

Getting past the basics: strategies for fostering valuable learning in studio-based higher education settings with mixed experience student cohorts.

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In response to requirements for program flexibility and timetable changes within the university, the ANU School of Art & Design (SOAD) has opened many of its courses to students from other disciplines and faculties. This has given rise to larger class sizes and mixed ability groups, and has presented a number of challenges for traditional studio-based teaching practices. A notable change is the need for lecturers to devote a greater proportion of time to developing competencies in lower order cognitive and psycho-motor domains – for example finding the need to conduct repeat technical demonstrations - at the expense of higher order activities such as self-evaluation and critique of artworks, and, ultimately, the production of new or original works.

To address these challenges and ensure teaching can move beyond lower level learnings to address higher order understandings and abilities we are currently developing a set of teaching resources that provide for a broad range of practical experience within the student cohort. This development and testing has been supported by an ANU Vice Chancellor's Teaching Enhancement Grant. Taking as a starting point the hierarchy of educational objectives presented in Krathwohl's (2010) revision of Bloom's taxonomy of learning, this paper discusses a case study set in a textiles printing class. This course is part of the Bachelor of Visual Arts Textiles first year course menu, but is also open to students from across the university as an elective without any prerequisite level of skill, knowledge or study. It is a popular course and always fills to capacity.

Alison Munro is an early career researcher and artist currently lecturing in the Textiles Workshop of the ANU SOA+D. Her research has two broad streams: the relationship of scientific visualisations of the natural world to pattern and abstraction, and studio-based university teaching and learning. In relation to the latter, together with Dr Seccombe, Al is the current recipient of a Vice Chancellor's Teaching Enhancement Grant to explore strategies to enhance learning among mixed experience cohorts (i.e. non-visual arts major students) within a studio-teaching setting. Al's current art practice engages drawing, print and painting to explore the relationship of textile structures to Euclidean and non-Euclidean geometry. Al is represented by May Space, Sydney.

Erica Seccombe convenes and lectures into the Figure & Life and Vision & Perception courses within the ANU SOA+D's Foundation Workshop. She also lectures for ANU The Centre for Art History and Art Theory, and has convened the courses for Australian Modernism, Cyberculture and first year Art History. Erica is a visual artist based in Canberra. She was recently awarded the prestigious 2017 Capital Arts Patrons CAPO Fellowship. Her practice spans from traditional and photographic print media to experimental digital platforms using frontier scientific visualisation software. Erica completed her PhD in Photography and Media Arts in 2017. Her practice-led research project *GROW: experiencing Nature in the Fifth Dimension* investigates time-resolved (4D) micro-X-ray Computed Tomography through immersive stereoscopic digital projection installations and 3D printing.

Background

In his overview of revisions to Bloom's taxonomy of educational objectives Krathwohl (2010) presents a model which replaces the original peak cognitive outcomes of synthesis and evaluation with the categories of evaluation and creation. The latter has obvious application to the types of learning sought in visual arts tertiary settings, and has informed the development of the learning outcomes and assessments rubrics for the Textile workshop courses at the ANU School of Art & Design.

In order to teach towards these high value learning outcomes, the traditional model for studio-based visual arts and design teaching has been based on teacher demonstrations with question and answer discussions to model practical skills required in learning outcomes as well as feedback provided by the lecturer to develop and encourage higher order skills and capabilities such as critical thinking and evaluation, creative application and problem solving. James Elkins suggests that this practice could be understood to precede even the Renaissance, when artists were considered artisans and learnt via apprenticeship. (Elkins, 2001). However, while traditional model of studio based tertiary art teaching may still be considered the ideal, the organisational and financial environments and student cohort that provided the original conditions for these models has changed.

For example, the recent organisational change within the SOAD has been the removal of prerequisites such as portfolio entry or prior experience in art and design from many courses. This is to allow larger enrolments and facilitate the new flexible degree structures at the university by offering a wider choice of subjects as electives. As a result, a high number of non-Bachelor of Visual Arts/Bachelor of Design students have begun enrolling in SOAD courses in both visual arts and design, and including art history and art theory. For example, an analysis of the 2017 SOAD student cohort in semester one found that 37% of the 270 students enrolled the two main 1000 level courses, Figure & Life and Vision & Perception were from the wider university. Until recently these two courses have only been offered to first year SOAD major students in first semester. In 2016 and 2017 these courses were also made available in second semester and this has attracted an even larger number of enrolments, up to 70%, of students in various years of their degrees from disciplines as diverse as biology and medical sciences, criminology, commerce, economics, mathematics, physics, music, history, curatorship, fine arts, anthropology and archaeology.

The course we are using for this case study, Textiles: Print and Surface Design is included in the Bachelor of Visual Arts Textiles first-year course menu and is now also open to students from across the university as electives without any prerequisite level of skill, knowledge or study. The aim of this textiles course is for students to develop both technical and conceptual skills relating to a range of screen-printing processes and to explore the use of pattern systems in surface design/image making techniques. Working in the fabric printing studio, students are enabled to develop skills and knowledge relating to creating repeat motifs and working with pattern systems and use these as a means for the creative expression of ideas through both class and individual projects. Through this process they learn to prepare stencils for silk screen by creating artwork through computer software

and photocopy methods, and are taught to develop designs based on a range of pattern and repeat systems, and apply registration methods to print lengths of fabric. The students are also introduced to safe working practices and develop an understanding of relevant work health and safety procedures to fulfil course requirements.

On completion of the course each student's work is assessed against the following four main learning outcomes that clearly demonstrate and apply,

- creative and critical exploration, experimentation and integration of ideas, materials and techniques, through class and individual projects;
- competency with the preparation of artwork for fabric repeat printing using hand and computer-based methods;
- technical competency in relation to fabric screenprinting and repeat systems;
- knowledge of the historical, cultural and theoretical contexts and contemporary practices relevant to screen printing as a medium for visual arts/design through development and execution of studio projects and research;

At SOAD, visual art students are required to complete six hours of independent studio practice outside face-to-face teaching time in order to practice and develop skills and understandings taught in class. In Textiles the mixed cohort of students in combination with larger class sizes has required additional in-class support as these new students have no previous experience in a studio workshop environment. As a result lecturers are spending a larger proportion of the face-to-face time in-class teaching these students through repeated demonstrations of lower order, or basic practical skills, such as mixing ink and preparing screens. This is at the expense of teaching skills related to the creative and critical exploration, experimentation and integration of ideas, materials and techniques that enable the students to produce more sophisticated artworks that demonstrate higher levels of achievement, insight and knowledge against the courses four main learning outcomes.

The impact of this changing student cohort has created challenges for the traditional model of studio-based teaching in the Textiles workshop. Therefore we argue that while face-to-face teaching time and immersive studio-based learning remains a vital component of visual arts learning, new strategies are needed to adapt this model are becoming necessary to ensure high quality teaching and learning can continue.

Based upon the findings of studies in the teaching of medical sciences in which expert demonstrations are augmented with additional demonstrations via short videos, we have trialled a model of course delivery which combines teacher demonstration and discussion with 'bespoke' but technically simple video demonstrations. These videos support the in-class teaching and learning as well as the independent study components of Textiles: Print and Surface Design. The goal of this approach is to retain strategies such as expert demonstrations, discussions and immersive practice but also to provide conditions which allow students to revise skills and knowledge without reliance on the teacher, and undertake as many revisions as they need in order to gain competency in the skills.

The 'flipped classroom' model is viewed as an instructional strategy that reverses the traditional learning environment by delivering instructional content online which can be accessed outside of the class environment. This model – of expert demonstration augmented by video revision – is supported by research such as Smith et.al. (2012) which suggests that this combination of teaching methods aids the development of skills in university teaching..However, we propose that teaching visual arts practice cannot be by video alone, so a 'flipped' classroom approach is not appropriate in this context. Teacher-led demonstrations continue to remain a vital part of studio-based pedagogy as they allow discussion, student initiated questions and answers, and can be targeted to the specific interests of the class cohort. Drawing on research relating to the use of short video demonstrations as an effective augmentation to laboratory-based teaching in the sciences as well as practicum teaching components in disciplines such as medicine and dentistry, this project aims to apply the findings to a visual arts studio-based teaching model.

Rationale

Our strategy to assist with this teaching and learning impasse has been to develop and trial a series of 14 short videos, each no longer than 4 minutes, which cover each step in the process of screen printing on fabric. The use of video resources within university teaching is certainly not new: however we did not seek to use 'off-the-shelf' video materials, but to produce local, specific resources which repeated and reinforced the in-class teaching. We also sought for these to directly parallel and augment the expert demonstrations conducted by the lecturer rather than replace them. We were also seeking to develop a model that would be easy to make, create and deliver, and not require extensive preparation, training or new skill development. We sought to test a low cost, low technology strategy which any staff member with a mobile phone can utilize to shoot video of their demonstrations and then upload to Wattle for student reference. Due to the local nature of the video production, the WHS specifics of each studio setting can be incorporated and indeed reinforced by the bespoke resources.

There are innumerable video demonstrations of fabric printing techniques available online. For reasons of health and safety, as well as to reinforce student confidence and competence by ensuring the specific information delivered in the videos aligned with that taught in class we decided it was educationally important to produce the videos ourselves. This allowed us to specifically address working methods and materials in our studio. We sought to augment traditional artist-as-lecturer studio teaching by providing students with access to their lecturer in short video grabs whenever they were working in the studio.

A literature search indicates that this approach to filming in the studio is novel in the university level visual arts/design teaching and we are yet to find research discussing the use of in-house, studio specific video to supplement face-to-face teaching in this context. Research relating to the use of video demonstration to augment in-class expert demonstration in a number of areas of medicine and science teaching in universities suggest this technique is more effective than the face-to-face demonstration or video demonstration alone.

We propose that the video materials will allow students to take charge of their independent studio-time and review content as many times as they need, whenever they need in the studio setting. The approach aims to encourage independence and agency in learning rather than a dependency on the teacher as the master or 'owner' of the knowledge. The videos will also be developed as short vignettes, each covering one task. The videos will build one upon the other to allow students to develop skills sequentially and in a way that allows them to relate new experiences and learnings to previous knowledge, an approach which has been identified as effective by Biggs and Tang (2007) and Mibrandt et. al. (2005).

The strategy of augmenting expert/teacher demonstrations with video materials that students can access independently to revise or refresh their understanding draws on a constructivist approach to teaching and learning which holds that learners construct knowledge through their own activities, and emphasizes the learner as an active participant in the educational setting and not as a passive recipient. This approach does not lessen the role of the teacher but rather, after the initial teacher demonstration and Q&A session to focus on higher order learning outcomes and to share the responsibility for learning with the students.

Approach

Before filming we sought advice and training from Amanda Burrell (Captivus) contracted through the ANU College of Art and Social Sciences to coach academics to perform and lecture to camera. The impact and findings Burrell's methods and approaches to digitised lectures are recognised through academic research (Biggs and Tang, 2011). In context of our proposed demonstration videos Burrell advised us that students respond better to pre-recorded lectures that are not heavily scripted or highly polished as they appear more authentic. Therefore she directed us to use a natural dialogue that includes errors and corrections. This idea of creating on the spot demonstrations – rather than spending time practicing and rehearsing – reinforced our initial concept that in filming these tasks we wanted to create as simple a model as possible. We wanted to test a method of filming that would ultimately benefit time-saving and ease of production without too much emphasis on pre and post production skills.

To maintain the low cost and accessibility and ease of production, we decided to produce the videos using a personal hand held digital device. We used an iPhone 6 mounted on a simple stabiliser that we could easily manoeuvre around the studio. The raw footage was edited and formatted in the iMovie for Mac, which is a compatible application with iPhone. iMovie is a readily available software that can be easily learned and is extremely versatile when editing, splicing, arranging footage, adjusting sound, creating title pages and transitions between scenes. A Windows operator would find equally accessible and free software to use with digital devices.

Before filming we identified the key tasks and prepared the demonstration just as one would do before beginning a class. Being organised and performing to the camera as if giving a demonstration directly to students allowed us to easily film all the tasks in one day. We filmed each task sequentially, breaking them down into short segments knowing that these small films could be joined together. Testing this format we established it would be possible for one person to film the

demonstrations alone, however, having two people cut the amount of preparation and filming time in half. In this case Al Munro demonstrated the tasks and techniques, while Erica Seccombe recorded the movies.

To maintain the authentic feel of the demonstration, we shot the movies in the studio using only the existing studio lighting and equipment. At first we worried about digital effects such as the tube lighting in the table strobing on film. However, we decided that showing how the light-table is used to register the screen in the studio setting was more important to the student than turning the light table off. To reduce the production time we also limited the number of takes. For example, when Alison made a mistake in her dialogue she would just correct herself and Erica would keep filming. We would only stop and re-take a demonstration if a major mistake, or a step was missed in the dialogue or task. As we both have considerable expertise in studio-based screenprinting on fabric and paper, we both understood implicitly the task and information we wanted to impart to our audience. Through this process we also discovered our own creative enjoyment in filming, and experimented with different frames, angles when we felt a different perspective, such as a close up, was required.

To make short movies in iMovie, we imported each demonstration task separately. Each movie contains several shorter movie segments which we then trimmed and spliced together to create a fluid dialogue and visual explanation of the technique. On playback we noticed that the outside traffic noise was much more audible in the recordings than one might notice working in the studio itself. In these areas we were able to use the available sound features to adjust the voice volume and dim any background noise. To create smoother editing, we occasionally used a transition to neatly overlap one scene end into the next beginning. We also identified some segments that needed to be sped up in order to indicate a task taking a period of time, such as the timer on the exposure box.

For every movie we included a title page and a page for credits which acknowledges our grant source. Packaging the movie as a completed movie file is automatic in iMovie. As soon as all the movies were complete we uploaded them to YouTube. This public platform is accessible through a URL link on the ANU teaching course forum through Wattle.

Impact and conclusions

We are proposing that this project will lead to better outcomes for both students and teachers by creating a resource which students can view as many times as required, when required, and to reduce the amount of time on repeat explanations and demonstrations undertaken by teachers. The latter will allow a greater proportion of time spent on teaching higher order learning outcomes such as approaches for creative development of ideas and the critical evaluation of finished work.

We completed the finished movies and uploaded them to the Textiles student course site at the end of July. We are yet to evaluate the student responses to this new online resource for semester two of this year. If it proves to be an effective strategy within the context of studio-based teaching, it will have a reportable impact

across the school, similarly providing greater teaching and learning experiences that will benefit both students and teachers.

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2016-2017 statistics for student cohorts courtesy Gilbert Riedelbauch, Senior Lecturer, Foundation Studies, School of Art & Design, College of Arts and Social Sciences, Australian National University.