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Investigating the experiential impact of sensory affect in contemporary Communication Design studio education

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Abstract

The studio is the primary site for learning in specialist Communication Design education worldwide. Differing higher education institutions, including art schools and university campuses have developed a varied range of studio environments. These diverse learning spaces inherently create a complex fabric of affects. In addition, Communication Design studio education produces learning processes and methods of practice, which provide affective sensory experiences for the students. Students may be sensitive to these sensory affects yet the impact of these experiences may go unnoticed or unequivocally tolerated in the studio environment.

This paper examines the experiential impact of sensory affect occurring in contemporary Communication Design studio education; investigating the learning processes, within a specialist practice-led discipline in the context of a studio environment. A preliminary study generated the question: ‘how might Communication Design learning address and exploit the sensory experiences occurring in studio education?’. Therefore this article contextualises how students might benefit from being aware of the affective experiences occurring inside studio education in future research studies. This research paper is grounded in collaborative practice with students in the field of Communication Design.

Keywords: Communication Design, action research, experiential learning, sensory affect, learning spaces, studio education

Introduction

In recent years within Art and Design in Further and Higher Education, learning approaches and practices in specialist studio settings have seen some dramatic changes (Boys 2010; Harrison & Hutton 2014). As a consequence of the expansion of tertiary education within the UK and internationally, higher student numbers appear to be transforming the culture of studio learning, leading to communities of practice that are qualitatively different from those of a less crowded era (Wenger 2000).

Some institutions, for example, make provision for students to occupy an individual learning space, whereas others offer only the possibility to 'hot' desk, with no personal working space to which the student can return each day (see figure 1). This has an impact on how students experience place, their position within it, and how comfortable or not that space 'feels' to occupy. This is in addition to consideration of how a student is enabled to be 'creative' in that space using all the available resources. Coupled with these changes to the physical learning environment, there are other challenges relating to the nature of the specialist facilities available in institutions. For example, it is still possible for students within some higher educational institutions, to engage with 'traditional' methods, such as letterpress, alongside digital methods. However, such specialised facilities are less common in the newer university campuses where the emphasis on digital processes tends to be greater.



Figure 1. Learning space, offering only the possibility to ‘hot’ desk, with no personal working space to which the student can return each day © 2014.

Consequently it is important to question and understand the cumulative effect of these factors on learning and teaching processes for both students and educators. The changing nature of contemporary studio environments, in parallel with learning and teaching processes that may need to be adapted, including changing methods of practice arising from reduced specialist facilities and more hybridised forms of learning, together provide a complex mix of interacting factors which impact on learning. This paper argues for an exploration of these factors.

Evidence derived from an initial pilot study, as part of a wider study, and reported in this paper, suggests engagement levels may fluctuate according to the ‘sensory mix’

(that we refer to as ‘sensory affect’) of influences students encounter in their environment. Students may exhibit divergent responses to sensory affect dependent upon their learning experiences and preferred learning styles in the studio (Felder & Silverman 1988). Data resulting from an initial pilot study appears to indicate that sensory affect may influence student to varying degrees, and influence student learning and achievement – sometimes significantly. This includes how students feel about their learning - the socio-emotional aspects of their learning - and what meaning they are able to make of it, or crucially, what types of meta-cognitive help they are provided with to make sense of it.

The aim of the broader study, of which the pilot study is a part, is to investigate the experiential impact of sensory affect in contemporary studio education, specifically within the discipline of Communication Design. The central research question is: How might Communication Design pedagogy support and develop a more explicit exploration of the role of the senses in learning? This pilot study was initiated to begin to address the following research questions that also apply to the broader study.

- 1) What is the role of the ‘studio’ in day-to-day Communication Design education practice?
- 2) What is the array of sensory experiences reported in contemporary studio education and what meaning do people attribute to these experiences?
- 3) What methods can be developed to understand and capture sensory experience and the meanings people attribute to these experiences?
- 4) How might learning in Communication Design education support and develop a more explicit exploration of the role of the senses in learning?

5) What is the value in providing meta-cognitive opportunities to enable students to develop their awareness of the role of the senses in their learning?

This paper gives an account of a small pilot research project undertaken as part of a more extended study, to elicit and understand students' conceptions of sensory affect within their main working environment (such as their studio) and *how* and in *what* ways this impacts on their own learning. Four institutions were selected for this study, two of which are located in the UK and two in the Netherlands. This paper is concerned with exploring and developing methods that can be used to understand and capture what people say about their lived experiences of their environment and how to approach the development of these methods - this is with a view to better understanding the role that sensory affect plays in learning and teaching. Participatory action research has been chosen as the process of inquiry in the development of these methods. Student action research brings to the surface the variations and insights emerging from their daily experiences of their environment. In other words, how both positive and negative sensory experiences might be managed, (once they have been identified) and the ways in which studio pedagogy might be required to be adapted in order to take account of and work with the sensory dimension more explicitly.

The paper begins by examining the current challenges, the particular characteristics of Communication Design, and the experiential teaching practices affecting studio education today. It outlines the contextual beginnings of this research, and its related experiential focus. This is followed by an account and brief examination of the qualitative results arising from the pilot study after which a discussion about the significance of the research and its future directions is presented. The paper argues for

the need to further explore how the discipline might address, embrace and exploit sensory experience, more consciously, within its pedagogical practices.

Current challenges affecting studio education

As well as being influenced by physical environments, Communication Design pedagogy has faced a diverse range of challenges as intimated earlier in this paper (Facer 2011; Alexenberg 2009; Temple 2014; Harrison & Hutton 2014). In the first decade of the new millennium significant public investment in Higher Education saw the growth of physical and digital education in the UK (Boddington & Boys 2011). Yet the ensuing concept of personalisation in education suggested a need to create learning spaces which account for the needs and interests of individuals: *'...we are witnessing a radical challenge to the traditional relationship between the educational institution and the individual...'* (Rudd et al. 2006:5; Boddington & Boys 2011).

Specialist Communication Design studio facilities are being reconfigured into sensory deprived office-like classrooms or sensory congested open-plan learning spaces under the fallout from political and economical cost-cutting agendas (Boys 2008; Boddington & Boys 2011; Harrison & Hutton 2014). These challenges have occurred as business sensibilities seek to harmonize with academia: university corporations attempt to reshape design education and its delivery in a cost-effective way (Wild, 2013). Teaching staff are increasingly aware of the challenging relationship between learning space and community - adapting their delivery accordingly in physical learning spaces (Austerlitz et al. 2008).

As UK educational funding is reduced, financial cost-cutting may lead to inadequate resources and space for specialist creative disciplines which raises the question; in what ways do current economical and political challenges affect Communication Design studio education in the UK today (Educause 2010; Morgan 2014)? Communication Design studio education requires learning space and resources particularly suited to the ever-evolving characteristics of its divergent practice.

Characteristics of contemporary Communication Design studio education

Communication Design is a broad, mixed discipline, which acts as an umbrella term for the design of information communicated to people in a variety of forms. Graphic design, illustration and photography are the central visual methods of Communication Design. In addition the discipline encompasses diverse, continually evolving non-visual methods, i.e. sound design, ambient advertising or: ‘... *new and as yet undefined products*’ (University of the Arts London Central St Martins 2014).

Many innovative Communication Design teaching practices take their origins from the experimental pedagogy seen in the basic courses at the Bauhaus and at Black Mountain College in North Carolina (Itten 1975; Stiftung Bauhaus Dessau/Bauhaus Dessau Foundation 2006). In particular, Black Mountain College based itself on Dewey's principles of progressive education: ‘...*expression and cultivation of individuality; ...free activity; ...learning through experience; ...make the most of opportunities of present life; ...making acquaintance with a changing world...*’ (Dewey 1936:19; Katz, Brody, Creeley, & Power, 2013).

Joseph Albers (1888-1976) taught at both institutions and he encouraged the entire class to stand and move around to experience lessons, leading students to a greater awareness of what they were seeing (Weber et al. 2006). Another Bauhaus educator Johannes Itten (1888 –1967) encouraged the students to practice gymnastics and meditation to free the mind and raise spirits. He sought to invigorate their senses before seeking to create '*direction and order out of flow*' (Droste 2006; Zifcak 2013).

The current trend in Communication Design, in particular, is for design students to undertake projects that simulate professional practice (Heller 2009). In recent years the balance has shifted towards new and innovative forms of design project agendas (Heller 2009). At Edinburgh Napier University in the UK, for example, the design educators set second year students a cake store project. This project teaches logo and branding design through the creation of a fully branded cake stand, which is also intended to sell the branded produce. In 2014, students from the graphic design course at Central Saint Martins art school in London launched 'Worth Pop-Up'. The world's first social media fuelled price-drop pop-up online shop. All products designed by students in the shop started at a million pounds and the price of the stock could be reduced by sharing over social media (Central St Martins College of Art & Design 2014). After trending on Twitter, receiving two million Facebook impressions and crashing the university servers, the public collectively reduced the price tag of each item to just fifty pounds and twelve pence (Central St Martins College of Art & Design 2014).

In line with Communication Design's far-reaching physical and digital repertoire, its current studio-based pedagogy has changed dramatically in recent years and is

becoming significantly more complex today than when art and design education began in UK art schools in the 1840's (Mottram et al. 2007). In the current changing educational landscape, tension exists between the need to deliver digital and non-digital forms of learning. Communication Design education is rapid and 'rigorous in its modes of practice' yet intuitively craft-orientated 'learning by doing' (Rigley 2011; Shaughnessy 2012). In studio learning, the sensory experiences vary between these digital and hand-driven methods of production. The physical experiential characteristics of traditional processes are considered liberating. The opportunity to move about the workshop, to handle metal and wooden type, to mix inks, to cut and tear paper, '*... materials and surfaces that speak pleurably of layered time as opposed to the flat and voiceless industrially manufactured materials of today...*' (Pallasmaa & MacKeith 2005:53; Jury 2011). Nonetheless, established experiential traditional methods are being undercut against a backdrop of new digital potency, which provide a new range of sensory experiences (Alexenberg 2009; Facer 2011).

As practice-led processes have evolved, so too has the pattern of studio use within Communication Design. Art and Design Education more generally has seen a shift from closed classrooms to open plan, live-in to drop-in and to an extent, physical to digital teaching and learning. In recent decades, studio character, to some degree, has become fashioned by events rather than the space itself (Duggan 2004). Student learners may attend studio education solely for necessary critiques, project launches or assessment (Duggan 2004; Boddington & Boys 2011). Today, Communication Design practice and learning can often be dispersed between studio, home and non-owned spaces, and across physical, digital and hybridized forms of learning space.

Therefore, one might question what students' perceptions are of the educational environments in which they work, particularly as each student perceives a sense of place differently (in both beneficial and unfavourable ways): *'I can never be certain that my "blue" is your "blue"'* (Wittgenstein 1977).

The research context and experiential focus

The research context arose from my own experiences of studio spaces as a Communication Design Lecturer. As an educator I began to reflexively question why my teaching practice altered to suit differing studio conditions. I subsequently began to identify my own underlying assumptions, experiential comforts and frustrations in my teaching environment: I tuned in to the 'things' both intruding and supporting my 'flow' (Csikszentmihalyi 2008). 'Flow' constitutes total involvement, engagement and participation achieved by engaging the senses in learning (Benard 2004).

Consequently I began to discover that my engagement and participation as an educator was affected by the sensory experiences occurring in my teaching environment. I collectively aggregated the impact of each sensory affect – noise, drafts, natural light, visual inspiration and mess, among others – and I began to realise that all of these factors reside in the immediate environment. The people themselves can also activate these issues. My sense of place and general sensory wellbeing felt off balance and unsupported in part, yet invigorated in other ways. I therefore began to deconstruct the experiences of the spaces in which I teach daily - including the connotations of 'my place'. From my own quiet observations of my peers, colleagues and students I now realise that I am not alone in this stance. Sensory affect influences the experiences of many individuals and groups in Communication Design studio

education as an educator whom I interviewed intimated,

... It's pretty traumatic. Noise seems to come from everywhere... Students have difficulty hearing/concentrating because of noise, which makes you feel that what you are doing is pointless... it is a source of anxiety, because I am unable to exert any control over the environment and I feel that the students are not getting a good learning experience.

Educator, Communication Design

Sound intrusion is one consequence of open plan studio learning. Hence there is a demand to evaluate the impact of the changing nature of virtual, technology-rich and physical learning spaces, particularly as students engage in new processes and practices during learning (Alexenberg, 2009; Facer, 2011; Temple, 2014). It may be considered that studio learning involves a 'rite of passage' for those students encountering studio-based education for the first time, as students transfer to new ways of structuring their studio identity (Gennep 1960). This transitional 'in-between' phase is characterized by ambiguity as the students disseminate their newly discovered learning rituals within a studio environment (Gennep 1960).

Exploring sensory and experiential research

In this section I review the literature relating to current sensory and experiential research. This section explores the process of researching sensory experience in relation to the everyday experiences of studio education. Educational research of learning spaces can be seen in the widespread, numerous studies of primary, secondary, further and higher education (Neary et al. 2010; Woolner 2010; Woolner

et al. 2012; Temple 2014). Researching sensory experience in gaming, simulation and in virtual, interactive forms of technology-rich learning space and as virtual educational environments can be understood in the studies of Broadfoot & Bennett (2003), Shao et al. (2007) and Sclater & Lally (2013).

In academia, the majority of sensory and experiential studies are based on interdisciplinary and perceptual experiences (Stein 2013; Lasansky 2014). During 2013 the universities of Glasgow, Oxford and Warwick were jointly awarded nearly £2 million by the Arts and Humanities Research Council (AHRC) to fund a three-year CenSes project. The project is currently conducting research into sensory experience to further understand how the senses work together to shape conscious experience (Institute of Philosophy, School of Advanced Study 2014).

In addition, the *Senses and Society Journal* (first published in 2006) publishes current sensory research trends, themes and experiences in wide-ranging variable contexts (Bloomsbury 2014). Articles explore heightened sensory experiences in design exhibitions, galleries and museums. The emerging 'sensory museology' examines the history of display in contemporary curatorial practice - employing sensory affect as an experience to communicate (Howes 2014:259). However it has not yet been fully examined if sensory affect, as a consequence of location and processes, impedes student learning in Communication Design studio education.

Links between pedagogy, student engagement and space can be seen in the research studies of Fisher (2005) and Jankowska & Atlay (2008). Multiple educational studies examine learning styles or learning outcomes within learning spaces (Blackmore et al.

2011). The research studies of Scott-Webber (2004), Boys (2010), Boddington & Boys (Boddington & Boys 2011) and Harrison & Hutton (2014) are of considerable interest in the context of this research study. Boys (2010) acknowledges the complex relationship between behavioural perceptions and experiences, and creative learning spaces: '*... looking at relationships between learning and the spaces in which it takes place...*' (Boys 2010: synopsis).

In design research, studies appear to be inclined towards practice-led explorations within studio environments. Studios are often investigated within a professional or technological context rather than an educational one and in disciplines other than Communication Design (Shaughnessy & Brook 2009; Vyas et al. 2013). However '*...there is a demand for research that uses the studio or workshop as a primary site of investigation*' (Woodrow 2013:3). To date there appears to be limited research of the experiential impact of sensory affect specifically within a Communication Design studio context.

Pilot Studies

Using action research in the next steps of the research

Action research was chosen as the most suitable research approach for this investigation as it enabled me, as an educator and design practitioner, to study a '*... social situation with a view to improving the quality of action within it...*' (Elliott 1991:69). Or as Elliott suggests to explicitly: '*...link an idea to action...*' (Elliott 1991:72). This approach facilitates collaborative activities such as workshops and design briefs with students to understand their views. The repeated cycle of 'action' then 'research' allows reflection before the next action research activity takes place.

This allows the researcher and student to critically review the action and gain an understanding prior to the next step in the research process (Dick et al. 2009). It is anticipated the findings will improve student engagement levels and provide an improved form of pedagogical practice within Communication Design studio spaces.

Data analysis and emerging themes

The research questions were identified after conducting a series of preliminary investigations using research methods such as observational note-taking, questionnaires, semi-structured interviews, sound recording and photography. I conducted pilot investigations, spanning several days, within a further educational institution (Institution A) and in a higher education establishment (Institution B) within the UK. Another short one-day investigation was conducted within two further design schools in the Netherlands (Institutions C and D). This allowed me to ‘step out’ of my regular educational context, albeit briefly, to explore the lived experience of students at two European design institutions. In total, across the four institutions, 54 undergraduate students (20 males and 34 females) took part in the research.

The data collated and analysed from these pilot studies highlighted several issues in relation to peoples experiences of their learning spaces. Figure 2 reveals patterns arising from the data analysis, with number one denoting the greatest concentration of keywords to ten being the least. This diagram is a consolidation of the patterns occurring in the four institutions. These patterns were identified as the top ten experiential issues of sensory affect in studio education, from core Communication Design participant groups during these preliminary studies.

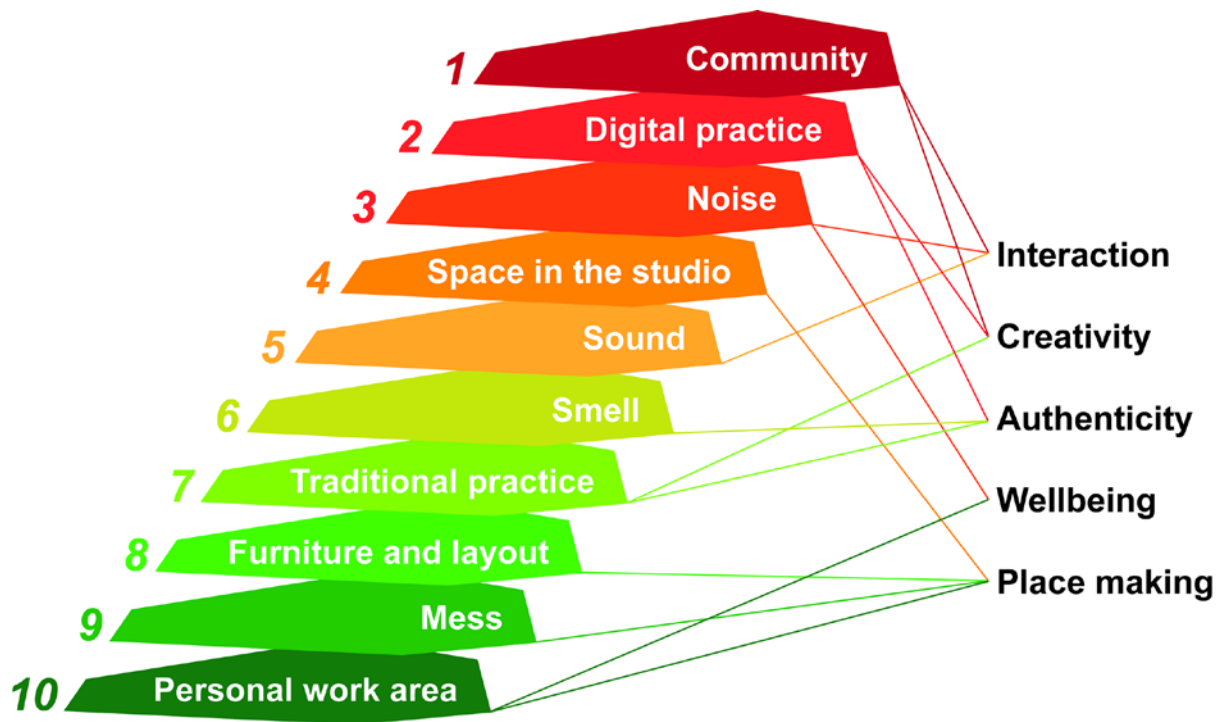


Figure 2. Colour-coded diagram of the concentration of patterns arising from the data analysis (one denoting the greatest concentration of occurrences) and the subsequent themes: interaction, creativity, authenticity, wellbeing and place making among others © 2014.

Methods

In this pilot study a questionnaire was the principle method employed in all four institutions. The researcher asked the students to reflect and elicit honest, descriptive responses - to allow the researcher to identify, isolate and follow potentially recurrent issues in the enquiry. Initially, questioning was designed to encourage the students to describe their own day-to-day studio environment,

- *Please describe what you see, or notice the most, about your studio/space.*

The ensuing questions probed the participants for a deeper, reflective response to the

sensory experiences occurring in their daily environment. For example,

- *Please describe your experience of smell in your studio/space.*

To elicit student responses in relation to their digital and traditional methods of production and practice, the concluding questions asked,

- *Please describe hands-on design techniques or practices you currently use or hope to use in the future? Why?*

The questionnaire then asked the participants to summarise and reflect on the previous questions,

- *To what extent do you feel influenced or affected by your learning environment? Why?*

Each qualitative response from the pilot study had identifiable keywords. These keywords were assigned classification nodes. These nodes were then cross-matched with other nodes to emphasise the highest concentration of recurring keywords and enabled the identification of the greatest concentration of recurring patterns. Several emergent themes arose such as interaction, creativity, authenticity, wellbeing and place making, among others, in the discussions relating to the studio during these pilot studies - as shown in Figure 2. Commonalities and differences occurred in the themes emerging from each institution, suggesting the context specific focus of my full investigation.

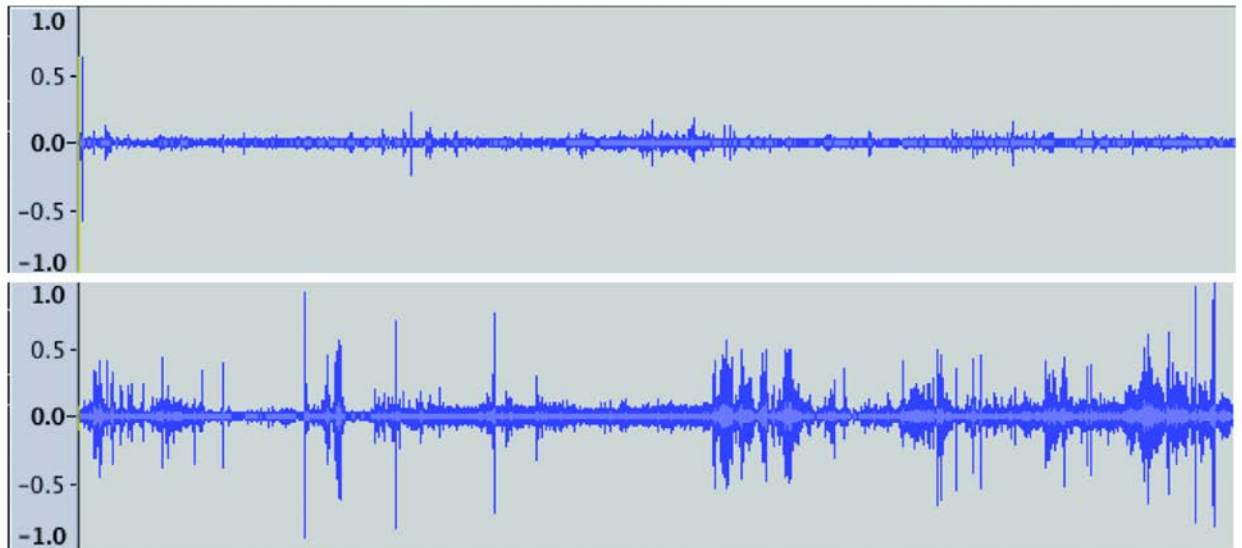
From the qualitative data, 'community' emerged as one of the leading factors in studio education. There was evidence of laughter, arguments, intrusion from other students and evidence of a strong creative group dynamic in the Communication Design studios, as one student suggested,

'... The people around me... because not only am I discovering new and interesting things but so are they and we share this with each other...'

Student, Communication Design, Institution A

In addition, students at Institution B had strong emotional responses to the open plan nature of their building. Their responses included keywords such as 'hostile', 'angry', 'tense', 'stress', 'ashamed', 'worried', 'annoying', 'self conscious', 'detached', 'intimidated', 'outraged', 'hell', 'crap'. When discussing traditional environments such as those containing letterpress facilities the same group of students used keywords such as 'love', 'relax', which suggest much more pleasant experiences.

These issues mainly presented a manifestation of sensory intrusion through sound in the open-plan studio environments through the two UK institutions. The marked difference between noise and sound was minimal in the data analysis. Both the classification nodes '*sound*' and '*noise*' regularly included the keywords 'people', 'noisy', 'music', 'class', 'loud', 'studio' and 'students'.



‘Figure 3. Recorded sound waves comparing two UK institutions © 2014.

In Figure 3 the first waveform was recorded within a closed classroom in Institution A and the second waveform was recorded within Institution B. The closed studio is much quieter than the open plan one. On the day that these sound waves were recorded, Institution B was less than half full with its regular cohort of students. The marked visual differences between the two waveforms are evident and demonstrate the impact of sensory affect in action, represented as noise.

Students described their response to smell as a ‘nothingness or just normal...’. Taste was generally deemed to be lunch or food with little reference to perceived tastes or the taste of artwork in the data analysis. They referred to touch as mess. This was mainly in reference to disorganized student desks, with small physical boundaries overflowing and the debris from personal habits (i.e. lunch). Neither smell nor touch was mentioned as an indication of creative processes or practice-led outputs. When questioned directly on touching surfaces in the studio, students generally only included walls and furniture in their answers (with little reference to touching artwork

or each other in a studio environment). There was no reference to the richness of materiality. To a certain degree this may have been a reflection of the younger demographic of the student group (Facer 2011).

Summary

Might teaching and learning practice help to address the emergent issues in the context of this research study? From this pilot, a stronger narrative has formed of the research question. While further qualitative research is needed to explore the research questions, this paper has introduced a sampling of affective sensory experiences present in the complex characteristics of contemporary Communication Design studio education. The pilot study probed:

- Students to describe their own day-to-day studio environment.
- Students to take a deeper, reflective response to the sensory experiences occurring in their daily environment.
- Students to summarise and reflect on how these factors may influence them.

To summarise, the pilot study highlighted, for example, digital practice as a preferred day-to-day studio method. Yet traditional practice was deemed to generate more pleasurable and authentic sensory affect. An awareness of this notion is supported by student responses from the pilot study,

I'm better at 'de-picking' the senses in the studio now... I didn't know how to vocalize it. It has made me aware of how much my work is digital this year

and I wonder if the building (studio) has had an impact on that. It has made me realize what's important when I'm working.

Communication Design student, Institution B

In particular, this preliminary research identified a number of key thematic qualities emerging from the patterns shown in Figure 2. In the discussions relating to the studio, emergent themes arose such as interaction, creativity, authenticity, wellbeing and place making, among others. This pilot study has begun to address the research questions that also apply to the broader study so Communication Design pedagogy might support and develop a more explicit exploration of the role of the senses in learning.

Further exploration of the meaning students attribute to these kinds of experiences, and the supportive methods needed to overturn them, might be developed for students as they understand and capture sensory experience. Meta-cognitive opportunities may enable students to develop their own awareness of the role the senses play in their learning.

The next stage of the research investigation will explore student awareness of their sensory experiences as reflective practitioners (Schon 1990; Kirkpatrick, 2007). The basic structure of becoming aware involves an iterative cycle of reflection and affection: to support creative learning via new eyes (Depraz et al. 2003). They might become aware of the strengths and weaknesses of their chosen methods of practice, and how their sense of place can be destabilised by the cumulative effect of sensory affect. These actions become based upon judgments of accumulated evidence in the

studio to allow students to react and plan future actions according to results and behaviours (Kirkpatrick, 2007).

Conclusion

Linking pedagogy with a sense of place originates from the research studies of Fisher (2005), Boys (Boddington & Boys 2011) and Scott-Webber (2004) among others. However, this study reveals a new investigation of the experiential impact of sensory affect by linking learning with a sense of place. From the on-the-ground, local viewpoint of reflective and collaborative students the main study aims to research the links between the occurrences of the ‘conceived-lived-practiced’ triad (Lefebvre 1991:116). Bligh (cited in Temple 2014:50) refers to the participants as ‘denizens’; a term intended to suggest that their perceptions arise from their active experiences of inhabiting particular learning spaces.

Consequently the ongoing research investigation will examine active, sensory experiences with collaborative Communication Design students as they reflectively engage in their studio learning. Therefore, students might address, manipulate and exploit the sensory experiences occurring in contemporary Communication Design studio education for beneficial gain.

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