REPORT

OBSERVATIONAL LEARNING THROUGH PROFESSIONAL STUDIO PRACTICE

Alma Boyes & Cynthia Cousens - School of Architecture and Design University of Brighton UK, funded by CETLD

This project assesses the value of learning practical skills by direct observation of an expert making in a professional studio and as part of the entire process of the production of an artifact. Currently students within Higher Education generally learn skills by means of observing demonstrations of specific techniques given by academic or technical staff sited in the University workshops. The research seeks to find value by bringing the demonstration into a wider professional and creative context. It builds on the knowledge developed in our research project *Learning and Teaching Through Practice* (Boyes, Cousens & Stuart 2008), which primarily explored the value of live performance in respect of virtual representation, and claimed that the richness of non-verbal communication helps form the particular languages used in demonstrating and teaching practical skills.

Through this research we aim to improve the curriculum in practice-based courses in Higher Education, specifically in the development of knowledge in work-related learning and the student learning experience in the acquisition of technical skills and processes.

The project connects with the vocational and pedagogic aspects of the University of Brighton's newly developed MDes programmes, in which students learn within a professional context. Although the research focuses on data gathered from Metalwork and Ceramics the expectation is that findings will be relevant to other practice-based fields beyond art and design.

Research team

Alma Boyes and Cynthia Cousens are both Senior Lecturers at the University of Brighton in Materials Practice and are also practitioners in Ceramics and Jewellery.

Research question

What is the value in students learning skills by direct observation of professionals working in their studios in the practice-based arts?

It is anticipated that data on the value of the following will emerge:

- the holistic view of a technical skill or process within the entire creative process
- setting a technique or process within a professional context
- insight into speed and activity of making
- understanding of the rhythm of creating through the materials and processes
- the learning of skills through international experts of the highest level

Research methodology

The project is essentially a case study of a sample of students from the University of Brighton. The research project as a whole was predominantly qualitative using a flexible design with some quantitative data produced through questionnaires.

The project entailed taking two small groups of students to visit two internationally recognised professional makers working in their studios. The students were self-

selected by volunteering to be part of the research and were drawn from years 2 and 3 of the BA in 3D Materials Practice and year 4 from MDes 3D Materials Practice.

Data was collected from students by means of: unobtrusive observation, video-audio recording of the visit, photography of student journals made on the visit and through self-completion questionnaires. We were essentially looking for rich, detailed information that is found within methods such as: questionnaires and unobtrusive observation.

The students were notified of the project through student central – the university's blackboard facility. The professionals were using techniques, which were already familiar to the students from the curriculum and had been previously demonstrated within the university workshops.

The professional demonstration outline

The students spent two and a half hours observing at the ceramics studio and three hours at the metal studio. Students were asked to observe the professional working without moving around, talking or asking questions. The professionals were asked to work as normally as possible on a typical day's work without talking or explaining the process. The students recorded information in a journal during the session and a questionnaire at the end of the session.

Professional studio visits

The first visit, on Wednesday 11th November 2009, was to the Internationally renowned ceramic artist-maker **Christie Brown**. Brown is Professor in Ceramics at Westminster University and has a workshop in London. To Brown, clay is a transformative material, which relates to ideas about metamorphoses and Brown's artifacts can be seen as embodiments of transformation and transition through contemporary rites of passage. The size of the studio could accommodate the two research staff and three students.

Christie Brown: 'Entre Chien et Loup' 2004
London Gallery West – Photograph by Philip Sayer

The second visit, on Thursday 10th December 2009, was to **David Clarke**, often cited as one of Britain's most highly innovative metalworkers. Clarke is known for his experimental and often subversive approach to traditional making techniques. Clarke has artifacts in many private and public collections nationally and internationally including the V&A Museum. He works in a shared studio in London and could accommodate a larger group of seven students and the two research staff.

David Clarke: Metal Forms

Both visits were made using the University's mini bus, which was free to use and also benefited from free fuel and exemption from the London congestion charge.

Student data and previous work experience

Ten students took part in the research project. All were female which roughly reflected the 3D Materials Practice cohort of 86% female. The students covered a broad age range from 19 to 49 years old, (40% 19-22yrs old, 40% 23-34yrs old & 20% 35-49). Three were from year 4 on MDes 3D Materials Practice; four from year 3 and three from year 2 of BA 3D Materials Practice.

70% had had some previous work experience, ranging in length form a few days to nine weeks, that involved observing a professional maker at work. Through this they had observed similar techniques being used in the materials to those demonstrated within the curriculum. This included jewellery metal techniques such as: forming, hammering, soldering, patination, finishing, piercing, chain-making, tube-making, soldering, mould-making, sand-casting, and working with precious metals and stones; and in Ceramics: throwing, slabbing, kiln firing, and raku. Student H observed: *"Watching them work you see little tricks of the trade and subtle alterations to techniques – their variations on how to do things."*

FINDINGS

The VALUE of the experience to the students

The students were generally very **positive about the experience** of the visit to observe the professional makers working. Four students: E I J H, stated that it was very important, interesting or inspiring, for example: *"Really great experience and incredibly valuable"* **-** student J. Three students, A B C, all said it was very useful and inspirational – "*a fantastic experience...It's inspirational to watch any maker at work"* student B. Two students were more reserved: D felt it was *"useful to some extent";* and G *"quite useful",* although added elsewhere that it was *"an interesting and worthwhile study".* Interestingly both students D and G were two of the three students who had undertaken extensive work placements recently. However in contrast student H, who has the most work experience, thought it was *"very interesting and inspiring".*

There was a sense of it being special, perhaps partly due to it being a volunteered session - and partly due to having access to a well-known professional's studio to watch them work. Student J felt *"privileged to be involved in the visit."* Student A *"didn't necessarily like her [*the professional's*] work but found the day really enjoyable and helpful for my own practice and would recommend it for other years"* and student F also *"really enjoyed gaining access to this workshop".*

Inspirational – role model

Many of the students commented that it was an ***'inspirational experience'*** and the word reoccurs throughout the journals and questionnaires. They were inspired to return to their own work and *"get into that focused zone"* (Student E). This included seeing the techniques demonstrated by a professional who relied on their instincts and experiencing work being produced in a professional setting. Student E stated that the value was the *"the inspirational factor – seeing his focus, his hands and eyes working"* and student C declared that *"it instills passion".* Student F further commented it's *"wonderful to observe workmanship in progress".*

Student F felt that the experience provided a role model connected through seeing the professional use the same techniques - *"It was very exciting to see that the techniques are ones that I've already learned (at basic level) with practice I could attempt to do this!"* and that she gained *"confidence from seeing that the same techniques are applied in professional use"*

Student B expressed the **excitement** that the visit generated and its role as a model for her own practice: *"Excited by technique. Seeing the studio – everything is achievable even in a small space (the studio at the University is large so can plant unreasonable expectations)."*

Student J saw the example of the metalworker working his ideas directly into the materials without drawing as inspiration to *"challenge myself to do work like they are - sketches"* describing a motivating experience as well as providing a model for her practice.

Strengthen and develop confidence

Some students cited that it strengthened and developed confidence in their skills, Student D stated: *"I have seen the processes before but it has reinforced the importance of accuracy in the skilled making"* and Student F thought the value lay *"mainly in gaining* ***confidence*** *from seeing that the same techniques are applied in professional use – seeing care and application of techniques, dexterity".*

The visit gave Student I confidence and encouragement to work in metal *"as I find it hard to push possibilities in making when working with metal - and seeing those forms being constructed and touching their finish it really helped".*

Perspective and insight

The students valued the experience even though the subject of the professional's work did not necessarily relate to their own. Student A commented that the experience brought "*a new perspective*" and Student B that "*the technique becomes more real….You get the bigger picture*".

Others valued the **insight** it gave them to the approach to making. Student E noted *"Being able to see how quickly and professionally you can make things with little tools required".*

Professional context

The students commented on the difference of experiencing the creative process within a professional context and within the context of the finished work. Student B noted: that the studio visit gave a *"degree of context …You can see how it translates into finished work – not just a technique in isolation".*

David Clarke's studio: table of work and sawing

The students clearly identified the difference between seeing a professional maker at work, who had developed their own personalised techniques and placed them in a context of a complete object and being shown an isolated technique as is invariably the case in the university demonstrations. Student C observed: *"this was very personal to her [*the professional*]. The techniques she used were ones she had developed and these were not necessarily done as the text book would say".* Student B's comments explore the **techniques in relation to finished object**: *"Very useful – you see the whole thing and how the technique relates to a finished object. Sometimes seeing a technique in isolation makes it harder to see how it can be applied".* Student A also noted that you see the technique: "*in a more realistic situation, for a purpose not just technique teaching*". Student F concurred by stating: *"Application to 'real' outcome has a different value"* and Student E added that it *"Puts the processes into perspective".*

Video Clip Christie Brown rolling powder into the clay and lifting torso out of mould

Valuing the professional context of the demonstration, student A wrote: *"I think you would always learn at least one thing from this experience – even if its just seeing how a professional worker sets up".* The observed relationship between how the professional operates whilst working is closely linked to the **workshop environment** and **layout**. Student A recognised the need to be more organized and to make more of her own equipment. This is covered further in the section 'Organisation of the Workshop' on page 12.

Putting the **processes into context** is a crucial piece of the jigsaw that is generally missing from the demonstrations in education. Although image-based lectures and projects run alongside the technical demonstrations in the existing curriculum and serve to help students place techniques in context, this is not so clearly framed as in the studio visit.

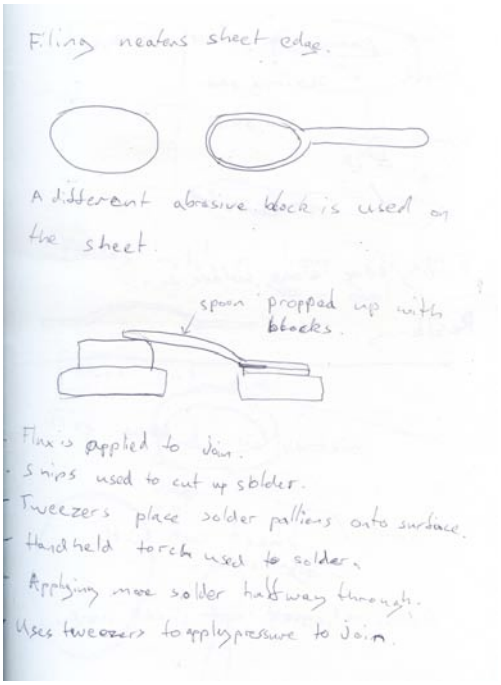
Knowledge acquisition

There was acknowledgement that new knowledge had been acquired: Student H placed value in the fact that she had "*learnt new ways of doing things".* This was primarily identified through the questionnaire, which asked the students to summarize the three main things that they had learnt from the visit. In many cases, this was also supported by what they had recorded in their journals. The range of knowledge acquired can be categorized into the following areas: technical skill knowledge, attitudes and approaches to workmanship or craftsmanship, speed and rhythm of working, the creative potential of technical processes, organization of work and workshop, concerns linked to resources, and the relationship of inspiration and creative thinking to the process of making.

Technical skills - how to do something

The students all felt they had learnt technical skills that they could adopt in their own work. In the students' list of main things they had learnt, technical information was cited 14 times out of a possible 30. These ranged from technical 'tips' to the value of precision in the making process. Student D's list of 'things learnt' was formed *entirely* of **practical technical knowledge**: "1. the length of time you should spend filing. 2.

soldering using tweezers to apply pressure. 3. using a flat board with coarse emery to sand". Her journal also reflects this interest by, for example, recording details of soldering, noting that the *"flame is constantly moved in gentle side to side and circular motions".*



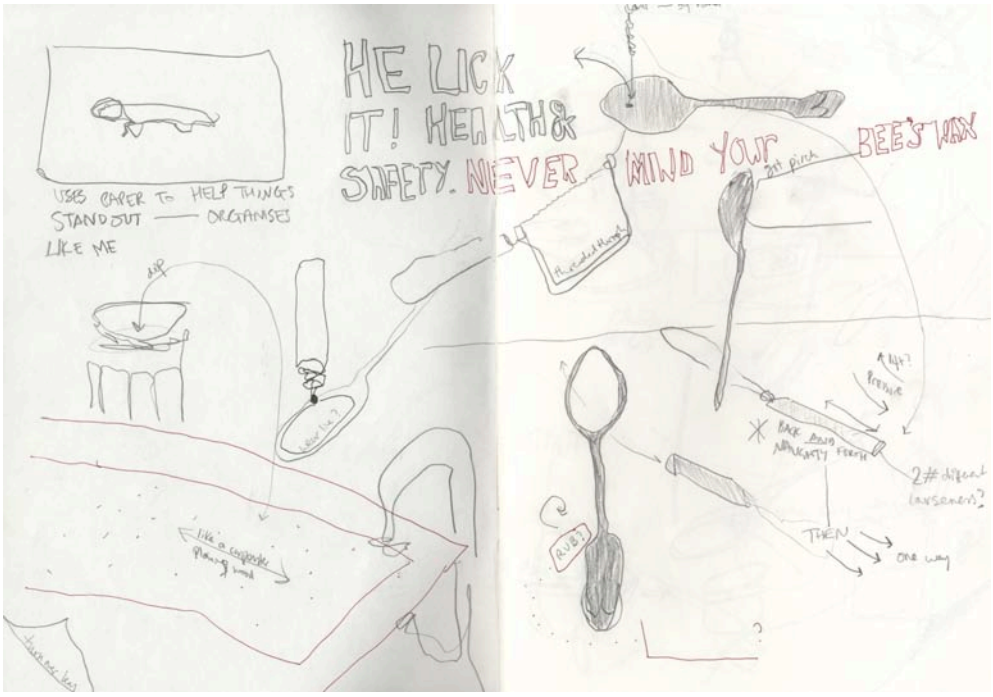
Student D journal - recording practical technical tips

Student B journal - *trim with wire cutter*

Many other students also noted technical information: Student A observed the practice of *"using tights to hold your moulds together – effective and cheap"* and student B -'*trimming with wire cutter – good for curves? More control?".* All 3 students on the ceramics (A B & C) visit noted in their journals the way the professional ceramicist used her hand as measuring tool.

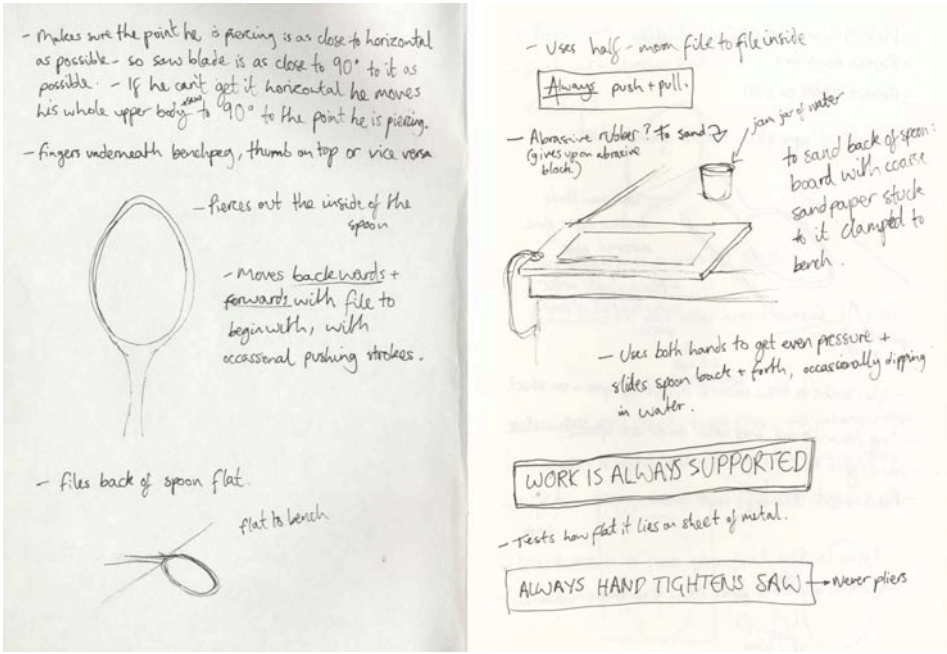
Video Clip Christie Brown using hand as a measuring tool

In the questionnaire Student I specifically listed technical tips related to larger **sustainable and economic principles:** *"use spit and not beeswax to help when piercing – be more resourceful with material – template to economise on materials."* This student also used the visit as a **creative research experience** - using her journal as a creative document recording the actions as well as collections of objects laid out around the workshop.



Student I - the journal as a creative research experience

Many students observed very detailed and specific technical information. The 4th year Student H focused on **detailed technique** in her journal as her key things learnt. She was meticulous in her observations of how the maker performed the single process of sawing: he "*makes sure the point he is piercing is as close to horizontal as possible – so saw blade is as close to 90 degrees to it as possible – if he can't get it horizontal he moves his whole upper body and saws to 90 degrees to the point he is piercing", "WORK IS ALWAYS SUPPORTED" and "ALWAYS HAND TIGHTENS SAW - never pliers".* The level of this detail reflects an advanced makers' knowledge. At the end of the journal she had drawn up a list of questions which were all technically based to ask the professional, for example - "*What is pewter like to solder? Where did you get the abrasive pad from?"*



Student H - meticulous observation of technical detail

Student F, (2nd year) who was interested in the metalworker's **control of process**, also described very subtle details, for example how the maker counteracted the slight distortion of the form while filing: *"finding suitable places on corners of bench to hold the work", "shape distorting slightly with filing gently checked and bent back. Switch to a larger file*" and *" I'm surprised spoon/hoop doesn't bend more!"*

Student E (3rd year) was also meticulous in recording technical actions in her journal: she, for example, even noted the *direction* he scribed around the outside of the form onto a base plate.

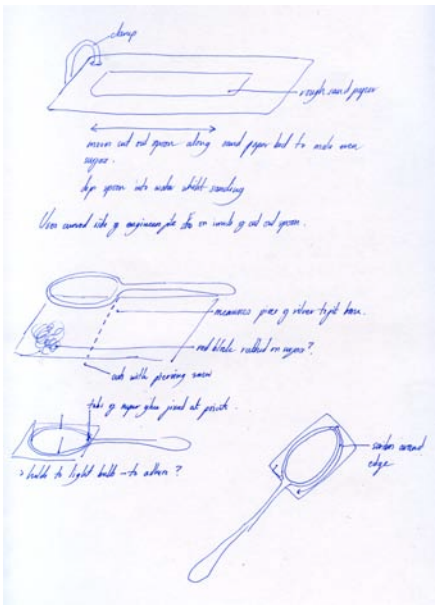
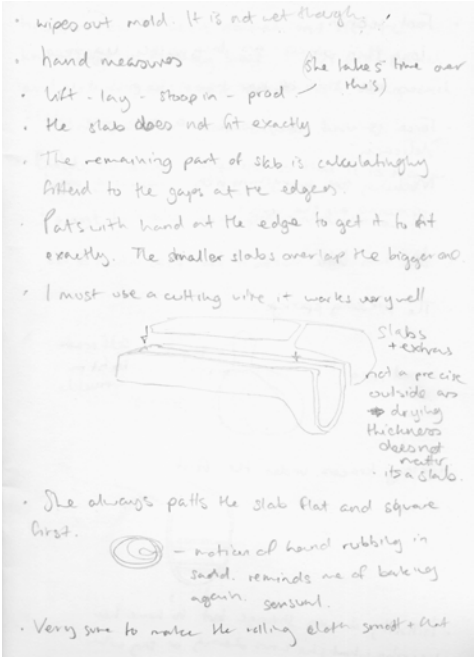


Image E journal – scribe round block

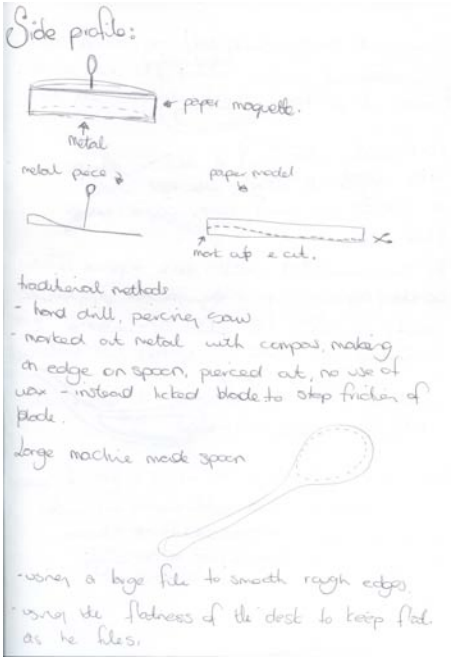
Image F journal - suitable places corner bench

The detail and subtlety of the observation of the making process was at a surprising depth across students from all the years represented. They all had had initial understanding of the techniques used by the professional through demonstrations and experience in their coursework and appeared to be building on this - refining and developing their expertise.

Workmanship – attitudes and approaches to work
Other key lessons articulated were about acquiring a **deeper level of understanding** of workmanship, attitudes and approaches to work. For example, Student C (3rd year) observed the differing pressures needed in the physical hand actions employed at different stages of the making process by the ceramics professional. In her journal she continually noted the pressure from *'aggressive'* and *'forceful'* to '*pats with the hand'* and further highlighted this as one of the 3 main things learnt in the questionnaire *"How to do forceful movements as well as delicate considered actions for different processes"*.



Student C journal – noting pressure of making



Student G journal – traditional methods of hand movement

Student G noted the maker's **approach to making** and the **use of traditional methods**: *"how the maker worked – very simple tools and techniques for a huge effect",* and was interested in the timesaving processes employed and *"soldering technique,* [the*] quick and efficient way".*

Student F commented on the professional's ***"focus on exactly what was being done".*** In her journal, she recorded this **focus** and calm work even throughout a problem when: *"part of the solder broken ping /gasp - back to blocks to redo – calmly working on fixing".* Student E also referred to being inspired by observing *"his focus and being in 'the zone' ".*

Video Clip David Clarke calmly working on fixing a broken soldering

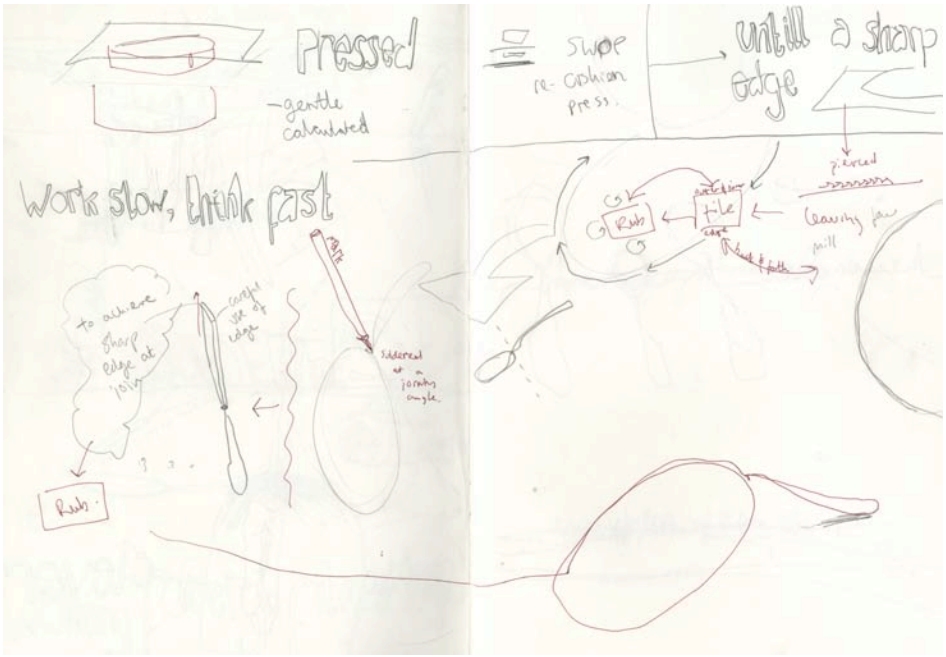
Student F's concerns were echoed in her journal: for example, the following annotations made alongside the drawings about the professional's surety and confidence in his making: *"confidence/certainty in actions"* and again *"certainty of actions".* She also noted one point where his thinking checked his making flow: *"carefully placed – Thinking – first time he seemed to need to consider best action".* She also observed the precision and carefulness of his **craftsmanship** *"v. precisely cut!"* and precision when altering and re-gluing two parts together to enable him to draw around the outline: *"carefully checked – no separate and reposition - cut v. close so v. precise positioning needed - replace and glue"*

Video Clip David Clarke checking action and re-gluing

Speed and rhythm of making
Throughout the journals and questionnaires the students commented specifically on the **speed and timing** of the professional maker. Student H observed: "*I have…seen how important it is to have a making rhythm and work systematically"* and "*there was a constant rhythm of making that could only a professional could truly have".* Student C also observed that it was very rhythmical *'due to the fact she was doing something that she was very practiced at".*

Students observed a marked **relationship between confidence, craftsmanship and the speed and rhythm of making.** Student F, a 2nd year student with limited experience, noted attitudes to workmanship concerning *"speed - from confidence - in skills and process"; "control of process even when small things 'went wrong'"* and the maker's "*focus on exactly what was being done".*

Student I noted in her journal the metalworker's approach to his craftsmanship as *"pressed – gentle, calculated"* and created the maxim *"work slow, think fast"* to summarise the speed of work and its relationship to the making and thought process.



Student I Journal – Work slow, think fast

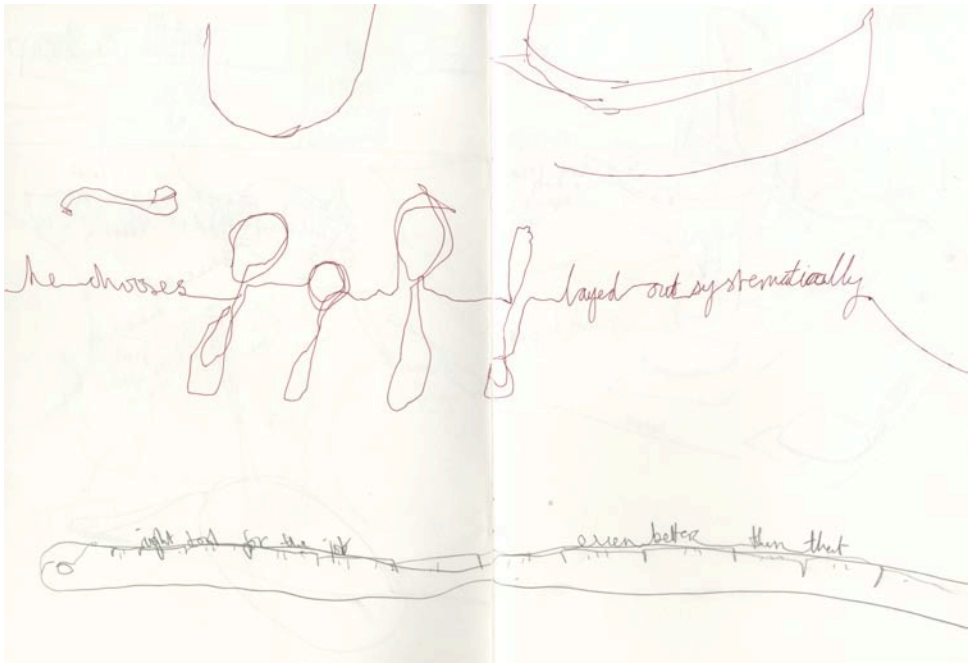
Student F remarked that the time taken varied between different tasks: *"some things can be done quickly; and others need time e.g. filing"*. This student also noted *"piercing done very quickly; time taken with filing; very quick/skilled in saw; time taken, slowly checked; immediately onto next task; quick highly productive!"*

Student J noted, *"repetition, rhythm, so productive in one day! Shows what you can get done!"* She also commented on his design process in relation to speed of work – *"no drawings and no sketches reliant on each other. Pick up metal and decide what to do spontaneous gut reaction; speed important body of work done in a week"*.

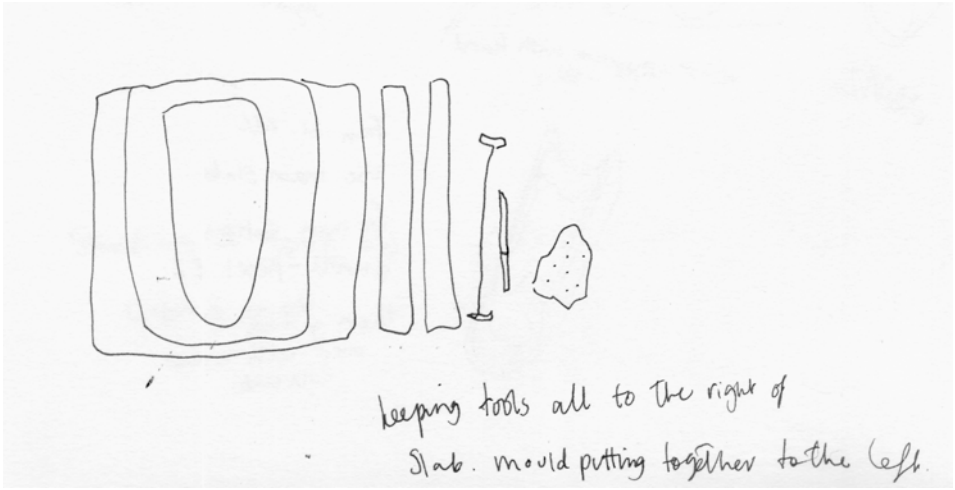
Creative potential of technical processes
Some students also commented that it helped to extend the creative potential of the process for them. Two of Student B's list of things learnt concerned this: *"Press moulds were more interesting than I thought! More scope to do large-scale pieces"* and also *"rolling powder into clay for effect – really interesting technique".* Student G noted *"the possibilities of the hand press"* in metalwork.

Organisation of workshop and work

The organisation of the work and studio was the other main area that the students felt that they learnt about on the visit. The ceramics workshop was small and the **organisation of the space and work** impressed them, for example, Student A reflected: *"Keep organised with your studio – tidy, storage, know where things are"*. They all commented on how well the space and the working process was organised with tools laid out for ease of use, negating the need for a large space. Organisation of space and work also factored in the comments of the students that observed the metalworker particularly in the form of the aesthetic layout and placement of tools and **inspirational items**. Student I stated that she learnt about preparation *"how to lay out inspirational objects and prepare materials to aid your working process*" but also noted that *"he chooses* [the] *right tool for the job* [,] *laid out systematically - even better than that".*



Student I Journal – Tools laid out systematically



Student A Journal – Layout of tools

The students recognised a **relationship between the rhythm of working and the layout and organisation of the workshop**. Student J described the professional's *"routine* [as] *having a rhythm*" and within studio organization, the need to have *"everything to hand - set up properly….collecting objects he uses…..process and backwards way of preparing for what he wants to do".* Although the meaning of this is not completely clear it could be assumed that the student is referring to the extensive step-by-step preparation the professional employed in order to complete a simple operation, i.e. thinking backwards from the end product of the task and what needs to be done to get there.

Relationship of technical process / making to inspiration
Students also pinpointed the role of visual research, for example the inspirational objects and drawings and its relationship to the making and presence in the workshop. Student A commented on the richness of the images on the walls of the ceramics workshop and how this influenced the work "*the joining of the clay being pressed into shape looks similar to the way the photos of inspiration are arranged on the wall- jigsaw like"* and made a note to remind herself to: *"Surround yourself with inspiration"*. In relation to the **work environment** this student also noted the value in *"creat*[ing] *a better working space – display inspirational images and collections in my working area at home"* and of *"making the space a reflection of ones ideas will help the ideas to reflect back into the work".*

Christie Brown – Inspiration images pinned over her workbench

Student I's journal records drawn images of actions as well as collections of objects laid out around the metalworker's workshop and student J picks out and notes, alongside a drawing in her journal, the *"inspiration hung in windows".*

Student J journal – David Clarke's "inspiration hung in the windows"

Influence on and connection to the student's own practice

Although this was not a longitudinal study recording what *actually* changed in the students' work, the students gave responses about how they *thought* it would change their practice which included the following: new attitudes to working, adopting new techniques, incorporating new materials and using existing ones differently, and changing their work environment.

From the data collected it can be seen that the students had differing individual interests: some such as student D only learnt technical information; others, such as student F, focused on attitude to work; and Student J, organisation of work methods and working space. Others listed a broad range of interest, such as Student E who noted three areas of learning: *"his way of working – his behavior", "technical observation" and "inspiration"* citing particularly the maker's ability to focus and be *'in the zone'.*

Some of the students articulated a process of **comparison** with the information they had learnt from the visit and **their own abilities and experience**. For example, in her journal, Student F compared the speed of the 'highly productive' professional (see page 12 'speed and rhythm of working') to the speed of her own working process reflecting *"I need to pause/think more often (also eat, smoke etc)".* Student H also applied the knowledge about speed of work to her own practice: *"the time he spends on each stage taught me that I need to be quicker and more structured with my time."*

Student I also linked her observation of the professional maker to her broader personal experience - he *"uses paper to help things stand out – organises like me".* For reference, she also related the metal processes she observed to ones she was more familiar with in woodwork, therefore described the sanding action the metalworker used as *"like a carpenter planing wood".*

Student A recognised the need to **be more organised**, to make more of her own equipment and to make the studio space *"a reflection of your ideas and work, it will help to then reflect back into your work".*

Student B now wanted to **explore the techniques for herself** and to try the press-moulding process in her own work *"press moulds are more interesting than I thought!"* She hadn't previously considered that more complex forms could be made

from a series of two-piece moulds. The experience also inspired Student C to *"try using press moulds again especially for large mass-produced forms"* and also to "*consider the force and accuracy of my movements when making".*

Several students wrote about **adjusting their practice** to include the newly discovered technical knowledge. Student H stated *"it will definitely adapt my making slightly as I've seen little tips today that I didn't know previously"* and Student G considered that she *"will definitely take on board his way of using the press to flatten metal, and how to get a crisp flat edge to pierce with"* and Student D reflected *"it will make me think about my precision and care taken over filing and making soldering joins meet more tightly".*

Student J stated she would **alter** her **practice** in *"preparation – learn new techniques and […] thinking about the process first and planning"* and Student E wanted to increase her concentration level feeling the *"urge to get into that 'focussed zone' with my work",* which was echoed by Student J who realised the importance of *"getting stuck into a days work".*

Other students were encouraged by the visits to **try new materials**. Student I wanted to *"try using found objects/ materials myself"* and it led Student I to *"consider developing work in more expensive materials – but test/ experiment in cheaper copper or gilding metal first for example"*

The **workshop environment** also affected Student I, resulting in her wanting to *"create a better working space - display inspirational images and collections in my working area at home".* (also see 'organisation of workshop page 13).

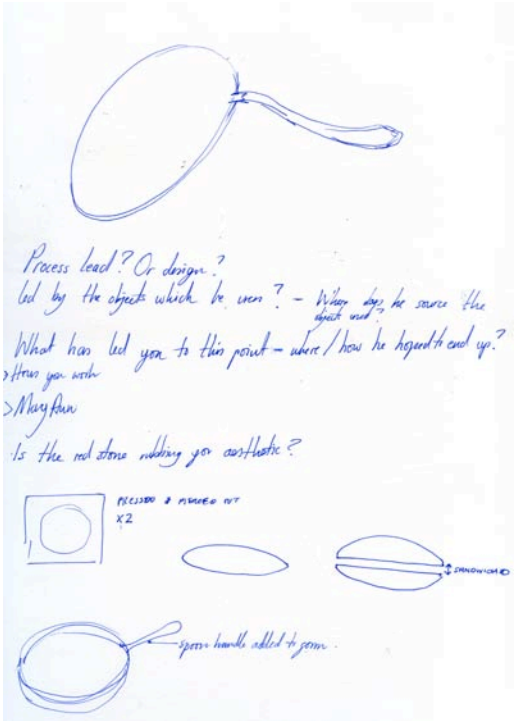
Evaluation of observation learning as a method

The value of non-verbal communication

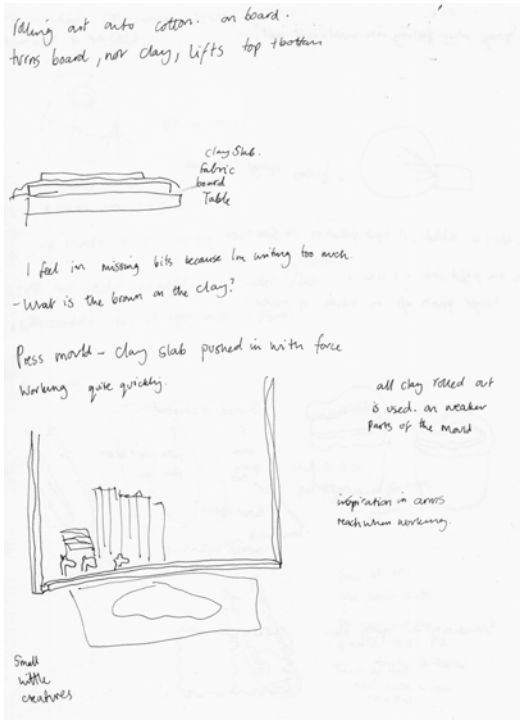
These students valued direct observation uncluttered by translation into verbal language: Student C states, *"I enjoyed watching her and thinking just about what she was doing rather then being told. I observed ways in which I could develop my own techniques for the better"* and student J also noted that the experience was *"teaching us to look – nothing lost in translation".*

Several of the students remarked that the method of learning placed a different emphasis on the learner to be active, to question and look: Student A *"I think that it is interesting that you are not allowed to talk. It makes you question a lot more in your head. Also it makes you notice more of your surroundings not just what is being talked about".* Student B also reflected that *"When there is no talking you actually concentrate much more on what they are doing. Rather then asking lots of questions you can answer a lot of them for yourself just by observing & thinking. It's inspirational to watch any maker at work. You can absorb the whole environment, not just the technique".* Both these students have commented on their emphasis moving to observation of other concerns such as the environment. Student D also thought *"observing without speaking does make you feel more inquisitive. It can be a bit frustrating when you want to learn more about the reasons behind a process/technique but I definitely learn more from seeing first hand".* This statement also implies that the student thought that this was the real experience rather than a performance or set up for a demonstration.

As well as raising technical questions for the students, the experience also threw up design process questions. Student E, a 3rd year student, with limited work experience of three days who had seen no films of makers, made notes of questions:*" Process led or design? Led by the objects, which he uses? Where does he source the objects used? What has led you to this point? Where/how he hoped to end up?"* Her brain was buzzing with queries.



Student E Journal – Process Led? Or design?



Student A Journal – What is the brown on the clay?

Questions were being noted down throughout the day in the journals. One of the big mysteries that occupied many students was the metalworker's use of a red emery block to clean the surface of the metal, which the students were not familiar with. Student F queried: *"polish with a block of?"* and Student E continually questioned: *"rubs red block onto surface – what is the red block? red block rubbed on surface? again rubs surface with red stone (sharpening stone?) is the red stone rubbing for aesthetic?"*

In contrast to the value of non-verbal communication **some** of the students were **concerned that they couldn't ask questions** and resolve queries such as these. Student I notes *"It can be hard when there are techniques or tools we've not yet experienced and we couldn't ask then and there".* Student G also concurred: *"As much as observing a demo, I think talking the process through is also helpful with the maker giving tips and hints for faster and effective making. However even though the observation was in silence, it was very easy to follow, seeing each step and clearly making sense of what he was intending today".*

Student C regretted that she did not have the opportunity to learn experientially and wrote that the *"only problem is that you can't have a go afterwards".*

Holistic overview - the relationship of making processes and development of ideas

The questionnaire asked about observations that can be made from the visit about the relationship of the making processes and the thinking and development of ideas. The students on the ceramics visit, all recognised that there was a strong interrelationship between the thinking and the development of ideas and the making process. Student C recognised that the theme *"…was everywhere in her studio, in the stimulus, maquettes, models, images and colours. The process reflected this in order to make the form and for the application of colour & texture".* Student B noted that the relationship of thinking to making flowed alongside each other: the professional *"considered every step but didn't stop the flow of work… Very calm – not frantic"*

In the visit to the metalworker, students also acknowledged his close integration of thinking designing and making – it appeared so seamless that some believed the work he was making was pre-designed or even repeated work. Student D observed: *"the maker appeared to find inspiration directly from the materials he is using. There doesn't seem to be any formal design process.* Student H also remarked on this: *"we didn't see any of his sketchbook type of ideas, but he seemed incredibly process and form led – making informs making. The way he worked - not sure if planned - with such confidence".* Student J noted the intuitive nature of his designing: *"*[I] *didn't know whether it was prepared* [or] *pre-drawn* – [it] *seemed very instinctive and immediate".* The designing and making appeared so seamlessly integrated to Student F that she didn't believe that the work was new: *"the work seen today appears to already have been thought through and resolved /refined so David could work quickly to produce 3 items in the time we were there."*

Another student I, considered that this ability evolved out of *"making in series, I imagined there to be gradual progression in the forms as one would inform the other, Found objects and finished items are laid out systematically so I think this helps the working process"*

What is clear in these remarks, and therefore in this method of learning, is that the students were curious and **questioned** what they saw in their attempt to understand why and how certain things were happening.

Difference between a live demonstration and watching a film

70% had seen films of a professional maker working in their studio including through You Tube. The makers were from a wide range from international artist-maker Grayson Perry to unnamed makers in India. The majority of examples given were of ceramics.

The main differences that the students perceived between seeing someone making on film and making live concerned the **editing process** which they felt controlled and limited the experience. Student J stated that *"Film is edited - they miss some bits out"* and student H supported this in her comments on live making: "*you can see the whole unedited process from start to finish."* Student D further unedited live experience with understanding the timescale of making *"unedited so you get a better feel of how long each process takes"* and student H: "*You can also get an idea of realistic timescale"* and student J: *"you see rhythm and routine".*

Some students valued the **real experience** of someone making live **rather than a staged or artificially prepared** performance which they felt could occur in film: student F thought that in live making the "*thought processes / decision making* [is]

more real than [in] *prepared sequence for film*" and student H summed up " *You get the whole feel of it and it's natural and not staged."*

Student I reflected on the importance of **using all the senses** when learning by observing live making and saw a film version as offering – *"no chance to walk around or touch and feel texture of the materials - loss of sensory experience"* which she considered *"can be more memorable".* Student J also pinpointed the limitations of visual perspective on film *" you can't see work from all angles".*

Student C observed that seeing someone work live is **interactive**, implying that watching a screen is a passive experience. Student C commented: *'It is a personal experience in which I am involved, therefore I feel that I learn and retain a lot more of the skill involved'*. Student H also thought that live demonstrations were **more personal** *"Its also more personal, and you can notice finer details."*

However Student I drew on some of the **advantages of film**, *"you can rewind and fast forward repeat and come back to a clip again"* recapping information and reinforcing learning.

The difference between university- based demonstrations and observing professional working in their studios

Uninterrupted and natural flow of the professional working

This section needs to be viewed alongside the Professional context section (page 5) and the section on the value of non-verbal communication (page 16).

One student commented specifically on the repetition of the techniques which occurred in the metalworkers working day as opposed to a one-off performance in the university demonstration: *"It is more in depth and the repetition re-enforces the process"* (student D). Student I commented on the continued flow of the professional demonstration *"At uni we stop/start, a lot of the processes can get stunted by asking questions, by silently observing you follow the demonstrators actions much more, and see how a well practised practitioner does it naturally".* This implies that they felt they focussed more on the natural movements involved in making in this method of learning.

Skill level of the professional

Generally, although the students respected and valued the university demonstrators' skills, they recognised that they held a broad set of skills and were not practicing continually, and therefore the standard of the professional could be higher. For example, Student C commented: *"The technician is not always extremely practiced at the techniques because they have to do so many different types of demonstrations".* Student C also noticed that the professional "*relies on their instincts more than a technician would during a demonstration".*

Observing without asking questions

Some students did feel that they missed verbal explanation and being able to ask questions (see section on value of non-verbal communication page 16) and thought that a combination of approaches to demonstrating would be good.

Role and position in course curriculum

The students were asked about the role observation of a professional working in their studio could occupy in their course. All thought it was positive and thought it should

be included in the curriculum. Student G said it *"would have a positive effect on the students. Would like to see it as quite a strong role on the course. The more demo's and technical learning the better."* Student E thought it should be alongside existing provision: *"it would be a very useful addition to the course, a balance to actually see a professional at work",* and Student B also thought *"studio visits with demos would be great".* Student I felt: *"it should be an embedded part of our learning, as today has given us a new dimension of understanding and really inspired our learning".*

Two students indicated that they would like to see it as a regular feature in the course, run *"every year after term 1 – lots of enthusiasm still – put in context and different understanding after each year"* - Student J; and student D felt *"It would be great to do once a year, but money wouldn't allow for that."*

Some students placed it in the course. Student D, who had been on extensive work placement at the beginning of year 3, thought that it would be *"beneficial mostly for people prior to work placements, when less skills are known"* indicating that it needs to be considered in relation to any work placement programme, which could in some respects duplicate experience.

Student H thought *"it would be most important at the end of /middle of the first year or probably even better, beginning of the second year".* However Student F was concerned that the **knowledge gap** between the profession expert and the students knowledge might be disparaging if it was placed too early and suggested that it was *"Useful to see now (2nd year). If I'd come last year when the techniques were new to me, it would have seemed even further removed from where my skills were at"*.

Student H thought the visit could sit in or crossover with professional studies/business studies: *"it is so beneficial meeting other makers, especially in the context of their workshops… would be also be great for a more realistic, useful professional practice".*

CONCLUSION

This study looks at the value of learning techniques in a wider creative and professional context by observing a professional working. It looks at what students say they have learnt by the experience and how they value it rather than fully reflecting how their work has changed through it, which would need further study. All the students recognized the learning experience positively describing it as inspirational, interesting and useful.

Some students saw it as a privilege to gain access to the professional's workspace and process, others described it as an **exciting experience instilling passion.** It was seen as a **motivating** experience with the professional acting as a **role model** and **confidence** being gained by the experience of seeing processes shared by professional and student. It was also described as an *'*enjoyable*'* experience and 'wonderful' to observe making at a professional level.

The students also considered that it gave them **insight into another level** and a new perspective on a professional level of work. They particularly valued the **real aspect** of this experience – a phrase that was used continuously. They articulate the value of seeing the **techniques applied and set within a wider professional context** and through it an understanding of how they themselves link to wider professional world.

It gave techniques a **wider creative context** – showing how technique relates to a finished object and how **technique is applied to the wider process of creativity**.

The place of inspirational objects and images in the workshop alongside the making allowed the students to see how they can be reflected through into the making. Students also commented on the process of **creative development taking place alongside and 'flowing' with the making,** appearing very instinctive and immediate.

The **knowledge** acquired through this experience was wide ranging and varied from student to student depending on their interests and priorities. As a whole the information learnt, as cited by the students, could be categorized into the following areas: technical skill knowledge, attitudes and approaches to workmanship or craftsmanship, speed and rhythm of working, the creative potential of technical processes, organization of work and workshop, concerns linked to resources, and the relationship of inspiration and creative thinking to the process of making.

The most cited area unsurprisingly concerned **technical information**. It was clear that the level of technical information that they were picking up was very **detailed and specific**, and in all cases building on their prior experience at an advanced level.

Attitudes to workmanship, which might be more difficult to represent in a university demonstration, covered areas such as the **confidence and certainty of work**, **precision and focus** or being 'in the zone'. **Speed and rhythm of work** were also particularly noted. The variety of speeds employed and differential between specific processes, some being worked painstakingly slowly and others faster through the skill of the professional. The students were impressed by the productivity and the steady flow of the working process. This rhythm and speed was also, as the students recorded, linked to the layout of the workshop, in particular the organization and layout of the tools and equipment.

The students were **reflecting this new knowledge back into their practice**, comparing how the professional worked with their own practice and drawing similarities with other materials and their processes in their experience. They thought it would **change their practice** by bringing new attitudes to working, adopting new techniques, incorporating new materials and using existing ones differently, and changing their work environment.

They recognized a **difference** between observing a professional working and observing a demonstration of a technique at university in the following ways. The observation of the professional represented an opportunity to understand the '**natural flow of work'** uninterrupted by questions or time constraints, to see the exceptionally **high skill level of the professional** and the **depth of craftsmanship**. As well as already mentioned the professional context and creative context of the technique in a bigger picture.

The students also **differentiated between live demonstration and film versions** citing the editing as controlling and limiting the experience especially visually and time-wise, that it was often a performance and not real, loss of sensory experience and that it was a passive rather than interactive or even personal experience.

Positively, the **lack of verbal communication** placed the emphasis on the student to be more inquisitive and curious setting a **learning pattern based on enquiry, thinking and questioning** rather than adopting a passive approach of being told. Although experiential learning was considered to be lost, and there was concern that they couldn't ask questions about their queries as the professional was making, the students felt that this experience was positive and should occupy a place in teaching

techniques alongside traditional demonstrations. They further commented that it could also provide a new way of learning professional practice/business studies.

In terms of its place in the curriculum some thought it should be an opportunity repeated several times through from the end of 1st year onwards although prior to work placements (in 4th year for MDes/MFA students in the 3D programme at the University of Brighton) which could be seen to duplicate the experience. It was thought to be too early to place it in year 1 before the first technical demonstrations and some experiential learning because the knowledge gap between student and professional levels would be disparaging.

In conclusion, learning through observation of professionals in their studios appeared successful and beneficial to the students. It held benefits in terms of inspiration, building confidence, establishing role models, and accessing a higher level of technical knowledge. As a form of learning it engendered an inquisitive and active learning style. It enabled students to understand rhythm of work and speed, which is unachievable through the usual format of demonstrations held in the university, and to place the technical skills in a wider creative and professional context. All felt that this way of learning would be a positive addition to the course curriculum.

Alma Boyes & Cynthia Cousens 2010