
7	Self-directed research project	11	9	8	1	
8	Industry placement	12	12	5	= 2	
9	Student Conference	9	8	11	6	Low
10	Community design field trip	8	10	6	11	
11	Lectures	7	6	9	12	
12	Online self-directed professional practice modules	10	11	12	9	

4.3.2.6.1 The impact of university context and the unit culture

Staff perceptions of an optimal learning environment (or one that reduced negative student stress) included an environment in which teaching staff had consistent standards and expectation of students, provided clear instructions and timely feedback to students, kept the course workload manageable and scaffolded the learning experiences. Providing opportunities for student collaboration and peer support, modelling professional behaviour (including the separation of self and work), and

reducing staff stress were deemed to be important inclusions of a supportive learning environment. Staff comments included:

*In first year it **shouldn't be in large groups**. Second and third year probably could be where you have the large groups and studios. First year should be small. They've come out of high school, not that they have to be treated as they were in high school, but they still need to be in a smaller group.*

*Well I did say to the group, each of us is **building our reputation** as we go along. So everything we are doing is contributing to how we are known and we want to be building a professional image of ourselves and that we are a team player.*

*Have had to **set boundaries so that students do not confuse collegiality with friendship**, professional rather than personal relationships.*

*When **staff who are under stress**, and ... all of us at different times would feel it, some more than others. I think that **impacts on the students**, the students pick up on it.*

Some students also noted that teaching staff may create stress in students by providing unclear or late directions for student work; being disorganised or ill-prepared for learning activities; providing negative, harsh, late or inadequate feedback to students' work and in holding high expectations for student work.

*If the lecturer doesn't give **clear information**, or late to give some important information, it makes me feel stressed.* (Student response in online questionnaire)

Commenting on the physical setting of the university, staff interviewed also expressed the need for adequate facilities that are well lit, spacious, clean and well equipped (with printers, workshop implements and so on), shared space constantly available for working collaboratively with peers and/or staff, lounges and eating areas to warm up food and spend time when waiting for printing or meeting for group work.

***You've got to have a facility where students can work in an area together and learn from each other.** I think that will become more and more important. They are trying to get rid of studio spaces.* (Staff comment)

Staff also recognised organisational influences and identified the need to streamline timetabling, registration and other online administrative processes to ensure that students attend vital introductory sessions and are not able to enrol after the semester has begun (which has costly repercussions for international students paying for accommodation and tuition fees).

4.3.2.7 Learner maturity and emotional intelligence

Staff noted the "work as self" relationship displayed by students:

*They find it **very difficult** at this young age, and even some of the mature age students too, **to separate themselves from their work**. So there is an attachment to 'My work has failed, I have failed, I'm a failure'.*

There is a mismatch of understandings between staff and students about the preparation required to fully engage with course work:

They don't read, they don't like reading instructions on BlackBoard. I think, sorry, that's just symptomatic of the overload of information and maybe an

unwillingness to engage with that — reading instructions, interpreting it myself and being responsible myself. (Staff comment)

Staff perceived that student stress evolves over time, as students mature and progress from first to fourth year in the course; with a commensurate increase in skills required for successful completion of the course, as indicated by these comments:

*Possibly maybe first year needs way more scaffolding. **Maybe the transition into this adult kind of “direct-yourself” is just way too intense.** Maybe they need, well I think they are trying to have less class time, but I reckon they need more.*

As you go up the years** and the ability to draw improves and greater choice of submission style, **that tension eases.

*They understand the system **once they get to third year; they have a better idea of standards; and the way we teach.** They hear from other students, learn from other students. That’s a really important part actually. That’s why students in their fourth year have to have their own studio; they have to have a home base on campus, because that **shared learning is really critical.** Because we can’t do it and as they increase the student to staff ratio, we can do that less and less. A home room for honours students and thesis students, and actually even year groups, is really important.*

4.3.2.8 Looking out for and being looked out for: support strategies

Interior Architecture Teaching staff recognised the need to provide timely support to students who were experiencing stress, by personally assisting students or by directing them to professional services for academic assistance or counselling, as appropriate. Staff comments include:

*I think a lot of these issues (related to stress) just need to be dealt with right from the start I think it just needs to kind of be structured or **dealt with from first year.***

*I personally contacted students who had missed their first deadline or forty or fifty percent of their class, and asked “**is there any support that we can be offering you?**”*

*I do have lots of examples (of students experiencing **extreme stress**), a lot of those are family or personal issues... I **very quickly get (the students) down to Counselling.***

In the Online Questionnaire, many students reported coping with the pressure of study by stepping away from their course work temporarily to enjoy alternative activities as shown in Table 9 below, which summarises coping strategies employed by students. Risky behaviours (including consumption of drink or drugs) were rare. Seeking help by talking to friends, other students, staff and family was the major coping strategy nominated by students. Professional help was rarely sought, even though a fifth of students reported that they procrastinated, broke down or became tearful, overwhelmed or anxious. Students reported during focus groups that they found talking to others, either teachers, family, partners or friends, to be invaluable when feeling pressured by some aspect of their course of study.

Table 9: Coping strategies employed by IA students

What do you do when you cannot cope in the course?	Action 1	Action 2	Action 3
Relieve the stress myself (take a break, sleep, exercise, cook, eat, drink or take drugs, pray, meditate, play games, shop, see a movie, go out with friends)	34%	23%	12%
Keep working (work harder or soldier on even though work quality is often reduced, do less paid work)	12%	13%	24%
Ask for help by talking to friends, peers, family and staff	34%	33%	39%
Seek professional help (see doctor or counselling)	0%	3%	3%
Take no action (procrastinate, cry, become anxious or panicky)	20%	26%	21%

4.3.2.8.1 Frequency of stress reported

All respondents in the Online Questionnaire, when asked whether they had ever felt stressed while studying the Interior Architecture course, admitted to having experienced stress occasionally, most or all of the time they were studying, as shown in Table 10 below. 76% of the students reported that they felt stressed MOST or ALL of the time during their course.

Table 10: Responses to Q10: *While studying the Interior Architecture Course at Curtin University, have you ever felt stressed?*

No, never	0	0%
Yes, occasionally	14	24%
Yes, most of the time	23	39%
Yes, all of the time	22	37%
Total	59	100%

Everyone who admitted feeling stressed while studying identified course-related stressors as wholly or partly to blame; with only a small percentage of students (2%) identifying personal issues as the main stressors while studying; see Table 11.

Table 11: Responses to Q11: *If you answered yes to the previous question, what was the cause of your stress while studying Interior Architecture at Curtin?*

Mainly due to pressure of the course	26	48%
Mainly due to personal or external factors	1	2%
Combination of course-related and personal/ external factors	27	50%
Total	54	100%

The large majority (87%) of students who completed the online questionnaire admitted, in Q12, to using the word “stress” in the negative sense of the word, when asked *When you use the word “stress” (for example, I am so stressed today), how do you generally feel?* Only a few students reported that stress engendered a positive (5%) or neutral (8%) response from them.

In summary, all of the Interior Architecture students who completed the online

questionnaire reported that they feel stressed at some stage while studying; over three quarters of them reported that they feel stressed most or all of the time. Course related factors feature prominently as the reason students feel stressed, either separately or in combination with personal or external issues. Most students who completed the online questionnaire responded negatively to stress. Language used by Interior Architecture students to describe how they feel when stressed varies from terms with optimistic connotations for response to positive stress, such as excited, stimulated, creative and enthused; to words such as happy, capable and explorative when neutral (not positively or negatively stressed); and anxious, overloaded, uncomfortable, distraught and even suicidal when negatively stressed.

4.3.2.9 Basic demographic information provided by questionnaire respondents

Over two-thirds (69%) of the Interior Architecture students who completed the questionnaire were local students, nearly a tenth of students (8%) were regional students, Australians whose hometown was outside Perth, and roughly two-tenths of students (22%) were international students. Over two thirds of international students originated from Asia, the others originated in equal measure from Europe, North America, Africa and Other. Most (78%) of respondents identified English as their first language, and over half of the students who did not nominate English as their first language, identified an Asian language as their mother tongue (including Chinese, Mandarin, Vietnamese and Indonesian), with Middle-Eastern, European and Other languages also named.

Most respondents (90%) were female and for the large majority of students (92%), this was their first degree course studied. Everyone who had undertaken tertiary studies previously had done so within the past ten years; 60% of these had studied in the past five years.

The majority (83%) of Interior Architecture students who responded to the online questionnaire were aged 25 years and under. Just over a half (54%) of these students entered the course directly from school, 14% of students entered via a pathway or enabling program (such as *Step Up to Curtin* and courses offered by Curtin College); 20% earned special entry (due to mature age or exceptional circumstances); and the remaining 12% of students had undertaken tertiary studies previously, including at TAFE or overseas.

4.3.3 Summary of findings

4.3.3.1 Staff comments

In summary, a range of staff perceptions of the causes and nature of student stress were gathered during one-on-one interviews with staff, to ensure that all pertinent aspects of student stress were identified and included in the design of the Online Student Questionnaire and discussed during the Student Focus Groups. Interview findings included:

- The word stress was generally used by staff in a negative sense, as having a deleterious effect on students; although positive aspects of stress were identified
- Both course-related and external factors were identified by staff as causes of student stress
- Several learning situations were highlighted as particularly stressful for students, including group work, design studio (in particular the crit or pin-up), industry placements and self-directed design research
- Dealing with deadlines and poor time management were raised by staff as major stressors for students
- The current cohort of Interior Architecture students were perceived by staff as time-poor in comparison with those of previous years, largely due to external factors such

- as paid employment and the need to juggle multiple commitments
- The staff perception that current students are time-poor due to multiple responsibilities they face, if true, may partly explain why students today spend less time **on campus** engaging with the learning activities on offer, interacting and collaborating with staff and with other students, taking part in “the process of design” and developing “a sense of social belonging”
- An optimal learning environment, or one which reduced student stress, was perceived by staff to be one in which students were provided with consistent standards and expectations from all staff on the teaching team, clear instructions and timely feedback, a manageable course workload and scaffolded learning experiences
- All staff interviewed voiced concern about the stress of students, in particular international and regional students
- Different levels of stress, ranging from “eustress” that impacts positively on students to extreme distress, were identified by staff but were not clearly linked to particular learning situations.

4.3.3.2 Summary of findings from students’ comments

Online questionnaire

- The large majority of students reported that they felt stressed at some time while studying the Interior Architecture course
- The word stress was used in many different ways by students and a student generated stress scale (as shown in Figure 2) revealed many different meanings of the word
- Students reported positive impacts of stress such as producing good work when: under pressure or working to a tight deadline; when excited at the start of a project or unit in the course; when passionate about an aspect of the course, or after receiving constructive feedback on work in progress
- The negative impacts of stress included physiological reactions as well as emotional, behavioural and cognitive responses.

4.4 Clarification

4.4.1 Issues requiring investigation

The key issues, and therefore, the associated questions that had emerged from the previous two stages, were outlined to focus group participants in the preparatory statement presented at the beginning of each focus group. The issues identified included:

- a) Stress Scale (4.4.2):
Descriptors and degrees of stress varied across the student body, however, it was possible to construct the Stress Scale (refer Figure 2). In order to confirm the accuracy of the scale, and to clarify how students had been describing learning situations described earlier, the terminology and scale was checked by the groups.
- b) Workload (4.4.3)
What is a reasonable expectation of the hours that a student envisages are reasonable when doing a full time professional course? What premise is the conception of a reasonable amount based upon?
- c) Learning situations (4.4.4)

For any particular learning situation, students identified the situation as stressful (causing them negative feelings) whereas other students revelled in the challenge of the situation (so responded positively). What is it about the same task within the same studio that creates such differing reactions, and therefore, learning situations for a group of student?

d) Maturity in the Course over Time (4.4.5)

As many students indicated that they felt their skills – in drawing for example, were not at the level that they themselves required them to be (and thereby creating anxiety or stress), what was the basis that the feeling was founded upon? Does a first/early year student recognise that they will not be able to draw as well as someone in the final year of the course? And how do they advance their skills –resources, practising, mentors, etc? Do they feel their expectations are equivalent when compared to staff expectations?

e) Standard of Work/Feeling of Competency (4.4.6)

An important aspect of the comments was the stress of hand-ins. It was noted that some students saw the work as an extension of themselves rather than a project to be explored with the skills and knowledge they have to date. As a consequence, it was of interest to find out how they conceptualised the standard required for the visual presentation compared to the quality of the design itself; and in turn, how these perceptions reflect on them as individuals (and as part of a collective). How did they conceptualise and relate to what they were submitting? And were their responses the same in all cases or situations?

f) Profession-Discipline Awareness (4.4.7)

Student responses did not seem to reflect an understanding of what it is to work in a profession; and as a consequence, what they were being educated for, nor what attitudes, practices, skills and knowledge needed to be adopted as a student in a professional course in preparation. Therefore, insights into what they thought the profession is, and what a beginning-professional would look like on graduation, were sought. Did their conceptions conflict with their previous responses regarding how they engaged or learnt; or did they indicate that they did not understand the nature of the required processes and/or the destination?

Each issue will now be discussed individually; the quotations included were drawn from students across the five focus groups. Each section will commence with a figure summarising the main points.

4.4.2 Student generated stress scale

STRESS TERMINOLOGY AND LANGUAGE

Descriptors and degrees of stress varied across the student body; however it was possible to construct the *Stress Scale*. In order to confirm the accuracy of the Scale, and to clarify how students had been describing the learning situations described earlier, the terminology and Scale was checked by the groups.

The full range of emotions noted on the scale had been experienced
Stress was described as: *an overwhelming of emotions*
A situation can be simultaneously good and bad
Emotions change over the semester (week 1 compared to submission day)
Support networks were raised as critical influences to how one responds or feels
Students were cognisant of both contrasting aspects of being in a demanding or pressured situation
Physical, emotional, cognitive and behavioural outcomes were defined or described
Words used included:
frustrated, confused, distraught, overwhelmed, overloaded, stuck, challenging yourself; imaginative, innovative, super stimulated, feel really good
External motivators (pressure) were noted as useful in some situations
Students recognise staff must have a problem knowing how much stress to apply and when to apply it in larger groups
By taking control, the type and level of stress can be moderated or dissipated for some

As stated earlier, one goal of this study was to develop a list of words used by students to describe how they feel when stressed, and to produce a scale of stress descriptors, which can be used to identify and understand how students experience learning situations. Descriptors and degrees of stress varied across the student body; however, it was possible to construct the Stress Scale shown in Figure 2 from the responses to the online questionnaire (Very Positive/Visionary to Very Negative/Suicidal). In order to confirm the accuracy of the scale, and to clarify how students had been describing learning situations mentioned earlier, the terminology and scale was checked by the student focus groups.

Focus group participants from years three and four used terms differently, depending on the context and learning situation they referred to when discussing the scale. Interestingly, comments showed that the full range of emotions had been experienced: *Looking at this scale I think I've felt pretty much every single one of them* (Gp 3, p. 10), or with qualification *...no, not suicidal, but distraught* (Gp 3, p. 11). It was noted that situations can be simultaneously good and bad: *...All of these things, depressed and confused but at the same time you are challenging yourself and you feel so imaginative...* (Gp 1, p. 10). Students also recognised that emotions change over the semester, for example, the difference between emotions in week one and when you submit. The question of whether positive emotions could accurately be called stress was raised; stress was described as follows: *...whether it's a negative or a positive thing, stress is like an overwhelming [level] of emotions* (Gp 1, p. 3).

Students also offered a number of insights when discussing the scale, as the following qualitative examples indicate:

- (i) External motivators may be useful in some situations *well definitely a good thing to put pressure on people to get them to pick something, to go with it, to start exploring.* (Gp 3, p. 11)

- (ii) Managing appropriate stress levels is easier to manage with small groups. *[The] Problem for staff...is knowing how much stress and when to apply it to the students ... when dealing with 50 or 60 students and everyone reacts differently.* (Gp 3, p. 11)
- (iii) Some students mentioned the need to take control. For example, to go part-time, recognise they need to work and can't achieve life balance and have a social life if "uni-centric" with 100% load; or to stop work if they can. (Gp 3, p. 11)
- (iv) With hindsight, students were cognisant of both contrasting aspects of being in a demanding or pressured situation *it was worth it because we learnt so much and also that stress is bad for your health but it gets you to do stuff and it gets stuff done.* (Gp1, p3)

All focus groups discussed physical, emotional, cognitive and behavioural outcomes from stress as they were defining or describing it. Aspects such as weight loss, tears (Gp 5, p. 7), lack of sleep (Gp 4, p. 5), feeling sick (Gp 3, p. 11), feeling anxious, depressed, stressed (Gp 2, p. 6), loss of motivation (Gp 1, p. 7), wanting to quit (Gp 3, p. 11), and hair loss (Gp 1, p. 3), were common across all year groups.

Students in first and second year synergistic focus groups did not discuss the stress scale per se, but used a variety of terms included in the scale as they talked about other topics. The project team was interested in the language being used and how this complemented or contradicted the scale described earlier. The words *frustrated, confused, distraught, overwhelmed, overloaded, and stuck* were frequently used. Regardless of the persistent pressure described by students, they were also able to see the positive effects of that stress or pressure as focussing and stimulating them:

*...at the same time you are **challenging yourself** and you feel so **imaginative**. Like you look at your friends doing other courses, they might be stressed as well but it's completely different like you're designing and creating things that they couldn't even wrap their heads around and that's kind of the **innovative and imaginative** side of it I think it's a good stress in a way.* (Gp 1, pp. 3-4)

In addition, support networks were raised as critical influences on how one responds or feels. Points raised included: a) family not having firsthand knowledge of situation; b) differences between sibling learning styles that influence understanding; and c) the particular mode of thinking required for a creative course — *... with design work you are constantly thinking about it...it's never finished even once its submitted* (Gp 1, p. 5) — and how this leads to immersion.

4.4.3 Conceptions of a reasonable work load

WORKLOAD EXPECTATIONS	
What is a reasonable expectation of the hours that a student envisages is reasonable when doing a full time professional course?	
What premise is the conception of a reasonable amount based upon?	
A. Expectations relating to workload	
At the beginning	
Course information (web/print) provides insights into what it may be like	
Schooling and teacher comments raise expectations and disappointment	
Knowing people in different genres of course (not creative/design based) can provide inappropriate work load base-lines	
As students develop	
Really intense workload from the beginning; but with hindsight the early projects were so tiny	
Projects become bigger each time with more and more work	
Develop respect for degree as recognised what had been learnt and commitment needed	
Student believed myths	
Student mythologies can become real in other students' minds and influence reactions and behaviours. For example, must do all nighters to be in course; other student/they know what the profession will need from them; and, you should feel guilty for having a balanced life	
B. Personal goals and impossible desires	
To have a predictable routine in a course with a lot of variety	
C. Creation of ideals (that are probably unobtainable)	
In the workforce hours are predictable and stable	
D. Self imposed workload issues	
Criteria for undertaking long hours of course project work:	
preferred style of working	level of care applied to task
standard of work desired	desire to obtain or better previous high grades
E. Impact of high workloads	
Neglect of their health; got really sick towards the end; loss of motivation	
F. Preparation and management	
Junior students desire plenty of notice of due dates, material requirements and timetables; to assist early scheduling around busy lives and pay for required materials, printing, etc	
G. Strategies : taking control	
Conscious decisions around available options. For example, taking part-time study options; choosing life balance for rewards that are other than grades.	
H. Workload and learning situation	
Disadvantages of intensives:	
difficult to have any free time; need to generate design-concepts quickly; reduced time to keep going back and redesigning; hard to correct 'mistake' and alter direction	
Advantages of intensives: (senior student responses)	
You only have to think about 2 units at a time; You know you've got a break in the middle;	
Happier since intensives implemented.	
I. Evolution of course characteristic and potential workload	
Students had recognised that the course was evolving. However:	
The level and rate of change was not always seen as fast enough.	
Lack of student awareness that course designers are working with industry	
J. Student Insight and recognition of context.	
Self-commitment and interest to course/unit will influence the work effort and load.	
Time applied to projects does not equate with the level of understanding of design	
Investing extra time in early years develops skills needed in latter years	
The recommended hours don't identify basis for hours	
School learning ensures you pass so it is hard to accept you may fail	
Recognition that semester weeks are only part of the unit load	

Students and staff have expectations about profession-based learning at university. When mismatching occurs this can lead to frustration, dissatisfaction and pressure. Therefore, we were interested in what kinds of expectations students had relating to workload and how these may lead to feelings of stress. Many students had remarked in the online questionnaire that they believed the Interior Architecture course to be intense, tiring and consuming and had not been and were not prepared for the workload demanded of them in the course. Consequently, the second issue suggested as a discussion topic for focus group participants was the students' perception of a manageable or reasonable workload.

During focus group discussions, students outlined their ideas about what constituted a reasonable workload in a full time professional course, and revealed the premises on which their conceptions of a reasonable workload were based. First-year students did not talk directly about workload, but the topic was robustly discussed by all other year groups. Two aspects of workload were implicated in the data: firstly, the amount of workload relative to what students were anticipating and/or think is reasonable; and secondly, there was the self-imposed workload due to personal goals. The latter relates to another topic regarding standards.

4.4.3.1 In the beginning

Prior to entering Interior Architecture, comments by teachers at high school led some students to expect that university was going to be a lot less pressured than year 12, with opportunities for socialising and enjoying life in the city:

...It sort of feels like you're being lied to along the way. Yeah you are doing really well, ...go to uni and you are not as good as you thought you were. (Gp 2, p. 14)

*...If somebody just told you that from the start, not to scare you, but just to say **this is an intensive commitment**, like it's a higher degree of learning like engineering or something like that, it might have braced us a little more for what was to come. (Gp 4, p. 2)*

Course information on the university website or course handbook also provided insights into what it might be like to study Interior Architecture, although stated contact hours did not identify the basis for the hours stated or adequately prepare students for the workload. For example:

*...I **didn't expect so many hours** ... when you research about the course ... it lies, you do a lot more ... Is that the HD student that they're doing or is that the person that's just scraping in or the people that are failing? (Gp 4, p. 13).*

Alternatively, the official information can give clarity:

... I knew from reading it was the more conceptual [course]...getting you to think; ... what is the stressful part of it ... will be extremely beneficial in practice. (Gp 1, p. 10)

Friends studying courses that were not creative or design-based also misled students into comparing load base-lines that were inappropriate benchmarks. For example:

*...I think again that's where there is kind of **miscommunication** between the different types of courses. Like there maybe some courses like, one of my girlfriends does teaching, she has **contact hours** of 8 hours a week and that's it ...whereas for us it's like 8 hours is not even half a day's worth of work. (Gp 1, p. 10)*

4.4.3.2 As students develop

Once in the course, Interior Architecture students found that the workload seemed to increase and that a commitment to the course (that they had possibly not originally anticipated as necessary), was essential:

*I've come to respect the degree a lot more...we learn a lot more...I **didn't understand that commitment, not when I came to this course in first year...compared to other courses.** (Gp 4, p. 2)*

Students also recognise that projects, which seem stressful at the time, are in fact quite basic with hindsight—yet the projects increase as they also develop over the course. As one student observed:

*...I think the thing about this course is that **it's been really intense from the beginning** and whilst in hind sight those projects were so tiny they just kept bigger and bigger every time, every single assignment or like every semester, every unit, every design unit is just more and more and more work. (Gp 3, p. 14)*

A number of other aspects influence their conception of appropriate workload and how to manage that workload. These are:

- **Student mythologies:** False beliefs or mythologies unfortunately influence the beliefs and behaviours of some students. For example, the expectation that working all through the night on a regular basis is expected of all IA students. Other student myths included: unjustified claims of what the profession would expect of them on graduation; and that one shouldn't relax while studying. In the latter case, feeling guilty about enjoying a social life while studying resulted: *...you'd be going out this weekend...and they [peers say] I can't believe that and then you'd feel guilty for having a life.* (Gp 4, p. 5)
- **Idealising studying in a creative course and working in a creative profession:** Students stated a desire for a stable routine during their Interior Architecture course (and subsequent professional life). Given the nature of creative professional courses, which contain a variety of topics and skills to be learned, the idealised notion of studying or working in Interior Architecture with predictable hours arguably gives rise to unrealistic expectations and impossible goals. Statements included: *I find the routine during uni is incredibly hard ... like **there is no routine*** (Gp 4, p. 5); *... I'm actually **looking forward to being in the workforce** where ... you've got that stability and routine in your life. You've got that 9 – 5 whereas sometimes I'm working until 4 am in the morning on assignments and like my sleeping pattern's all over the place.* (Gp 4, p. 15)
- **Self-imposed workload due to personal goals:** Students also unconsciously elected to undertake long hours of course project work due to their personal goals and their preferred style of work, level of care applied to the task, standard of work desired and need to obtain or better previous high grades. Qualitative responses reflect personal practices and beliefs: *...My friends [said] you finished on a distinction, that's a good mark but in my head I was [thinking] why am I even doing this...you snowball and you do so well that **anything less than great is just not acceptable*** (Gp 2, p. 6). And in regard to participating in all-nighters or working long hours, personal criteria were alluded to: *... And I don't know whether its [a] because that's the way I work, [b] that's because I care and [c] I want to be at my certain standard or whatever. But I don't know.* (Gp 3, p. 8)

4.4.3.3 Impact of high workloads

Students did link high workloads with deleterious impacts on their health and motivation: *...People were doing so much work for it, such a large assignment in such a short period of time and a lot of people neglected their health and a lot of **people got really sick** towards the end.* However, students also made suggestions through their experiences, which demonstrated how they took control of the circumstance to counter balance the pressure. These include the following aspects:

- **Preparation and management:** Students (especially those in first and second year) requested plenty of notice about due dates, material requirements and timetables, to allow them to schedule and cope with their workload around busy lives (including paid employment), and to budget for associated expenses. For example, *... Doing an Arts degree is extremely painful. I'm so stressed about the cost of things. And **trying to fit work in** to pay for it and then not having enough time to do your design work at home.* (Gp 5, p. 11)
- **Strategies to gain control:** Several students chose to change to part-time study (spreading the workload over a greater time) as a solution to coping with the workload of the Interior Architecture course. The conscious decision around available study options was a successful strategy to control their workload and could be explored further as a means of managing student stress. For example:
- *Studying part time: everything is kind of tied together and everything is designed to run together but in the time that **I've cut down my study load** my performance, not just my grades but **my understanding of the course and my happiness with my own work have gone up** so much since second year and if somebody had just said to me from the start, like when they kind of detected that maybe I was struggling a bit, and said you can do this part time and maybe that would be better for you and I'd done that earlier I wouldn't have failed as much as I did and kind of kept sliding back.* (Gp 2, p. 15)
- Another strategy was to **choose life balance for its rewards other than grades:** *... seeing friends more ... Last year I worked my arse off and didn't really see anyone. It wasn't a decision that I made not to ... this year it was a decision.* (Gp 4, p. 14)
- **Workload conception with evolution of the learning situation:** Although most of the 2013 students had not experienced the older version of the course, it was interesting to identify reference to various learning modes or experiences relative to workload. Students identified advantages and disadvantages of the new course structure (in which two six-week intensives/blocks run in parallel) and how the new course structure impacted on student workload. Disadvantages included the scarcity of free time, and the lack of time to generate or re-work design concepts or modify designs in a new direction: *I don't mind it (referring to six week blocks) but it's just **so condensed** that it's like extremely difficult to have any free time.* (Gp 4, p. 6)
- Some comments also indicate the importance of having a process to overcome fears and practices: *It's feels like within that six week period if you don't **come up with a really good concept first day of the unit** or whenever you get the brief for the assignment and then have something solid to run with and explore and develop you're stuffed* (Gp 3, p. 9).
- It is of importance that fourth year students, familiar with the old and new six week block course structure added praise for the changes, which they believed had been implemented to improve the course. Advantages included: *You only have to think about two units at a time; You know you've got a break in the middle; I definitely say I'm a lot happier in the last few years of this course with*

the changes that have been implemented (Gp 2, p. 23).

- It is also important that students had recognised that the course is evolving and that the changes had and could improve things in the future. ... *they are doing a massive 8 hours of Photoshop and that in first year now and that would have been amazing when I started* (Gp 1, p. 10). That said, some students were impatient or had differing goals or expectations. For example: ... *we just learnt Rivet and we're in third year* (Gp 1, p. 10).
- In some cases students are unaware that course designers are working with Industry to make timely changes when content and practices have been shown to be relevant to the profession—and continually, refining the course as a result. This could foster doubt in the student's mind of the currency of a unit or course (or vice versa); ... *I think they [the staff] are finally catching on* (Gp 1, p. 10).

4.4.3.4 Student insights

Some of the following points have been mentioned above but are included here to demonstrate that some students are aware of the circumstances' potential and limitations—and therefore, have a level of maturity and an ability to critique their situation. For example, the following points indicate knowledge of self and of the context:

- Self-commitment and interest to course/unit will influence work effort and load
- Time applied to projects does not equate with the level of understanding of design
- Investing extra time in early years develops skills needed in later years
- The recommended hours don't identify basis for hours (pass vs honours student)
- School learning ensures you pass so it is hard to accept you may fail
- Recognition that the semester is only part of the staff's unit load.

4.4.4 The impact of specific learning situations

DIFFERENT RESPONSES TO SAME LEARNING SITUATIONS

For any particular learning situation, students identified the situation as stressful (causing them negative feelings) whereas other students revelled in the challenge of the situation (so responded positively).

What is it about the same task within the same studio that creates such differing reactions, and therefore, learning situations for a group of student?

A. Group Work

Students noted positive and negative aspects of group work

- Students are highly critical of peers who did not contribute equally

- Varying standards leads to frustration

- People who dominate and undervalue others disrupt groups

- Bossier older student had no criteria for being the leader bar age

- Comfort comes from teams with friends who are assumed to work at same capacity

- Students valued the opportunity to work in a team, learn from peers and mimic practice.

- Group design projects are valued which are 'more real life' and 'challenging'

- Camaraderie can assist enjoyment of group work

- Opportunities to help each other

- Equity of effort was considered an important variable

- Harmonious group dynamics was identified as the key requirement to successful group work.

- Characteristics of individuals are important aspects in whether team members like and respect each other, and work collectively.

- Group work assessment processes influence group work engagement

- Tolerance or acceptance of diversity in ability is not always evident

- Group work relates to learning how to learn about working with others

- Expectation that Professional Teams are harmonious and integrated

- Recognition that teamwork is part of the profession

- Characteristics noted that they may need to manage

B. Studio Sessions

Students noted positive and negative aspects of studio sessions

- Design studio are recognised as good learning environments

- Exposure to these situation help students to cope with them

- Staff can show their projects as examples

- Students often felt they lacked skills needed to complete work adequately

- Presentations and critiques or 'crits' are identified as stressful

- Students feel confused when no clear practical and visual examples

- Drawing skills and computer skills were named as problematic and inhibitive

- Not as comfortable as 'self-learn' skills necessary rather than 'being taught'

Student given reasons why students—especially junior students—get nervous include:

- Perception of importance is greater when at university than school; but not sure what is most important aspects to include; Lack of experience because young and straight from school so haven't learnt to cope; Lack life skills such as work experience; they don't believe in work; haven't put in time or effort

- Feel don't really understand terms or concepts, so concerned they have misunderstood and will not be like the others' work; They are learning a different language and haven't mastered it in junior years;

- When unit pin-ups are in public 'gallery' spaces with high exposure by others

C. General Points

- Different institutions (different countries), students have experienced, approach learning differently

- Age and gender can influence interactions

- Mismatches in understanding between staff and students' understandings

- Course consistency in terminology and concepts would assist clarity

- Design processes could be compromised with technological advances

Different responses to the same learning situation: For any particular learning situation, some students identified the situation as stressful (causing them negative feelings) whereas other students revelled in the challenge of the situation (so responded positively). The third topic raised during the focus groups was identifying and understanding differing reactions to a learning situation for a group of students; in other words, the varying responses to the same task within the same studio. We aimed to understand from the students' perspectives why this is so.

4.4.4.1 Group work

Working with peers on a group project was singled out by students of all year levels as the learning situation most likely to initiate student stress. Students were able to see positive and negative aspects of group work, and were highly critical of peers who did not contribute equally. Yet they valued the opportunity to work in a team, learn from peers and mimic (idealised) practice. The need for harmonious group dynamics was identified as the key requirement to successful group work—and it would seem that only situations where they work with people they do not like that group work is conceptualised as negative.

Students recognise that **teamwork is part of the profession** and there are skills required to carry out the activity successfully, and a responsibility to the members. One student voiced an **idealised assumption that professional team members** are harmonious and integrated:

... I think when we've become professionals in the real world group work will be easier because we'll all have similar philosophies, hopefully, in that working environment and you all want to do the project. (Gp 1, p. 6)

Some students recognised the characteristics of team members that may need to be learnt and then managed. For example, **learning to work with others:**

Helping each other; I look back at Katanning (community design group project) and I think that was really good. I learned a lot about working as a team which I think was very valuable in practice. (Gp1, p. 5)

Responses to the group work learning situation were linked to the **personal characteristics of team members**, such as personality, age, gender, educational background, attitudes, tolerance, camaraderie, which were seen as important aspects in whether team members liked and respected each other, and therefore could interact effectively and work collectively. This included the student's attitude as well:

*Everyone works differently as well, like I know I'm as last minute kind of person and I sort of have to force myself not to be when I'm in a group assignment. I'm like ok I really have to do this because it's not just me. And I think that is good, **it's a very good experience because I'll have to do that in industry.** (Gp 3, p. 13)*

I think this course could be a lot more than it is. Maybe that's just our year group but I feel there is no camaraderie or drive to care anymore I think, that's me. (Gp 1, p. 7)

Equity of effort was considered an important variable. However, tolerance or acceptance of diversity in others' abilities was not always evident. For example:

*I find it very frustrating because I often find that the **standards that the other people** have aren't on par with mine and so I end up either doing a lot more work than the other students to try and keep the level up or end up just having to accept that my grade's going to be lower than I want it to be. (Gp 3, p.12)*

Other **undesirable characteristics of team members** included those who don't pull their weight but also those who dominate and undervalue others because of their pre-conceptions and perceptions of other students. Age was a variable discussed in regard to the latter point. It was noted "*they think they have more knowledge*"; "*thought we*

were stupid”; others “didn’t follow her thinking system” (Gp 4, p.18); and that the bossy older student had no criteria for being the leader bar age.

The perceived value of the group work project was important. Some younger students felt that group work projects lacked substantive content – they were *throw away* (Gp 4, p. 20); *...because we’re learning to work with people...* (Gp 4, p. 20). Doing PowerPoint presentations were not valued while doing group design projects were as they were found to be “*more real life*” and “*challenging*” (Gp 1, p.6).

Assessment strategies: How group work is assessed and graded is noted as being a driver to perform by some students and laziness in others (Gp 4, p. 19); those strategies which confidentially recognise/grade contribution to the group, are believed to be worthwhile (Gp 1, p. 6).

4.4.4.2 Studio

Students recognise the potential of the studio as a learning environment, yet they also identified aspects which influenced their experiences. The following quotes complement staff concepts of a successful studio:

...The design studio in terms of learning environment, I think that’s always been fantastic. ...in second year we would just wander around the studio and talk to each other and discuss each others’ works and help each other out and it was very useful. (Gp 1, p. 6)

There are a number of activities and requirements listed below that constitute the studio and each elicits a variety of student experiences and responses. Studio presentations and many tutorial presentations in creative courses such as Interior Architecture involve verbal and graphic presentations in front of all the class or a tutorial group. These involve formative and summative feedback — the critique. Presentations and critiques were named as stressful learning situations by students across all years, with recognition that exposure to these situations helped students to cope with them:

*...With presentations I always had that like **self doubt and nerves** presenting in front of people. But then that (communications unit) one sort of taught you how to stand up and be confident in yourself and express what you’re trying to say.* (Gp 4, p. 12)

Requirements

Students in all years, but especially in first and second year, felt confused by what they perceived as the lack of **clear practical and visual examples** to guide their work. They responded well if these were available:

*...His (tutor’s) own drawings, that was amazing but he just did that off his own back, like bringing in his work and drawings and stuff. It was amazing, but it’s really interesting because that’s what’s then expected and again **it gives us a benchmark**.* (Gp 1, pp. 15-16)

Students also felt conflicted when they perceived that staff **standards** or opinions about their work were not consistent.

*...And I feel like it was really **hard having three different opinions** and I didn’t know which one to follow [talking about different teachers critiquing their work].* (Gp 5, p. 6)

Such comments indicate a lack of understanding of one of the core principles of a studio-environment.

Verbal presentation skills

Verbal presentations are a core activity during which the student speaks about the graphic representation of their project in order to increase the viewers' understanding of its intention. Third year students identified both the dislike of giving verbal presentations and the need for them (Gp 3, p. 2). The following dialogue captures this duality.

Person A: I think that's surprising that people would have said that they hate talking in front of other people and that they don't like being critiqued.

Person B: I don't think that's surprising at all. No one wants to be critiqued.

Person C: But at the same time, that's what it is. That's the whole thing.

Of particular interest to this study are the reasons given by students as to why other students—especially junior students—get nervous. For example:

- Perception of a presentation's importance is greater when at university than school (Gp 3, p. 2); but not always sure what are the most important aspects to include (Gp 3, p. 3)
- Lack of experience if young and straight from school so they haven't learnt to cope (Gp 3, p. 3)
- Lacking life skills gained from circumstances such as working (Gp 3, p. 3)
- Little belief in their work because they haven't put in time or effort (Gp 3, p. 3)
- Feeling they don't really understand terms or concepts, so concerned they have misunderstood requirements and will not be like the others' work (Gp 3, p. 3)
- They are learning a different language yet haven't mastered it in junior years (Gp 3, p. 3)
- Feeling exposed when unit pin-ups are in public gallery spaces with others (Gp 3, p. 4).

Graphic presentation skills

Students felt that they often lacked skills needed to complete work adequately and had to "self-learn" skills necessary rather than being taught them. This raises an interesting question about the mismatch in understanding between staff and students in terms of what the course purports to teach versus what the students believe the course delivers. For example: *I don't think, well this is my personal opinion, in the early years there is enough development or enough time given to the development of our skills. The **emphasis is on the thinking rather than the practical application and expression.*** (Gp2, p20)

Drawing skills and computer skills were the two most commonly named as problematic. Several students felt that use of computer technology compensated for lack of drawing skills, but others identified the inability to sketch designs prior to presenting them using software packages as a failure to follow 'the design process'. Some students offered suggestions for improvement such as: *It would be great if we could have had drawing classes like **one week of drawing classes every semester** or something like that.* (Gp 3, p. 5)

Course consistency

Comments indicate that students may need greater consistency in the concepts and terms used across design units and throughout course to feel secure that they understand what is being spoken about and asked of them. The misconception that design judgement is only subjective also seems to be unsettling. Some students welcome being challenged by differing opinions while others resent it.

*...Yeah I mean there's a certain [perception] about of design being incredibly subjective; and so, ... then having the different tutors can be good because they'll push you in different ways and you **ultimately have to make your own decision and run with it.*** (Gp 3, p. 6)

4.4.4.3 Evolution and relevance of techniques to represent ideas

Many students are concerned they don't have any skills, a suitable level of skill and/or an ability to represent the ideas they have appropriately. Some students also recognised that the lack of skill may force them to go to the computer too early in the design process. Others were concerned that they didn't yet know the computer programs. The following example demonstrates these tensions but also highlights the student's insight into the limitations that result from their actions:

*A lot of us find it really hard to get across our initial ideas to our tutors because we just say it or we write it or do these little doodles that they can't even understand. And then we go and **try to draw it and it doesn't work** and then we go straight to the computers, where **we're missing out on a really important design phase** I think. (Gp 3, p. 6)*

4.4.5 Maturing in the course over time

MATURITY
An important aspect of the comments was the stress of hand-ins. It was noted that some students saw the work as an extension of themselves rather than a project to be explored with the skills and knowledge they have to date. As a consequence, how they conceptualised the standard required for the visual presentation compared to the quality of the design itself; and these in turn compared to how it reflects on them as individuals (and as part of a collective) was of interest. How did they conceptualise and relate to what it is that they were submitting? And was it the same in all cases or situations?
Students developed different characteristics and abilities with time. Evolving expectations and comparison between self and others Ability to perform in public/groups Level of commitment, interest and immersion in the course Level of camaraderie and competition Concerns for a fair deal Level of personal responsibility for learning taken Level of support for development expected Pacing through the course and units Ability to take control and making choices regarding: Life balance Engaging with structured course

It was of interest to see if student reflections on the course evolved over the four years of study as they became more familiar with the university, the discipline, and the requirements of studios and other learning activities. In addition, each student was obviously getting older and we assumed maturing to some degree. It was evident that junior students responded differently than senior students and that their relationship to studying at university and to the profession evolved significantly as they matured. Their responses to situations described as stressful also evolved, as did their ability to take on responsibilities for their learning.

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4.4.5.1 Integration of self and course

Fourth year students talked about immersion in the course, compared with first year students who were still resistant to making university “their life”. The confidence of fourth-year students in dealing with consistent deadlines, critiques and oral presentations had increased compared with earlier years: *“I think I’ve kind of got it!”* (Gp 1, p. 4).

Students believed that external pressures are greater than before and that their ability to juggle multiple responsibilities had improved over the years spent in the course. For example:

*But then, like I work a lot of hours, like up to 35 hours a week, but I’ve also got really **good time management skills now** that I do. I make everything fit and I’ve always submitted on time unless I’ve been really sick.* (Gp 2, p. 20)

Third year students expressed increased confidence and improved understanding of what the course entailed, as they became familiar with concepts and expectations and improved their skill levels. They had an expectation that they would learn necessary skills over time and continue to do so.

Junior students indicated differing perspectives to senior students. For example, second year students talked about struggling to come to terms with the course in the previous year and wanting guidance to learn from and expand on ideas of tutors. They noted the difficult transition to university; and wanted more guidance and practical skills to be taught, and more time with tutors. First year students vocalised the need for exemplars to show the standard of work required, as the response shows: ***My stress hormones mainly come from not seeing examples!*** (Gp5, p3)

Senior students reflected back on early years in the course and noted that they had become comfortable in the course, because their understanding of what was required had improved, and they felt more capable of communicating their ideas effectively both verbally and graphically:

*...when I was younger I found it very difficult to speak in public but through experiences of working I’ve been put in situations where I’ve had to develop these skills so it doesn’t bother me so much anymore and I just wonder if it’s some of the **younger students** coming straight out of high school whether that’s more of an issue because they **just don’t have that experience*** (Gp 3, p. 6)

There were seemingly contradictory comments, where students wanted to stay home and not necessarily engage in the traditional studio philosophy; yet they expressed a desire for more guidance. For example, they struggled to understand readings required (and some students hadn’t realised there were readings) and a more intellectual course content, always referring to the need for practical examples.

A number of aspects that can cause stress were identified by the members of the focus groups as situations they have learnt to deal with over the course. For example:

Ability to perform in public/groups: *I mean I feel like from first year to now the skill set that I have in terms of ability to use particular programs like Sketch Up or CAD or Photoshop and **I’m better able to express my ideas now**. And I think in first year in particular I was really frustrated because I had these ideas but didn’t know how to express them, didn’t know how to visually communicate them and I’m getting better at, and I’d still like to get better again at it.* (Gp 3, p. 6)

Commitment, interest and immersion in the course: *And I think fourth year should be the year that we want to be doing. Like now that I’m in second semester I’m actually **really enjoying doing the projects because it’s what you want to do**. It’s your passions, how you’ve learnt, how you are as a designer and you’re putting that out there.* (Gp 1, p. 8)

Camaraderie and competition: *As a group we push each other to do the best*

that we can do and that is in turn stressful (Gp 1, p. 3); We have a lot of people who are really competitive and like secretive. (Gp 1, p. 6)

Pacing through the course and units: *I think that it's a shame that you get so worn out from third year, and third year was great I learnt the most in third year, but at the same time it's just like, and everyone's lost the willpower to keep going. (Gp 1, p. 18)*

Evolving expectations and comparison to others: *The majority of people that are in the course have come from an arts background, like from high school sort of thing, they've done art throughout high school, I never did. Like the expectation is that you already know how to paint, to draw, to watercolour sketch and I can't do any of that. (Gp 2, p. 20)*

Responsibilities over time:

a. Commitments increase over time: *Especially in the later years because like I've been working for the entire time I've been at uni but now the work commitments are more important because I've got more rent responsibility, more costs and things like that so working in groups, trying to negotiate times and things, the scheduling becomes really difficult to manage. (Gp 2, p. 20)*

b. Impact: *I kind of had to support myself to financially be able to pay for the printing and all the materials. But I am quite unhealthy staying up quite late at night working and on the weekends will often be inside for days at a time. I wound up at the health department; I know a lot of people have, from stress. (Gp 2, p. 20)*

Taking control and making choices

a. Life balance: *I remember in first year I just gave up on any social life, I decided to just put it all into uni and then I was like no in second year I need to allow for some social life so that I have friends. Trying to find that balance is pretty difficult. (Gp 4, p. 12)*

b. Engaging with structured course: *When it is uni and the lectures are online that's the whole point we're mature people with our own lives we should be able to decide for ourselves, we shouldn't have to go class and then get told off because we weren't at a lecture ... If you choose not to come to class then that's your back. Yeah you've paid for the class it's your problem not theirs. (Gp 5, p. 6)*

4.4.5.2 Concerns for a fair deal

Many students express a desire for all students to be treated the same. This can be difficult to demonstrate as differing students have different demands and needs that influence the context of their studies. Some suggestions were made to enhance equality. For example:

I think it would be good if they could address that not necessarily everyone will have those skills coming into the course and to bring the other people up to speed basically so they can feel like they're on an equal playing field (Gp 2, p. 20); So like that we can all access online like an online tutorial class where you actually can see the tutor and showing us how to draw something instead of going to class. (Gp 4, p. 12)

4.4.5.3 Support for development

Students constantly compare themselves to others and would like to be seen as equal to other discipline students. They still doubt themselves and need reassurance. Some started without basic art skills, found transition to an arts course at university difficult and would have like more skills based units early on. Balancing personal responsibilities becomes more of an issue. Time management has improved.

Students indicate that they are looking for support during key points in the course; especially when coming to university and first year. The independence expected can be a challenge, as the following comment indicates: “Yet university it’s like; here’s what you have to do good luck, and then come back. So it’s a massive transition in first year” (Gp 4, p. 12). Students also commented on the development of core skills and how particular units did assist them, and offered suggestions to the best location in the course. Support is seen to reduce their stress.

4.4.6 The standard of work

FEELINGS OF COMPETENCY: STANDARD OF WORK	
As many students indicated that they felt their skills – in drawing for example, were not at the level that they themselves required them to be (and thereby creating anxiety or stress), what was the basis that the feeling was founded? Does a first/early year student recognise that they will not be able to draw as well as someone in the final year of the course?	
And how do they advance their skills –resources, practicing, mentors, etc? Do they feel their expectations are equivalent when compared to staff expectations?	
Senior Years Students	
Are proud of their work	
Try to be realistic about what can be achieved in time allowed	
FOCI of Issues raised:	
Learning and personal achievement	
Types of Perfectionism	
Aspiration Resignation	
Pragmatic Issues	
Passion for Content	
Peer support and/or pressure	
Junior Years Students	
Have pride in their work	
Keen to hand in their best work	
Felt constrained by time and other deadlines	
Avoid attending class and/or hate presenting if they feel work is not up to scratch	
If unsure of expectations, feel unsure	
Need understand relevance	
Perceived self-limitation is an influence	

Junior and senior students differ in how they see the work as an extension of self. This was captured in the online survey. However, the following section highlights how students are concerned with standards and how their work is perceived by others and by themselves.

4.4.6.1 Senior year students

Senior students were largely proud of the work they handed in, but differentiated between the conceptual framework/design of their work and the presentation/finished product. They tried to be realistic about what could be achieved in the time allowed to complete submissions by the due date. Aspects which influence the student’s aspirations and achievement are:

Learning and sense of personal achievement: *The finished product might not be perfect but I feel that I have still been learning. The uni’s very judgemental on what the finished product looks like... I think it’s actually the design... it can still be a great design even if it doesn’t look that great. (Gp 1, p.14)*

This contrasts with the following student's comment:

*I'm a migrant and you know from somewhere else and both my parents didn't go to university, you know I don't get help from my parents so like this for me is more of like **a personal achievement** as such. Saying wow, at the end I did it, I tried my best and I got a good mark for it. (Gp 1, p. 15)*

Perfectionism—aspiring to be perfect: *I have never wanted to hand in any old thing, I've always like worked up until the end and if it hasn't been a pin up it's been something else there's been occasions where I would rather get 10% off and make it really good than hand in crap. (Gp 3, p. 8)*

Perfectionism—resignation to or acceptance of limitations: *I don't care anymore, I'm just going to finish and hand it in and that's it. But that's not a point of me not caring really, it's a point of being defeated. It just killed me it just defeated me, I can't do any more, I don't have any more energy or brain space for it. (Gp 3, p.8)*

Pragmatic approach to work: *... some people have to work and then I think that's where you can feel you know inferior kind of and... stressed because you don't feel your work is up to standard but you have other priorities that you've got to think of. (Gp 2, p. 22)*

Passionate approach to course work: *... I think maybe that's just because our course and people who do this course and get through it you have to be passionate about it. And so because we're passionate people we make every effort to pin up the best work that we possibly can and that means we don't sleep. (Gp 3, p. 9)*

Peer support and/or pressure: *It's very competitive and I wouldn't want to submit something or especially have something pinned up on the wall that other people could see if I was embarrassed of it or it wasn't to the best of my ability. Because of that we all keep pushing each other further and further and in a way that's a positive stress that we're pushing each other we're achieving more but then the health side of it. It can be negative, it can be both. (Gp 2, p. 22)*

4.4.6.2 Junior students

More junior students reported being keen to hand in their best work as far as practicable, but felt constrained by time and other competing deadlines. They stated that they avoid attending/hate presenting when they feel their work is not up to scratch. Students from year one stated they hand in work they are not happy with, as they feel unsure of what is expected. Points raised relate to the following aspects:

Pride in their work: *And also **be proud** about whatever. So sometimes even if I really do not like the project I'll actually work harder on it so I know I don't have to do it again (Gp4, p. 11)*

Relevance of the submission: *if it's you know something practical that we can actually do as a career afterwards like kitchen design you put as much influence in it as possible. (Gp 4, p. 11)*

Perceived self-limitation: *But you still want to pass so I always try and do my best but there's always that limit of how far I can go because of my knowledge and the time to gain that knowledge as well before it's due ... depends on your time management. (Gp 4, p. 11)*

4.4.7 Working as a professional

PROFESSION-DISCIPLINE AWARENESS
Student responses did not seem to reflect an understanding of what it is to work in a profession; and as a consequence, what they were being educated for nor what attitudes, practices, skills and knowledge needed to be adopted as a student in a professional course in preparation. Therefore, insights into what they thought the profession is, and what a beginning-professional would look like on graduation, were sought. Did their conceptions conflict with their previous responses regarding how they engaged or learnt; or did they indicate that they did not understand the nature of the required processes and/or the destination?
Student impressions of Practice in regard to the following areas:
Employment Building links between university and profession needed Plans for future employment can be daunting
Graduate attributes required for practice Thinking skills Learning to cope with rejection Time management: Change management Team skills Understanding and awareness
Professional work-practice projections Trust and sharing Required Commitment in the workforce and Life balance Perceived Distinctions between Practice and University Perceptions of Discipline Identity

Student responses did not seem to reflect an understanding of what it is to work in a profession; nor, therefore, what they were being educated for, and what attitudes, practices, skills and knowledge need to be adopted as a student in a course that is preparing them for a profession. With this in mind, we sought their insights into what they thought the profession to be, and what a beginning-professional would look like on graduation. Did their conceptions conflict with their previous responses regarding how they engaged or learnt; did they not understand the nature of the required processes and/or the destination?

Fourth-year students discussed future employment in terms of the need to obtain work experience while studying, and to create industry connections, rather than actually articulating their thoughts about what it is to be a professional or a professional designer. They recognised the value of learning experiences such as group work and critiques for the opportunities they presented to acquire attributes required for practice. Students praised the inclusion of reflection-based assignments in the course, as they felt these mimicked the “real design process” by allowing incorporation of changes.

4.4.7.1 Building links between university and profession

Some students are concerned about establishing contacts in the profession and industry. They do not appear to explicitly recognise the resource they have in the sessional staff, part-time academics and guest lecturers in that role. For example, the following student’s comment indicates that they wish contacts to be facilitated:

(Work experience) is really about who you know and then as you say that’s why we need to get people in (to Curtin) so you can network, because networking is so important. (Gp 1, p. 12)

4.4.7.2 Plans for future employment

Contrasting comments between student comments from these fourth and first year students are of interest. For example, the junior student is not as willing and/or able as the senior student to take control:

I'm probably going to have to move again just to find work. (Gp 1, p. 13)

I'm really worried about the job after uni but then I asked about work experience and XXX said 'oh you basically just get that through us'. (Gp 5, p. 13)

4.4.7.3 Attributes required for practice

The comments did reinforce that students, especially in later years, are beginning to comprehend the importance of the skills and the knowledge they are acquiring for their professional lives.

Thinking skills: *If you wanted a technical architecture degree you go to XXX University or you go do drafting at TAFE like if you've picked interior architecture or architecture at Curtin like even I knew that from reading it was the more conceptual, it's about getting you to think. Which I guess is what is the stressful part of it but I think it will be **extremely beneficial in practice**. (Gp 1, p. 10)*

Learning to cope with rejection: *When you get out into industry if you're designing for a client and they don't like something they **will tell you that they hate it and it is a hard thing to learn**. I think that maybe they, yeah I don't know, they need to kind of express that to people [i.e., rejection of design a **normal part of profession**]. (Gp 1, p. 16)*

Time management, change management: *But with the reflection ... you do the assignment before it is really due and then you have time to look over it – it is like more time management effective. I think it all relates back to ... working in real life as well. You know, you will make changes and things even as the project is being built. (Gp 1, pp. 17-18)*

Team skills: *I always think of group assignments as you're just learning how to work with people rather than learning some sort of actual skill that's going to help you when you finish your degree. And I find that with a lot of uni is like you're just learning how to use these building blocks that **you're going to be using later**. (Gp 4, p. 11)*

Understanding and awareness: *It would be nice to have some direction about what the industry is like. (Gp 5, p. 14)*

4.4.7.4 Professional work practice projections

A number of comments indicated that students lack understanding of the nomenclature and the diversity of work practices within the industry. Some of their assumptions seemed to be linked to feeling dissatisfied or anxious about practice.

Trust and sharing: *And you know once you get into practice and maybe you're working for a small firm and you all get to know each other and how you work and trust that you've got different skills and whatever, then I imagine that that probably is how it would work. (Gp 3, p. 14)*

Required commitment in the workforce and Life balance: *I'm questioning it myself, if I want to have like a lifestyle like what my lifestyle's going to be like this for the rest of my life in the workforce. Will I have to stay at the office until 9 – 10 o'clock at night? Will I have a social life or even a family life? **It stresses me out**. (Gp 2, p. 22)*

Perceived Distinctions from University: *...when you do get to industry and you're in group work situations it's a little bit different because I assume that you would generally have a team leader or manager who's driving the project and who keeps people in line and who directs the conversation and who has final say on*

decisions. Whereas when you're at uni and you're working in a group often nobody wants to step up and take that leadership role because they don't want to be seen to be trying to be bossy or controlling everybody else ... I think whilst the idea of simulating a real life work experience is great it doesn't really work the same way at uni. (Gp 3, p. 13)

Perceptions of discipline Identity: *I was really shocked when we got told in first week ... that we're not going to be Interior Architects ... you're going to be Interior Designers, I'm like "Oh my God!" It just sounds like you've gone to TAFE and like done a colour wheel. Would you call it a practising Interior Architect? (Gp 5, p. 14)*

4.5. Building survey

4.5.1 Summary of results

For simplification of interpretation, scale responses were divided into three categories: *agree*, *neither agree nor disagree*, and *disagree*. So *strongly agree*, *agree*, and *slightly agree* responses on the Likert scale were combined to form the *agree* category, while *strongly disagree*, *disagree*, and *slightly disagree* responses were combined to form the *disagree* category.

Item responses showed consistently negative attitudes towards the studio space in Building 201 and its perceived impact on students' learning experiences. A considerable majority of surveyed students did not agree that the studio space provided a high quality environment for learning, compared well to environments in other design schools, enhanced motivation to learn, had a positive impact on creativity, or reflected their identity as students well. A much slighter majority of students also felt that in a typical week their stress levels were increased by the studio spaces in the building.

4.5.2 Results by item

When asked if the studio space in Building 201 provided a high quality environment for learning, only 17.9% of surveyed students agreed. The majority of students disagreed with the statement (74.7%), while 7.4% of students neither agreed nor disagreed. Most students (77.9%) did not feel that the studio space in Building 201 compared well to environments within other design schools, while only 3.2% of respondents felt that the studio space compared well, and 18.9% of students did not feel strongly either way.

Just 4.2% of students felt that the studio space had an enhancing effect on their motivation to learn. Another 15.8% did not agree or disagree with this statement, and an overwhelming 80% did not believe that the studio space enhanced their motivation to learn. The majority of respondents (80%) also did not agree that the studio space in Building 201 had a positive impact on their creativity. A mere 3.2% of students felt that their creativity was in fact positively influenced by the studio space, while 16.8% of students reported that they did not agree or disagree. When asked whether their identity as a student was reflected well by the studio space in Building 201, only 8.4% of surveyed students agreed, while 74.7% did not agree that their identity was reflected well by the studio space. The remaining 15.8% of respondents did not agree or disagree with this statement.

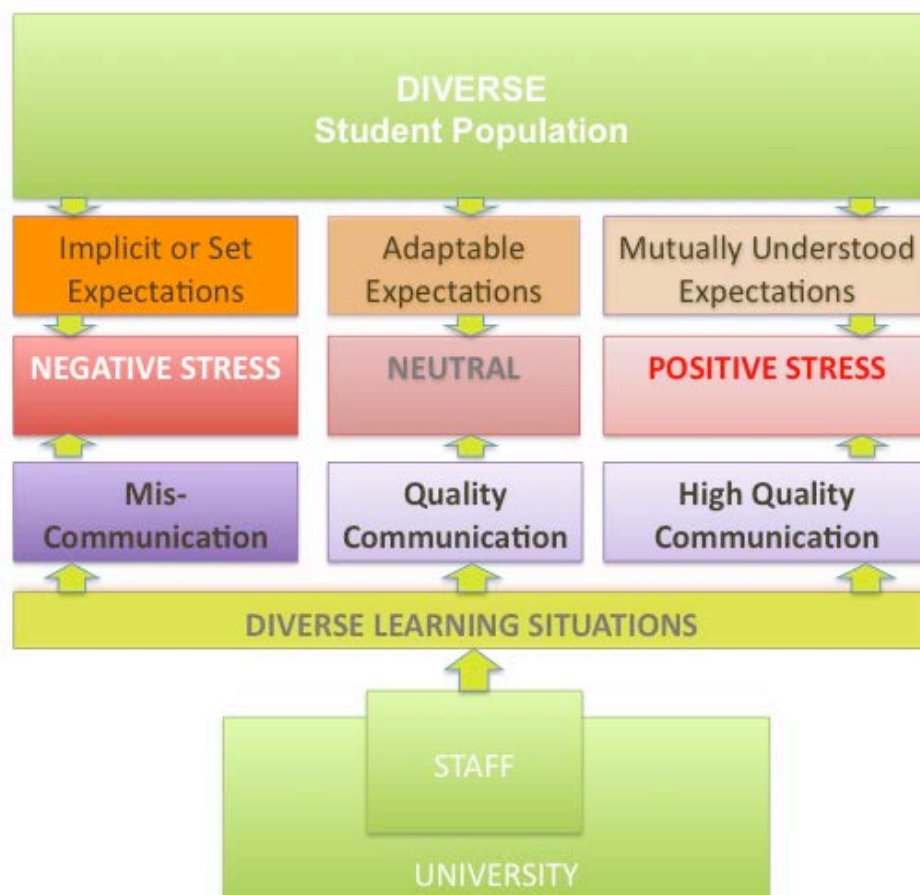
There was greater variability in responses to the final item, which asked students if, in a typical week, the studio space in Building 201 increased their stress levels. *Agree* responses had a slight majority with 39%, while 31% of students neither agreed nor disagreed that the studio space increased their levels of stress, and 25% did not feel that the studio space exacerbated their stress levels during a typical week.

Chapter 5. Overall insights

Three concepts have emerged from the data. They have developed from issues associated with a) response diversity, b) expectations, and c) miscommunication. In summary, stress is defined and experienced differently by the students—ranging from very positive to very negative responses depending on the situation. As a result, we conclude that it is not the learning experience per se that is stressful but rather the nature of a particular student's circumstances. Although not unexpected in itself, by reviewing the data it is evident that the situation becomes negatively stressful when expectations are not met and/or there is evidence of miscommunication, as shown in Figure 5 below.

Comments by staff and students indicate that assumptions are made, but these may not reflect the situation in reality. *Expectations* refer to student's understandings of the way things will be; and therefore, form the basis of what they consider should happen. *Miscommunication* refers to circumstances when the student does not understand what has been said or demonstrated clearly, or as it was intended. Actions then proceed (by either staff and/or students) based on these differing understandings; and most likely lead to confusion and further expectations of what the outcome will be.

Figure 5: Potential aspects of student stress levels



To demonstrate, each concept will now be discussed individually.

5.1 Diversity

Although there were common topics and opinions across the four years and within the cohort, it became evident that students respond differently to the learning tasks, practices, content and settings. Anecdotal evidence from Curtin Counselling staff suggested that reasons for this individual difference are linked to personality type, attributes such as resilience, and skills such as emotional management.

Staff, from their observations, described student attributes and noted the characteristics and requirements of regional and remote students to be unique compared to local students; more generally, they observed that many Interior Architecture students find it difficult to transition from school to university. Staff also noted how the personality of students did create significant impact—negative or positive—on the groups involved and the whole class in general. The advent of Facebook and the like has also facilitated tension and conflict for contemporary students.

Curriculum designers, therefore, must take care not to make changes to curriculum based on positive or negative feedback without looking into all aspects. Changes may simply lead to favouring a different group of students and disadvantaging another—and the overall problem is not resolved. It may be more productive to look at what contextual issues are influencing those who are discontented. As an example, the following observations from the data provide some insight.

In the survey, although three-quarters of students had noted that they were stressed most or all of the time, when asked to note their emotions against thirty-one typical learning scenarios most of the students noted they felt as follows:

- In 21 of the 31 scenarios, students predominantly felt [confident, ready for feedback, inquisitive], [excited, positive, engaged, creative], [interested, hopeful, eager];
- In 9 of the 31 scenarios, the emotions of students were distributed between either the previous categories or these [insecure, uncertain, undecided], [a bit ill, embarrassed, panicky];
- In 1 of the 31 scenarios students were predominantly [bored, uninterested, obliged to participate], [numb, disconnected, unable to contribute fully].

Therefore, although some students were unsettled, the majority were positively stressed emotionally.

In addition, as reported earlier in Section 4.3.2.6, students were asked in question 19 of the online questionnaire to rank 12 nominated learning situations against each other. The most stressful situations were design workshops and group work; while the least stressful were lectures, professional practice, and community field trips. Two situations fell evenly between least and most stressful: industry placements and self-directed 4th year project. In each case there is a division in opinion by students—including a 50:50 split for some learning scenarios.

However, the situation ranked as one of two most stressful, design workshop, when compared to the 31 situations previously ranked emotionally, indicates some interesting aspects. The design studio or workshop involves aspects such as: design critique, designing interior, designing own home, group studio critique, working with tutors with differing opinions, working with tutors who prompt the student rather than giving answers, making models or creative pieces, self-directed sessions, working in the studio and working in the workshop; these were all nominated as fostering feelings of confidence, inquiry, excitement, being engaged, and creative by the majority of students. Therefore, the attributes of a studio (which were ranked comparatively as

being more stressful than other learning situations) produce positive emotions. Such emotions relate to situations educators and professionals would see as part of their core business.

It should be noted however, that not all students found these scenarios positively stressful, and most students would not speak in terms of stress as a positive factor in a situation. Therefore, what is it about the context whereby some students are negatively distressed and some even distraught in extreme circumstances? The ability of students to devise strategies to balance stressful situations and/or to modify their circumstances varies. What is it about some students that allow them to be proactive, others to be responsive, while others are unable to take control of their situation?

5.2 Expectations

As outlined in the results section, there are many influences that establish a student's expectation of university, the course, a unit, and themselves.

Staff expectations of students also give rise to idealised student characteristics, which are not consistent with students' behaviour. These commonly are:

- students do not produce the amount of work or at the same level as in the past
- students need to be more committed or immersed in the coursework
- students will work in the studio and be present for the whole studio
- students will behave professionally in a professional course and recognise that bad behaviours are inappropriate, and will impact on their future professional identity.

Staff may also make assumptions about learning situations that were not necessarily substantiated by the data. These include:

- group work will be problematic for students (whereas students recognised the benefits of working in a team and learning from their peers as well as related difficulties of working with others)
- "crits" will cause discomfort (whereas many students reported feeling confident, ready for feedback, excited and hopeful)
- presentations will be uncomfortable (whereas some students realized that experience gained in presenting to the class provided new found confidence).

Other expectations seem to align:

- students need to learn to trust the design process, and the nature of the work develops accordingly.

Students are disappointed when things do not play out as they anticipated. Expectations noted in the data were built from school, web, and other non-comparable courses. In addition, the level of instruction to be given at university, and nature and level of skills needed for activities and how much instruction in contrast to self-directed practice and research required were other issues raised.

I guess we always got told back in high school that uni, I can't remember if it was year 12, yeah that year 12 was going to be way harder than uni. (Gp 1, p. 9)

In addition, there are a number of myths that are carried from cohort to cohort which sets the tone of the learning context, and which do not necessarily agree with the course or staff expectations or requirements. For example, concern about future work in local industry was raised as a disquieting issue.

Any of these variables alone or in combination can lead to disappointment, frustration and/or anxiety. Most of the points noted above are formed prior to entering the class or studio; therefore, the question is raised: how can the expectations be made explicit and the misalignments dealt with prior to negative emotions developing?

5.3 Miscommunication

As stated above, this concept refers to differing understandings about circumstances, and these in turn can lead to ambiguity, errors and/or discomfort. As a curriculum designer and/or tutor/lecturer, it is therefore important that one is cognisant of how the contemporary student hears what is said, contextualises what is said, and finally, interprets the situation or requirements.

Past definitions and modes of delivery may be misconstrued or simply not grasped. Strategies for clarifying meanings, and appropriate reinforcement and consolidation of relevant terms, concepts and practices throughout the course, are necessary.

Instances of miscommunication at points in the course identified include:

- a. What a **design process** is; and how a process is developed by a designer or student-designer
- b. What a **studio** is; and what the established practices required are when participating in a studio
- c. The nature of design assessment as good or unsuccessful; the difference between a **subjective assessment** and a design review or critique
- d. The nature of a **studio presentation**, tutorial feedback and a studio critique; the established responsibilities and practices
- e. The difference between a **good presentation and a good quality design**; and/or an inadequate presentation and inadequate quality of design
- f. What **self-directed learning** means, the structure required, as well as the skills required to undertake a task adequately; and how self-directed learning requirements and complexity change over the course in the process of becoming a practitioner
- g. The **design of group projects** by staff and their value for learning about a discipline or practices used by the profession
- h. Students' interpretation of **staff expectations** of their work—stated requirements in contrast to what is actually assessed
- i. The relationship between the profession and **practitioners and the course**; input into the course's curriculum design, and in association staff awareness and currency
- j. Understandings of what it will be like **once in practice** after graduation, in three ways. Firstly, what a **workday** is like when working on a project or multiple projects as a practitioner, and how an office organises its staff and time commitments. Secondly, the logic behind the choices that many interior architects/designers make to be involved in many aspects and in order to maintain a **dynamic career**. And thirdly, the **skills that a graduate is required** to have to enter the profession.

Other forms of miscommunication indicate a **lack of maturity**. For example, there is a contradiction between the desire for guidance by some students and their choice to work at home rather than in the studio where they could learn from examples, their own practice, their peers, the tutors, and/or the lecturers. The consequences of such decisions indicate a lack of understanding of (a) and (b) above, as well as little understanding of the consequences.

Other areas of miscommunication involve **the need for information to be delivered accurately and in a timely manner**. The programming needs to be clear and then the schedule adhered to in light of the ongoing and conflicting demands placed on both

students and staff. Missing pieces of information for the student on the agreed date and/or late projects create pressure on planning and timelines and on a sense of being in control of the situation.

Insights

Although miscommunication was evident, some students displayed insights into the issues raised and the course in general. This differing ability to see the situation more deeply and/or beyond their own circumstance also points to the variations in students' ability to cope with situations that are demanding.

Issues included that offered further insight are:

- why junior students become nervous
- the risk of relying on computer programs to create slick drawings rather than engaging in a design process to develop a scheme.

5.4 Future action

The insights gained through this seeding project suggest both immediate and long term action.

- Immediately staff can incorporate strategies to decrease miscommunication and manage expectations by becoming more explicit about what it is to be a designer in a professional field. The context and the modes of practice need to be introduced and experienced more purposefully from first semester first year and reinforced throughout the course.
- To support this strategy, the development of a number of digital resources are planned which will deal with the principles of engagement and their relevance for practice. These will serve as teaching aids as well as staff and student resources for self-directed learning.
- This work has raised many questions regarding education in the creatively based professions; and as a result, forms the basis for future research that can investigate the issues arising in depth. The findings in association with other aspects such as student personality, resilience and emotional management will provide greater understanding into how the contemporary student experiences and manages university learning. It also provides a cautionary note regarding how curriculum designers respond to student feedback and commentary. Further research would inform how courses may be reconceptualised in the future.

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Appendices

Appendix 1: Focus questions for one-on-one staff interviews



Project title:


Navigating student stresses in the interface between creative and technological competence: A case study in Interior Architecture.

Phase 1: Staff interviews.

FOCUS QUESTIONS: TEACHING STAFF

1. What do you understand by the term “stress”, as it relates to students you teach?
2. What are the different levels or grades of stress?
3. How do the different levels or grades of stress manifest themselves in students?
4. Which learning situations do you consider induce stress for students?
5. Do the learning situations that induce stress in students differ across years?
6. What levels of stress are linked to differing learning situations?
7. What strategies do your students use to manage stress?

Appendix 2: Student online questionnaire q1 – q4:

**Curtin University**

Are you a Local, Regional or International student?

☐ Local (I come from Perth)

☐ Regional (I come from an Australian location outside of Perth)

☐ International (I have traveled from outside of Australia to study at Curtin)

If you are NOT a local student, please indicate where you normally live (local students skip this question):

☐ Country Western Australia

☐ Another state in Australia

☐ Asia

☐ New Zealand

☐ North America

☐ Africa

☐ Europe

☐ South America

☐ Other

How old are you?

☐ Under 21

☐ 21 - 25

☐ 26 - 30

☐ 31 - 40

☐ 41- 50

☐ 51 - 70

☐ 71 and over

How were you accepted in to the Interior Architecture course?

☐ Using my Australian Tertiary Admission Rank (ATAR)

☐ Via Curtin College

☐ Via UniReady enabling program

☐ Via Step Up to Curtin Program

☐ Via TAFE and other AQF Qualifications

☐ With advanced standing due to studies at another university or institution

☐ Other (please name)

Student Online Questionnaire Q5 – Q9:

Which year of the Interior Architecture course are you currently studying? If you are straddling years, select the year that most of your units are in.

☐ First year

☐ Second year

☐ Third year

☐ Fourth year

Please name your gender:

☐ Male

☐ Female

☐ Other

Is this your first degree?

☐ Yes

☐ No

If this is NOT your first degree, when did you last study?

☐ Last year

☐ Two to five years ago

☐ Six to ten years ago

☐ More than ten years ago


Is English your first language?

☐ Yes

☐ No

☐ If you answered 'No' above, name your first language:

Student Online Questionnaire Q10 – Q12:

**Curtin University**

This survey forms part of the project " Navigating student stresses in the interface between creative and technological competence: A case study in Interior Architecture".

The project aims to identify the emotional impact - positive and negative - of different learning contexts for students and how that may influence their learning. It is recognised that often the same word (for example, stress or pressure) is used to convey a range of different feelings and behaviours. Different people may be thrilled, excited, stimulated, fearful, inhibited and / or uncomfortable about the same situation. Some may feel overworked, overloaded, burdened; while others may be challenged or enthused by the same projects or circumstances. Feelings may always be the same for some people or change depending on the time and / or the setting.

We are interested in how you have in the past and do at this time actually feel and act when required to engage in various types of activities offered in the course; and then with particular and differing aspects of the course.

While studying the Interior Architecture Course at Curtin University, have you ever felt stressed?

- ☐ No, never
- ☐ Yes, occasionally
- ☐ Yes, most of the time
- ☐ Yes, all of the time

If you answered 'Yes' to the previous question, what was the cause of your stress while studying Interior Architecture at Curtin?


- ☐ Mainly due to pressure of the course
- ☐ Mainly due to personal or external factors
- ☐ A combination of course-related and personal or external factors

When you use the word 'stress' (for example, I am so stressed today), how do you generally feel?

- ☐ Very positive
- ☐ Positive
- ☐ Neutral
- ☐ Negative
- ☐ Very negative

>>

Student Online Questionnaire Q13-Q14:



Curtin University

Imagine and/or remember you are in a situation where you are 'stressed' but it is a good feeling and you are positive. Now imagine and/or remember when you felt stressed but it was not a good feeling. Using those situations to help you, please tell us how you feel, react and behave when stressed by filling in the table below. The word bank below contains words you may like to use, alternatively choose your own words.

Word bank:

active	distraught	inadequate	passive
aggressive	dumb	ingenious	picky
anxious	enthralled	inhibited	quiet
artistic	enthused	innovative	rapid pulse
blocked	excited	insomniac	risk-seeking
burdened	explorative	inventive	sad
butterflies in tummy	fascinated	lateral thinking	stifled
capable	fastidious	loud	stimulated
challenged	fearful	manic	stuck
clear headed	flushed	nauseous	suicidal
clever	frightened	nervous	sweating
comfortable	fuzzy	open	thrilled
confused	happy	original	trembling
creative	hopeful	overindulgent	uncomfortable
decisive	hot	overloaded	visionary
dismayed	imaginative	overworked	withdrawn

	Very positively stressed	Positively stressed	Neutral	Negatively stressed	Very negatively stressed
Add words that describe how you feel, react and behave when:	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Name three things about your course that makes you feel stressed:


Reason one

Reason two

Reason three

>>

Student Online Questionnaire Q16 - Q18:

**Curtin University**

Name three things unrelated to your course that are most likely likely to cause you stress:

Reason one

Reason two

Reason three

Please give an example of a time during your Interior Architecture course when you felt stressed and the stress acted in a positive way, for example, made you feel excited about a project or forced you to concentrate more on the task at hand.


Please give an example of a time when you felt stressed and this had a negative effect on your work:

Learning activities that you will experience in your course are listed below. Please indicate the emotional response that best describes how you would feel *if you were doing that activity today*, by dragging the item from the list on the left into the appropriate box on the right. Please drag learning activities that you have not yet experienced into the last box, reserved for these items.

Student Online Questionnaire Q18 continued:

Items Design critique when work is pinned up Designing an interior in class Designing in my own home Developing working or technical drawings Discussions or debates Group studio critique at our table Giving student-directed team seminars Having to work with people I choose Individual tutorials in design Individual tutorials in technology subjects Making models or creative pieces Presenting a PowerPoint presentation to the class Researching through literature in the library Self-directed sessions Sitting in lectures Sitting for an exam Studios where different tutors provide differing ideas and suggestions for my work Receiving verbal feedback Receiving written feedback Talking with tutors who prompt me to think rather than providing answers Talking to tutors generally Working in the CAD lab Working in the studio Working in the workshop (e.g. making furniture or models) Working in groups with people I am not friends with Writing essays Student conference Community design field trip Completing on-line self-directed professional practice modules Industry placement Self-directed research		Confident, ready for feedback, inquisitive	
		Excited, positive, engaged and creative	
		Interested, hopeful, eager	
		Insecure, uncertain, undecided	
		A bit ill, embarrassed, panicky	
		Bored, uninterested, obliged to participate	
		Numb, disconnected, unable to contribute fully	
		I cannot judge, as I have not experienced this situation before	

Student Online Questionnaire Q19 – Q22:

**Curtin University**

Rank the learning situations in your course from those that cause the highest levels of stress at the top of the list (rank 1 = most stressful item) to those that cause the least stress at the bottom of the list. If there is a learning situation you have not yet experienced, place it at the bottom of the list.

Lectures

Tutorials

Communication workshop

Drawing workshop

Design workshop

Student - team directed seminars

Student Conference

Group Work

Community design field trip

On-line self-directed professional practice modules

Industry placement

Self-directed research project

Using the ranked list you created in the question above, name up to three reasons why you listed the top learning situation as the most stressful in your course:

Reason 1

Reason 2

Reason 3

Name up to three reasons why you identified the second most stressful learning situation in the ranked list above as being stressful:

Reason 1

Reason 2

Reason 3

During which learning situation that you have experienced were you most stimulated, engaged or most creative and why?

Name the learning situation


Reason 1

Reason 2

Reason 3

>>

Student Online Questionnaire Q23 -25:


Curtin University

As part of the tutorial you are asked to prepare a PowerPoint presentation with some other students. You have to work together to be ready in three weeks' time. In the table below, please indicate how aspects of working together affect your stress levels, by dragging the items on the left into boxes on the right.


Items	These aspects of group work impact on me negatively:	These aspects of group work make me mildly uncomfortable:	I am comfortable with these aspects of group work:	I thrive on these aspects of group work:
Working with people I do not know				
Working with people I do not like				
Working with people who do not do their share of the work				
Working with bossy people				
The impact that group work has on my grades				
Needing to contribute my skills				
Time needed to get work done in a group				
Interaction between group members				
Learning from other people different to me				
Working collaboratively				
Working with my friends				
Working with people who are smarter than me				
Speaking in front of other people				
Working with people of a different gender				
Working with people of a different nationality				

If an aspect of group work that you *do not like* was missing from the list above, please tell us about it below:

If an aspect of group work that you *enjoy* was not included in the list above, please tell us about it below:

>>

Student Online Questionnaire Q256– Q28:


Curtin University

You are getting ready for a preliminary design critique in the studio. When you arrive, the other students are pinning up on the wall and the staff are setting up the studio ready for presentations. In the table below, please indicate how aspects of the design crit affect your stress levels, by dragging the items on the left into boxes on the right.


Items	These aspects of design studio critique impact on me negatively:	These aspects of design studio critique make me mildly uncomfortable:	I am comfortable with these aspects of design studio critique:	I thrive on these aspects of design studio critique:
Having my work displayed in front of the class				
Having to answer questions about my work in front of others				
Receiving verbal rather than written feedback				
Explaining my design to others				
Receiving praise about my work in front of the class				
Being given feedback that will help to improve my design				
Feeling embarrassed that my work is not at the level required				
Public comparison of work				
Receiving negative feedback				

If an aspect of the design studio critique that you *do not like* was missing from the list above, please tell us about it below:

If an aspect of the design studio critique that you enjoy was not included in the list above, please tell us about it below:

>>

Student Online Questionnaire Q29 –Q31:

 Curtin University	
<p>Today you are in a Computer-aided design (CAD) class drawing up bathroom details and sections through the building that is the basis of the project. During this session you are able to discuss your ideas with the other students, even though you are to complete the project on your own. In the table below, please indicate how aspects of the CAD class affect your stress levels, by dragging the items on the left into boxes on the right.</p>	
<p>Items</p> <p>Being able to discuss my ideas with others</p> <p>Submitting work that is entirely my own</p> <p>Receiving assistance from fellow students</p> <p>Providing assistance to other students</p> <p>Developing technological skills in a practical exercise</p>	<div><p>These aspects of the CAD class impact on me negatively:</p></div> <div><p>These aspects of the CAD class make me mildly uncomfortable:</p></div> <div><p>I am comfortable with these aspects of the CAD class:</p></div> <div><p>I thrive on these aspects of the CAD class:</p></div>
<p>If an aspect of the CAD class that you <i>do not like</i> was missing from the list above, please tell us about it below:</p> <div></div>	
<p>If an aspect of the CAD class that you <i>enjoy</i> was not included in the list above, please tell us about it below:</p> <div></div>	

Student Online Questionnaire Q32- Q33:

Choose the statement that best describes how you feel about project work you complete and hand in, regardless of the unit:

- ☐ When I present the work, I am normally very concerned with the grade I will get and make sure I know what the staff want. Although I want the project to be good, I am most concerned that I pass.
- ☐ When I present the work, I am never concerned how it reflects on me - I am most interested in improving the work.
- ☐ When I present the work, I am normally a bit nervous, however I am concerned about the project and how I can improve it.
- ☐ When I present the work, I am normally self-conscious and concerned if I am clever or creative enough. I am concerned about the project but also how I will look before the staff or other students.
- ☐ When I present the work, I always consider how it reflects on me and how clever and / or creative I am - I am concerned how I will look to the staff or other students.


What do you do when you cannot cope with your work in the course?

Action one

Action two

Action three

☐

**Curtin University**

We thank you for your time spent taking this survey.
Your response has been recorded.

☐

Appendix 3: Student focus group preparatory statement

1. In the student online questionnaire, several **learning situations were examined to see if student stress was particularly linked to learning situations**, for example group work, design studio and the crit or pin-up, and technical or skills based activities such as CAD classes, drawing skills or communication skills. We were especially interested in the fact that for any particular learning situation, some students identified the situation as stressful (causing them negative feelings) whereas others revelled in the challenge of the situation (so responded positively). This is the first thing we would like some feedback about is the apparent division of responses to any one situation – please discuss this in your group. Perhaps choose one learning situation that you feel strongly about and let us know what makes the learning experience a positive one or a negative one for you. What makes a stressful learning situation manageable for you?
2. Secondly, workload and time management issues were raised by many people who completed the online questionnaire. Please discuss your course workload and let us know what you expected before you started your course. Did you imagine that you would have to tackle your course in the way an employee works each day – putting in solid hours each week, or did you hope to fit your study in around the rest of your life? **What do you think is a reasonable expectation of the hours you would have to study each week** through your course? What do you think is a reasonable amount of time to satisfactorily complete the work you are expected to hand in? We are very interested to know what you expected of the course and what you think is reasonable in terms of workload and time to do your work!
3. In the online questionnaire, many students indicated that they felt their skills – in drawing for example, were not at the level that they themselves or the staff required them to be. Please let us know ***HOW*** you expected your basic skills to progress through the course from first year to fourth year. Please **discuss how you manage your feelings about your skill levels as you mature in the course**. Do you accept that as a first/early year student you will not be able to draw as well as someone in the final year of the course? We are interested in knowing how you feel about having to complete the work required while still learning the skills needed to do the work.
4. Please have a **look at the student generated learning situation vs stress scale** on the handout (show students the condensed version of the student generated stress scale). We would like to know how students feel when they say they are “very stressed” – does that include a variety of feelings at the one time or an over-riding feeling of negative responses or positive emotions? Please discuss this in your group.
5. Many students responded negatively to working in a group, speaking in front of a group and accepting criticism in front of others, all activities which form an essential part of being a professional designer. Please talk about what you think it will be like to work as a professional in the IA field and let us know about **your understanding**

of what it will be like to work in the design profession. You might like to start by imagining how a project would be undertaken in an office situation and how professionals working in design teams would go about the work.

6. When handing in work during your course, do you always strive to hand in a quality submission or do you hand in work that is not your best, just to “tick the box” or get the work completed? Please talk amongst yourselves about the **standard of work YOU think is reasonable to submit** and explain why you think that is the case.

SUMMARY:

1. Learning situations – positive and negative responses – what makes the difference?
2. Reasonable workload
3. Managing expectations as you progress through the course
4. Student generated stress scale
5. What it will be like to work in the design profession
6. Reasonable standard of work for submission

Appendix 4: Paper based student survey

Questionnaire

Please take a few minutes to complete this questionnaire about the design features of Building 201, and how they impact on your experience as student.

Please indicate which year of study you are in:

First year ☐ Second year ☐ Third year ☐ Fourth year ☐

Please indicate whether you are a domestic or international student:

Domestic ☐ International ☐

By ticking the corresponding box, please indicate how strongly you agree or disagree with the following statements about Building 201.

		Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
1	The studio space in Building 201 provides a high quality environment for learning.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2	The studio space in Building 201 compares well to environments within other design schools in Australia, and around the world.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3	The studio space in Building 201 enhances my motivation to learn.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4	The studio space in Building 201 has had a positive impact on my creativity.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5	My identity as a student is reflected well by the studio space in Building 201.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6	In a typical week, the studio space in Building 201 increases my stress levels.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

OPTIONAL - Please comment on how the physical studio space (especially level 1) influences your learning:

Appendix 5: Student generated listed of stress descriptors, regardless of frequency

STUDENT GENERATED SCALE (grey text shows few responses)		
Very positively stressed	Visionary	
	Imaginative	
	Innovative	
	Artistic	
	Challenged	
	Stimulated	
	Excited	
	Risk taking	
Positively stressed	Explorative	
	Creative	
	Enthusied	
	Active	
	Hopeful	
	Comfortable	
	Lateral thinking	
Neutral	Open/open-minded	
	Capable	
	Happy	
	Passive	
	Lazy	
	Stuck	
	Snappy/picky	
Negatively stressed	Adrenaline/rapid pulse	
	Uncomfortable	
	Confused	
	Blocked	
	Nervous	
	Anxious	
	Fearful/frightened	
	Sad	
	Dismayed	
	Overloaded	
	Over worked	
	Burdened	
Very negative	Insomnia	
	Nauseous	
	Depressed	
	Aggressive	
	Overwhelmed	
	Despair	
	Distraught	
	Mental breakdown	
	Suicidal	