

# Undisciplinarity: Exploring the disciplinary nature and pedagogic assumptions of Art and Design practice at Manchester School of Art

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## Abstract

This paper explores the impact of cross-disciplinary student engagement, using reflection in and on action (Schon, 1983) to explore the impact of the experience on students and staff. Cross-disciplinary activities create elements of the 'unknown' for students, ranging from unfamiliar situations and environments, foreign practices and new patterns of behaviour and terminology. Collectively, these opportunities present potential for new learning as students and staff engage with diverse materials and processes that often challenge prior assumptions. Engaging in new disciplines can empower a student to acquire skills and engage in new discourse around and across academic fields that enhance cognitive development. For staff meanwhile, it may often lead to questioning of identity and roles as they traverse tutor-mentor-learner themselves. Through these experiences, we can better understand ourselves and our practice.

The paper highlights some of the challenges of cross-disciplinary engagement, including navigating new fields of discipline, negotiating with others, and managing the 'self' in unfamiliar settings. It identifies opportunities arising from cross-disciplinary activity, including material engagement, debate, peer groups, community engagement and social responsibility. The case study explores the different approaches undertaken in collaborative engagement across the Arts, underpinned by Robert Zehner's studio teaching model (Lynas, 2013) that is employed to encourage student engagement with social and sustainable design issues. The paper also references the importance of experiential learning (Beard and Wilson, 2013) and evaluates reflecting in and on action (Schon, 1983) and situation pedagogy (Shulman, 2005, cited in Boling et al, 2013).

The paper evaluates the benefits and impact of these experiences for students and staff. It also highlights the challenges posed, notably for the academic, including preparation of projects, liaising with partners, negotiating expectations and developing appropriate adjustments in

teaching delivery.

This paper will address the impact that cross-disciplinary engagement can have on the student experience reviewing the following aspects:

- Rationale: The need for integrated cross-disciplinary experience in HE
- Theory: approaches to collaboration
- Roles: positioning and re-positioning the tutor: student relationship
- Enhancing the student experience: discourse, skills, perceptions
- Impact: opportunities, social awareness, cognitive development, aspiration
- Challenges: preparation, workload

### **Rationale**

Recent collaborations between artists from various disciplines have demonstrated the potential that exploring new materials, technology and environments can have on developing new work (Berengo, 2013, Petry 2012). The sharing and discourse that unfolds when negotiating with others, acquiring and sharing new practical skills, provides openings for new ideas to dawn. The result may lead to longer term complications of authorship, but the collaborative journey has many rewards. The collaborations can be performed in various ways; two practitioners may unite, sharing their respective skills, working to produce a common output. Alternatively, as in Berengo (2013), one may serve as a skilled facilitator to the ideas of another, producing new and unexpected outcomes that challenge existing material practice. Such is the case with Berengo, (2013) who invited internationally reputable designers and artists across a variety of disciplines, to develop ideas using the skilled glassmakers from Berengo.

The diverse results, ranging from Cornelia Parker's 'Reflected Glory' (2013), to conceptual work by Recycle Group ('Breath' 2013) or to Helen Storey's large scale flame worked body ('Glass of Dress', 2013), clearly highlight the benefit of such interactions. The craftsman's material expertise is evident in the execution of the works, but it is the union with the artists and designers that provides even more potential. Here, highly skilled craftsman can extend their familiar 'production glass' into innovative challenges, enabling artists to conceive new ideas in a unique material.

There remain additional benefits of cross-disciplinary material engagement; The Crafts Council's Education Manifesto, 'Our future is in the Making', highlights the opportunities learned through Material engagement, proposing that it fosters "*persistence, creative thinking, problem-solving and agency*" (Crafts Council, 2014). At Manchester School of Art we believe that cross-disciplinary engagement can broaden one's perspectives and creativity opportunity, and it proposes to be a place "*where language is extended and developed*" (Manchester School of Art, no date). This was exemplified in the culmination of the Pairings Project (Gröppel-Wegener et al, 2010) in which 32 academics from various Higher Education Institutions (HEIs) collaborated and explored disciplinary boundaries from ceramics and glass, textiles and paper through to metal, wood, film media and digital technologies. The exhibited outcomes demonstrated the impact of the collaborative processes on each individual, and created an opportunity to discuss the *pedagogy* behind material experiences.

### **Case Study**

This case study explored the impact when students from one subject specialism were exposed to the unfamiliar process of glassblowing. The research used a constructed grounded theory approach, which allowed the theory to emerge from the research using an iterative process. The approach involves constant comparison where new data is reviewed in light of previous data collated. Patterns and codes emerge from the data, and the findings lead to greater understanding and the development of theory (Charmaz, 2014).

Over a period of one academic year (September to June) willing participants (predominantly in their second and third year of study) engaged in a series of optional glassmaking sessions. Documentation was collated using participant observation, filed notes, questionnaire, interviews and film footage. This multiple approach sought to minimize the Project Leader's bias when interpreting the data. Reflection in action, a process that happens in a fleeting moment, was captured within the Project Leader's field notes and through review film footage. However, as the year progressed, reflection on action, a process that occurs over a longer period of time, became an invaluable tool through which to record and reflect on the research.

The literature review revealed the impact that medium, location, group dynamics, understanding of the creative process and prior experience can have on our material assumptions. (Lave and

Wenger 1991, Sayer et al 2006, Nimkulrat, 2010, Lynas et al 2013). Following the review, the disciplines of textiles, fine art and photography were identified as representative subject specialisms of three Departments involved in the Research. The disciplines differed substantially enough from glassmaking for them to provide comparisons for the purpose of the study. The case study provided consenting participants with the opportunity to engage in a range of glassmaking processes, including cutting sheets of glass, fusing glass within a kiln and glassblowing. The research objective included observing their process of engagement with the unfamiliar glass environment and their interaction with glassmaking processes. Longer term, the research considered how these experiences could inform their Home Programme study. This paper focuses on an individual participant from a photography practice within the case study (Participant A), observing and recording the changes made to their practice following their participation in this case study.

The diversity of practice involved in Photography and Glassblowing is extreme, in terms of medium (film and glass respectively) and dimensionality (two dimensions typically in photography and three dimensions in glassblowing). A Photography practice may involve the use of a camera, capturing a 'moment' outside of the camera where the photographer may seem to be an observer of a situation, positioned behind the camera. By contrast, the process of glassblowing is immersive, well planned yet spontaneous and responsive to the molten state of the material. Glassblowing is a process where molten glass at 1100 Celsius is extracted from a furnace using an iron. The liquid glass is then manipulated on an iron using hand and breath, to create a form. The process requires dexterity, timing and sensitive handling of tools to require the desired form. It is experientially different from photography.

### **Glassblowing**

Entering the glassblowing environment, before the process commences, participants can find their surroundings daunting. Initial reactions noted by the participants were to the noise of the furnace and the extraction system that operates in the room. Communication and delivery of instructions over the extraction system can be problematic, and there is an increasing reliance on accompanying gesture and signing than on words. Participants also commented on the heat of the room, which houses a furnace at 1100 Celsius, the heat from which is felt when in close proximity. To a novice, these foreign elements, and accompanying sounds of glass cracking, and series of unfamiliar tools and benches, present unfamiliar

scenarios. For some participants, their body gestures communicated excitement, if a little nervousness at these new navigations. For others, their stances suggested that the glassblowing process was not one with which they could easily associate themselves.

During the pre-requisite glassblowing induction, participants were shown how to use a four foot iron safely to retrieve molten glass from the furnace. As each participant enacted the process shown to them, each was observed and notes made regarding the ease with which they responded. For glassblowing, similar to many crafts, is a learned skill. It is often 'easy' to demonstrate a series of learned manoeuvres such as extracting liquid glass safely from a furnace, but it is only in the repeated engagement with the process that meaningful learning takes place. For an initial demonstration only shows key features, such as holding the iron and sitting in a glassmaker's bench, whilst the delicate interplay of hand and finger positioning can, at first, go unnoticed by a newcomer to the process. At first, the focus is on awareness of more explicit features such as heat, noise, people. Meanwhile, the smaller intricacies such as how each finger performs its role in the rotation of the glass iron, may seem insignificant at first. It is only in the repeated personal experience of handling and rotating the iron that the participant begins to 'feel' the significance of hand and finger positioning. It is only over time that one's body and awareness becomes finely tuned to the subtle significance of these details.

### **Gathering Glass**

Keeping the molten glass on an iron requires engagement of each finger; whilst the right hand holds a paper to shape the molten glass, the left hand uses each finger to complete the action – each finger rotates their 'fraction' of a full rotation. Without a full rotation, the molten glass could fall off centre, or worse, fall from the iron onto the floor. Centeredness is key. Each finger on the left hand works in synchronicity with the next – moving from thumb to index to middle finger and so forth, to rotate the iron and keep the molten glass in position. The little finger, 'little' in terminology but not significance here, is pivotal, for as the little finger completes its part of the rotation, it must transmit the rotation back to the thumb and index finger without stutter or pause. The delicacy of this interplay, and the impact of this 'rhythmic' finger dance translates to a smooth rotation of the iron, which maintains the position of the molten glass on the iron located over a foot away.

This 'knowing' is both learned and felt over time; learned in the sense that one is initially instructed and guided, and 'felt' in terms of 'becoming' where the activities are seamless and responsive to each other. It is only in the experience of touch, sound, smell, that relevant understanding is gleaned. Polanyi explains that these two activities are linked but not synchronised;

*"two kinds of indwelling meet here. The performer coordinates his moves by dwelling in them as parts of his body, while the watcher tries to correlate these moves by seeking to dwell in them from the outside. He dwells in these moves by interiorising them."* (Polanyi 1983: 34)

Guidance may still be needed to steer the appropriate action (Atkinson 2013), providing key indicators of timing, angle and pressure, that will help the recipient to gain confidence and material appreciation. Through repetition and reflecting in action, our hands, mind, and sense unite, our actions and consequences of the actions become implicit, and *"smooth sequences of activity, recognition, decision, and adjustment"* (Schon 1987: 26) are made intuitively.

Engaging in new experiences allows us to reflect, but the impact of the reflection may vary depending upon the individual, context and timing. Reflection in action appears to provide an 'in the moment' registering, a flickering of connections between something known and something unknown. Reflection on action provides a distance between the activity and the thinking; it may involve reflecting *on* the reflection *in* action but somehow the distance (from activity and of time) provides greater scope for enlightenment.

Reflection on action opens up possibility, allowing new information to be registered by one's mind set and previously unthought-of ideas to gain potential. This combination of reflection and imagination is Wenger's understanding of reflective practice as *"the ability both to engage and to distance"* and where *"Imagination enables us to adopt other perspectives across boundaries, time, to visit 'otherness' and let it speak its own language"* (Wenger 1998: 217).

The reflective practice of Participant A evidences a more substantial leap of awareness and understanding of practice. Working with the molten glass, he reflected on the 'flow' created through the glass blowing experience. As the case study developed over the academic year, the intrigue with glass led to a more informed understanding of his photography practice. The experience in a new discipline guided

him to 'academically' research more historical overlaps between the disciplines, acquiring more informed approach to the material of glass and his practice.

Reflecting on his engagement with glassblowing, and the tactile qualities involved, led him to:

*"step back from all of the new technologies and photographic equipment we are introduced to on a weekly basis and look at the medium of photography as something stripped back and basic."* (feedback from participant)

His language indicates a return to and removal from earlier academic learning - *"step back"* and *"back to basics"*. However, it may be that through the prior learning of the photography practice, the glass experience gave the confidence to de-assemble the theoretical and physical components of the photography practice and camera respectively.

Participant A expressed surprise at realising the 'intimate relationship' (feedback) between the two practices, particularly the realisation that a camera is based on mirror (glass) and lens (also glass). Although daunting to explore glassblowing processes to create new lenses (see figs 1-3), the Participant felt reassured, almost gleeful in the response of his academic home tutor and peers: *"Everyone has been really positive and impressed with what I am doing and excited to see the new work that I aim to produce"*. (feedback from participant).

Fig 1-3: Images show left to right: Blown glass optic; cut form to reveal inner viewing; top view of optic form. Images: Kirsteen Aubrey



The feedback from participants seems to have helped support the discovery of new pathways and language that could unite photography and glassmaking. The growing confidence became evident through emails that communicated understanding, through academic tutors acknowledging the benefit that the glass research project has had for students. At the end of the project, Participant A successfully attained a place to display his work in the Vertical gallery of the School of Art – a prestigious venue within the Institution. He exhibited hand-blown lenses, made during the project. The exhibits explored new disciplinary practice, which seemed unconventional in light of previous image-based photography practice, and explored a new approach to traditional glass-blowing practice. Instead the new lenses created for a camera responded to photography practice, enabling the participant to photograph new perspectives. In displaying the lens without its camera, however, he allowed the observer to immerse themselves in the experience of creating bespoke new perspectives also.

Participant A had allowed new experiences to challenge set boundaries, to question material assumptions. The interactions with glass had opened up the opportunity for 'other', offering the chance to reflect upon practice; to *"re-think...knowing-in-action in ways that go beyond available rules, facts, theories and operations"*. (Schon 1987: 35)

### Scope

The research demonstrated the creative opportunities available in cross-disciplinary practice, an approach that can meet with some resistance and challenge within the same Department with its numerous other programmes. The response from staff teaching their home programme students was positive, and informal dialogues occurred that presented hope for future collaborations.

For further investigations, a number of considerations need reviewing; a more flexible timetable that offers opportunity for intensive workshop sessions followed by periods of engagement, experimentation and reflection. Staff need to have the flexibility to question their other material specialisms, seeking to uncover its potential in relation to their own specialism. For this to happen can require time, commitment, patience and courage. Similarly, those fortunate enough to teach cross-disciplinary practice (and outside of their preferred practice) need to have the ability to move flexibly between roles, from disseminating information (tutor) to demonstrator to mentor, helping students to *think* through problems, *reframe*

questions, *interrogate* their practice and *challenge* materials.

The benefits of such interactions and challenges are vast. Through creative exploration the students question, discuss, interact with new peers, new disciplines and new concepts. New discourse emerges. Students learn to expand their skill base, extend their repertoire and in turn challenge and develop their practice. Using reflection in and on action are worthy approaches by which a student can review, comment, analyse and develop; elements that can enhance student learning and aspiration.

Manchester School of Art recognises its role in challenging educational boundaries. In doing so, it promotes curiosity of materials, experiments with process, questions material assumptions and extends the boundaries of practice. Such an approach is outward looking and aspirational, serving to challenge, extend innovative practice within art and design.

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