Digital Fellows Research Proposal Outline

I. Background

Courses Learning Objectives (CLO): Analyze visual information in terms of proportional relationships, spatial relationships and basic geometric shapes in order to accurately depict objects and groupings of objects.

Rationale for CLO: a basic and critical challenge which I ask students to address in Drawing I is: Create a drawing (composition) which animates the entire picture plane based on direct observation of the subject matter.

Texas Core Objectives (TOC): Critical Thinking Skills
Gather, analyze, synthesize, evaluate and apply information for the purposes of innovation, inquiry, and creative thinking.

Rationale for TOC: To create a strong composition with accurate representation of viewed subject matter, students:

- are required to gather visual information (view still life with care, consider various compositions);
- are required to critically analyze proportion and scale of objects to be described, students evaluate which is the best composition to draw;
- are asked to use this information for the purposes of creating an innovative composition,
- strengthen eye/hand coordination via constant inquiry (is the drawn object similar in scale and proportion to the seen object);
- must use creative thinking to select and create the most accurate, innovative composition.
II. Research Question
How does analysis of still life comparing various compositions using mobile device impact students’ use of critical thinking skills to create the most innovative composition?

III. Literature Review


Katherine Bull plumbs her experience teaching drawing at the University of Cape Town. “For this article ...Katherine Bull... would like to share these projects and discuss the relevance of incorporating multimedia engagement in the teaching of traditional drawing at a tertiary level. First, moving images, sound, digital devices such as smartphones, tablets and engagement in online platforms are primary mediators of experience for many urban citizens. I find it relevant for students to not only reflect critically on the use of digital tools and online social platforms, but to experience and explore engaging with them directly as an experience by making them physical through drawing. In my experience through my teaching practice I have observed how this embodiment of the technology can provide useful tools of processing the volume of immaterial information that we engage with on a daily basis.”


“There is continuous debate on the role of digital media tools in art and design Higher Education, and in particular their potential contribution towards teaching and learning. The related literature indicates that there is a dichotomy between digital and traditional tools. This study investigates the views of a cohort of art and design students who undertook a specific instructional task, but instead of using paper and pencil, they used iPads. It is claimed that this computer tablet has
considerable potential to enhance teaching and learning, and this study sought to investigate this claim. Inductive qualitative content analysis was used to analyse the interviews provided by 32 (n=32) students. Based on the categories that emerged from the analysis of interviews, and within the parameters of this study, the main inference is that the relationship between digital and traditional tools can be better understood as complementary rather than as a dichotomy.”

Nicos Souleles, Stefania Savva, Hilary Watters, Angela Annesley and Ben Bull. A phenomenographic investigation on the use of iPads among undergraduate art and design students, British Journal of Educational Technology Vol 46 No 1. 2015

“This paper describes the first stage of a research project on the use of iPads in undergraduate art and design disciplines, and is a collaboration between the research lab “Networked Learning Technologies in Art and Design” at Cyprus University of Technology, and the “Centre for Pedagogic Research” at Falmouth University in England. The participants from both institutions provided a student-centred perspective, and the qualitative analysis (phenomenography) revealed varied perceptions. Based on the findings of this project, the implication is that there are a number of challenges and obstacles in embedding the use of iPads in art and design education. Further research in the second stage of this collaborative research will investigate the views and motivations of art and design faculty.”

IV. Intervention

Project #1: Bottle Drawing

Students analyze the still life and evaluate various viewpoints to determine which is the best composition to draw. In addition, students are asked to gather information: experientially confirm a vital visual clue to space - namely that objects appear to rise on the picture plane as they get farther away.

Intervention:

A. Students use the pinch and zoom feature to determine the scale and proportion of the objects, without changing viewpoint, so that the objects occupy the entire picture plane. Students will need to analyze their choices and select the strongest composition.

B. Students photograph their composition and use the IPad pencil to analyze space: identify the base line for each bottle, such that they comprehend that objects appear to rise on the picture plane as they get farther away.
Additional Resources: Need pencil for IPad, Apple TV

Project #2 Balloon drawing

Students must evaluate which is the best composition to draw. Students are required to analyze proportion and scale of objects to be described. Students are asked to pay special attention to negative space.

Intervention:
A. Students photograph a composition from their drawing table. The compositions are shared via Air Drop, a photo album or, more clumsily, on Google Drive. Students analyze and evaluate the compositions via comparison. Students will be able to see compositions of the still life viewed in the full round and confirm if they have indeed selected the best viewpoint to create the most innovative composition. Students are then encouraged to move their desks and select a favorite viewpoint.
B. Students use the pinch and zoom feature to determine the scale and proportion of the objects, without changing viewpoint, so that the objects occupy the entire picture plane.
APP: Composition, Additional Resources: Need AirDrop, Apple TV

Project #3 Linear Perspective drawing

Students draw a still life which contains geometric volumes (boxes) viewed in single and two point perspective. Before they begin to draw, students analyze their point of view to identify the horizon line and evaluate how much of the top each box is visible.

Intervention:
A. Students will use 3DCio app to confirm that as the object drops below the horizon line, more of the top is visible and that the reverse is also true: as objects appear closer to the horizon line, less of the top is visible.
B. Students use 3DCio app to move the corner of a volume - observed in two point perspective- to the left and to the right to understand how the image of the volume changes. Students use Sketchup to create a cubic volume which matches a seen box.
APP: 3DCio, Additional Resources: Apple TV

Project #4 Develop drawing with a strong focal point

Students apply knowledge gained in class to create a strong composition with clear description of space, accurate proportions and accurate scale. An area in that composition is then emphasized to create a focal point.
Intervention: Students select one of the four points of intersection in the “Thirds” viewfinder (in the Composition App) and turn it into a focal point.

App: Composition App, Additional Resources: Apple TV

V. Data Analysis

Data Source
Students who complete Drawing I ARTS1316.015 SYN 58775 (Fall 2018, taught without iPad) or Drawing I ARTS1316.002 SYN 68516 (Spring 2018, taught with iPad) will be the subjects. The four drawing projects outlined above will be compared.

Data Collection
Grades earned for similar assignments - once taught without iPad and one taught interventions on iPad - will be compared. Grades are parsed on a rubric. Particular skills contained in the rubric can also be compared. Final grade point averages can also be compared.

Analysis
Qualitative analysis is used to assign points according to a rubric. Quantitative analysis: grades earned in class taught with iPad will be compared to grades earned in class taught without iPad but same syllabus.