Augmenting Existing Studio Methods for the Future Designer

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Abstract

Our first-year studio pedagogy augments style- and craft-based teaching approaches in order to prepare students for a future of design that considers complexity and interacting systems beyond those that directly relate to producing services or products. It is our belief that comprehensive skills in thinking and making allow an individual to make better informed decisions. First-year studio classes should be where design is demonstrated as more than enhancing content visually. Design framed as investigating and inquiring through the needs and motivations of the diverse range of humans that interface with it is more aligned with contemporary and future needs of both the design profession and societies at large. Essentially we want our students to be able to analyze a situation/opportunity/issue and be able to determine which method(s) will best serve the investigations and explorations they will need to undergo in a given context. The theories that we are presently researching include experiential learning and transformative learning. These two theories support our curriculum development to advance learning styles that place more import on research and process in the first and second years of education at OCAD University.

Keywords: design, pedagogy, writing, transformative learning, experiential learning, writing across the curriculum, writing in the disciplines, writing as process

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This paper offers perspectives on the evolution of our first-year studio pedagogy as we work to prepare students for a future of design that considers complexity and interacting systems beyond those that directly relate to producing services or products. This is not a unique idea. Design educator Meredith Davis has been disseminating her beliefs that design education needs to be reconsidered for over a decade and often calls educators to action. Are the approaches we are taking in studio classes out of habit—this is how I learned, so this is how I teach—or are they attempting to address and prepare students for future needs? Davis sees a future that focuses on:

> Understanding people in settings…the ability to frame investigations in terms of people, activities, and their settings…this is an attempt to zoom out to a larger picture where a design problem is situated and not just to get caught up in the object and format but to understand the motivations that have brought people to that information in the first place (Davis, 2012, 30:00).

Essentially we want our students to be able to analyze a situation, opportunity, or issue, and be able to determine which method(s) will best serve the investigations and explorations they will need to undergo in a given context. A comprehensive arsenal of thinking, making skills, and practices—in theory—should allow an individual to make better-informed decisions. To put it simply, in first-year studio, design must be demonstrated as more than enhancing content visually—because you cannot separate out content and form—rather it is about investigating and inquiring through the needs and motivations of the diverse range of humans that interface with designed things.

Our goal is to develop students who are able to make decisions on their own and articulate their intent by the end of their four-year undergraduate education. In other words,

from our pedagogical perspectives, first-year students should start off on the path to becoming autonomous designers—that is to say designers who manifest their will in that which they make.

In order to achieve this goal of autonomy, we have framed our pedagogy through experiential and transformative learning theories. For the purposes of this paper, we define each theory in the context of our intent, provide examples from assignments and student work that are evidence of this approach to learning, and identify the benefits and challenges we have observed.

Education experts Susan Warner Weil and Ian McGill explain that experiential learning can involve multiple meanings, practices, methods, and ideologies, which depend upon what challenges are being faced in personal lives, education, institutions, commerce, industry, communities, and society (Warner Weil & McGill, 1989, p. 3). Approaches in experiential learning theory (ELT) that support the development of undergraduate curriculum for autonomous learning through exploration and experimentation are relevant to this paper. Here we focus specifically on (1) learning is a process and is not defined by outcomes—we learn by doing, by making, by experimenting, investigating, and exploring, (2) learning requires the resolution of conflicts—friction and disjuncture drives the learning process, and (3) learning is a holistic process of adaptation to environments—learners must be cognizant of the many environments in which they live and work (Kolb & Kolb, 2005, p. 194). Through these three points we can communicate and establish our expectations in the studio classroom to our students: process over outcome, reflection on actions, and resolution of conflicts in both thinking and making. In our studios we refer to this as empirical research where students experiment and explore the opportunities related to a practice, a material, an idea, etc.

An example of a project that encourages experiential learning as outlined above can be found in our first-year, second-semester communication design course. The project is called

"visceral" and has students visually express the emotional and physical experience of a public space to someone outside of themselves. The project asks the students to: "Go and observe a public space. Use the principles and actions of design to visually represent that space to us." It is the responsibility of the students to determine what direction their communication needs to go in, and that direction emerges out of their observational and empirical research methods. Students have the option to explore any media in two, three, or four dimensions.

The "visceral" assignment is broken down into three stages: stage one–observational research, stage two–disciplinary research and composition exploration, and stage three–culmination. As educational theorists Kolb and Kolb explain: "To improve learning in higher education, the primary focus should be on engaging students in a process that best enhances their learning—a process that includes feedback on the effectiveness of their learning efforts" (Kolb & Kolb, 2005, p. 194). The intent with this staged approach is to have students feel supported in their exploration, experimentation, and risk-taking, and limit their fear of being penalized if trials do not go as intended. Feedback is given to students from peers and faculty through in-class discussions as well as from themselves through self-reflective writing exercises. Frequent feedback may also serve as a way to ensure that students keep the learning objectives in focus throughout the project.

The following student example briefly outlines the visceral assignment to demonstrate how a student may navigate a project informed by ELT. Student Alexander Acosta engages in learning as a process throughout the three stages of the project. As he works through his empirical research methods he engages in more rigorous exploration, which leads him to more closely realize his intent of communicating his experience of the space. This type of assignment entrusts students with discovering their own processes and defining their own outcomes based on

their findings. An instructor cannot teach process—process is unique to everyone—but they can guide a student by breaking projects down into stages that help them find alternate approaches and perspectives. For example, in stage one, students are asked to visit a public space to observe sensory experiences (e.g. sound, temperature) and document in multiple ways: drawing, recording audio, texture samples/rubbings, colour swatches, plus a written component. The purpose of this stage is to have students question preconceived notions of what sketching is. For example, how can sketching be more than realism? …can writing be considered a sketch? …how does the written word support making? See Figure 1 for samples of Alexander's process work for stage one.

Figure 1. Samples taken from Alexander's observation of a public park for stage one of the assignment. His visual documentation includes photography, sound wave drawings, audio recording, video recording, relief texture. His written documentation: Touch (temperature), smell, sound.

This type of learning has its challenges in that the beginning design student tends to be unfamiliar with the uncertainty, continuous processes involved in empirical research, and with the benefits of learning through experience. Compounding this is that many students are not accustomed to creating their own content which is a fundamental aspect of empirical research in this context as it leads the student to their own end product.

As stated earlier, ELT acknowledges that learning requires the resolution of conflicts such as: becoming aware of, articulating, and analyzing the friction and disjuncture in their processes. We have found that the holistic integration of written exercises supports students with these challenges. Guiding students through integrated processes of making and writing reassures students that taking risks, exploration, experimentation, and working through uncertainty are integral parts of the learning process.

Stage two introduces precedent examples. In class, we shared inspirational slides, books, and samples covering contemporary designers working in two, three, and four dimensions as a way of contextualizing the project within a variety of design practices. By showing examples of other designers' work, students become cognizant of the relevance of what they are doing in relationship to their discipline. Students then worked in small groups to discuss how the information gathered in stage one could be built upon with the intent to communicate sensory experience through primarily visual representations as inspired, contrasted, or influenced by the precedent examples. Finally, students created three distinct attempts at communicating a visceral response to their space. The purpose of this stage is to have students use materials and self-selected techniques to support the communication of their intent within their project. Students were also asked to write a succinct paragraph on one or more designers who they discovered in

class or found on their own, explaining how that work inspired, influenced, or contrasted with their own. See Figure 2 for samples of a student's process work for stage two.

Figure 2. Samples taken from Alexander's second stage process. The student created a map of the space, which plotted sound using colour, symbols, and bars (two-dimensional), a cardboard tube structure using texture to signify senses (three-dimensional) and an illustrative flip book. The flip book was his attempt at four-dimensional design. Alex was not familiar with four-dimensional software and thus shied away from experimenting with it. Alex found inspiration in Milton Glaser's bold use of flat colour, Ryuichi Yamashiro's use of typography and colour to create landscapes, and the work of video director David Wilson, making links between drawn sound waves and the video "Do You Wanna Know" by the Arctic Monkeys.

Finally, stage three has students referring to the feedback from in-class critiques, discussions, their initial observations, and explorations in making in order to revise and refine their work for discussion with the class (see Figure 3). The purpose of this stage is to teach students decision-making skills based on intent versus subjectivity or familiar habits in making. Although ELT sees learning as a process and not as an outcome, students must recognize that projects have deadlines—although most creative processes could continue endlessly—at some point work must be refined and formalized. Emphasis is placed on the notion that design is inquiry—there is never one "best" answer—and choosing an option is guided by intent and context. In this case, communicating the visceral experience of the space, observation of the space, and influence or contrast to precedent examples.

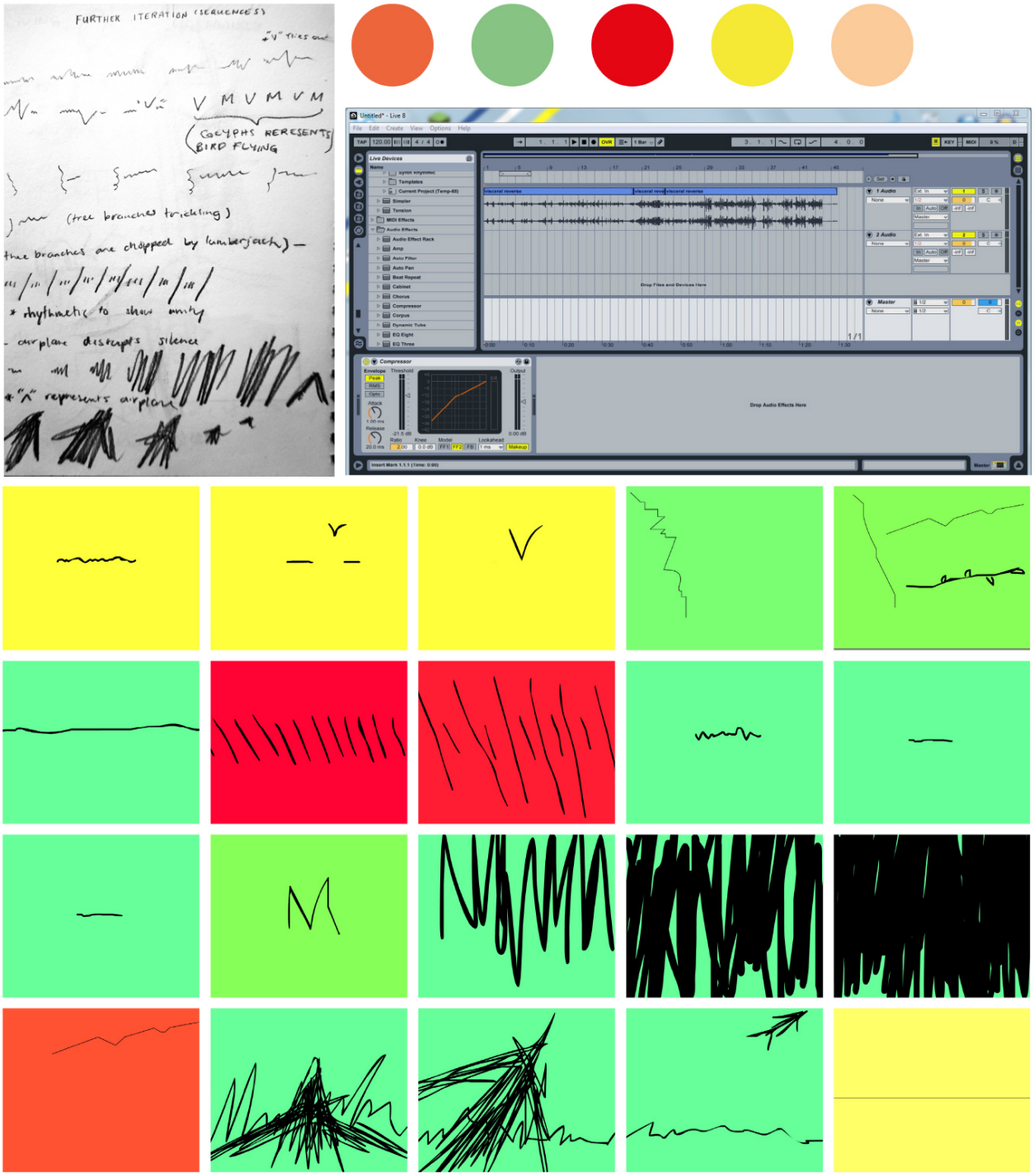

Figure 3. Samples taken from Alexander's process for stage three. Through feedback Alexander realizes that the flipbook from the previous week was not communicating his intent successfully. Thus he translates the flipbook into a Flash animation. He also creates his own

audio to accompany his animation by creating a piano composition inspired by the sounds he recorded in week one. He recorded the piece and plays it backwards in order to abstract the obvious voice of the piano and to communicate his intent: a peaceful park setting disrupted by the audio of machinery.

Scaffolded, process-driven, experiential projects help the beginning design students recognize that they have their own unique working processes and these processes may be very different from those of their instructor. Process-driven projects also promote a degree of uncertainty and friction within the students themselves and with their environments, which helps foster students' willingness to question themselves, their materials, and their methods. This not only encourages autonomy in learning, thinking, and making, but also meta-cognition. This type of learning may begin to reveal to the students that they have, and rely upon, personal frames of reference. This revelation is essential in order for students to recognize their own biases in order to become more critically engaged not only with themselves, but also with the environments around them. This level of criticality is augmented and furthered by the use of transformative learning theory.

A student having undergone a four-year education should leave OCAD University autonomous in their making and thinking practices. While there are a few framings of transformative learning theory (TLT) that we believe contribute to the making of an autonomous designer, this paper focuses on American sociologist Jack Mezirow's framing of transformative learning as the altering of self, including revisions of belief systems and behavioural changes that are relevant for first-year learners. The master/apprentice model for design education emphasizes the craft aspects of design—the how-to as a kind of transmission education. While we believe that craft and form are essential to design practices, we use TLT to augment the

students learning experiences by emphasizing thinking on a more philosophical level. As outlined by adult education experts Cranton and Taylor in "Transformative Learning Theory: Seeking a Unified Theory," Mezirow grounded transformative learning theory through constructivist assumptions (Cranton & Taylor, 2012, p. 5). Mezirow argued that the world did not hold universal truths for us to uncover, but that we determine the meaning of our experiences (Cranton & Taylor, 2012, p. 6). Therefore, we see the world through the perceptions of those experiences which leads us to "develop habitual expectations based on past experiences" (Cranton & Taylor, 2012, p. 6). When we come to experiences that challenge those habits we have an opportunity to transform our perspectives. If our goal is to support students in becoming autonomous designers then teaching skills related to questioning, reflecting, and revising perceptions of experience should be introduced and reinforced each year, starting in first year.

We recognize that a transformative learning experience is rare because at its core someone is changing their worldview, their perspectives, and behaviours. So for us in first year, TLT supports setting the stage for action and change within each individual student. We need to trust that individual students will find their own way at their own pace in relationship to their learning experiences. As instructors we then must be prepared for the strong and varied reactions that come with the terrain of this kind of educational philosophy and anti-passive learning approaches. We are here to provide the space, challenges, and support to foster transformative learning in order to create autonomous designers.

We believe that in order for transformative learning to occur many first-year students must come to the realization that they have biases, assumptions, and personal frames of references. In our classes we help our students recognize this through specific exercises and assignments that foster and challenge habits of mind and points of view. An example of this can

be found in our in-class exercise called "drink it up." Over the course of three weeks, students work through their own preconceived notions, gather information, and question their sources (see Figure 4).

Stage one:

Notions of opinion, pre-conceived knowledge, naive research practices.

Students worked in groups to document their preconceived knowledge or assumptions on one of five packaged beverages. At home they searched for information to present to the class that either supported and/or disproved their belief.

Stage two:

Presentation of findings and sources, augmented searches are assigned per person and based off what and how certain information was gathered.

Students presented their findings in class. This was followed by a lecture on best practices in relationship to the web and challenges found in certain best-practice approaches.

Stage three:

Re-presentation and reflection on existing processes and how/what students have learned over the last few weeks will inform how they gather information moving forward in both their thinking and making practices.

Students' gave follow-up presentations where they dug deeper into their topics or challenged their sources.

Figure 4. Instructions for the three stages of the "drink it up" theoretical research exercise.

This exercise begins to reveal to students the importance of information gathering beyond consumption of "facts." This begins the journey towards the realization that the world is comprised of complex systems beyond their personal experiences. When we have frank discussions over the course of an exercise such as this, we as faculty can uncover where our students are in their understanding of how to access information—we need to think through the assumptions (e.g. research skills) we have about our learners so that we can tailor our support materials and resources in the moment.

Below is an example of a student, Lucia Kim, coming to the realization that typing a question into Google will not automatically result in the specific answer she is looking for. The student is searching for proof of her belief. When Google does not give her the answer she

thought would exist, she has to reconsider her perception of the situation in a variety of ways. She comes to understand that what she initially set out to find isn't exactly where she ended up:

> What I took away from this exercise is that you may go into research with assumptions but that can change when you begin to research. It is important to understand that the specific question that you are researching won't always be answered. You need to look for new ways and perspectives to tackle your questions (Lucia Kim).

The student goes on to say:

> I believe that the reason why we had this exercise in a studio course is because art and design also works the same as researching information: approaching design in different directions, trying many things and going through many iterations and failures. With all the experiences you have gained through the process, you will be able to put them together and come up with a final design, just like the gathered evidence makes up the answer to a question (Lucia Kim).

Here we can see the student is making connections between her research and making processes. Thus, she is connecting this learning beyond the exercise into other aspects of the studio classroom—her making.

This exercise runs in tandem to an empirical research project, "information need," in order to have first-year students see that critical thinking can be done both verbally (theoretically) and visually. Over the course of the project, students must answer self-reflective questions to encourage them to consider their personal making processes and progress. For example, we asked, "Describe your experience with this project. What we are looking for with this response is your perspective on the uncertainty of the project's outcome."

One student responded that her process was very slow and that she would constantly feel like she was doing the "wrong" thing. This comes after being told that when conducting empirical research there really is no wrong—a common belief system of the beginning design student is this binary of right and wrong. Even though she is aware that there is no "correct" answer, it is challenging to shift out of such ingrained habits of mind.

Another example of first-year student reflection is Lucia's written response in which she touches upon both experiential and transformative learning:

> I was getting confused by the word "sketch," because in my perspective, sketch was a visual representation of an object or an idea in a way that I see it in my head. But for this project, it triggered a question of what really is a sketch? With the scanner [moving images while scanning], the outcome was unexpected just by the method itself, so it did not confuse me during the process, but I did wonder what this is leading to, and what I am trying to depict through this process. I knew that there is no right or wrong at this stage, but I kept looking for an answer, a specific destination (Lucia Kim).

Lucia begins to relearn what it means to generate process work through her questioning of the term "sketch." She has a specific belief that a sketch is pencil on paper, but this project begins to challenge this belief, which is a moment of transformational learning through experiential learning.

As demonstrated in the examples, these beginning design students are not comfortable with self-directed explorations and risk-taking. The binary of right and wrong dominates many of the reflections we received at this stage. If our goal in first year is to start students on a path to autonomy, we need to begin to help students break down these barriers to learning.

Using the theories of transformative and experiential learning we can create exercises and assignments that challenge students' beliefs and support their ability to recognize and develop their own working processes. ELT and TLT place a great deal of the educational responsibility on the students—students must engage if they want to progress. These methods of teaching help eliminate complacency and encourage students to move beyond relying on their habits of mind as they begin to see that innovative results come from the processes of exploration and experimentation not only on what worked in the past. Furthermore, by challenging and reflecting on our teaching methods we as faculty are also using ELT and TLT in order to develop curriculum that moves beyond the belief that the gathering of information, thinking, and making is defined by a narrow or limited set of methods or purposes.

References

Davis, Meredith. "Undergraduate educational outcomes and competencies in communication design." *AIGA*. Ric Grefé. 08 2012. https://myaiga.adobeconnect.com/ _a947923458/p1ny269eefq/ ?launcher=false&fcsContent=true&pbMode=normal (accessed 10, 03, 2015).

Kolb, Alice Y., & Kolb, David A. (2005). Learning styles & learning spaces: Enhancing experiential learning in higher education. *Academy of management learning & education*, 4 (2), 193–212.

Mezirow, Jack. (1997). Transformative learning: Theory and practice. *New directions for adult and continuing education* (Jossey-Bass), 74, 5–12.

Taylor, E. W., & Cranton, P. (2012). *The handbook of transformative learning: Theory, research, and practice* (1. Aufl.;1; ed.). Hoboken: Jossey-Bass.

Warner Weil, S., & McGill, I. (1989). A framework for making sense of experiential learning. Making sense of experiential learning: Diversity in theory and practice. Bristol: The Society for Research into Higher Education.