Rethinking and Remaking a High School Art Foundations Curriculum

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ABSTRACT

Rethinking and Remaking a High School Art Foundations Curriculum

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This research study examines my experience as a high school art educator as I attempted to rethink and remake a high school art foundations curriculum. For this study, I utilized a theoretical framework of complexity thinking as it pertains to the dynamic phenomena of teaching and learning to critically approach and challenge traditional pedagogical approaches to teaching an art foundations course. Processing data collected from two classes over the course of a semester (January-May, 2016), I utilized a Design-Based Research (DBR) methodology to iteratively examine the effects of a newly designed curriculum whose central focus was to promote the potential benefits of treating contemporary artists as creative role models by examining various aspects of their artistic practices with students. Through the experience of this study, I found that greater success and stronger student engagement could be cultivated in a high school art foundations course by 1) conceiving of the classroom as an ecosystem, 2) welcoming the tension between contemporary curricular choices and the many traditional structures in his school, and 3) advocating for a classroom culture and class time to be focused on ideation, studious play, and ambiguous spaces to cultivate more authentic and meaningful art projects.

Keywords: complexity thinking, design-based research, contemporary art, art foundations, curriculum, high school

Acknowledgements

Dedication

For William "Bus" Gillespie (1952-2018)

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Preface

When I officially began my career as an art educator at a junior high school in 2007, I quickly realized what I was up against. Classes filled with young people who, for the most part, did not seem to care about art as much as I did. As the teacher, I was always trying to come up with ways to engage students and connect them with my own love and fascination with art. As a new teacher, I also quickly realized how multifaceted the demands of the job were. I found my energy and attention were being divided in many directions, often at the same time. Developing curriculum, figuring out effective and clever ways to communicate with my students, ordering new supplies, perpetually cleaning, assessing student work, dealing with behavior issues, handling difficult or sensitive situations, and the ongoing, reflective process of making adjustments to all of these things proved difficult as I tried to find a practical balance between all the demands in my position.

As I have continued to teach secondary art classes, I have worried less about compartmentalizing and separating all of these aspects of being an educator. I have since become increasingly aware of how these things are tacitly connected to me and to each other. These dynamic issues and actions are inherently relational, responsive, and contingent upon the environment in which they are situated.

The physical environment of my art classroom does not change much. New students inhabit the space each semester, always with new and unique personalities, experiences, and histories, which inevitably create unique situations in which teaching and learning can emerge. The numerous, fluid dynamics of students' participation, my curriculum design, and the many interactions between them and me in each class influence the living classroom environment, like an ecosystem, in a way that is perhaps more difficult to see than the physical environment by itself, but matter very much.

A Note about Images

I have included images at the beginning of each chapter--reproductions of paintings I made as a further investigation and contextualization of this research. These works are part of a series I call "Portraits of Learning." Each of these works involves a process in which I ask a student to do a photoshoot with me. Together, we quickly improvise with whatever materials that are at hand to set up a unique pose that position the student amidst a series of visually conspicuous layers (including paint, paper, lights, projections, lasers, or colored mylar) to create an idiosyncratic photo portrait. I then process the photograph into a painting. I interpret these paintings, which are borne from the interactions, negotiations, and relationships of trust that unfold during the process of working with the student, together to be a metonym for this study.

Figure 1.1 "Pete with rubber bands in a purple butcher paper curtain" Gouache on paper, 30" x 22"

Chapter 1

In 1955, Manuel Barkan addressed a myriad of questions and concerns regarding what he considered fundamental to teaching art in his seminal work *A Foundation for Art Education*. This book was written in a time and place when the field of art education largely favored a curricular emphasis on children's self-expression. However, Barkan envisioned a more ambitious and pragmatic role for art education at the time, that art could be a means for children to connect with others, to make sense of their world, and to provide potential access for students to engage with the social and practical problems in their lives. He was interested in establishing a useful platform to aid teachers in thinking and designing effective methods and curricular interventions to help students experience enriching, inspiring and engaging creative impulses. Barkan also hoped and expected that students' exposure to and immersion with art experiences at school would help them develop abilities to become thoughtful, productive, and creative contributors to a democratic society (Barkan, 1955; Castro, 2014; Efland, 1990; Zahner, 1987).

I resonate with many of the same concerns and issues from Barkan's book as an art educator writing this dissertation 63 years later. Juan Carlos Castro (2014) recognized the relevance and importance of Barkan's early influence on the field of art education, and argues that his work can and should connect to contemporary discourses both in and out of the field of art education. My work arrives at a time when considerations of teaching and learning are increasingly regarded as complex phenomena within the field of art education. The field houses a vast constellation of histories, narratives, and research related to teaching art in a variety of classroom situations and curricular approaches (Chalmers, 2004; Efland, 1990; Zimmerman, 2009). I revisit many of the questions and issues that Barkan addressed in relation to teaching art foundations, and confront the many particular implications and problems I face as an art educator and researcher in the 21st century.

Background/Positionality

Across North America, *Art Foundations* is a common name for an art class offered by many secondary schools. As its title and course description often suggest, the curriculum functions as an introductory art course, and the content of the class is assumed to be *foundational* to helping students gain artistic practice, knowledge and experience.

As a teacher of art foundations courses in a rural/suburban public high school in Utah for eight years, I have been interested in the many different ways *Art Foundations* might be considered, interpreted, and taught to students. My research focuses on rethinking and remaking a new curriculum for a high school art foundations course that creates possibilities for

students to have more meaningful and engaging experiences with art in secondary school. The driving ethos underlying this research and designed curriculum is to help students find more effective ways of thinking, inquiring, and creating like contemporary artists, or as Graham and Hamlin (2014) advocate, to regard contemporary artists as "creative role models" (p. 48).

This qualitative study revolves around the emergent possibilities that arose with the enactment of this curriculum that I designed for the 67 students of two different classes of my art foundations course during one semester (January 19 to May 27, 2016). My position was both that of the educator of the two classes as well as the principal researcher of the study. As the teacher, I was responsible for the curricular design and the subsequent choices related to class projects that happened during the semester. As the researcher, I was responsible for the choice of data collected, as well as for the ways in which I processed and ultimately chose how to present the findings, implications and recommendations in this study.

Statement of Problem

This study is situated at the intersection of many conversations within the field of art education. Considering the many histories, traditions, cultural implications and differing approaches to teaching art in schools, this research shows my individual motivations behind and attention to developing an engaging high school art foundations course. It has been formed through the lens of my personal experiences, reflections, and strengths, as well as my personal biases and limitations. Two main questions guide the overarching direction and focus of this study and provide specific direction in my research:

1. How might a contemporary curricular approach to teaching a high school art foundations class afford students to learn to inquire, think, and make work like contemporary artists?

2. How might a complexivist view of teaching and learning inform a study that revolves around a curricular structure designed to include contemporary art in the high school classroom?

I agree with Barney and Graham's (2014) assertion that the metaphor of *foundations* as a static or fixed structure which determines the shape and basic layout of a building is fraught with difficulty and complication when brought into the art classroom. This metaphor is especially problematic as it relates to this study since I am interested not only in the curricular possibilities associated with contemporary art practices, but also in complexivist views of teaching and learning.

Designing a curriculum for a high school art foundations course comes loaded with many questions and uncertainties (Barney & Graham, 2014; Duncum, 2010; Gude, 2007; Tavin, 2000; Walker, 2001). I have focused on the following questions in order to approach and address the

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two main research questions above:

- What does it mean for something to be *foundational* to teaching and learning about art?
- What are the different philosophical viewpoints, historical traditions, and approaches to teaching a foundations course for the visual arts, and what are the strengths and limitations of each of these different approaches?
- What are the differences and/or similarities between the curriculum of an art foundations course at the high school and university level?
- Should a foundations course focus more on formalist tenets of skill and craftsmanship that align with traditions of elements and principles of art and design typically associated with the Bauhaus? Or is there space in a foundations curriculum for an emphasis on more contemporary, process-based, performative, conceptual, and experimental modes of artmaking?
- How could the practices of contemporary artists connect with teaching and learning in an art foundations course?
- What are the most important curricular decisions that the teacher can make when leading an art foundations course?
- Should universal standards be put in place to guide an art foundations education, or should every teacher approach it with their own individual experiences and pedagogical preferences?
- How does complexity thinking inform and address the dynamic phenomena of teaching and learning that occurs in an art classroom? How can complexity thinking inform and connect with an art foundations curriculum focused on contemporary artists?

When these questions are presented together, the complicated, nonlinear, and problematic nature of this study becomes more apparent. This research addresses the uncertainties and ambiguous spaces within all of these overlapping curricular questions (Castro, 2012; Irwin, 2003; Kalin & Barney, 2014b; Pinar, 2012). By focusing on engaging students through an emphasis on exploring the practices of contemporary artists, this research illustrates how I was able to rethink and remake a high school art foundations curriculum.

Curriculum Design

I designed a curriculum that aims to critically and iteratively examine a range of specific artistic practices that include, but are not limited to, many contemporary artists interested in producing idea-driven and at times socially conscious artwork that draw from a diverse range of materials and which operate within a variety of contexts. I sought out and utilized materials and content that exhibit contemporary art practice to inform my curricular choices. The structural

formation of my curriculum encompasses the following questions as they relate the work of artists. With the help of my supervisor, Juan Carlos Castro, and within the context of many of the curricular materials I wanted to use for this study, This list of concise questions that I created are meant to be adapted to more deeply examine an artist's practice. The origin of the questions has roots within my experience as a participating member of Art21 Educators, which I discuss in further detail in Chapter 3. I refer to these as my "eight questions of artistic practice":

1. How do they get *inspiration*?
2. How do they *start*?
3. What *questions* do they deal with?
4. How do they *research*?
5. How do they deal with *materials*?
6. What is involved in their *production* process?
7. How do they *reflect* on their work?
8. How do they *exhibit, present*, or *disseminate* their work?

By iteratively referring to these questions throughout the semester with my students, we were able to create a climate within the classroom that advocated for a deeper exploration and understanding of many contemporary artists' unique practices. Exposing students to a variety of artistic practices and simultaneously responding to these curricular questions as they arose allowed unique opportunities for teaching and learning to emerge in complex ways.

This study not only challenged and disrupted some of the traditional assumptions surrounding perceived *foundational* ideas in an introductory high school art class, but engaged students by connecting their experience in the classroom with thoughtful and authentic contemporary art and art practices. It also contributes to relevant conversations in the field of art education and can be used by other practicing secondary art teachers as they consider ways in which they navigate their own pedagogical practice. His study also gave me an in-depth opportunity to practice and reflect on the learning and teaching that happen within the context of my art classroom.

Definitions

Complexity thinking.

Complexity thinking is an approach that involves attending to the phenomena that emerge from a collection of interacting objects or agents. Complex systems are typically described as dynamic, ambiguously bounded, self-organizing, and nested structures that rely on

feedback from interactions within itself, as well as from their immediate environment, in order to adapt and thrive (Castro, 2012; Davis & Sumara, 2006; Doll et al., 2005; Johnson, 2007; Juarrero, 2002; Koopmans, 2017). In this study, I treated the ways of knowing, teaching and learning with a theoretical lens of complexity thinking. A more in-depth treatment of complexity thinking is included in the second part of Chapter 2.

Design-Based research (DBR).

I have used design-based research (DBR) methodology to iteratively and reflectively examine the dynamic learning that occurs through a designed curriculum structure. Using a DBR methodology allowed me to account for and describe the various complex learning systems as they relate to my own specific real-world teaching context, as opposed to a laboratory setting, with the goal of improving practice and studying phenomena continually and reflexively within a context-sensitive setting (Anderson & Shattuck, 2012; Barab & Squire, 2004; Castro, 2012, 2010; Cobb et al., 2003; Wang & Hannafin, 2005). I give a more comprehensive description of DBR as it relates to my study in Chapter 3.

Contemporary art.

Contemporary art is the work of artists who are living and working today. I specifically regard the work of contemporary artists as a dynamic combination of materials, methods, concepts, and subjects that often challenge traditional boundaries. Contemporary art can be a rich resource through which to reconsider and rework current ideas and rethink familiar things and relationships in life. While I recognize the potentially difficult and interpretive history of this term, for this study I chose to examine the work of several contemporary artists that were relevant, interesting, and clever, while also appropriate for my immediate community, engaging for student learning, and analogous to whatever studio project(s) the class was studying in the designed curriculum.

Thesis Organization

In Chapter 2, I give an in-depth treatment of the review of literature as it pertains to my study. I discuss the history of and philosophies about what art foundations can mean, especially in a classroom situation. I examine a history of art education curriculum development, the benefits of pragmatist approaches to pedagogy, as well as the merits of contemporary art in my curriculum. I also discuss the theoretical framework of complexity thinking which I used to put this study together. Specifically, I address both the affordances as well as the limitations of

complexity thinking as it pertains to this research. I end this chapter with a descriptive illustration of Thomas Hirschhorn's *Gramsci monument* as a model for a dynamic example of the overlap between contemporary art and complexity thinking.

In Chapter 3, I explain the implications of my chosen methodology, design-based research (DBR). I describe in detail the context of my own teaching situation, including a brief history about the school and classroom, as well as some of my own personal biases, influences, and history related to the research site. I describe the structural details about the two art foundations classes included in the research. I also discuss the methodologies and criticisms of DBR studies, and I specifically address the overlap and potentially advantageous congruences between DBR and complexity thinking.

Chapter 4 outlines the data I collected from my classes during the semester in question. I organized Chapter 4 chronologically by each of the 13 class projects. Included in each section are descriptions about each project, including specific information about the curricular choices used, such as the professional artists examined, questions posed, and student responses and actions that occurred. Each project description in this chapter is accompanied with a section of analysis as well as some notes about the iterations of each project. This chapter has several figures and photographs to help illustrate the findings from the data.

Chapter 5 includes the salient findings, theories, and recommendations resulting from the data discussed in Chapter 4. I outline in depth three specific points of interest from my research, and I discuss each as they pertain to my own teaching context, as well as how they may connect with other educators in similar situations. Each of these three points connect to ideas on curricular choices, complexity thinking, and contemporary art in the classroom. I also offer specific directions and recommendations for how to improve pedagogy within the constraints of a real-life context of teaching situation. I then offer a brief conclusion about the research study as a whole. I revisit connections with Thomas Hirschhorn's practice again as it parallels my own interests as an art educator and offer my final thoughts as well as my future research interests and directions I hope to pursue as I continue my academic career.

Connections to the Past and Connections Looking Forward

I regard the rather unseen, complex structure that constitutes the environment of an art classroom to be extremely important for student learning. As an educator, my goals revolve around connecting with and engaging students' focused energy and attention. I humbly consider this study an homage to Manuel Barkan and the past work he contributed to our field. I also submit this work as a representation of my own focused energy and attention as it connects to

the ideas, efforts, and participation of those involved with this research as I move forward to create meaningful understandings and connections in the future.

Figure 2. 1 "Melissa with circles and hands" Gouache on paper, 30"x22"

CHAPTER 2

Introduction

The first part of this chapter attends to the literature of teaching and learning about art, specifically a brief history of curriculum developments within the field of art education, as well as the treatment of *foundations* within art education. I also discuss the role of contemporary art as it pertains to my curriculum design, as well as the literature in and around the concepts of learning and knowing as embodied phenomena. I also review some of the literature relating to student autonomy and the tension between student freedom and the control of the teacher, and how those elements can be shaped to allow for conditions of emergence to occur in the classroom.

The second part of this chapter treats my chosen theoretical framework of complexity thinking. In this section I outline a description of complexity thinking as it relates to my research, the affordances and limitations of using a complexivist perspective of teaching and learning, and how learning systems function in and around my teaching situation. I end by describing the work of Thomas Hirschhorn as a model for an artist working within and through a complex system through one of his socially engaged art projects, *Gramsci Monument*, and I draw connections between his work and my own research as an example of how complexity thinking can intersect with contemporary art practice as a series of ongoing pedagogical interventions.

PART 1: Review of Literature

Designed Curriculum

The term *curriculum* can be interpreted in many ways and can mean several things to different people (Connelly & Clandin, 1988). For the purposes of this study, I will refer to curriculum as a complex and dynamic set of interactions designed by the teacher to allow learning to emerge and to help students make new connections and build new understandings (Miller & Seller, 1990; Aoki, 2004).

Discussing the role of teachers as they seek to develop curriculum, William Pinar (2012) states, "[...]through the subjective reconstruction of academic knowledge and lived experience-- as each informs the other--we enable understanding of the public world as we discern our privately formulated way through it" (p. 45). The different ways teachers bring to life the subject of their classes are interconnected with the personal understandings of and engagements with the life of the teacher. Theorizing about the importance educators have in developing meaningful and transformative curriculum, art education scholar Rita Irwin (2003) discusses the

concept of *attunement to others* as a way in which teachers make an effort to become more aware of their own tacit knowledge, and to recognize how knowledge often comes from one's senses and intuition in order to inform the development of their curriculum.

For this study, my role as the teacher and researcher was very important in determining what kinds of curricular decisions I made while teaching my high school students. How I am "attuned," or how I enact, reflect, respond, and adjust my designed curriculum necessarily influenced the process and outcomes of my study. It is an important distinction for me to make about curriculum and this research. The more traditional notion of curriculum as a static, one-size-fits-all playbook or set of rigid instructions to simply be implemented onto, unto, or into students is not how I have tried to conceptualize curriculum. For the purposes of this study, I have treated curriculum as a dynamic, fluid, and responsive structure that is contingent upon the various interactions between the teacher, the learner, and the learning activities and conditions that have been designed, prepared, and presented to provide opportunities for learning systems to flourish.

A Brief History of Curriculum Development in Art Education

It is important to address art education literature regarding artistic practice, student voice, and contemporary culture as they relate to the art classroom. I discuss several authors that have given insight and elaboration to the theoretical developments that affect these areas. This is not meant to be a comprehensive treatment of the history of curriculum studies in art education; rather, I retrace some of the significant historical connections that are relevant to my current situation as an art educator and curriculum designer. I draw from a constellation of sources in order to piece together many ideas and impulses from the field to make my case.

Early developments.

Most of the documented research, literature, and case studies regarding public art education began in the late 19th to early 20th centuries.English writings mainly originated from the United States, England, and Canada (Chalmers, 2004). Much of this early documentation from the 19th century indicates that public art education was culturally perceived largely as a vocational educational option that gave students an opportunity to develop manual skills by taking linear drawing classes (Stankiewicz, Amburgy, & Bolin, 2004). Several of the curricular approaches to teaching art at this time derived from Walter Smith, an alumnus from the influential South Kensington system in Great Britain (Chalmers, 1998). Smith produced and distributed many drawing manuals adapted and used throughout the Eastern United States and Canada in the late 19th century (Pearse, 2006). Lessons in botanical drawing, landscapes, and

watercolor studies were also considered "disciplines of cultural refinement" (Soucy, 1987). Smith's publications were very influential to the way art was perceived, taught, and learned in classrooms. The role of art education in schools at this point was not perceived by most schools as an essential discipline, but was slowly gaining social acceptance as a viable subject to be taught in schools.

Self expression.

During the 1940s and 1950s, the dominant theoretical focus of art education was connected to children's self-expression. Viktor Lowenfeld and W. Lambert Brittan led the field of art education in the United States with their seminal text *Creative and Mental Growth* (1975). They outlined several stages of artistic development in children and advocated for educators to pay attention and give consideration to the social, aesthetic, physical, intellectual, and emotional growth of children as they connected to these aspects of life through their artwork. Specifically Lowenfeld's contribution to the field of art education greatly expanded the institutional credence and curricular possibilities of student voice through art making.

In the late 1950s and early 1960s, a significant social and political shift in general education occurred, largely due to the space race happening between the United States and the Soviet Union. Schools were federally mandated to regard the hard sciences, such as physics and mathematics, to be elevated to the distinction of *disciplines*, while other areas of study, including the visual arts, were relegated to being mere *subjects.* With this vested hierarchy also came institutional requirements that established curricular standards and quantifiably structured accountability for disciplines (Efland, 1988).

Largely due to the advocacy efforts of scholar Jerome Bruner (1961), arts education curricula began to be considered more seriously within the mainstream discussion of education. Bruner argued that curricular approaches to teaching the subjects that did not yet qualify for "discipline" status, such as the arts and humanities, could be considered as "structures of knowledge" that ought to be considered and treated with the same importance as the other, "superior" disciplines being taught in schools.

Influenced by the theoretical momentum created by Bruner, Manuel Barkan developed a discipline-oriented curriculum to be included within the realm of art education's singular focus on studio production; namely, the inclusion of art history and art criticism (Efland, 1988). The inclusion of these additional components to art education curriculum helped formally recognize and accept visual art as a discipline by federal standards by the 1960s. Barkan also wrote *A Foundation for Art Education* (1955), in which he set out to give a foundation of pedagogical

insight and guidelines as to what art education ought to look like in practice. This work drew upon the practical educational philosophies of John Dewey, the psychological influences of Sigmund Freud, and several of the pedagogical art foundations of Lowenfeld. Barkan's work not only laid much of the groundwork for the field in the near future, but as I discussed in the introduction, his influence continues to resonate with and be relevant to educators today who seek complex sensibilities related to the art curriculum. For example, Castro (2014) points out that Barkan's work intertwines with contemporary conversations about connected learning and interest-driven pedagogies.

Discipline-Based art education.

The work of Bruner and Barkan are regarded as the preliminary resources and theoretical influences for the future of the field. Later, the work of Elliot Eisner (2002) would also add to the argument that the arts held a substantive place in mainstream education. These scholars were largely influential in developing discipline-based art education (DBAE), with a focus on an integrated approach to synthesizing, studio production, art history, and art criticism (and later aesthetics) into a balanced and robust curriculum that help children gain a more thorough understanding about art in school (Eisner, 1991).

The evolution of DBAE in the United States rose to prominence as the dominant archetype for curricular design in the 1980s and 1990s. Funded by the Getty Center for Education in the Arts, DBAE was established as a more quantifiable framework which was meant to allow the teacher to help students have a well-rounded experience in their art classes by addressing the four domains of art mentioned above (Bolin, 2009; Efland, 1996; Walling, 2001). Historically speaking, DBAE was also able to give art education more credibility as a viable scholastic discipline among the other subjects being taught at schools, as opposed to the more prominent model of art education which, through most of the 20th century, primarily taught art as a means of children's' self-expression (Greer, 1997).

Other scholars have worked to develop effective curricular strategies that aim to help students make meaning with and through their artwork using concepts as curricular starting points (Taylor, Carpenter, Ballengee-Morris, & Sessions, 2006). Sydney Walker (2001) addresses a curricular approach that tries to help students create meaningful and complex engagements with art and begins by investigating big ideas and then guides students through a problem-solving process that allows space for exploration, experimentation, and delaying closure with art making. She calls this approach a comprehensive art education. Walker views

this approach as a more complete answer to the traditional kind of art education that encourages self-expression, which she argues dominated most of the 20th century.

Visual culture art education.

June King McFee's (1970) "Preparation for Art" helped advance cultural understanding in and through the arts. By expanding her range of disciplines to include studies from the fields of anthropology, sociology, and psychology, McFee's focus on the various forms of visual phenomena within cultural and social constructs in the 1960s helped lay the theoretical groundwork for the eventual development of Visual Culture Art Education (VCAE) that would occur later in the field during the late 1990s and 2000s. This movement, largely fueled by the scholarly work of Kerry Freedman (2003), Paul Duncum (2002, 2006), and Kevin Tavin (2000), was a reaction to some of the perceived shortfalls and criticisms that were created by DBAE.

These VCAE art educators called for a more inclusive and relevant curricular approach to art education that would draw from visual culture, which Freedman (2003) concisely defined as "all that is humanly formed and sensed through vision and visualization and shapes the way we live our lives" (p. 1). This approach to art education is described by Duncum (2002) as a "new paradigm" (p. 7) whose general orientation is one of understanding, not celebration. VCAE includes an attention to the way a student's experience is influenced by the popular culture of the day, as well as a connection to and contextualization of the historical roots of visual phenomena. It is also important to be able to create a space for critical examination of the meanings created by these images (Duncum, 2006). This approach to art education has attempted to create more meaningful engagements with art by creating critical dialogues, visual responses, material investigations, and connections between the past and the immediate and familiar visual phenomena that surround students every day.

VCAE was a progressive theoretical movement for the field of art education and, since its emergence in the 1990s, has sparked several debates and conversations about what a robust, challenging, socially responsible and meaningful art curriculum ought to look like.

Ongoing revisions and additions to contemporary art education.

Since the development of VCAE, several other post-DBAE, postmodern, and critically situated frameworks and pedagogical orientations have been introduced as analogous to VCAE (Efland, 1992; Grubbs, 2012; Jackson, 1997). For example, approaches that focused on *multiculturalism* (Wasson, Stuhr, & Petrovich-Mwaniki, 1990; McFee, 1988; Stuhr, 1994) sought

to help art educators recognize, respect, and understand not only the socio-cultural differences among their classes, but also develop curriculum that would be attentive and culturally responsive to their students' own backgrounds and experiences.

In the 21st century within the field of art education, an expanded curricular focus has intended to include attention to social justice (Darts, 2007; hooks, 2009), material culture (Bolin & Blandy, 2003), ethically and environmentally conscious practices (Graham, 2007; jagodzinski, 2007), socially-engaged art practice (Bishop, 2012; Helguera, 2011; Thompson, 2012), collaborative projects (Johnson, 2010; Zimmerman, 2009) and transdisciplinary arts integration (Chemi, 2014; Marshall, 2005, 2014) as substantial elements that attend to designing and enacting meaningful curriculum.

Several of these recent movements have causedart educators like myself to re-examine what the foundations of art could look like with a pedagogical accounting for contemporary art and postmodern considerations of culture. To this end, my research takes on a new kind of transformative position that endeavors to better suit the needs of a 21st century learner, a curriculum "more lively, creative, imaginative, chaotic, and complex than that given to us by modernism" (Doll, 2005, p. 47). The following outlines some of the questions and notions of curriculum as they relate to art foundations, contemporary art, and complexity.

What does art foundations mean?

"The ghost of the Bauhaus haunts art foundations" (Barney & Graham, 2014, p. 5).

One of the most central inquiries presented by my proposed study has to do with the interpretive and hermeneutic question, what does *foundations* mean within the context of teaching art? Barney and Graham (2014) approach the problematic situation by examining the metaphor of foundations and what implications have historically derived from the very language used to describe a course meant for beginning high school and university art students.

The metaphorical grammar of a "foundation" implies the secure, structural base that must be the initial phase of constructing a building:

The word foundation comes from the Latin *fundare*, 'to lay a base for.' In such a metaphor, the foundation is largely invisible, but provides an important construct of stability, which might not work with more divergent intentions. (Barney & Graham, 2014, p. 6)

Barney and Graham indicate that the grammar of metaphor "simultaneously constructs and limits our understanding of the world" (p. 5). Specifically regarding the metaphor of foundations in art education, they point out that different metaphors can provide new conceptual

understandings of the experience of making art, asking, "What if art is not a building, but rather a journey, a flight, a love relationship, an escape, or a game?" (p. 5).

The metaphor of foundations in art arguably derives in large part from the Bauhaus school of Art and Design, founded originally in Germany by a group of progressive artists, architects, designers and thinkers from 1919 to 1933. One of the main goals of the school was to create a more beautiful and functional society by aesthetically uniting form and function when considering art and design (Dickerman, 2012). Many of the elements and principles of art and design that we know today were borne from this school and are interpreted by many art educators to be universal and abstract principles that govern all aspects of art-making (Whitford, 1994). Following this logic, many art educators reduce their curriculum down to these universal and abstract parts (elements and principles of art and design) that focus on form and media; in doing so, they often omit many cultural, material and theoretical aspects related to art (Tavin, Kushins, & Elinski, 2007).

Over the past several decades, many K-12 art education practitioners have developed curricular strategies to utilize the elements and principles of art and design in their courses (Gude, 2004, 2007; Tavin et al., 2007). The elements and principles have become interpreted and sometimes even canonized as the building blocks for "foundational" understandings about how art ought to be taught and learned in schools (Duncum, 2010). However, Funk and Castro (2015) temper assumptions about practitioners' curricular reliance on elements and principles through their examination of the literature and published conversations in the field over the past fifteen years; they show that many educators involved in the more current developments of the field do not rely solely upon a curriculum based in traditional elements and principles of art.

Education scholar David Perkins (2009) diagnoses this way of learning (reducing a phenomenon to basic elements) as *elementitis*, a disease in educational institutions that places focus on piecemeal curriculum without understanding the whole of the subject in question. Perkins claims that while this approach has some short-term benefits, it is not sufficient to help students develop empowering and enlightening understandings.

Several other art educators and scholars in the field have discussed the need to develop more engaging and meaningful curriculum for a 21st century art classroom (Barney, 2009; Barrett, 2006; Castro, 2007; Darts, 2007; Tavin et al., 2007; M. Walker, 2014; S. Walker, 2001). Part of the problem resides within the nebulous institutional label of *Art Foundations*. Many students in the Utah community take some kind of art class entitled "Foundations" in junior high or high school. Even the advanced placement studio art courses taught at many U.S. high schools are caught up in preparing students for postsecondary level art foundations courses.

For many teachers like me, this only further compounds the institutional problems surrounding *what* and *how* to teach Art Foundations in a way that is perceived to be legitimate within the larger scope of education (Graham & Sims-Gunzenhauser, 2009).

Studio art professor and art educator Joseph Ostraff from Brigham Young University offered his thoughts about the problematic nature of teaching art foundations and the institutional gap that many incoming freshmen experience between their high school and higher education art experience:

The role of art is in constant evolution. What foundational "is" has remained somewhat static for the past five decades of my life. I am wondering what the new foundation should/could look like? Early on, when I first transitioned from secondary ed. to university there seemed to be a significant gap between what was being taught on a secondary level and what was wanted in portfolios for incoming freshmen and little gap about what we did at university and a professional career. Questions about what is foundational or core to secondary students that will not be pursuing art beyond high school and a university GE course, foundational to students majoring in art at the university, and those that will pursue art beyond their university experience is at the heart of the matter, and different in purpose.

One thing that all these students share in common is a need to think well. Art can provide a critical environment for practicing these skills. Maybe the future foundations should be a reversal from emphasis of technical skill as the priority that qualifies one to say something- to good thinking/problem solving skills as the priority that in turn call on development of a certain skill set needed to address the idea. (personal communication, February, 2017)

If students are perpetually taught the basics of art, meaning technical skills or elements and principles, throughout their time as students, at what point can I, as the art educator, allow them to inquire, think, and make work like authentic artists without the ghost of the Bauhaus looking over their (and my) shoulder? This study attempts to give a glimpse of what is possible when the traditional methods of teaching art are not treated as the main pedagogical focus and more class time and attention is given toward a complex view of learning that favors approaching contemporary art in the classroom.

Rorty's Pragmatism

I present [...] philosophers whose aim is to edify--to help their readers, or society as a whole, break free from outworn vocabularies and attitudes, rather than provide "grounding" for the intuitions and customs of the present. (Rorty, 1979, p. 11-12)

The theoretical work of Richard Rorty provides a pragmatic approach to the way traditional curricular approaches overlap with the practical realities of teaching.

Richard Rorty is an American philosopher known primarily for his unique epistemological approach to pragmatism as a disposition borne from suspicions about the established vocabularies and tactics of the past in order to explain and give sufficient meaning to our contemporary situations (Rorty, 1979; Wolin, 2010). In place of the traditional, Rorty favors clever, relevant, and detailed discussions and idiosyncratic descriptions in order to approach practical solutions and creative reinventions of and for the world. Richard Wolin (2010) describes Rorty's intentions this way:

> [His] goal is to make the world a more interesting place by incessantly reconceptualizing it in fresh and imaginative ways. [This] aim is informal and nondogmatic: to perpetuate the "Conversation of Mankind," rather than to uncover objective truths. (p. 75)

Many of Rorty's central ideas support and parallel the theoretical framing of this study, including the notion of facilitating learning opportunities directly from artworks Specifically in relation to this study, Davis and Sumara (2006) add that "complexity thinking is compatible with pragmatist theory, in which truth is understood in terms of *adequacy*, not *optimality*" (p. 26, italics in original).

In *Contingency, Irony, and Solidarity* (1989), Rorty makes a case for using artworks, particularly fictional novels, as tools to help us understand our own humanity and ultimately to help develop empathy and compassion for others. Rorty says this undertaking is to be achieved not through researching old philosophical positions and arguments, but rather through imagination--"the imaginative ability to see strange people as fellow sufferers" (p. vxi). In this book, he uses authors' works, such as various writings of Orwell and Nabokov for example, to illustrate and awaken in the reader the the depths of cruelty of which humans are capable.

I resonate with this process of examining artworks themselves as a central teaching strategy; as I taught foundations of art to my students in this study, I examined with students the practices of various contemporary artists every day at the beginning of class and led discussions with them about the many aspects of their practices as they related to our class projects. I also largely align my study with Rorty's pragmatism in that I am less interested in the many traditional vocabularies that have dictated the ways in which the foundations of art is to be taught, and instead favor discussions and intuitions that gravitate toward something interesting, clever or otherwise worthy of authentic attention and student engagement. This ultimately leads

to students building new connections and understandings through that engagement (Eisner, 2002; hooks, 2009; Kalin & Barney, 2014b).

Rorty's skepticism of anything that claims to be *foundational* also echos Barney and Graham's (2014) discussion of the problematic history of foundations in the field of art education. I, with Barney and Graham, contend that the very metaphor of foundations can be limiting and misguided if the desired outcomes for student learning are restricted to the traditional curricular strategies for teaching art.

Contemporary Art in the Classroom

I readily embrace many contemporary artworks and artists in my curriculum content throughout this study. *Contemporary art* can mean many things to different people. For my study and in my class, I address contemporary art as the work of artists who are living and working today, and I regard the work of contemporary artists as a dynamic combination of materials, methods, concepts, and subjects that often challenge traditional boundaries. Contemporary art can be a rich resource through which to consider current ideas and rethink familiar things and relationships in life. The internationally renowned non-profit collective Art21 describes contemporary art and its relevance to the context of education:

> In a globally influenced, culturally diverse, and technologically advancing world, contemporary artists give voice to the varied and changing cultural landscape of identity, values, and beliefs...Contemporary art reflects a wide range of materials, media, and technologies, as well as opportunities to consider what art is and how it is defined. Artists today explore ideas, concepts, questions, and practices that examine the past, describe the present, and imagine the future. (Art21 Educators, 2018)

Contemporary art can be a loaded term, especially as it relates to historically specific institutional acceptance or representation of certain artists over others. In this study, I was aware of the many positions and significance of the different artists that I chose to include in my curriculum. I recognized that, as the teacher, I was, in part at least, responsible for determining a cannon of sorts for my own students by my curricular choices. My intent in focusing on the artists that I chose was to include the work of contemporary artists that could help my students form meaningful understandings that, as Rorty (1989) advocates, were interesting, clever and engaging. I also tried to find the work of artists that related to the project at hand during our class.

Art education scholar and former director for Art21's Learning Initiative Jessica Hamlin (2014) discusses the advantages of using contemporary artists in classrooms as "creative role models who suggest new ways to think about the skills and concepts central to the role of art "

(p. 48). One of my goals of teaching with contemporary art in the classroom has been to help students become creative and critical thinkers that feel encouraged to question, experiment, play, and explore possibilities before them. Specifically, I have gravitated towards using many of Art21's video content in my classroom because I think that the featured artists from this series deal with cultural and social issues that are relevant to students' lives. The videos and supplemental materials help to make artists' practice visible and the artists themselves are articulating, in the first person, the various aspects about their practice, including their inspiration, questions, process, research, materials, production choices, reflections, exhibitions, and so forth. These aspects relate directly to my eight artistic practice questions.

Contemporary Considerations About Art in the Classroom

A contemporary approach to teaching art foundations in the high school classroom broadens potential outcomes for student art projects. In addition to Gude's (2004) list of seven postmodern principles-- *appropriation, juxtaposition, layering, interaction of image and text, hybridity,* and *gazing*-- Duncum (2010) outlines seven principles of visual culture education that he suggests are vital to include in 21st century visual arts curriculum; *power, ideology, representation, seduction, gaze, intertextuality,* and *multimodality*. These terms help to constitute a rich and useful vocabulary that can help students to build understandings about art and artistic practice. I agree with Duncum that relying solely on the traditional elements and principles of the 20th century as a way to construct a visual arts curriculum is a "hopelessly inadequate" (p. 10) way to engage students in a meaningful and relevant way.

In order to help students expand their scope of art, educators should build on and frequently reference this vocabulary and also facilitate an ongoing exposure to artists that work in a variety of contexts. In my teaching situation and for the research data I collected, I strove to employ a variety of pedagogical approaches that included the documented work of several contemporary artists (using content produced by Art21, as well as many other sources) in order to inform my curricular choices.

Knowing and Learning

As an educator, I continue to learn to recognize moments during the day when a student is learning something new. These moments are sometimes difficult for me to detect, but very exciting and rewarding. When they occur, I hope to be able to help the student feel encouraged and supported because, in these raw moments of learning, the learner usually undergoes some degree of discomfort or disorientation (Taylor, 1986). The act of learning involves growth and expansion into new and unfamiliar territory. Some learning experiences can be more painful

than others, as the act of expansion can sometimes mean the learner's worldview is becoming uprooted and turned around (Gardner, 1993).

In Maurice Merleau-Ponty's (1945/2014) seminal text, *Phenomenology of Perception,* he discusses ways in which knowing and learning are embodied experiences as unified, sensory perceptions. "Sensing is the living communication with the world that makes it present as the familiar place of our life" (p. 53). Merleau-Ponty discusses the way that our interaction with the world is primarily concerned with perceiving the world through our bodies, and how this affects ways in which we build understandings about the world. He says, "To understand is to experience [éprouver] the accord between what we aim at and what is given, between the intention and the realization -- and our body is the anchorage in the world" (p. 146).

This description of understanding the world through our individualized, embodied perceptual experiences relates to pedagogical approaches that regard *knowing* as a complex, organic, and relational occurrence between actualities and the possible-- drawing upon the past and simultaneously projecting into the future. Knowing, as it is understood here, applies to the learner as an ongoing series of affective perceptions and sensing qualities through our lived encounter with the world. Merleau-Ponty acknowledges and furthers Husserl's (1911/2006) treatment of what he calls *intentionality* as it relates to perceiving and knowing. Intentionality is described as specific attention, judgement, or will on the part of the learner as he or she is perpetually engaged with the world through his or her own body. According to Merleau-Ponty, the body is "the vehicle of being in the world and for a living being, having a body means being united with a definite milieu" (p. 84). It is through the lived and intentional interaction of this definite milieu of the world that learners are perpetually encountering, assessing, judging, and acting to create understandings about what they know.

This conception of how learners come to know and understand is important to my study because of my role as both the teacher as well as the curriculum designer for the Art Foundations course. Through the duration of my study, I focused on treating my students as learners who come to my classroom already loaded with their own valid and unique experiences, attitudes, opinions, and backgrounds from which to draw as they are brought into proximity with the various ideas, objects, materials, and experiences that I was able to provide for them as a teacher.

In Freire-esque (1970) fashion, I aimed to displace the more traditional transmission model of education with a more student-centered liberation education model and avoided treating my students like empty receptacles meant to be filled with pre-determined units of knowledge. Besides thoughtlessly over-simplifying my conception of students, I think this

pedagogical approach also perpetuates overly-simplified conceptions about knowledge. Castro (2010) discusses the problematic nature of the familiar metaphors for knowledge as something to be "stored in filing cabinets, boxes, machines or computers suggest that knowledge is quantifiable, static, and object-like, easily transferred, stored, and gathered" (p. 19). He then adds a more complex and nuanced description of knowing, an approach I enacted with this study, that "our backgrounds of understanding, and our prior actualities, are not "stored" in stasis; rather, they reside in our embodied enactments into possible actualities" (p. 19).

This conception of knowing and learning within the complex learning systems of my art foundations classes has epistemologically influenced my study through: how I approached and interacted with my students; how I designed and enacted the curriculum; what data I collected and analyzed; as well as the ultimate shape and scope of what I have chosen to report. As I challenge the "ghosts of the Bauhaus" in my art foundations classrooms through rethinking and remaking a curriculum, a more dynamic and complex conception of knowing arises as a vital component for this study.

Student Autonomy in the Classroom

In this section, I address some of the literature in and around the field of art education about effective pedagogical strategies that concern student autonomy. First, I situate the discussion around curricular structures and the treatment of student learning. Then I discuss these ideas as they pertain to both the classroom, as well as in situations outside of the classroom. Finally, I discuss two specific examples of pedagogical interventions and theorize about how each of these situations can allow art students to flourish autonomously.

Power within the classroom.

Developing student autonomy is a goal that many educators share. "Autonomy" is a term used in many contexts to sometimes mean different things, and so for this dissertation, I regard *student autonomy* from a teacher's perspective, in which the goal is to emphasize student independence and responsibility for decision making (Boud, 1988).

To better understand the purpose of addressing the issue of student autonomy, I would like to briefly discuss the issue of *power* through a lens of post-structuralism as it relates to education. Several post-structuralist scholars (Derrida, 1978; Foucault, 1977, 1994) discuss power as a relation that inherently facilitates a dynamic of control, compliance, and lack of control between discourses and the subjects constituted by their discourses (Weedon, 1987). This perspective of power frequently manifests itself through the relational dynamics in

education. Students constantly encounter, respond to, and make decisions about how to navigate the complex field of dynamic power relations every day at school.

In discussing learners as they are situated within complex networks, such as schools, Castro (2015) contends that power does not reside in things, but rather power resides in action. The networked structures through which power flows are not inherently oppressive or liberating; rather, "it is the interpretation of the dynamics of networked relations that describes our own cultural values we impose on them" (p. 3). I understand Castro's description of power as an epistemological opening for educators. To understand individual learners (students) as implicated within part of a larger, interconnected network makes possible new understandings about the roles that teachers can have with their students. Educators, to some extent, are able to interpret and redirect the dynamics of power flowing through these structures and help to influence the values that shape students' experience.

For this study, this power dynamic was especially challenging within a traditional school setting, such as mine, in which the teacher is expected to be the authority figure and the students are supposed to be kept in check by suffering punishments and consequences if and when their actions and behaviors are outside of the expectations set by the institution. I discuss this important issue in further detail in Chapter 5 as it pertains to my research. Specifically, I refer to the curricular and pedagogical interventions related to the dynamics of power as creating a *tension*, which I argue can be used as a pragmatic and useful agent of disequilibrium in my curriculum.

Different models of education.

Several contemporary art education scholars have discussed the importance of recognizing the interconnectedness of phenomena in the universe as educators continue to develop more effective and engaging learning experiences for and with students (Miller, 1993; Reeder, 2005; Seymour, 2004). This way of thinking begins with the assumption that both teachers and students are independent acting agents, and therefore asks for a paradigm shift about the ways people learn.

Take for example the culturally dominant *transmission* model of education, which is commonly used in many traditional school settings. In the transmission model of education, the teacher acts as the sole possessor of knowledge, and treats students as empty receptacles which need to be filled with this knowledge. This model of education creates a problematic metaphor about knowledge as a material or substantial thing that can simply be transferred, as opposed to considering *knowing* or *learning* as a dynamic phenomena that are contingent upon

the relations between the learner and his or her engagement with the world (Davis & Sumara, 2006). The transmission model is also not a very effective approach for most learners--it positions the teacher with a disproportionate amount of control and dominance about not only the content of the subject in question, but also sets up a one-way flow of information and communication, leaving students often feeling disempowered, isolated and without a voice. This model sets up conditions directly opposed to those that would foster student autonomy.

On the other hand, several education scholars discuss the benefits of conceptualizing a *transformative* model of education, similar to Freire's (1970) concept of *liberation education*, in which the broad goal is to help "students become responsible global citizens, who can then help change the world" (Campbell, 2012, p. 81). For this model of education to occur, and this goal to be realized, even in part, the teacher must acknowledge that the teacher, the student, and the curriculum are all connected during learning experiences. The teacher disposed to enact a transformative model of education regards *attunement to others* (Irwin, 2003) as a way in which teachers make an effort to become more aware of their own tacit knowledge, and recognize how knowledge often comes from one's senses and their own intuition in order to inform the development of their curriculum. These teachers will also be more flexible with their plans and willing to carefully consider and respond to the circumstances of the classroom.

Conditions for the emergence of student autonomy.

Approaching the transformative model of education not only requires a theoretical paradigm shift, but also requires specific and practical action to be taken by the teacher. Art teachers that desire their students to act autonomously within the networked structure of their classroom cannot expect to see genuine, autonomous actions, thoughts, and creations from their students if the teacher designs curricula that are overly prescribed, rigidly implemented, or if the assessment becomes the dominant motivation for students.

Several scholars (Barney, 2009; Castro, 2007; Davis, Sumara, & Luce-Kaplar, 2000; Graham, 2009; Hafeli, 2001) have discussed the idea of *constraints that enable* when designing curriculum and creating conditions for learning. These constraints are not designed to compel students toward deterministic art outcomes that create predictable or cookie-cutter student art projects, but rather act as places of possibility, in which students may explore, experiment, and play as they create divergent solutions to artmaking problems.

As teachers set up certain constraints that enable creative behaviors to emerge, students are able to recognize the potential for outcomes that remain unknown, to the student as well as to the teacher, until they begin their engagements with the conditions, materials,

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structures, and other influences that are set up by the teacher. Steven Johnson (2010) talks about how these places of possibility flourish in certain systems more than others. He calls this idea *the adjacent possible,* a kind of "shadow future, hovering on the edges of the present state of things, a map of all the ways that the present can reinvent itself" (p. 31). Considering these conditions more aptly connects to the notion of *knowing* and *learning* as a nuanced, contingent enterprise between the student learner and his or her world.

Trying to bridge the gap between theory and practice with this issue leaves me with some feeling of uneasiness, as I know from my own experience how some of the practical realities of teaching do not always seem to translate cleanly from theory. The following two brief examples illustrate instances of student autonomy, both inside and outside the classroom and are interspersed with my own thoughts, observations and questions.

Example 1: Einstein class.

Critic and theorist Claire Bishop (2012) describes her arrival to the scene of Pawel Althamer's *Einstein Class*, a six-month socially-engaged art practice that was meant to help 'difficult youth' learn physics in an alternative learning environment. Althamer worked together with a physics teacher in a rented building in Warsaw to experiment with a non-traditional approach to teaching. Bishop came to observe the class and, upon her arrival, found that only a handful of students (all boys) were engaged with the educational task at hand, while most of the others were smoking, surfing the internet, fighting, blasting music or throwing fruit (p. 256).

This description brings me to skeptically consider, like Ellsworth (1994), how an approach to *liberation education* can realistically exist within the context of an institution or hierarchical school structure. As an art teacher, I obviously want to embrace the notions of student empowerment and genuine learning experiences that come from facilitating an environment of freedom on the one hand; on the other hand, I find myself implicated as the potentially stifling authority figure in the classroom, and my first instinct as a professional within the institution is one of fear. If my students were to behave like the boys from Althamer's *Einstein Class*, leaning hard towards the chaotic, I fear that I would lose my job because of my position within the institution to which I am inherently connected as an authority figure.

Perhaps one answer to how the concepts of *transformative model,* or *liberation education* can exist within an institution is aptly articulated by Bishop (2012), who draws from Freire (1970) concerning the function of *dialogue* in this approach to education:

'Dialogue does not exist in a political vacuum. It is not a "free space" where you say what you want. Dialogue takes place inside some programme and content.

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These conditioning factors create tension in achieving goals that we set for dialogic education.' In other words, critical pedagogy retains authority, but not authoritarianism. 'Dialogue means a permanent tension between authority and liberty. But, in this tension authority continues to be because it has authority vis-a-vis permitting student freedoms which emerge, which grow and mature precisely because authority and freedom learn self-discipline.' (p. 266)

I appreciate Bishop and Freire's acknowledgement of the tension between authority and freedom, or order and chaos, that can potentially exist within an institution. Freire suggests the idea that this growth and maturity can only happen when both the authority and the freedom learn *self-discipline*. This tension and growth can also help students develop a sense of autonomy.

I interpret this to mean that I, as the art teacher or authority figure, must learn to respect the concept of freedom in the classroom--the potential unfoldings, emergent possibilities and the unknown from the students within the scope of the institution. In my case, this is the art classroom. This concept causes a certain amount of discomfort when I perceive it as a teacher who is relinquishing control. But I also can appreciate the effects of relinquishing control, as I have tried to embrace these notions in my own pedagogical practice to a small degree. I also want to acknowledge Freire's choice of the words "growth" and "maturity" when discussing emergent student freedoms. This approach to teaching takes time and a sustained dedication on the part of the teacher. And depending on the specific teaching context, this long-term investment might not only model for the student-artists what self-discipline looks like, but with extended interactions and interventions with this transformative model education, student-artists can also discover their own sensibilities of autonomy as they become attuned to the tension between authority and freedom-- facilitated by a dialogue-centered educational experience.

Example 2: TASK.

Artist Oliver Herring's (2011) concept of TASK is an improvisational, open-ended, participatory activity where "in theory, anything becomes possible" (p. 6). Participants in TASK are asked to write a task (anything they can imagine someone doing) and submit it into a central "TASK pool," such as a box or bucket. When participants put a written task in, they are invited to take another one out, interpret it however they want, and actually do it then and there, with whatever materials are immediately available. They repeat this process for the duration of the TASK party. Collectively, the environment is shaped by the decisions, energies, and overlapping engagement of each of the participants.

When asked about the issues of teacher control as they relate to facilitating TASK in a classroom and the problems he foresees with 'giving students *that much* freedom,' Herring responded, "When students see that they are allowed to step outside of the boundaries, most of them won't. But *knowing that they can* is empowering to them" (personal communication, April, 2012).

I mentioned above my appreciation of the concept of relinquishing control as the authority figure in my class to a small degree when compared to the freedom of the students from Althamer's *Einstein Class.* I appreciate Bishop's description of the chaotic mayhem upon her arrival to *Einstein Class,* because I believe it illustrates an untidy, perhaps nascent process of student-artists engaged with the freedom involved with this approach to education. In my own experience, facilitating TASK with students probably represents the most control I've relinquished with my own students. I have done TASK on the first day of the semester for the past 5 years, on average with six classes each time. In fact, this is the first project I discuss in more detail in Chapter 4.

Herring says that when educators introduce TASK at the beginning of their semester, "everything that follows will be framed by a sense of play and openness, possibility and excitement. It'll communicate to your class that contemporary art is of the moment, molten" (personal communication, June, 2014). In my experience, inviting students to participate in a TASK party on the first day of school has not been about finding some clever, curricular silver bullet. Rather, it has been more about setting the tone and expectations for my students. I wanted them to experience an open, participatory exchange of ideas and materials on the first day so that they could feel a sense of ownership, possibility, collaboration, and attentiveness that would carry into their own artistic practice in my classroom.

Part 1 Conclusion

I would tie the definition of student freedom and autonomy to Freire's above-mentioned notions of dialogue and self-discipline, as well as Herring's ideas about the conditions of TASK, to engender an individual (as well as a collective) propensity toward openness and experimentation. When authorities redirect the existing flow of power through the structures inherent within institutions, students can feel empowered and free to think and act as agents within a complex system where they are accountable for their actions, and students are more able to gain a sense of the possible. I believe the sensibility for the possible is the most fertile soil to create the conditions for student autonomy to grow.

PART 2: Theoretical Framework of Complexity Thinking

Introduction

Neil Johnson (2007) describes the field of complexity as "the study of the phenomena which emerge from a collection of interacting objects" (p. 3-4). Complexity is regarded differently by different people, and has been a useful approach in several fields of study, discussing and analyzing the behavior of complex, non-centralized systems, such as insect colonies, the brain, flocks of birds, the immune system, the stock market, cities, or the internet (N. Johnson, 2007; S. Johnson, 2001; Mitchell, 2009).

Complexity thinking is a relatively new field of study that has not been canonized into one tidy methodology or singular way of thinking. It has historical roots that could be traced to several early scholars, such as Charles Darwin's (1859/2014) conception and articulations about various ecological systems' ability to evolve and adapt in order to survive. Philosophically speaking, Kant (1790/2010) discussed the need to teleologically judge the phenomena of the natural world by recognizing causality within and among various systems. Bergson (1911/2010) discusses the ways in which organic systems and entities are in a constant flow, inherently connected, and constantly maturing and growing. Specific to educational theory, Jean Piaget's (1954) ideas about constructivism--that an individual learner can create meanings and understandings about the world through their own experiences and ideas--have helped shape much of the discussion about complexity within the field of education and psychology today (Davis & Sumara, 2006).

These early considerations helped shape ideas that have grown into conversations across several disciplines and theories, each examining different phenomena; some of these include systems theory, chaos theory, organizational theory (Mitchell, 2009). My treatment of complexity thinking in this study is in no way meant to be a comprehensive or an all-encompassing perspective-- rather, I offer a description of how complexity relates to knowing and learning in the high school art classroom through an examination of the dynamic and interacting phenomena between myself, the students, and the designed curriculum.

What Does Complexity Look Like?

While there is no one single agreed-upon explanation of complexity thinking, many scholars (Davis & Sumara, 2006, 2008; Doll, Fleener, Trueit, & St. Julien, 2005; Johnson, 2007; Juarrero, 2004) have agreed that complex unities (or systems) possess several self-same characteristics. Deleuze and Guttari (1987) discuss at length the characteristics of the rhizome as a model of complexity. A rhizome is an underground botanical root mass, whose shape is like a large network of interrelated parts. Deleuze and Guttari describe it in opposition to an

arborescent organizational system, in which all of the roots connect with a central trunk. Inherently connected to and relative to its surroundings, a rhizome is always connected and caught up within the immediate environment, like the relationship between two different species, which Deleuze and Guttari describe as a *multiplicity*. Dynamic, adaptive, and able to facilitate transfers of energy, rhizomes can also function as models for complex maps, without any chronological or narrative origin or ending, rhizomes are taken up in the middle. When they suffer some kind of rupture or disconnection, they may regenerate in an organic and responsive way, or not at all. Deleuze and Guttari offer rich and thorough descriptions and investigations towards conceiving of the rhizome as a model of knowing, which is analogous to the ways I take up complexity thinking in this study.

Below are some of the more salient characteristics of complexity here with a brief explanation for each:

Self-Organizing.

This term is often used interchangeably with *emergence*. This means that many individual agents that act independently are somehow able to pull themselves into existence without any kind of leader or hierarchical structure in place. These individual agents work to form a larger, interconnected dynamic network (Juarrero, 2004).

Ambiguously bounded, closed systems.

The boundaries of a complex system are difficult to determine. This is because the boundaries are in constant flux and permeable-- exchanging information, energy, or matter with the immediate context in which they are situated. The complex system influences its surrounding situation while simultaneously being influenced by it (Davis & Sumara, 2006). Structurally speaking, complex systems are closed, meaning that while they are connected to other complex systems, environments, and influences, they do have limits and are bound by the extent of the individual agents functioning within the system.

Bottom up.

This characteristic is especially unique, as self-organizing systems emerge collectively through grassroots types of movement, without the direction of any kind of centralized leader. This organization creates a group intelligence that is collectively smarter than any one of the individual agents within the overall system (Surowiecki, 2004). Consider Clay Shirky's (2008)

thorough example of Wikipedia as a dynamic, ongoing collective process, rather than a single, or final product (p. 109-142).

Nested structure.

From a decentralized architecture, different autonomous organizational structures form. These different structures are positioned within each other, or in other words, nested. I will give an example of how nested organization exists with an educational illustration about learning systems below.

Neighbor interactions.

Part of the decentralized architecture of a complex system allows for components or parts within the system to communicate laterally with each other, as opposed to taking directives from a centralized control.

Feedback.

Part of these neighboring interactions include signalling or exchanging information between agents or individual nodes. This communication between parts helps the whole system determine how it will react by providing feedback through these signals in order to help the entire system survive and remain robust.

Adaptive.

This is perhaps one of the most important characteristics of a complex system. In order for a system to flourish or gain strength, its behavior needs to be able to adapt to circumstances by continually learning and evolving.

Unpredictable behavior.

One of the most exciting aspects of complex systems is that the system produces results and behaviors that are unknowable and often not easy to predict. Complexity dynamically affects the relationship between the present and the immediate unforeseen future.

A Complex View of Learning Systems: A Series of Nested Structures

Learning, as a complex phenomenon, could be considered in several ways, spaces, and from different organizational structures. For example, if asked "*where* does learning happen?" one could think about the smallest conceivable phenomenon on to progressively to the largest.

Learning could be considered at different levels, and each of these levels has an incompressible structure (Davis & Sumara, 2006). Learning could start at subpersonal structures like neurons firing synapses in the brain, then move on to take the structure of an individual learner (student), on to a classroom collective, or to a curriculum structure, or an entire body of knowledge, to the culture at large. Within each of these levels where learning occurs, the phenomena at each level is nested within the other, and each level is tacitly related to time in a different way. The smaller the phenomena, the faster that the behavior of that structure operates or moves. For example, neurons firing in the brain are much more dynamic and move much more quickly than that of an entire body of knowledge or a culture.

Each of these levels of learning operate independently of each other, but are still relationally interconnected. It is for the researcher to decide where to give his or her attention, depending on the phenomenon being considered. For example, one of the more practical places to give attention, which I done for this study, would be to the individual learner, who, according to Dyke (1998), can be understood as a "structuring, structured structure," or in other words, a learner could be perceived as a complex entity able to adapt to the dynamic context in which he/she finds him- or herself. As an art educator interested in how I can best help my students engage with a dynamic and meaningful curriculum, I will focus most of my consideration of *learning systems* at the individual student level, as well as the level of the classroom collective, in which the former is nested.

The following sections explore how complexity thinking might affect my study within the field of art education and specifically in the art classroom both through perceived affordances and limitations.

Complexity in art education: Affordances.

One affordance of a complexivist perspective of learning as a system is that the teacher has the ability to *set up conditions for emergent student behavior*. Several art education scholars, have discussed the benefits of creating constraints that enable (Barney, 2009; Castro, 2007b; Gillespie, 2014). Considering curriculum structures, these constraints are not meant to be oppressive in the traditional sense of the term 'constraint'; rather, these constraints create spaces for possibility by delimiting certain decisions and options in order to give focus to any number of potential engagements or behaviors. The conditions that the teacher sets up are different from traditional, prescriptive curricular approaches, in which the teacher already might already know what the student outcomes will look like before they even begin. This traditional

approach often does not allow for emergent, unpredictable behaviors and student artworks to come about (Gude, 2004; Tavin, 2000; Walker, 2001).

By setting up these conditions for emergence to materialize, the teacher puts the creative responsibility to each student. This complexivist curricular perspective also encourages experimentation, discovery, hypothetical thinking, autonomy, and divergent student outcomes. As pedagogical goals, these characteristics provide complex unities in individual learners as well as classroom collectives with opportunities of learning through engaging with new possibilities while simultaneously drawing upon their own unique embodied experiences, histories, and ideas.

This complexity sensibility also accounts for the conception of *intelligence as possibility*. Thriving complex unities continually learn and adapt over time. What does intelligence look like in a complex system? According Davis and Sumara (2006), systems that are more intelligent are "capable of more flexible, more effective responses to previously unmet circumstances" (p. 74). Intelligence understood this way implies exploring or scouting a range of possibilities, and choosing an appropriate or well-suited response to the immediate situation in order to discern solutions. Concerning contemporary art, a pedagogy that focuses on possibility as a means of intelligence will help individual learners to burn through clichés in order to approach the more whimsical, ambiguous, or confounding aspects of art as they engage with the curriculum to explore uncharted territories and new possibilities.

Complexity in art education: Limitations.

One of the most prominent limitations to thinking complexly in the art classroom is the long-standing cultural tradition of the *organizational structure of schools*. Davis and Sumara (2006) suggest the optimal organization for complex systems to flourish will have a decentralized, or scale-free network architecture (p. 50-53). Instead of relying on a centralized source for the distribution for information (such as traditional hierarchical structures like military or typical school organizations), complex systems operate best when there are several hubs, or nodes, connected with several other nodes so that the flow of information or energy can reach each node quickly, and can also recover quickly in case of an incident, rupture, or perturbation that affects or destroys one node within the system. Unfortunately, most traditional school structures retain a centralized network architecture, which most often does not create optimal conditions for a complex system to flourish.

Another limitation to complexity in the art classroom is the way that art teachers are subjected to frequent and increasingly rigorous *standardization* in their schools and teaching

contexts. Focus on assessment and quantifiable measurements of student achievement of objectives and student behaviors are becoming more prevalent, especially with the reality of implementing common core standards in the classroom (Wexler, 2014). When the external, top-down conditions of standardization become a curricular and pedagogical focus, the possibility for emergent and bottom-up movement and behavior will become stifled. Kalin and Barney (2014) talk about the suffocating and encroaching patterns of standardization increasingly found in school systems today as a serious demoralizing factor to many art educators.

Another limitation to consider is that even if a complex system is in place, it *does not guarantee a democratic or liberating outcome.* Castro (2015) suggests that power does not reside in things, but rather in action. Having a complex, scale free structures are not inherently good or bad, democratic or oppressive; it is the interpretation of the dynamic flow of power within the structure to which we assign our values (p. 4). As the results or behaviors of a healthy complex system are unpredictable, emergent, and contingent on the immediate context, the interpretation of those behaviors could be judged by different people to have unsuccessful or undesirable outcomes.

As an art educator, I judge the success of complex systems as Juarrero (2002) suggests, "by their degree of resilience and flourishing" (p. 98). I believe complexity thinking offers new and exciting ways to think about learning within the context of the art classroom. I think that more studies with a complexity framework in the field of art education will add a nuanced and useful insight to the field.

For this study, I specifically focus on the phenomena of students' emergent behavior in two classes of Art Foundations for four months. I will consider these two classes as examples of a "networked collection of agents" (Johnson, 2001, p. 13) within the learning system of my classroom. Davis and Sumara (2008) discuss the the highly significant need for educators to resist perpetuating a reductionist model of pedagogy that has dominated the field for so long, and to embrace complexity thinking as a useful way to consider learning, teaching, and research.

Through my own data collection, which I discuss in my methodology section below, I have shaped the content of my study by observing, interviewing students, taking photographs and videos, as well as writing my own thoughts and reflections. Through the lens of complexity thinking, I hope to be able to create a thorough, descriptive, and useful representation of my students' collective attentions and experiences in my Art Foundations classes as they interact with a designed curriculum focused primarily on the practices of contemporary art and artists.

Thomas Hirschhorn's Gramsci Monument as a Model of Complexity for Teaching and Learning

Thomas Hirschhorn's Gramsci monument is an ambitious project that was borne from Hirschhorn's own reconceptualization of what a monument can be. Because I spent an entire semester as a teacher trying to help students see the value and relevance of contemporary artists' practice to their art projects and lives, I thought it useful to use Hirschhorn's project as a model to illustrate and introduce some of the relatable theories I have developed as an educator for a high school art foundations course specifically as it relates to complexity thinking.

As opposed to the traditional notion of a monument as a permanent fixture in a public space, Hirschhorn approaches the idea of a monument as a thing that helps create a collective memory for the community in which it is built. The Gramsci monument is the fourth in his series of these monuments. The other three monuments of his ongoing series built to honor certain philosophers--first Baruch Spinoza in Amsterdam in 1999, Gilles Deleuze in Avignon, France in 2000, and Georges Battaille in Kassel, Germany in 2002. In the construction of each of these monuments, Hirschhorn chooses a location that is in a residential neighborhood as opposed to a public space with high traffic and public visibility. He also obtains help from the residents of the area in the creation, maintenance, and execution of the project. These monuments are also temporary in their duration, and as Hirschhorn says, "they have no ambition of eternity" (Art21, Season 7).

The Gramsci monument took place in the summer of 2013 in Forest Houses, the Bronx, New York City. Hirschhorn enlisted the help of the local community to construct the monument primarily from wood, screws, cardboard and tape. The physical structure of the monument included areas such as a bar, an internet station, a radio station, a lecture hall, a stage, and an art school, along with several ramps, staircases and walkways that connected each of these spaces.

Figure 2. 2 Production stills from "Art in the Twenty-First Century" Season 7 episode, "Investigation," 2014. Segment: Thomas Hirschhorn © Art21, Inc. 2014 depicting site-specific participatory installation "Gramsci Monument" (2013) at Forest Houses, Bronx, New York

The residents of Forest Houses were invited to engage in activities that related to Antonio Gramsci in several ways. Art critic Becky Brown observed that the monument "was a truly multi-use space for a multilateral public" (Brown, 2013). In the episode, Hirschhorn also makes a point of noting that this is an *art* project, not a cultural or humanitarian project. He believes in what he calls "shared ownership" in which he takes 100% of the accountability, but so does everyone else who interacts with the monument.

Being "present and productive".

In his introductory speech to the community of Forest Houses, Hirschhorn repeatedly outlines one of the core tenets that he considers foundational to the Gramsci monument--that of 'being present and productive'. This is a mantra that he not only works to exemplify himself within the structure of the monument, but also expects the residents surrounding the monument to continually engage with and work toward:

> So every day we will be here and we will be present and produce the Gramsci
> monument. Because this, what you see, is not the Gramsci Monument--this is only the
> *structure* [emphasis added] of the Gramsci Monument. Because what I want to do is
> make a new kind of monument- and this new kind of monument, I have to construct it

everyday in being here by being present and by producing and in addressing it first to the family who lives in the 5th floor there, or the family who lives there on the first floor, or the woman who lives up on the fifth floor there. They are my public. This is the challenge. This is what's about--the Gramsci monument. To create memory, a common memory. (Art21, Season 7, 2017)

Energy = YES, Quality = NO.

Another salient point from Hirschhorn's project comes from a feature embedded within the weekly structure of the monument. On Friday mornings throughout the duration of the monument, Hirschhorn would lead a community art school, open to the public. His guiding mantra for the class was "Energy = YES, Quality = NO." He explains that the criteria of quality has culturally and historically loaded traditions of exclusivity, and therefore he is not interested in the judgements that come out of this criteria. Instead, he focuses on a criteria of energy. Energy in this sense is meant as a prominent factor for success in an artmaking practice that relates to a motivation and commitment to being present and productive, as mentioned above.

Hirschhorn's approach directly reflects the ethos with which I have approached this study. I think many educators who value student engagement and energy in the classroom will also recognize the relevance of a criteria for success based in this description of *energy* as a guiding principle for their art classes.

Energy in this sense allows for students to focus on experimentation with materials, playfulness and mindfulness of their situation, brainstorming, working in the "open mode," as well as an environment that favors "delaying closure" (Walker, 2001), as opposed to many traditional approaches to art teaching in which students spend much of their time completing assignments and projects designed by the teacher to have predictable and controlled outcomes.

"Every human being is an intellectual".

One of the more visible and oft-repeated quotations from Antonio Gramsci which seems to have become one of the guiding mottos carried throughout the monument, is that "every human is an intellectual." This statement not only comes from Gramsci himself, but is evident in the way Hirschhorn approached and treated the residents of Forest houses during their time together. "'To address a 'non-exclusive audience,'" Hirschhorn has written, "means to face reality, failure, unsuccessfulness, the cruelty of disinterest, and the incommensurability of a complex situation" (Ligon, 2013, p. 226).

This sentiment also relates directly to another point that Hirschhorn has made about the potential for chaos and failure in his talk at the beginning of the monument. Working with the Forest houses volunteers, he tells them that they should plan for the fact that the endeavor of the monument will never be a complete success but it will also never be a complete failure (Art21, Season 7). Attempting to bring this attitude into the classroom is a healthy and productive pedagogical position that can allow students space to experience a full range of success and failure that comes with artistic practice.

Conclusion

As a teacher, I take Hirschhorn's Gramsci monument project as a useful example of trying to create a responsive, complex environment (or *ecosystem,* as I discuss further in Chapter 5) that rewards students for being present and productive, for going after energy instead of traditional notions of quality, and for holding the students accountable for their participation and engagement with the task at hand. The scope and ambition of a project like this can help students develop what I believe are truly foundational to an art class: creative problem-solving skills, critical thinking strategies, research or inquiry-based investigations, and dispositions that welcome vigorous tussles with ambiguity.

Figure 3. 1 "Dana in a yellow paper curtain with spots" Gouache on paper, 30" x 22"

CHAPTER 3: Methodology

Introduction

In this chapter, I discuss design-based research (DBR) as a viable research methodology for my research situation and make a case for DBR as a practical option for the field of art education in general. First I describe the site of research at Ridge High School in Utah, as well as some of the relevant information pertaining to the specific situation of my teaching context. Next I offer a brief description of DBR, including a treatment of the methods and criticisms regarding DBR. I specifically address the ways in which data was processed and analyzed (organized, coded, and ultimately shaped and presented), as it related to my iterative curricular design. I will also discuss the potential benefits of conducting a DBR study through the lens of complexity thinking.

Description of Ridge High School[1]

This study took place during the second semester of the school year from January 19 until May 27, 2016. I was the teacher of the two Art Foundations courses. This chapter describes the context and tries to illustrate in detail some of the salient factors about the context in which this study occurred, including detailed reports about each curricular project that in the two Art Foundations classes. I have chosen to include and articulate the points of interest notable to the immediate context of my teaching situation in order to offer a rich description and to help develop a more thorough understanding of the complex systems of which my students and I were part.

Figure 3. 2 Ridge High School

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[1] All names of specific people and places in this study have been changed.

Ridge High School.

Ridge High School (RHS) is a secondary public school serving grades 10-12, and during the time of this study had an enrollment of 1400 students. The school is situated in central Utah, serving two neighboring towns. One town has a population of approximately 8,500 residents, and the other has a population of approximately 35,000. These towns can be described as relatively small, with many students living in suburban and rural neighborhoods. The school is located 11 miles south of a larger city. RHS is the 6th (and newest) school built in the Star School District, and opened in 2009. RHS has a reputation within the community for having excellent programs in academics, athletics, and fine arts. This reputation has been rendered through an ongoing focus on building a culture of success in these programs. RHS has an active school community council, which includes constituencies from administrators, teachers, parents, and students who meet monthly to address and revise policies and issues that arise in the school community and culture.

The student population of our school is predominantly white (approximately 92%), middle class, and predominantly belong to the Church of Jesus Christ of Latter Day Saints (LDS), otherwise known as Mormon. There is an LDS seminary building on campus for students who opt to take a religion class during the school day. The population of our students is such that most students (71%) elected to take a seminary class as an elective in their daily school schedule during the school year of this study. The majority of students being Mormon adds to the unique cultural and social norms of student life at our school[2]. The geographic area surrounding our school has undergone a surge of building of new homes due to the burgeoning economy of Utah county over the past decade. When the school opened in 2009, the enrollment was 954, and has gone up steadily since to 1400 students during the time of this study, only seven years later. During the year of this study the school needed to add two portable classrooms in the back of the school and projections for enrollment the following year were above 1500.

Administration and faculty.

The head principal of Ridge High School, Bill Fillmore, has been in his position from before the school opened in 2009. He has helped to foster a culture that values input from teachers and students. In my estimation, his administrative style and basic philosophy is to 'hire

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[2] See Appendix 1 for commentary including pertinent details about how this unique culture affects many of the students at RHS.

good people and then stay out of their way,' (personal communication, 2016) which I have found to be largely beneficial for me and my classes. I feel like he allows me as an educator to experiment with open-ended projects and emergent curriculum, such as the curriculum I designed for this study. I have felt financially and professionally supported Mr. Fillmore to do almost whatever I want with my students, including frequent field trips (in and out of the state), bringing in guest speakers and artists (he helped to support me facilitating a week's worth of workshops by Oliver Herring in October 2015), funding several opportunities for professional development in the form of attending local, state and national conferences, as well as supporting many individual and group art exhibits that take many forms in and around our school community.

I also find the other administrators, faculty and staff at RHS are generally quite friendly and accepting of my classes' various projects that sometimes expand outside of my classroom into the hallways and other spaces in our school.

Of course there are practical problems, institutional issues and negative conditions that I must deal with on a daily basis that I wish were different, such as large class sizes (my average is usually between 32-36 per class) and the lack of sufficient storage space for my students' projects and my own supplies and equipment. I discuss the effects of these adverse circumstances in more detail when I discuss the specific contextual factors as they relate to my findings. I also address these issues as I offer recommendations in Chapters 4 and 5.

Overall, as a faculty member, I have felt generally safe, comfortable, and supported by my coworkers, which adds to the positive, productive, and engaging school culture at RHS.

The history and growth of the Visual Arts program at RHS.

I have been teaching at RHS every year since it opened in 2009, with the exception of one year (2013-14), when I went on a sabbatical from Star District to Montreal and completed coursework for my doctoral degree. Because I was able to start the visual arts program at the school from the beginning, I feel like I have an established reputation as an art teacher who has roots in the community and history of the school. During the first school year of RHS (2009-10), I taught Drawing, Painting, 3-D Design, Art Foundations, and Ceramics in two separate, but adjacent rooms. The summer before the first year, because it was a brand new school, I was in charge of ordering all of the necessary equipment and supplies for both the 2-D and a 3-D rooms. This included researching, pricing, and ordering two electric kilns, a pugmill, 16 wheels, air filtrations systems, large work tables, a mat cutter, several sets of flat file drawers and other storage units, among many other pieces of equipment. I also stocked each room with necessary

supplies, including thousands of pounds of clay, several kinds of paints, papers, drawing instruments, mat boards, liquids and other chemicals, to name just a few.

Mr. Fillmore left a lot of the decision-making up to me for these tasks, and was quite supportive financially of my choices. He and I both recognized, through several ongoing conversations, the importance of setting up physical conditions that would allow a successful visual arts program to flourish over time in our school. As a teacher, I was very excited and grateful to be able to curate, to some extent, the culture, tone, and general feeling of the program from the very beginning by having a hand in structuring the origin of the visual arts program.

At the end of the first year, I found out that the requests from students to be in my classes (especially Ceramics) had almost doubled. During the first year I taught 3 sections of Ceramics (A days[3], 2nd semester only- which was approximately 100 students). So the following year (2010-11) Mr. Fillmore hired another teacher, Brett Bolanos, to take over the ceramics classes, which allowed me to remain in the 2-D classroom to teach the same classes as the year prior. During that year however, I was able to begin teaching A.P. Studio Art[4], a course designed to help students prepare to take one of the three A.P. exams offered by the college board (2-D Design, Drawing, or 3-D Design). At this point I had a small A.P. class of only 12 students, and I tried to help each of them individually prepare for one of the three exams. Brett taught Ceramics half of the time (A days both semesters-- approximately 200 students), and Financial Literacy on B days.

The third year Brett left and his position was filled by Dirk James. Brett had done much to enrich the culture of ceramics and we found that the number of student requests to take Ceramics for the following year had doubled again to approximately 400 students. That year my A.P. class had about 29 students, and all my other classes were between 30-36 students per class.

During the fourth year the photography teacher of our school, Travis Livingstone, also began teaching a class he called "A.P. Photography" which basically was designed to help students prepare for the 2-D Design A.P. exam. This lightened my A.P. load and allowed me to

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[3] RHS had a 4x4 schedule, which meant that the students each had 8 classes total- 4 classes on A days, and 4 classes on B days.

[4] The Advanced Placement (A.P.) program is sanctioned by the U.S. College Board as a way to help high school students prepare for university courses to obtain credits. The 3 Exams in the Visual Arts (2-D Design, 3-D Design, and Drawing) require students to submit a portfolio of their work that receive a score based on three different sections (Quality, Concentration, and Breadth). Ultimately students receive a score (1-5) from each of the exams. This score is recognized by most universities for credit toward their various programs.

just focus on helping students interested in the other two A.P. exams (Drawing and 3-D Design). I also stopped teaching 3-D Design classes because there was not enough storage space to facilitate the physical demands for that class. The numbers for my other classes had all become full again.

The fifth year, because of the growing enrollment in our school, and also because of the effort Dirk James and I had been putting into our program, our classes were totally full. Dirk went from ¾ time (teaching Ceramics and Painting classes), to full time teaching only Ceramics classes. By the following year he had built up his Ceramics program to include an advanced class, which again lightened the A.P. Studio Art load so that now there was a separate class designated for each of the three A.P. Studio Art exams.

By the seventh year (the year of this study), all of our classes are full, and I had agreed to teach on one of my preps for the following year, because the numbers of student requests have been so large.

School and community art culture.

Because Dirk James and I each have approximately 400 students per year, we felt that our influence was potentially wide and we instigated several traditions within our school. For example, we have created two annual school-wide art exhibits each school year, one at the end of each semester. The purposes of the first one we have in January are to showcase the students' work, to give them a chance to work towards exhibiting, and also to prepare and choose our school's designated entries for the Utah All-State High School Visual Arts competition hosted each February in the local museum of Art. Over the years we have had several students enter this long standing, prestigious state show and win awards.

The second school-wide art show, held in May each year, is part of our school's "Spring Showcase," which I discuss in more detail at the end of this chapter. This show accounts for the student artwork during the second semester. The RHS Spring Showcase has grown into a large community tradition and event in which students from all of the project-based classes are able exhibit their work for the whole community during one night.

In addition to these large, school-wide art exhibits, I have made a point to have my students organize, curate and promote their own art shows. Some of the shows are simple exhibits in the hallway during the year from all of my classes, which show some of the artwork that students have made in class in response to a prompt or collective project. Several of the shows are held specifically during the fourth term, in April and May, by my A.P. Studio Art students. Our school does not have a permanent space for exhibiting artwork, so I built a

portable art gallery in 2010 that students can use for exhibition. Each A.P. student is accountable for the location, curation, promotion and reception for their individual or small group shows. For a more complete treatment of this series of art shows, I refer the reader to an article I wrote about the portable art gallery (Gillespie, 2014).

Figure 3. 3 The portable art gallery set up at a local park

Facilitating these art shows with my students not only helps shape the way I have developed and enacted curriculum for my A.P. classes, but has had a significant impact of the culture of student artists at Ridge High School. Having exposure to so many student art shows gives students opportunities to reflect on and respond to each other's work and provide experiences for them to participate in shows at our school. Because there are so many of these smaller, individual shows, it has also helped to develop a culture where an individual student's voice, ideas, and meanings are given a public treatment and space for exposure and reflection.

Personal History & Biases

As part of this qualitative study, I want to acknowledge some of the conceptual and practical biases that I have, as both an educator and as an artist. This section is meant to give a brief history of my professional career, as well as describe some of those biases and delimit some of the areas of interest within which I operate, especially as they pertain to my curriculum

choices and teaching style. I include only those trajectories from my own past experience that I find relevant to this study.

Brief history of my professional career as an art educator.

I received my B.F.A. from Brigham Young University (BYU) in 2006 with an emphasis in printmaking and a K-12 certification to teach visual arts. After I graduated I began teaching visual arts classes at Lake Junior High School, which is located 5 miles away from Ridge High School, within the same school district. I taught there for two years, from 2007-2009. The following year I was offered the position of art teacher at RHS. That same year I also began my Masters program in Art Education at BYU. My Master's thesis and research was about my students' interactions with portable art gallery, mentioned above (Gillespie, 2014).

In 2011, I was included in the third year cohort of Art21 Educators, which is a private/public partnership sponsored by Art21. This program encourages K-12 educators to engage students in the classroom with the possibilities of contemporary art, such as thematic or conceptual pedagogic prompts, a focus on process rather than just product, collaboration and interdisciplinarity, just to name a few. This experience with Art21 Educators has affected my teaching practice and been not only huge catalyst with some of the curricular choices, but also expanded my professional network, and provided several opportunities to facilitate exciting and engaging experiences with artists, colleagues and students.

Collaborations with Oliver Herring.

Through Art21 Educators I was able to establish a meaningful relationship with the Brooklyn-based artist Oliver Herring. Since 2011 when we first met, we have collaborated on several projects where his artistic practice and my own teaching interests overlap. We have put on several workshops together that highlight this overlap of our mutual interests, and provided real world engagements for students in process-focused, experimental, creative action. As I mentioned in Chapter 2, Herring's TASK explores the possibilities for socially-engaged art experiences by asking participants to collaborate in a creative way by writing and responding to tasks in a shared space during a designated time with several materials (Herring, 2011). I have been doing TASK with my classes since I learned about it in 2011, and I refer the reader to my article (Gillespie, 2016) for further treatment about doing TASK in the classroom.

Herring and I worked together with art educators in Montreal at Concordia University to put on five different workshops centered around TASK in June 2014. We also worked together,

with Art21 as part of their Creative Chemistries conference in February 2015 in New York City with several art educators and nine of my own students to talk about another branch of his practice, "Areas for Action." This practice is conceptually analogous to TASK, but limits the materials (such as photo fragments, food dye, or aluminum foil), and asks participants to engage with the given materials, as well as with each other, within the designated space and time to experiment with and focus on the process of raw creative action. I would refer readers to a brief article I wrote about this practice in the classroom for more information about Areas for Action (Gillespie, 2017).

Following our collaboration in New York, Herring and I worked together to expand the possibilities of this practice with several hundred students from Utah valley in October of 2015. We put on six different Areas for Action workshops with six different educational institutions (one university and 5 high schools). In each instance, the number of participants ranged from 40-120 per location. The Utah Museum of Contemporary Art (UMOCA) featured a show of these Areas for Action performance experiences in February 2016.

At the end of this visit, we also hosted a large community TASK party at the Veterans memorial building in Mapleton, Utah. This event lasted for 4 hours and had just over 400 participants.

Figure 3. 4 Photos taken from a community TASK party organized by Herring and myself in Mapleton, UT on October 24, 2015

The academic rigor of my Master's and Doctoral programs not only exposed me to more literature and history from the field of art education, but these academic endeavors also have also helped me to form several relationships with my academic supervisors, professors, and fellow students. Combining these relationships with the engaging network of colleagues from Art21 Educators--as well as my collaborations with Oliver Herring--have created an affinity for including contemporary art in many of the curricular choices in my teaching practice.

I have found that bringing curricular interventions that include contemporary art practices into the classroom can offer a focus on dialogue, collaboration, process over product, experimentation, dealing with ambiguity, thematic approaches and encourage the development of individual student voice through artistic practices. I believe that these qualities embody the values of a holistic and rich educational experience for students. Through a lens of complexity thinking, these attributes, taken up with a sensitivity for curriculum design, can help create the conditions for authentic learning experiences to occur. I believe that many of the experiences I

have discussed in this section have influenced me and helped to form my own biases and develop the focus for what I have found to be foundational for students in my own teaching practice.

Description of institutional structure.

This section is meant to describe some of the institutional and structural factors that defined my teaching context for this study. I try to be thorough and descriptive regarding the particular situation of my classroom, yet simultaneously, I also want to show the relevance of my situation as it might relate to other educational contexts. I hope my descriptions can be thorough enough that I can reconcile between the specific phenomena of my particular teaching context, but at the same time create space for others' contexts to relate and make analogous connections (Wang & Hannafin, 2005).

My classroom is upstairs in RHS, in the middle of the school building. As mentioned before, my room shares a wall with the ceramics class. Other than that, my classroom is not adjacent to any other classrooms. The hallway directly outside of my doors have tack strips that I use frequently to show some of the student work as they finish their projects. I usually have my teacher assistants (TAs) help me rotate the exhibits of student work in the hallways every 1-2 weeks. I find that showing student work on a regular basis in the hallway adds to the culture of art appreciation and exposure in our school. I would add that I have had very few incidents of vandalism or trouble with the hallway exhibits during the seven years that I have taught at RHS. This might have to do with the fact that this hallway is monitored by two of the school's 88 surveillance cameras, which also speaks to the school culture of heavy control and hierarchical structure.

The classroom itself has one storage closet for most of the supplies and equipment. My desk is near the front of the room, with an iMac computer and document camera that are both connected through the wall to a projector. On the front wall of my room I have a large whiteboard installed that I frequently use for many demonstrations, to document ideas as we have discussions, and for any other temporary reason that seems appropriate for class time. I have also designated certain areas of the whiteboard for each course, which I update each day to show the respective learning objectives or designed tasks for the day.

Above the whiteboard on the front wall, I have a collection of 15 hand pulled screen printed band posters, all made by a friend of mine on display. I often refer students to these posters as examples for printmaking process techniques, brainstorming design strategies, or other creative associations, depending on the given situation.

Figure 3. 5 The front wall of my classroom

I also had several shelves along the front wall, meant for the painting classes storage use. On the other walls of my room I had various visual artworks, posters, a banner that says "You are brave enough," and other informative signs. On one wall, I have a collection of promotional posters that have been made by my A.P. Studio Art students over five years of putting on their own shows.

Along another wall, I have a collection of posters displayed with some of the terms that I frequently use or refer to in my teaching. These are a combination of some of the traditional elements and principles of art that are commonly found in many high school art classrooms. I have added to these traditional art terms Olivia Gude's (2004) terms of postmodern principles. With each written term, I have included two photographs of artworks that help to illustrate that particular term. I consider this wall important in helping the students develop a strong vocabulary that expands their understanding of art and the contexts surrounding artistic practices.

Figure 3. 6 View of the side wall in my classroom

Along the back wall of my room I have several cabinets of flat file drawers. Each of the art foundations students are assigned one of these drawers. The students can store their in-process projects, sketchbooks, and other supplies in the drawers. Because of limited space, I have 3-4 students share each drawer. I also have shelves and a drying rack along the back wall for additional storage.

My classroom also has two small sinks, limited counter space, and several cabinets for additional storage. There are 12 large tables that each handle three chairs. I often change the arrangement of the tables, depending on the activities. For example, on the first day of class, I moved the tables all to the outside perimeter of the room to clear a large space for the TASK party. Or when we did a figure drawing unit, I create a large semicircle from the tables and chairs so that everyone's chair faces the model. Because of the spatial constraints of the room layout, I normally maintain an arrangement that creates four table groups (two tables of six students, and two tables of 12).

Schedules.

RHS is on an A/B day schedule, which means that the students each have eight classes total, and they attend four per day, and alternate their schedules every other day. Full-time teachers like me teach three of the four class periods each day. The one period I do not teach is my prep time to get things ready for the other curricular strategies and administrative tasks that I

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need to work on. During the semester of this study, I taught the two Art Foundations classes during A-1 and A-2, and my prep period was third.

First period lasts from 7:55-9:23 am (88 minutes) which is slightly longer than every other period because the school accounts for 6 minutes of video announcements that the T.V. broadcasting class puts on and streams into each classroom at the end of each 1st period. Second period goes from 9:29-10:51 (82 minutes) on a normal day.

Wednesdays were the school's early-out day. The school day ends at 1:40 pm, as opposed to 2:25. This schedule accounts for time that is budgeted for teachers to have weekly collaboration meetings. On Wednesdays, the Art Foundations classes were from 7:55-9:11 am (76 minutes) for A-1, and from 9:17-10:29 am (72 minutes) for A-2.

RHS also conducts school-wide assemblies periodically (about once per month), which shorten the daily schedule as well, usually to around 60 minute class periods.

During this study, I met with each class 41 different days, totalling approximately 60 hours of class time for each period. This comes out to approximately 120 hours of class time engagement documented with two classes over 10 weeks, which produced a large amount of data. There were 67 students enrolled in the two classes (35 in first period and 32 in second period), and I received consent forms from 26 of the 67 (39%) to be included as participants in the study[5].

In order to gather consent forms, I distributed them on the first day of class, with instructions to return the forms to the front office, where the main secretary collected them in an envelope. The students were offered a voucher for a free treat at a local store as incentive to return the forms. I did not collect the forms until the class was over at the end of the semester. That way I treated all the students alike throughout the duration of the semester. When I began to process the data, I simply did not include students who did not turn in a consent form in this study.

Philosophical Approaches and Pedagogical Strategies

This section describes some of the relevant philosophical approaches to my pedagogy by tying together some of the conditions of my specific classroom situation with the personal tone and style that I embody as a teacher. For this study, and for my other classes, I have divided the curriculum into several projects, which I will discuss in detail in the following chapter.

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[5] In Appendix 3 I have included the actual information and consent forms that were given to the subjects. This document includes detailed information about the protocol that was followed in order to gain permission from the student participants, as well as their parents.

Curriculum mapping.

In terms of curriculum mapping for the course, I want to note that during this study, I had created a general outline for the semester of possible projects to do with the students, but I did not plan too tightly or specifically. Even before the semester began, I knew that I wanted to foster conditions for an emergent curriculum to occur. For me, this meant that I could draw upon my own tacit knowledge and experience from projects that have been successful in the past (Irwin, 2003). At the same time, I also wanted to allow space for new directions and projects to take place by focusing on responses to the immediate circumstances, context, and student input of what was going on (Powell & Lajavec, 2011).

I outlined a quasi-chronological, brief overview of art history that was meant to provide students a theoretical and practical approach to art in three basic categories: *Representation, Expression,* and *Inquiry* (Rorty, 1982; Watson & Elkin, 2016). I designed this structure by appropriating some ideas first from Rorty, who discusses the difference between representation and expression as categories in a more general historical and philosophical sense. Secondly, Watson and Elkin discuss the differences and potential pedagogical transitional focus between expression and inquiry as they relate more directly to curricular design for art education. I approached the semester with this basic idea of how to structure the curriculum into these three basic units, knowing beforehand that I would be open to changes, adaptations, and revisions that drew upon my own experience as a teacher, as well as influences or suggestions that might arise from the students, the news, or the community over the course of the semester.

Adopting a pedagogical attitude and willingness to embrace an emergent curriculum is congruent with complexity thinking, as I treated each of the two Art Foundations classes as complex systems, at the level nested within the larger scope of the whole school. This approach is also congruent with DBR. My conception of and enactment of the designed curriculum is iterative in its structure, while not only allowing for emergent behavior, but actually looking for it.

General daily format in Art Foundations.

Most days I would usually begin each Art Foundations class standing in the front of the room, taking roll and greeting the students as they came in. I would have the day's plans, activities, and due dates written under the respective area on the whiteboard. As a general pattern, in an effort to maintain a semblance of coherence and reliability with my students, I would begin almost every class by showing the students the work of a certain artist or idea that is pertinent to whatever project we are working on at that time. I have students respond to the

featured artist, thought, or theme in their sketchbooks. This sketchbook time would typically take about 10-25% of the class time.

Next I would typically go over any necessary instruction, contextualization, demonstration, lead discussions, or other appropriate information to the entire class. This portion would normally take anywhere from 5-25% of the class time.

After that point, I would usually have students work on their given projects (I called this "studio time"). Studio time typically, but not always, took up anywhere from 50-80% of the class time.

Then I would usually have the students use the final few minutes, approximately 5% of the class time, to clean up.

This format helped me establish some expectations with the students, while at the same time affording me flexibility with my curriculum. Depending on the project at hand, I was able to adjust the time in our schedule to fit the needed circumstances. For example, when I introduced a new project, I would spend the vast majority of that day's class time showing artists' work, leading discussions, and trying to contextualize the relevance of the project with the students. Other days were heavy with studio time. I discuss in detail these finding below.

Sketchbooks with featured artists.

One central strategy I used with the Art Foundations classes was to begin each class by featuring the work of an artist or multiple artists, exploring a certain theme, idea, movement or other bit of information that may have been relevant to our current project or discussion. The main reason I have chosen to structure my teaching format this way is to expose students to a variety of artists (usually contemporary artists) and their individual practices and methodologies. This pedagogical strategy draws upon complexity thinking as it relates to learning. The principal goal and rationale for showing many different artists and the ways that they work is to present some information that allows the ideas, energies, strategies, and approaches from professional artists to bump up against the individual experiences, histories and abilities of the students.

In this way, I hope to create opportunities for new connections to be formed within the complex systems at both the individual and collective (classroom) level for students' learning. Facilitating conditions for lateral learning to occur between the artifact (such as a video about an artist's practice) and the student directly, as they each respond in their sketchbooks individually. Usually this daily presentation would range anywhere from 5-10 minutes, although it was not uncommon for these presentations to spark a class discussion that might require more time to unpack, explore or otherwise elaborate upon. These discussions were often the catalysts that

would lead to new territories, project ideas, or experiments that would happen either at the classroom level, or often at the individual level.

Figure 3. 7 A list of the featured artists studied in Art Foundations during the final term. This list was created on the whiteboard at the end of the term in order to help me assess the student sketchbooks

Usually the presentation at the beginning of class would be in the form of a video, slideshow presentation, or written prompt. Depending on the featured artist of the day, I would ask the students to respond to the presentation in their sketchbooks. They would often draw a reference picture from the artist's work, write notes, and respond to a directed question about the artist's practice.

I often used the materials (videos) from Art21, as well as many other documentary-type video sources as the feature presentation of the day. I preferred to find concise videos that are usually under or around 5 minutes, and usually examine the work of the artist with the artist's voice explaining their own practice. I should note that I would check each student's sketchbook at the end of each term and give them a score for participation based on whether or not the students took notes and made drawings in their sketchbooks for each day. I will describe in

detail each of the artists featured with the accompanying questions as well as the student responses and outcomes of these featured presentations in the sections of this chapter that follow.

Eight questions of artistic practice.

In tandem with the daily artist presentation and the student responses in their own sketchbooks, I frequently used the following questions, which I developed with the help of my supervisor, Dr. Castro. These questions (included again below) were posted on the back wall of my classroom, which I refer to as my "eight questions of artistic practice":

1. How do they get **Inspiration**?
2. How do they **Start**?
3. What **Questions** do they deal with?
4. How do they **Research**?
5. How do they deal with **Materials**?
6. What does their **Production** process involve?
7. How do they **Reflect** on their work?
8. How do they **Exhibit** or **Present** their work?

In the classroom poster version of these questions (see figure 3.8), I highlighted the key word(s) of each question in large red lettering (bolded here). I also surrounded the collection of printed questions with photos of artists working in their own contexts. I want to underscore the fact that these questions were carefully crafted as a curricular structure and pedagogical strategy which could be used iteratively with almost any artist in order to help students examine their artistic practice. Depending on the artist, and the content of the particular video or artwork being examined, I could tailor the class discussion around one or more of these questions. Having these questions displayed in the classroom during the semester allowed for a thread of coherence with which the focus of discussions were linked together. At the same time, these questions afforded the students and I a great deal of flexibility to explore a variety of other questions, ideas, and concerns, as they emerged as they related to artistic strategies.

Figure 3. 8 View of the back wall of the classroom with the eight questions of artistic practice

   These eight questions functioned as a perpetual, iterative curricular structure in which the particular content under investigation might "bounce" between the students in a focused way. In order to create spaces where new understandings about artistic practice might emerge, these questions were designed to help students see and make connections to the possibilities of their own developing artistic processes.

   The following sections contain descriptions that are important to a DBR study. As I describe the chronological occurrences of what happened over the course of the semester, I try to focus my findings through a lens that attends to my main research questions about student learning with attention specifically on contemporary art, as well as my attention to complexity as it connects with the curricular structure which I have designed.

Introduction to DBR

   DBR is described as a systematic, flexible, and pragmatic methodology that aims to improve practice; its structure iteratively examines, (through analysis, design, development and implementation) phenomena continually and reflexively within a context-sensitive setting (Barab & Squire, 2004; Wang & Hannafin, 2005). DBR not only draws from existing theories, but also seeks to generate new theories through advancing designed interventions within real-world situations (Cobb, Confrey, diSessa, Lehrur, & Schauble, 2003; Barab & Squire, 2004).

   In the field of the learning sciences, DBR is a relatively young methodology. DBR developed from other analogous methodologies that also focused on formative assessments, real-world settings, the consideration of a specific context, and continually and iteratively examining phenomena through a specified design (Anderson & Shattuck, 2012). Some of these early methodological versions were called *design experiments* (Brown 1992; Collins, 1992), and like DBR, were seeking a legitimate way in which to bridge the gap between theory and practice while also finding ways to improve pedagogical practice.

DBR treats the local and specific context in which research is conducted as core to the importance of its validity, and not as an afterthought or side-note. This is a challenge to DBR researchers, as they try to be thorough and descriptive regarding the particular situation, yet simultaneously show the relevance of their work as it might relate to other contexts. Stake (1995) calls this *petit generalization.* The ways in which researchers work with their data is very important in order to meet this challenge in order to create a viable and credible study.

Criticisms of DBR

The main criticisms of DBR are similar to other qualitative research methodologies. For example, that the findings of such a study may be colored or otherwise biased by the researchers' personal or political inclinations. Critics of many qualitative methodologies also argue that too many researchers use the term "saturation" too loosely and subjectively as they examine the data in order to claim any substantial theoretical conclusions (Dey, 1999). Charmaz (2006) also recognizes the necessity for qualitative researchers to be thorough, especially when developing or reconstructing theories. Theorizing in this way, according to Charmaz, "means stopping, pondering, and rethinking anew. We stop the flow of studied experience and take it apart" (p. 135). Because of it's narrative structure and dependence on rich descriptions, the theories developed through DBR could be argued to be too subjective and insufficient if the researchers do not treat the data with extended and thorough attention.

Because it is a relatively new methodology, many people conflate DBR with Action Research, Participatory Action Research, or Grounded Theory because of the way all of these methodologies come from a practical worldview, that often the researchers and subjects in these studies may proceed collaboratively, sometimes advocate for some kind of change, and rely on an iterative structure to process the data (Creswell, 2009). But DBR is unique from these other methodologies in that the iterative nature of the study orbits around a designed thing, and not necessarily a political or social goal. The designed thing, (in my case, a new curriculum) allows the researchers and practitioners to work together to solve problems within the real-world context in which the research is being conducted (Wang & Hannafin, 2005).

DBR through the Lens of Complexity Thinking

Complexity thinking is the study of phenomena which emerge from a collection of interacting objects or agents (Johnson, 2007). Both DBR and complexity thinking are relatively new within their respective fields, disciplines, or research attitudes. Complexity thinking is concerned with the dynamic structure and emergent behavior of self-organizing, ambiguously bounded systems. Over the last decade, complexity has increasingly been used in many fields

to study phenomena associated with things like ant colonies, the brain, the stock market, or the internet (Johnson, 2001).

Some of the characteristics of these systems are:

1. They manifest complex collective behavior (the networked collective is smarter than any one individual agent in the group).

2. They produce and use information or energy from both their internal and external environments.

3. They are adaptive. They change their behavior as they learn and evolve in order to thrive (Mitchell, 2009).

Concerning education, complexity thinking considers learning as a dynamic system that can be studied at multiple levels, nested within each other (Davis & Sumara, 2006, 2008). For example, complexivists argue that learning happens simultaneously at the subpersonal level (neurons firing in the brain), at the individual learner's level, at the level of a classroom, the level of a body of knowledge, and an entire culture. These understandings help to conceptualize the theoretical implications of complex systems by "describ[ing] the dynamics between the different levels of phenomena, from neurological to cultural to ecological," (Castro, 2012) which have very significant implications for knowing and learning.

One of the most significant compatibilities to DBR is the way that complexity thinking regards the importance of the immediate environment in which a complex system is situated. Similar to the structure of DBR, complex systems depend on feedback from the particular local context in order to adjust or adapt their behavior. Davis and Sumara (2006) regard this act of scouting for possible responses as the basis of intelligence (p. 86).

I think DBR is an excellent companion for examining phenomena through the theoretical lens of complexity thinking; especially for studies in contemporary art education (Castro, 2015). Both DBR and complexity thinking share a postmodern ethos that hold a position of incredulity towards metanarratives (Lyotard, 1984), and instead favor attention to the particular, to the idiosyncratic, and towards an unknown possible. This postmodern disposition for an art educator means favoring inquiry and exploration within a complex network of possibilities, rather than the common, didactic, and predictable positionality found in many school systems.

What Constitutes Data in DBR?

To better understand what data might look like within the context of DBR, it is important to understand the paradigm shift that DBR brings to the learning sciences. Unlike many traditional methodologies that are solely rooted in empirical evidence and well-established, generalizable theories, Cobb et al. (2003) argue that the intent of DBR is "to investigate the

possibilities for educational improvement by bringing about new forms of learning in order to study them" (p. 10).

To better investigate these possible educational improvements, it is important to recognize the situated position of the researcher. Considering the complex ecology of the specific site as well as the purpose of the phenomenon being studied will help orient the researcher to know what and how to design or adjust an appropriate intervention. The following variables will help to distinguish what data could look like in a DBR study.

Organizing data.

Before initial stages of research, the researcher must have a plan to decide what forms of data they will collect. For example, my DBR study examined potential student learning through the design of a new high school art foundations curriculum. The data I collected has taken the form of transcribed interviews with students, my own personal observations, and student artifacts in the form of photos and videos of student artworks. It is important for a qualitative study to gather several forms of data, instead of relying only on one data set (Creswell, 2009). As I collected these pieces of data, I was able to consider their relevance and relation to other forms of data collected.

In DBR, analysis is conducted immediately, continually, as well as retrospectively. This approach is taken in order to help the ongoing design and revision process. Wang and Hannafin (2005) suggest that the data surfaces into two levels. The first (Level 1) are more straightforward, such as descriptions about the context, observations from the classroom, or specific revisions about the designed intervention. The second (Level 2) are distillations from Level 1 data. These data are created as connections are formed across different forms of data, developing basic categories from increasingly abstract principles or observations. Level 1 data, as well as some of the beginnings of Level 2 data, has been part of the immediate and continual recursive analysis that happens in the initial stages of DBR data organization.

Coding data.

In qualitative studies, coding is regarded as the first step in taking an analytic stance toward the data (Charmaz, 2008). Specific to DBR, the Level 2 data develop more deeply with time, as certain data can inform or influence previously collected data. Coding data will occur retrospectively, after the designated period of research is complete. The researcher should look at all the collected data with fresh eyes, and be as rigorous, descriptive, and detail-oriented as

possible (Bouma, Ling, & Wilkinson, 2012) in order to find connections, distinctions and provisional understandings about the collected data. Then, according to the various phenomena, the researcher can assign codes to each of the data collected.

Codes ought to be active, immediate, and short. They are meant to focus on defining action, explain assumptions, and seeing processes (Charmaz, 2008). Examining the data line-by-line and assigning codes will help the researcher to synthesize the data and start to look for connections to existing theories, as well as develop new understandings and theories of learning that are contingent on the context of the DBR study.

My study included two art foundations classes, examining the curriculum, as well the effects and consequences of the actions that happened each day in class with 67 students over the course of four months. I was able to generate a lot of data. In order to make sense of it, I examined the observational notes, student interviews, as well as the photos and videos of students' work that I collected. I then assigned codes that pertained to various themes, ideas, and theories in order to categorize them for further analysis.

For example, as I studied the data mentioned above, I generated several codes, which I gave tentative titles, such as "class ecosystem," "student engagement," and "curricular adjustments" just to name a few. These codes helped me organize the data into Level 2 categories, as mentioned above. This allowed me to examine the codes against the Level 1 data, as well as against other Level 2 categories. From these comparisons and thorough examinations of the data on multiple levels, I was able to generate my own theories and ideas about the data, which I outline in greater detail in Chapter 5.

Shaping and presenting findings.

Because of DBR's fluid and recursive structure, the analysis of collected data could continue to develop indefinitely. It is important for DBR researchers to clearly demarcate the boundaries and attentions of the study. The researcher can compare data to data, data to category, and category to category. This ongoing analysis helps the researcher decide how to shape his or her findings, claims, as well as how to shape new theories and contributions to the field.

Schoenfeld (1992) argues that for a methodology in the social sciences to be sound, it must be *trustworthy, credible,* and *useful*. In DBR, the first two criteria (trustworthiness and credibility) are akin to the quantitative research criteria of *validity* and *reliability*, but because of the focus on local context and the cultural nuances of the specific site, as well the interpretive nature of the learning sciences, DBR results are not meant to be exactly replicated in other

contexts. The third criteria, *usefulness*, is especially relevant to DBR as the researchers involved draw upon existing theories and seek to advance new theories as they relate to the practical, real world situation of their study. Barab and Squire (2004) suggest that DBR researchers "must draw connections to theoretical assertions and claims that transcend the local context" (p. 8).

One of the primary challenges for my DBR study has been to to develop flexibly adaptive theories that remain useful in new local contexts, without generalizing theories to create universal or overly simple (and suspect) conclusions. The format of my data has depended largely on descriptive language, including a narratives, observations, and student interviews. I also include other visuals to help describe and illustrate some of the data. These visuals take the form of photos and videos that I have collected directly from my time in the classroom. I have also included some other charts of data visualizations, which are visual representations of information (Castro, 2015).

Conclusion

The field of art education could benefit from DBR studies; especially those with a propensity for complexivist thought. These studies can offer new directions, theories, and possibilities for reimagining a contemporary landscape for educational research (Sullivan & Miller, 2013). Data that is carefully and rigorously organized, coded, shaped and ultimately presented in Design-Based Research studies can help art education produce more practical responses and interventions in order to become a more viable field.

Figure 4. 1 "Jessica with photo fragments and scissors" Gouache on canvas, 28" x 22"

CHAPTER 4: Findings

Description of Class Projects

This section is dedicated to explaining an overview of the 13 class projects that I enacted with my Art Foundations classes during the semester (see figure 4.2). For the sake of congruence and practicality, I kept very similar timelines, schedules and project designs for both the A-1 and A-2 classes.

For each project I offer three parts: 1) a brief *description* of each project with contextual information about why the project was chosen, how it may have come about, the choice of artists that I used as curricular influences for each project, and the corresponding key questions that may have guided the development of each project in this curriculum; 2) a brief *analysis* of the results of the project as both the teacher of the course and the principal investigator for the study; 3) the implications of the *iterative nature of the DBR design*, comparing both how things occurred in the two different parallel classes as I ran the same curriculum design, as well as how the curriculum emerged overall, and how the different iterations of the curriculum design unfolded over the course of the semester. I outline larger, theoretical implications about this study in greater detail in Chapter 5.

Curriculum Map of Projects for the semester: Jan. 19-May 27, 2016	
Project name	**Artist examples/ curriculum content**
1. TASK	-Oliver Herring Art21 Exculsive video "TASK" -Discussion about process, contemporary art
2. Representational drawings	-Drawing using mirrors, hand studies, blind contour demonstration
3. Grid Drawings	-Chuck Close Seasame Street video, video of interview on Colbert Report -Malcolm Morely video -The Art Assignment "I could do that" video
4. 6 second video	-William Lamson "Actions" videos -Koki Tanaka videos
5. Hirschhorn-Inspired Foucault monuments	-Thomas Hirschhorn "Gramsci Monument" Art21 Exclusive video -The School of Life "Foucault" video -Mark Dion Art21 video season 4
6. 9 Figure Drawings	-Protko "Gesture" video -Several demonstrations and informal discussions
7. Tape Sculpture	-Bernini Powerpoint -Janine Antoni "Milagros" Art21 Exclusive video -Antony Gormely Powerpoint -Ron Mueck Powerpoint
8. Plaster hand	-Diana Al-Hadid New York Close Up video -Abraham Cruzvillegas "Autoconstruccion" Art21 Exclusive video
9. Repetition	-Do-Ho Suh Art21 video segment -Marina Abramovic "Screaming" video -Tom Friedman Powerpoint -Allan McCollum "Over 10,000 individual works" Art21 Exclusive video -Doris Salcedo "Istanbul" Art21 Exclusive video -Tehching Hsieh Powerpoint
10. Make/Do	- "How to make a $1500 sandwich in only 6 months" video - Ted Talk Thomas Thwaites: "How I built a toaster from scratch" video -Glenn Ligon Art21 video segment
11. Collage	-Elliott Hundley Art21 video segment season 7 -Andrea Zittel Art21 video segment season 1 -Mark Bradford "Paper" Art21 Exclusive video
12. Printmaking	-Wheel of Juxtaposition (brainstorming strategy) -Dirk Fowler video and Powerpoint -Rembrandt Powerpoint -Martin Puryear "Printmaking" Art21 Exclusive video
13. Spring Showcase entry/ class final	-John Baldessari video narrated by Tom Waits -Lucas Blalock "99 cent store still lives" New York Close Up video -Daniel Gordon "Gets physical" New York Close Up video -Shauna Moulton "Whispering Pines" New York Close Up video -Mariah Robertson "Chemical Reactions" New Tork Close Up video -Mika Rottenberg "Mary's Cherries" Tateshots video

Figure 4. 2 A brief overview of the projects from the Art Foundations class. See Appendix 2 for specific references to the URLs used for the videos

TASK Description for the First Day of Class

I have always thought that the first day of class is extremely important as a teacher, in order to set the tone for the class, to establish a general feeling for what the students will be expected to do and how they might be expected to act. I also perceive the first day of class to be a great opportunity as well, and I try my best to learn the students' names and hopefully form some kind of individual connection with each of them that I hope will lead to a more substantial relationship as the semester goes on.

For the first day of class in both A-1 and A-2, I began the classes with a TASK party. TASK is the brainchild of Brooklyn-based artist, Oliver Herring, in which a group of participants are brought together in a bounded space with a certain number of supplies and usually inexpensive materials, with a central box or bucket (the pool) and several slips of blank paper. Participants are invited to adhere to a simple structure of two rules- first to write a task on a piece of paper--a task meaning anything one can imagine someone making or doing--and then depositing the written task into the central pool. The second rule is that after the participant has placed a task in the pool, they must reach in and pull out another one, and then "do" it. That is, to interpret the task however they want, to the extent that they want, using whatever they can find around them in the designated space. In our case, I kept the students in my classroom, and I tried to limit the material choices to just several kinds of papers (butcher paper, newsprint, copy paper, etc.), and dry materials, such as masking tape, markers, crayons, and colored pencils.
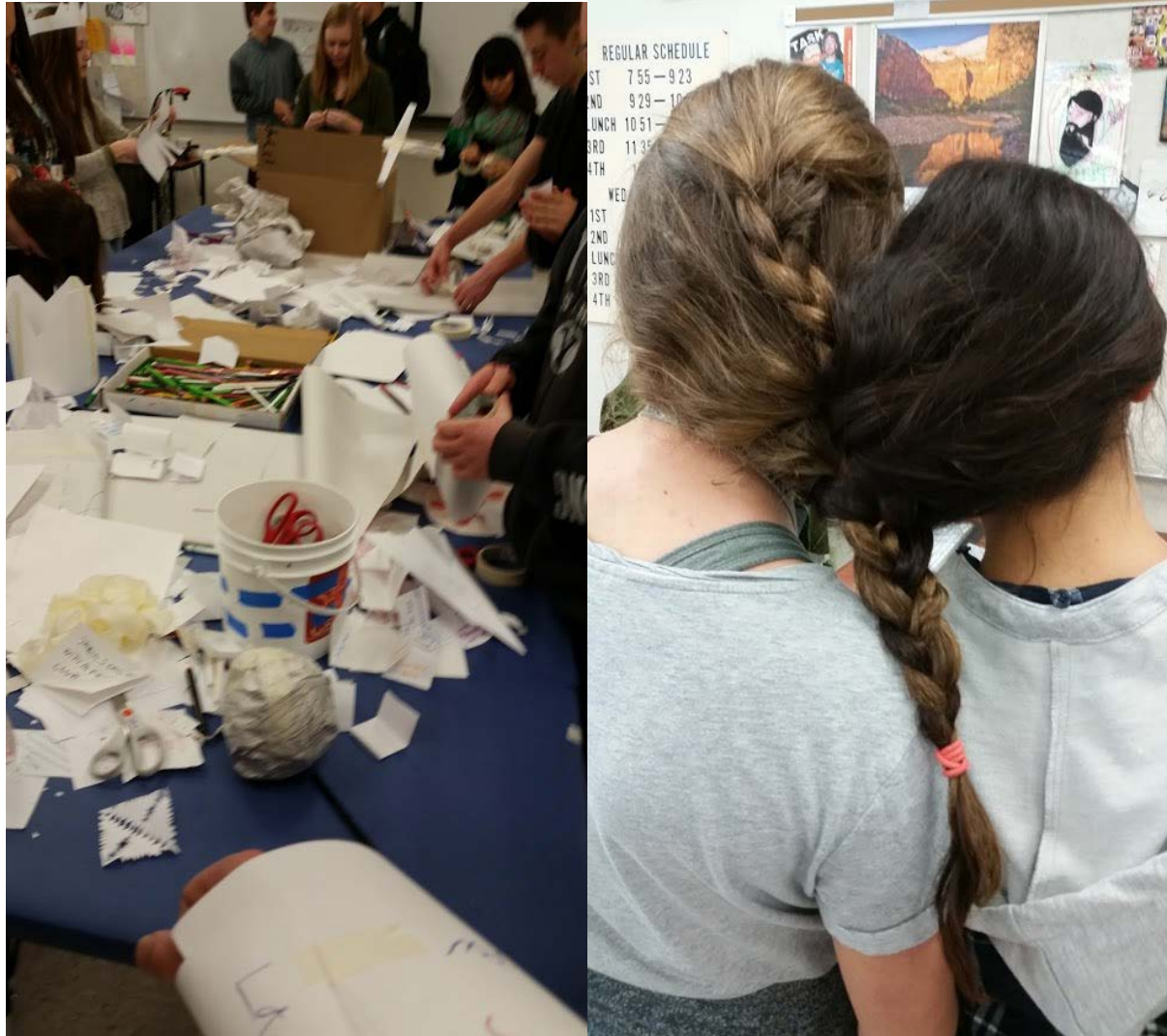
Figure 4. 3 Some photos taken from TASK in the classroom

I began both classes by showing them an Art21 Exclusive video of Oliver Herring throwing a large TASK party in Madison Square Park in NYC, to give them a basic introduction. After a brief introduction with basic instructions about how it works, we did TASK together for an hour, followed by a 10-15 minute discussion afterwards to unpack and process the activity as a class.

TASK analysis.

As a teacher, I have been doing TASK on the first day of class with most of my classes for the past five years. Generally speaking, I find it to be a great way to break the ice with students, to provide a place for them to experiment, play, fail with little consequence, to focus on process, and ultimately to establish an environment of trust. TASK is a great structure for

students to experience raw, creative action and the uncertainty and vulnerability that comes from embracing ambiguity, all within a shared social environment.

I find doing TASK with students on the first day of class is always unique with each group of students. For these two classes, this was the first time I had purposely paired down the choices for materials, using mostly paper, masking tape and markers. I treated this particular iteration of TASK as part of an ongoing experiment. I found that in both classes, the large majority of the students were engaged with the activity. It was almost necessarily awkward at the beginning, but by the end of the hour, most of the students had flourished with the scope of their ideas and interpretations of written tasks, often building on the tasks of others.

In comparison to previous years, I actually noted in my reflective journal that I judged this time around was slightly less successful than previous years, possibly because the choices for materials were especially limited. There were also a handful of students (between 5%-20% of the class at any given time) in each class that were not engaged with the activity, sitting on the periphery, some choosing interaction with their phones over participation with the TASK party. Generally speaking, the freedom offered to the students by this approach was greatly appreciated and reciprocated, and I think doing TASK on the first day of class overall was a successful and engaging activity. Some of the students used the freedom to not engage with TASK, and a few even saw this time as a chance to challenge my authority as a teacher. For example, included a section from my reflective journal about Dallas, a student with whom I already had a history and somewhat strained relationship:

> One thing that stood out to me today was that I discovered Dallas (who was in my class last semester), continues to stress me out. He's trying to push boundaries of respect- sitting in my chair, writing tasks to waste tape, tie me up with tape, and steal my computer mouse. I think he has some issues with authority.

Iteration notes for TASK.

First period seemed a bit more hesitant to jump into TASK, I think a lot of that had to do with the fact that it was the first class of the morning, and students were a bit shy, but willing to play along. Second period brought more players who were ready and willing to engage with TASK, but as I mentioned, some of the students (Dallas) saw this as an opportunity to push boundaries relating to respect to my authority, or perhaps trying to assert their own position in the class.

In both classes, I felt like I was able to strike a useful and positive tone that encouraged and promoted freedom, accountability, and possibility with the students, which speaks to my research question about understanding learning through a lens of complexity. Although both group discussions, I felt like I had minimal participation from the group. In each class there were about five or six students who offered vocal answers to our group discussion.

Representational Drawing Unit Description

The next day of class, I gave a brief introduction and spent some time going over the class disclosure and syllabus. I then gave a brief presentation with each class about what I had envisioned as a guiding map that would help give students a position on contemporary art. To briefly show the curriculum map of how I thought the semester would play out, I showed several images to illustrate the idea of dividing the semester into three units (Representation, Expression, and Inquiry). For example, I led a brief introductory discussion showing Leonardo's Mona Lisa (Representation), Edvard Munch's "Scream" (Expression), and a video clip of Francis Alys' "Faith moves mountains" (Inquiry).

After the brief introduction to these ideas about art, I had students do 45 minute portrait drawings of their neighbor as sort of a "pre-test" that would connect with the "Representation" portion of our time together.

The following day in class, I handed out 12"x18" sheets of paper and had the students fold them in half to make 4 different surfaces upon which to do quick drawings. The first one was a 1 minute, blind-contour drawing. I spent the first minute demonstrating a blind contour drawing on the whiteboard, while simultaneously explaining the rules of this blind contour drawing (talking about how to connect your eyes to your hand and focus your attention on following the line as you draw it). The second drawing was to be a 7 minute drawing of their own hand. For this exercise I stressed the importance of looking at the subject 70% of the time, and down at the paper only about 30% (I call it the 70/30 rule). While students were drawing, I walked around the room, reminding them periodically to "look at your hand, not your paper". For the third drawing, I first led the students through a 10 minute demonstration about how to draw a straight-on view of a human face, and stressed another general rule for drawing realistically (work from general to specific features), I then gave them about 10 minutes to work, edit and adjust the basic drawing we started together into their neighbor. And for the final drawing of the day I passed out mirrors so they could spend about 15-20 mins drawing a self portrait. In each class, I reminded them of the 2 'rules' and let them draw. I also gave them homework to email me a photo of their choosing that I will place a grid on top of, to print out to be a reference for a grid drawing in the coming days.

Representational drawing unit analysis.

I have taught versions of this representational drawing lesson several times throughout my career thus far, and honestly, I think this time around was one of the most effective, as I have edited down and refined the delivery of my instruction to the bare minimum, and tried to allow the students to have most of the class time to work. In both classes, I noted that approximately 90-95% of the students were engaged the whole time, which I consider largely successful as an engaging activity. I think a lot of this success comes from being the first part of the semester. The quality of the student drawings was on the whole about the same as most of the other times I've given a similar version of this introduction. The delivery of my instruction and demonstration were tightly controlled on my part, so that the outcomes (student drawings) were almost predictable. Few of the individual student interactions with me were very memorable (I had absolutely no behaviour problems during this project), I felt like the climate was amicable and productive, and I do feel like I was establishing a warm and safe environment for the students.

I also hope to give the impression that I'm approachable and personable, as I tried to use the studio time while they were drawing to walk around and learn their names and talk to them about their personal interests. I wonder if the tightly regimented drawing exercises negate some of that approachability with some students? On one hand I'm trying to establish solid expectations (that students will use time in the class to draw and be engaged with the task at hand), but on the other hand I want to create a space in which students can feel autonomous and empowered to be creative and explore.

I recognize that this project was not very contemporary, and especially after doing TASK on the first day was perhaps a very different experience for most of the students. I feel implicated in an institutional tension between the more organized and controlled drawing unit and the chaos and exploratory action of TASK. This tension leads me to ask many questions about my role in the establishment of the class environment, setting expectations for students, and what student success and failure really look like in the art classroom.

Iteration notes for representational drawing unit.

The design and delivery of this project was very polished and left little room for student interpretation or exploration. I wanted to note how I was weary about how second period might take to this project after some of the individual student interactions from the previous day. I thought that I might run into some problems with certain students, in terms of asserting

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themselves to the point of distracting or disrupting the rest of the class, but I felt like this project gave a nice counterbalance to the openness and possibility of TASK. The students (even Dallas) were engaged with the drawing activity.

I think sequencing this project right after TASK helped to continue to set the tone for class expectations for students. As opposed to TASK, I was able to give the students a clear (timed) objective that demanded the students' attention and effort toward a tangible goal. This project is more in line with a traditional art foundations course, but I think it is important to recognize it in relation to TASK as an illustration of the tension between the traditional structures and contemporary curricular designs. I discuss this tension in more detail in Chapter 5.

Grid Drawing Unit Description

Reflecting upon the fact that the previous representational drawing unit did not have a curricular design that was as contemporary as I initially would have liked, I was still hoping to explore the "Representation" portion of my curriculum map for the class. For the next project, I still wanted to spend some time with the representational theme, but at the same time, allow for more student voice and interpretation. I chose to adapt a project that I have presented with many of my previous classes (a pencil drawn portrait using a grid). But this time around, I wanted to push for a more conceptual interpretation about each student's individual identity. I sent home a half-sheet of paper asking each student to email me a picture of their choice about their own identity. I explained that I would put a ½" lined grid over this photo, which I would print in black and white, so that they could use it as a reference from which to make a realistic drawing over the next several days in class. The students were given a 12" x 18" piece of paper, and were to make their corresponding grid 1" so that their drawing would be twice as big as the reference.

During the first day of this project, I talked to the class about John Cleese's advice (Video Arts, 2017) about creativity-- that there is an "open mode" (akin to their experience with TASK, in which one is free to experiment, play, try out ideas with an attitude of little or no consequence-- like a stage of brainstorming or ideation, just to see what sticks), and that the open mode of this particular project was in the curating and finding of the photo (one that represents their identity). And the second part of Cleese's advice is the "closed mode" in which one gravitates towards and ultimately commits to a specific idea in order to work on it, and necessarily not work on any other ideas. He says that creative people need time and space carved out of your life for both of these "modes".

The next day I showed them some videos about Chuck Close, who uses grids to make large-scale, realistic portrait paintings. The first video was a one-minute video of Close talking to

Big Bird on Sesame Street, and then a 6 minute video of Close talking about his process on the Colbert Report. The next day I showed them the work of Malcolm Morley, another artist who uses a grid as an artistic strategy for his action paintings. I showed a brief video of Morley in his studio, discussing his process, followed by a PowerPoint presentation of some of his paintings. On both days, I asked students to respond to question #6: "What does their production process involve?"

The students had approximately 5 total hours of studio time in class to work on their drawings.

Figure 4. 4 Student drawings of identity with a grid (in progress)

Grid drawing unit analysis.

When I initially gave the assignment for each student to email me a photo, I estimated that only 50%-60% of the students performed this task on time. While I printed out those students' photos with grids, 20%-30% of the students quickly got on their phones and emailed

me a photo during class. The remaining 10%-20% of the students who either did not have a smartphone or otherwise did not send me a photo, I simply called over to the window and took a portrait photo for them. Once the students all had their reference photos and corresponding drawing papers, I estimated in my reflective journal that 90% of the students were engaged in drawing during the 5 studio hours, which I consider quite successful. From my reflective journal, I noted:

> I felt like even though I would say I was pretty successful in getting the kids engaged with the project, because I've done a similar project with so many of my students in the past, it felt quite traditional in the sense of the "school art style" (Efland, 1992; Gude, 2004). So I'm aware of that, and it worries me slightly that this project doesn't seem like part of a very contemporary art curriculum. But I'm hoping that I can contextualize it with the overall arc and scope of the projects that I'm planning to do with these students in the future. One of my hopes (and justifications) for doing this grid project right now with the students is because I've seen this project help a lot of kids connect with the idea of art as a way that seems familiar (realistic pencil drawing) and the grid also seems to provide an opportunity to be successful at drawing something realistic, which I hope breeds confidence with many kids.

I also noted in my reflective journal instances of how I responded to two different students:

> I also did my best to walk around and give encouragement to the kids who had "figured it out" (the grid project). There was one boy who I could tell quickly that didn't really understand the difference between the way we were drawing today (carefully, square by square) as opposed to the way we were drawing last time (General → Specific, 70/30 Rule). Plus his grid was crooked to start with. So I intervened and helped him get started drawing a new grid on a new piece of paper. I tried not to embarrass him and used reassuring language, because I gave him this correction in front of some of his table mates. I also took Bradley's drawing (a nice 30 min start) and showed it off to the rest of the class as a good example. I even asked him (in front of other kids) if I could borrow his drawing to show my next class as a good example. I think this boosted his confidence a bit, because he came back in during lunch with some friends to show off his drawing.

The reflection from this project shows where my interests lie as a teacher. I try to use my time and attention during the studio time to walk around and talk informally with the students to

form connections with each of them. I also tried to be aware of and sensitive to the relationships between students in proximity to each other. Considering things in terms of complexity thinking, I think this studio time is an opportunity for informal, one on one conversations between me and the students. It is also a time when students can talk to each other while they draw. I believe this informal studio time can be a fertile space for relationships to form and develop. I hope that the students understand and engage with the task at hand (in this case, how to draw from a reference with a grid). At the same time, I am also very interested in the effects that this studio time has on the growth of the class as a collective. In complexity terms, I am interested in the dynamic movement and attention that is rendered between myself and the students, as well as the energy between the students themselves and the designed curricular structure. It is also encouraging to see students proud of their work to the point that they want to show it off to their friends outside of our class.

Iteration notes from the grid drawing unit.

Moving from the previous project to this one gave me a lot to continue to think about, in terms of the curricular tension between traditional and contemporary approaches to teaching. I thought that this project was similar to the previous drawing project in that this project was focused on representational drawing. But this curricular iteration gave the students a little more space to include their own voice and interpretation to the project by structuring the assignment to put each student in charge of creating or finding a reference in order for the drawing to be about their own identity.

However, I recognize that, according to John Cleese's rationale and explanation about the "open" and "closed" modes of creativity, this assignment spent the majority of the class time in the "closed mode." Once the students had chosen or found their reference picture, the remainder of the students' time was spent tediously combing over their grids, square by square, carefully trying to replicate the values on their drawing to match their references.
The process of this project is not structured to be terribly creative or open-ended in the way that TASK was, but similar to the Representational drawing unit, I hoped that the students would be able to consider this project in relation to TASK. With the help of John Cleese's practical description of "open" vs. "closed" modes of creativity, I hoped that this project would be seen as a useful iteration as we proceeded forward into the semester as we considered the role of Representation in artmaking.

Six Second Video Description

  The next project in this curriculum was a short one. A project that emerged as a counterpoint to my own worries that the projects we had started with were not contemporary or conceptually challenging enough for the students. The simple prompt for this project asked students to submit a 6-second (maximum) video clip to me that showed students' experience experimenting and exploring possibilities with simple materials. I showed the students some of William Lamson's work from his website, especially the "Actions" where he finds creative ways to pop balloons in his studio. I continued a discussion about John Cleese's idea of the "open mode" vs. the "closed mode" of creativity. I tried to explain how the project we just finished (portraits with grid) was a very laborious and time consuming, "closed-mode" exercise. As opposed to the idea of a more exploratory, brainstorming method which I tried to set up as a time to engage in the open mode. I suggested that each student come up with 19 ideas in their sketchbooks, and guaranteed that if they could sustain their time brainstorming this way, that their 19th idea would be better than their first one.

  In each class I tried to convey the idea that successful creative people were simply able to tolerate the discomfort of uncertainty that inevitably comes with brainstorming or not knowing an exact answer to a problem. I also showed the work of Koki Tanaka, a Japanese artist that uses everyday materials to do simple physical tasks. Together with the work of Lamson, I introduced this project as a quick homework assignment for the students to do a similar exercise.

  I also showed them a similar video that I made from a similar assignment that I had done the year before, where students were given the prompt "throwing" and asked to submit a brief video that showed them throwing something in a creative way. I had taken all of the short student videos and compiled them back to back to make one 3:52 minute video.

  I gave the first class about 15 minutes to brainstorm, and the second class had about 30 minutes (see figure 4.5).
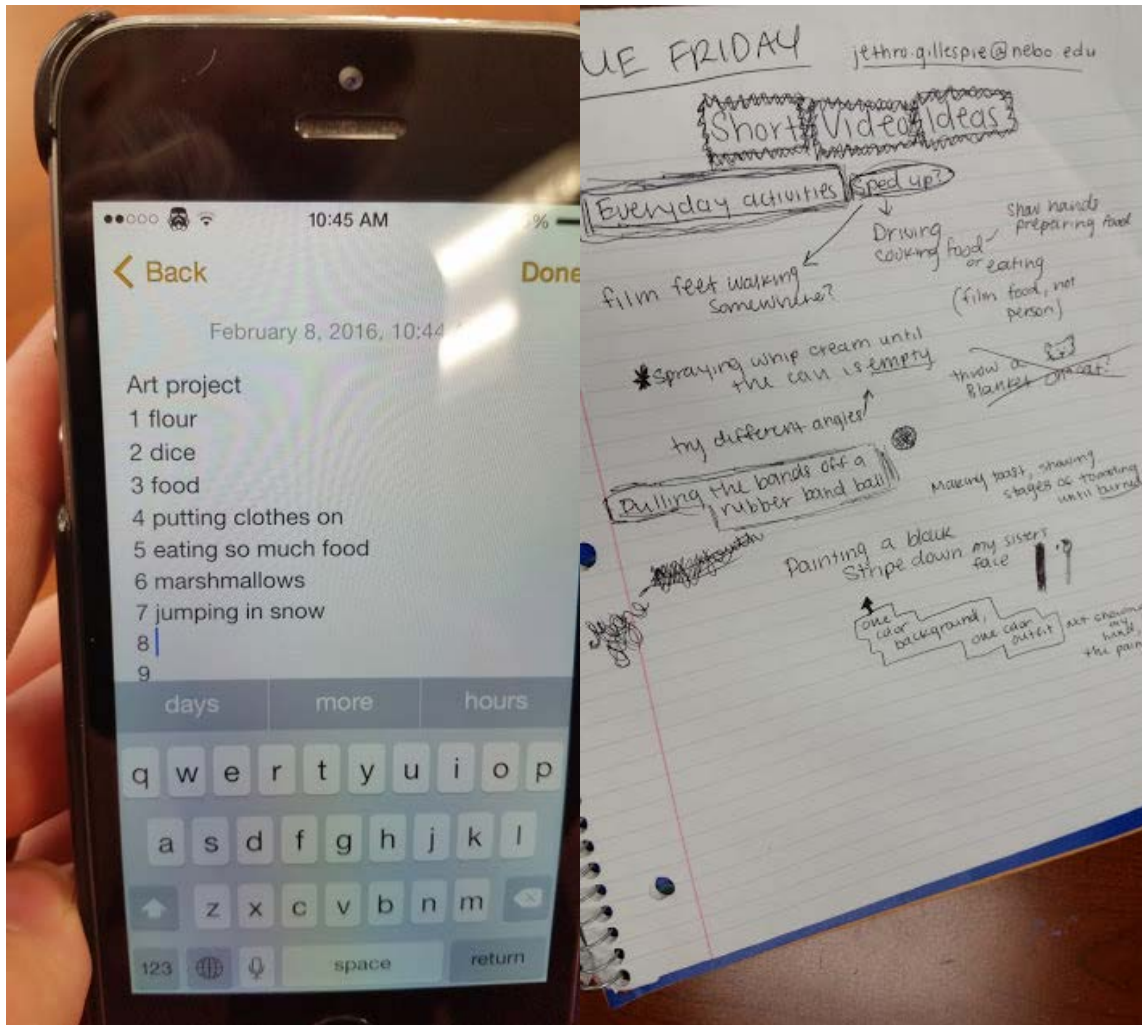
Figure 4. 5 Students' lists and brainstorms for the short video project

Six second video project analysis.

Some students really took to this challenge (For example, Margaret made a list of about 35 things in her sketchbook), several other students were dutifully working on a list that they had pre-numbered up to 19. Other students, when asked how the brainstorming was going, kind of shrugged or said something like "I've already got my idea", which I would counter with something like "Where are your other 18 ideas?" This got some of the students working and talking and laughing with the other kids, but I'd say most of the students not working (approximately 30%-50% from each class) on their brainstorming actually didn't engage with the curriculum. I considered this more of a failure than previous projects, but it raises an important issue when it comes to art foundations which I treat more fully in the following chapter: the challenge of teaching skills and developing a healthy disposition towards the "open mode"

portion of creativity, as well as providing time, space and pedagogical attention to class tasks associated with ideation, brainstorming, and working out authentic and original ideas. Using the works of Tanaka and Lamson helped many students shape their ideas for what was possible for this project, which strongly addresses my main research question about helping students learn to think like, inquire, and make like contemporary artists by examining the various aspects of their practices.

Six second video iteration notes.

From a teacher's perspective, I am interested by the challenge that is presented when students are asked to brainstorm for longer than 5-10 minutes. The ambiguity that this kind of situation fosters is almost tangibly uncomfortable for most students in my classes. Many of my students resort to looking on their phones, sometimes exploring Google or craft-based websites such as Pinterest for ideas or solutions to their problems, often copying other ideas directly. Other students simply go to their phones to be distracted from the task at hand by playing games, texting, or otherwise avoiding the project. I think the ability to handle the discomfort that comes with ambiguity of an "open mode" approach to ideation, initial brainstorming, or the beginning stages of a project.

This issue points to the fact that originality and creativity are difficult. It also raises important questions about what my (the teacher's) interests, focus, and curricular design are and how much time ought to be dedicated towards "open mode" kinds of activities, especially in an art foundations classroom.

In both classes, this problem of students coming up with an original idea, or wading through the uncertainty of the "open mode" became an apparent challenge that I wanted to give more time and attention to as a teacher, which I will address more fully in some of the other projects in this semester, as well as in Chapter 5.

Hirschhorn-Inspired Foucault Monuments Project Description

As a continuation of my concerns about "open mode" activities for my Art Foundations classes, I next tried to design another short project (only one day in class) to help students foster a friendlier disposition towards the ambiguity of a brainstorming process. I showed the classes Thomas Hirschhorn Art21 video about his 'temporary' monument to Antonio Gramsci that he built with the help of a housing development community in the Bronx, NYC. I tried to unpack the content of the video as we went through it, periodically pausing the video to ask questions and facilitate discussion about what he's doing (which I realize is very complex, nuanced, and layered). And then I showed the kids a punchy short biographical video about

Michel Foucault (produced by the YouTube channel "School of Life") in order to give a brief introduction of Foucault's life and philosophical influence, especially highlighting some of his historical examinations to critique institutions as they related to power.

It was a Wednesday, so our time was even shorter than normal (because of the budgeted time schedule for weekly teacher collaboration meetings). I then told the students that we were going to try to stay within the "open mode" of creativity to brainstorm with some popsicle sticks, toothpicks and tape like Hirschhorn to create miniature brainstorms about Foucault. I had also provided a one page sheet of quotes by Foucault to help the kids try to dig into Foucault's ideas to inform their art practice. I only gave the students 15 minutes (1st period) and 30 minutes in 2nd to play with these materials in order to come up with some kind of temporary monument about Foucault. Students were to work in small groups of 5-6 people.

The following day in class I tried to lead a class discussion about creativity and what we had done the previous time in class. I showed each class Mark Dion's Art21 video, with the accompanying questions::

1. Where does he get **Inspiration**?
2. How does he **Start**?
3. What **Questions** does he deal with?
4. How does he **Research**?
5. How does he deal with **Materials**?

This time I assigned each question to a table of five to six students before showing the video, and gave the students time to discuss and share their ideas and reactions to Dion's practice with the class. This discussion lasted about 45 minutes in both classes.

Figure 4. 6 'Foucault monument' student projects

Hirschhorn-Inspired Foucault monuments project reflection.

This short project was one of the biggest curricular failures of the semester. I now realize that conceptually, this was too heavy for almost all of the students, and delivered too quickly. The videos I showed were so concept-heavy that I think most of the students were feeling overloaded and many of them simply tuned out. This realization really became apparent to me when, at the end of the class, one of the students from 2nd period came to proudly show me that he had used his time with the popsicle sticks to make Pink Floyd's 'Dark side of the moon' album symbol. Many of the kids simply played with the materials, because I'd put them in front of them (which could be considered a small success), and a few of the students made prison motifs, or wall and window references (literally interpreting one of the Foucault quotes).

Another noteworthy critique of this short project was even though I used a contemporary artist as an example, I think I tried too hard to simply point students towards directly replicating Hirschhorn's process. Similar to the way many art teachers might say "Look at Seraut, now we're going to do pointillism and try to be Seraut". I think this mimetic method is overly simplistic, and not a great pedagogical strategy. The results from this project continued to cause me to think about the difficulties of teaching for an "open mode" disposition in students.

The follow up discussion with Mark Dion's work was much more successful and engaging. In my reflective journal, I wrote:

These questions go very well with Mark Dion's video! Especially the part where he's covering the rats with tar and talking about the history of tar, and the questions that interest him as an artist. And then between the rats and the Neukom Vivarium, he mentions that one of his main interests as an artist is to "create a critical foil against dominant culture" which I paused to unpack with the kids. I tried to tie this into what Foucault was about as well, although I'm not sure how well that landed with most of them.

Hirschhorn-Inspired Foucault monuments iteration notes.

Because the first day of this project was initially the biggest curricular flop of the semester, I felt like I needed to respond the following day with the examination of Mark Dion's work. Recognizing this weakness in connecting with the students helped me revise my teaching practice, and somewhat correct the direction of the class with the five questions about Dion's practice, and the class discussion that followed.

Nine Figure Drawings Project Description

After the conceptually-heavy discussions and Foucault-based popsicle stick monuments, as well as the attention to Hirschhorn and Dion's respective practices, I wanted to introduce a relatable, tangible exercise that could help us in both classes to move in a new direction, while still maintaining a connection to the Representation unit. I set up a figure drawing project, similar to the way I have done it in the past with other classes. First I showed a video about gesture drawing, and had student volunteers take turns as models holding still in front of the rest of the class for four quick, timed poses (from 8-15 minutes each). The following day I had the students all do a 25 minute drawing from projected slide of Bernini's sculpture of St. Sebastian that I put up in the front of the room.

Then, in an attempt to make a conceptual leap from the representational figure studies towards a more personalized, meaningful engagement, I gave each class about 5-7 minutes to make a list in their sketchbooks of all the personal identifiers that they could come up with about themselves. Next I showed the students a short video produced by MoMA about Art and Identity. This video delves into three works by Frida Kahlo, Glenn Ligon, and Andy Warhol. This video led to a class discussion about how our bodies are tied up in our identities.

I also had students do three more figure studies the following day from a slideshow of full figure poses of sculptures for 25 minutes each. This was a day that I had a substitute. At the end of this unit, the students should have completed 9 figure studies, as well as a list of personal identifiers. I told the classes that they would be thinking about their identities, and their bodies for the following project.
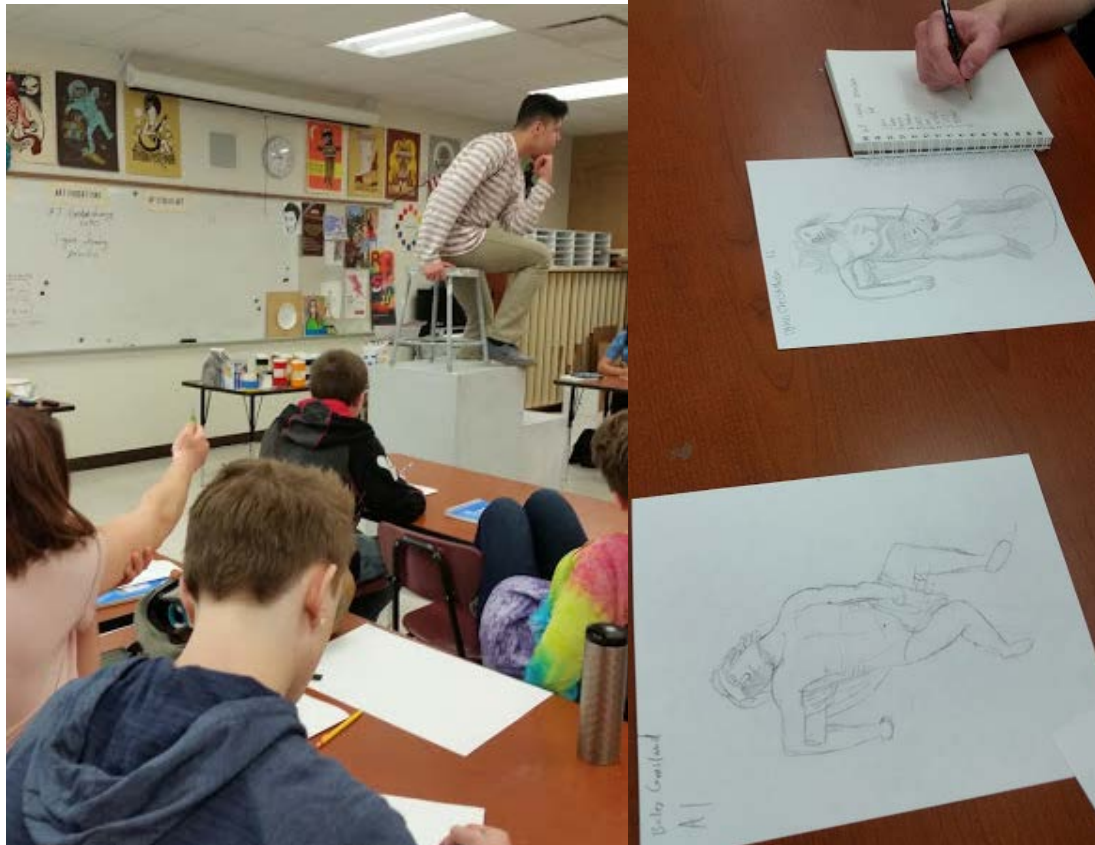
Figure 4. 7 Students working on figure drawings

Nine figure drawings project analysis.

I considered the figure studies project mostly successful, in that 90%-95% of the students were engaged with the task at hand at all times, as I noted in my reflective journal. I think it helped to delimit each pose with a timer, dedicating only a short amount of time to each drawing.

As a teacher, the more interesting part of this project had to do with the list of personal identifiers. From my reflective journal, I made note of certain students' responses to this activity:

Most kids came up with about 15-25 labels (this was in about 5 minutes). 1st period, Alana came up with 38, and in 2nd, Margaret came up with 42. I had a few students share their answers, which ranged from "passive-aggressive", to "lazy", to "handsome", to Wally said "Handicapped" (He has a malformed left hand), and he showed it to everyone (I think several of the kids actually hadn't noticed that, even though he was one of the models for our timed poses last time). Also, Alyssa mentioned a comment about not feeling comfortable with her body because of how other people perceive them (She also posed as a model last time, and is noticeably the heaviest student in the

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class). I think it was interesting that these two students, who were sort of publicly "on display" felt comfortable enough to mention some of the elements of their identity in front of the class today, which were both potentially socially awkward aspects to bring up.

This brief interaction was borne from a class discussion about identity, and shows how some of the students who might be the most sensitive about their own bodies were able to talk about themselves in front of the rest of the class.

Questions such as "How is your body not who you are?" and "How do the choices you make concerning your body affect your future identity?" caused many students to seriously reflect on and internalize this discussion, which I like to think helped prepare for the next class project.

At the same time, during this project, I noted in my reflective journal some of the struggles I had with Dallas:

In second period I had the usual (public) back and forth with Dallas, but actually I think things went pretty well. I think with him, I've developed a strange relationship, where he somehow sincerely craves my attention and approval, but as soon as he buddies up to me, he kind of tries to push the limits and tries to get special treatment and wants me to do things for him. Today it was "Gillespie, bring me an eraser", to which I snarkily replied (with a smile), "No, you can get off your butt and go get one yourself like everyone else is" (pointing to the group of students around the front table getting pencils and erasers).

The more open-ended studio time that I have built into my classroom, culture, and expectations often creates opportunities for students to be vulnerable (and brave) with what they share, like Alyssa and Wally sharing out loud specific details about their own imperfect bodies. I think the environment can also allow students to produce some thoughtful, exploratory connections and create new understandings, like many students did with the discussion about the tall female athlete. This openness also allows for students like Dallas to push the existing social boundaries and engage in power struggles with me (as the authority figure in the room), which I find is somewhat inherent to the context of my teaching situation.

I believe the experience I have noted about Dallas is quite familiar to many teachers, and these kinds of experiences furnish a tension within myself as the authority figure of the class, but also as the one who hopes to facilitate productive and engaging activities for students.

Following, I include more specific instances of my relationship with Dallas as the semester goes on, as I think it is an interesting illustration of the ongoing tensions that I believe are very recognizable and significant to many other teachers, and raises useful questions; about the

teacher's role as an authority figure in the classroom, about how to establish a classroom "ecosystem" of student freedom and accountability, as well as about how teachers and students respond to each other when their motives or interests are at odds with each other. These questions are addressed in more detail in Chapter 5.

Nine figure drawings project iteration notes.

I consider this project as a continued, curricular response to the tension between traditional and contemporary approaches to teaching art. I wanted to bridge the past experiments with idea-driven projects, such as the Hirschhorn-inspired Foucault monuments, with more traditional art practices, such as drawing human figures.
Using the human figure as a subject of personal examination for the students in relation to their own identity was a mostly effective and laconic way to involve the students in this tension.

Tape Sculpture Project Description

To introduce this project, I first showed the classes a short Art21 exclusive video about Janine Antoni called "Milagros." In this video, Antoni uses the term "grafting" as a way to explain the way she works with a series of sculptures, where she creates unexpected juxtapositions of cast body parts. I also showed a slideshow presentation about several other artists (Brian Draper, Bruno Catalano, and Yuichi Ikehata) who use figure sculpture elements to create unusual juxtapositions, and at times, consider the larger context of the community or outdoor space in which their work is placed.

I then demonstrated how to use packing tape to wrap up parts of the students' body (with a foundational layer of saran wrap), and subsequently cut it off and patch it back together. The assignment given to the students was that they could work in groups of 2-4 people to find a way to construct a packing tape sculpture that had some figure elements involved. The students were also supposed to find a way to incorporate their sculpture into a larger context, and then photograph it and email a digital file to me. This was the assignment for the project. I thought this project was conceptually a bit more challenging, as many of the students considered the context and the final photograph before they started constructing their sculpture.

Figure 4. 8 Students working on their tape sculpture projects in class

Figure 4. 9 A selection of the students' final works (photos of tape sculptures placed in an environment)

Tape sculpture project analysis.

The students worked on this project for several days in class. Working in groups was a new additional component. Most of the students were actively working together, and almost the whole class was involved with the activity the entire time, although not all of the student groups

emailed me their group photo of the finished sculpture on time. Although I gave students a brief demonstration about how to wrap up their body parts with saran wrap and then packing tape, this activity proved to have an inherent learning curve. Following is a portion of an interview I recorded with one group of three girls during class. I approached them while I noticed that they were working together at their table building several tape hands:

Tammy: "ok, so you just wanna take like a little piece and then just wrap it around the finger to get the entire thing covered, then you just go back down, then you go between the fingers, so that you get all of it covered. You just want to take a little strip and go around…"

Me: "Of saran wrap?"

Tammy: "Of saran wrap, yeah. And then you bring it down across the palm so then the palm will stay covered too."

Me: "So did you wrap up the palm first with saran wrap?"

Tammy: "No. So you just start here (pointing at base of wrist), and you keep going up, and I just brought it up through here (signaling a spiral around the wrist toward the hand).

Me: "Ok so was it one long continuous skinny strip, or was it…"

Tammy: "No, it was a bunch of small ones so that it didn't get wrinkled and all a mess."

Me: "Ok. So you started here (pointing at the base of the wrist) went up, and then you wrapped up each finger, and then you did the palm last?"

Tammy: "Yeah. The palm last."

Me: "So when you wrap up the palm last, does that sort of anchor all of those little tiny strips?"

Tammy: "Yeah. The little tiny pieces together, so that it doesn't come apart."

Me: "Yeah, that makes sense. And then with the tape, do you do a similar thing?"

Tammy: "Yeah, I just take little pieces like this (demonstrates)."

Me: "Is that what you're doing, Betty?"

Betty: "Yeah (laughs)."

Tammy: You just take a little piece, and wrap it" (now with tape ready, carefully wrapping tape around Margaret's finger).

Me: "Did you know how to do this before?"

Tammy: "No, I just kind of figured it out. Then you just kind of pat it down (demonstrates) and then you just keep going up and around" (signaling to the rest of the finger).

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Me: "How many layers did you put on?"

Tammy: "Um, at least like two layers on the fingers, so that they aren't like really flimsy."

Margaret: "But it depends on like what part of the sculpture we're doing it, because we need like stability on the bottom like to hold it up. So we put more on that part."

Tammy: "We put a lot more on the wrist area to get it a little stronger."

Me: "Great. So is your sculpture going to be standing up, then?"

Tammy: "Yeah, we're going to try to get it to stand up."

I also interviewed another group, who had experienced challenges with the materials and their sculpture. Here is a brief portion of that interview:

Me: "So you said these feet did not work? Tell me what happened."

Angie: "Yeah, because we just taped them..she (model) just stood standing and we just taped them straight to the ground. Then we were just going to cut around (signaling to the bottom of the tape foot).

Me: "Oh."

Angie: "We didn't secure the ankle enough, like we didn't put enough tape around it. We tried to take it off and it all just collapsed."

Me: "So now it doesn't really stand up…"

Angie: "It doesn't really stand up so now we're going to have to redo it."

Me: "Just like doing the feet separately and then just strap them on?"

Angie: "Yeah, we're just going to put a shoe in there, and then just strap it on after."

Tape sculpture project iteration notes.

For this series of notes, I wanted to focus on the two interviews recorded above. In the first interview, I found a group of students that had discovered a successful method of working with the materials to create a desired outcome. Tammy's response when I asked her if she had done this before was simply "No, we just kind of figured it out" speaks to the idea of giving students materials with which to experiment and the time and space in class to play can yield successful engagements with the project.

The second interview was an example of how the same given time and space to experiment with the materials at hand can also become a source of frustration and failure for some students, as Angie noted when she said that her group would have to redo the taped leg of their model.

In both of these interviews, students articulated the challenges that come with materials that, while generally familiar to most of them (saran wrap and packing tape), these materials were seen in a new light with the conditions of the art project. I was impressed with the way that the students were willing to work together, and by engaging with the materials, made discoveries about methods that would help them translate their ideas and endeavors into successes.

In the end, I thought that the majority of the final student projects were not very ambitious. Many of the students seemed to do minimal amounts of taped body parts and many of the final photographs seemed to be almost an afterthought. However, I think many of the students gave a great effort in the execution of their projects. I thought that the problem solving, investigation, experimentation, and response to feedback helped manifest a complexity-defined attitude of learning for the class.

The more exciting part of this project was how it gave the impetus for the next project, which I explain next.

Plaster Hand Project Description

During the packing tape sculpture project, one student, Jason, told me semi-jokingly that after he had made a packing tape shell of a pair of legs, that he wanted to take them home and fill them with cement to make a sculpture. My first instinct was to laugh, but then we started discussing the possibility of using the packing tape sculptures as inexpensive molds. I had tried a similar test many years ago with insulating spray foam, which did not work very well, and was rather expensive. I remembered that I had several bags of plaster of paris in storage, and decided to take Jason's suggestion and try a prototype using a packing tape hand (to the mid-forearm) as a mold for the plaster. This experiment went fairly well, and when I brought it up with the class as a possibility for the next class project (and showed them the prototype), the majority of the students were enthusiastic about it.

In order to enhance the curriculum for this new direction, I showed the students several artists whose practice was related to the task at hand. I first showed a slideshow of Antony Gormley's work. I tried to highlight the way Gormley uses the process in his final work. The next class day I showed the work of Ron Mueck, who makes hyperrealistic sculptures that play with scale. The following day I showed a brief New York CloseUp video of Diana Al-Hadid, where she specifically says that she is interested in "getting materials to misbehave."

With all of these artists, I used questions #3 "What Questions do they deal with?", #5 "How do they deal with Materials?", and #6 "What does their Production process involve?" as

discussion points to further examine the processes of each artist and the ways that their work might overlap with our current project.

At this point in time, I wanted each student to make their own plaster hand (which was the basis for this assignment), although I was not sure at the time how we might curate or exhibit all of the plaster hands. I had the students work in pairs to be able to build the molds similar to the ways that Tammy, Margaret, and Betty had figured out.

Figure 4. 10 Students experimenting with the collection of the plaster hands

After all of the students had made their plaster hands, they laid on a counter of my classroom for a long time while we tried to find a creative solution, or curatorial idea of how we might install or present them together. After much deliberation with students, we decided to fuse as many of them together as we could to make one large sculpture.

Figure 4. 11 Students constructing molds for plaster casts of their hands

Plaster hand project analysis.

The main thing I enjoyed about this project was how it emerged naturally from the previous project. I was especially excited about how the impetus for this class assignment came from a student idea, which led to a curious discussion about unknown possibilities. This speaks to the complexity sensibility of lateral exchanges of energy or information, as opposed to the traditional notion of top-down instruction that often happens in high school classrooms. This project also relied on immediate feedback from the students as well as the materials. By working together with Jason, we were able to make a prototype of a hand that could allow all the students to participate.

I must admit that when I began this project with all of the students, I did not know what the final outcome would be, or how it might be curated. I was transparent with my students about the way that this idea came from Jason, and I was interested in other students' suggestions about how we might make something from the 60-70 hands that were made. I thought that this inclusion might help students feel empowered to participate with the final outcome of our collective effort.

The group brainstorming was challenging and less successful. I enjoyed the ambiguity that it bred in my classes, as well as the potential for student ownership over the project. I also enjoyed making responsive curricular decisions (such as showing the Diana Al-Hadid video and leading a related discussion about her practice), as an authentic and relevant response to the current state of our class project. The immediacy of these curricular choices felt genuinely responsive and more organic than some of my other pedagogical approaches to setting up class projects.

Plaster hand project iteration notes.

Upon further reflection, I realize that I could have tried to set up a better way to collect student suggestions and facilitate more discussion about the final outcome of the plaster hand sculpture. This was especially difficult because I was combining the work (plaster hands) of both classes, who were not necessarily familiar with each other, and because of the school schedule, did not operate within the same timeframe or share the same classroom dynamics.

In terms of the larger scope and general direction of the curricular path of the two classes, this project felt like a healthy injection of genuine responsiveness and organic sensitivity to the situation of the class. Modeling this approach, through the impetus of Jason's suggestion, helped to set the tone for the next project, which also required students to be attuned to possibility, exploration, and ambiguity.

Repetition Project Description

The prompt for this next project was that the students were to create some kind of investigatory artwork by repeating some kind of action, mark-making strategy, or other method, and work with their chosen practice for at least 5 hours. In order to set up this project, I prepared to show several videos of various contemporary artists who all use repetition as a central strategy in their practice, followed by a discussion that was meant to help students see the value of repetition with each artist's practice. I started by showing Korean artist Do-Ho Suh's Art21 segment (the 2nd and 3rd portions of his feature video), in which he talks about hierarchical structures of power, and how he deals with big ideas about the individual and the collective, as well as about dehumanization and his experience spent in the Korean military service. His works involve non-traditional materials that help inform his message. I asked the students questions #3 "What Questions does he deal with?", as well as #6 "What does his Production process involve?" These questions sparked a class discussion where students responded with further questions about each artists' practice, as well as connections to military stories and personal experiences shared with the class.

I also showed a portion of a video of Marina Abramavic and Ulay screaming at each other until their voices die out from 1978. This video and discussion also brought up the idea of endurance as a companion component to repetition.

I showed the classes a presentation of several works from Tom Friedman, an artist who uses inexpensive, everyday materials, often with a repetitive method to create his work.

I also showed an Art21 Exclusive video of Allan McCollum called "Over ten thousand individual works." In this video, McCollum talks about the awe that comes from an overwhelming

result of repetitive action, and mentions that he really appreciates artists who "have an idea and really see it through" (Art21 Exclusive, Allan McCollum).

Next I showed the students some of my own work, which also heavily revolves around the idea of repetition.

At the time of this project, I had my own ongoing practice of making tally marks, which I should mention at this point, I had been doing during class since before this course began. I had been making works by hand-stitching crochet thread through muslin on an embroidery hoop in the pattern of tally marks[6]. I would carry around my embroidery hoop, needle and thread during studio time with the classes. Often this led to questions from students about my motivations for taking on such a project, and helped create a space for students to engage with me personally.

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[6] This was a personal art project that was completed after the data for the study had been completely processed. The final product from this repetitive action resulted in 36 square foot pieces of muslin that I later turned into a 6'x6' quilt filled.

This quilt represents hours of contemplative, repetitive action. A subtle, white on white collection of registered time and attention. Approximately 75,000 hand-stitched tally marks make up this site of accumulation and energy, which inherently accounts for a focus on process that also forms a product that is ultimately meant to offer comfort.

I also see this work as a semi-public performance. The long process of creating the stitches on this quilt happened in a variety of locations. I would often stitch everywhere from my classroom, to traveling in the passenger seat, to a friend's sofa, or sometimes by myself. Many times this action of stitching with other people sparked conversations, questions, and meaningful interactions.

Many people would find my stitching practice peculiar, and many were able to make their own connections about what I was doing. By doing this "performance," I was often able to find a shortcut through polite smalltalk, and instead generate conversations with people about their own connections to subjects such as accumulation, discipleship, meditation, scriptures, religion, therapy, eternity, infinity, confinement, prison, endurance, and art. I value these interactions that arose through the process of making this quilt just as much as the final product itself.

Figure 4. 12 Tally Mark Quilt; My personal art project that I shared with students

I also want to note that part of the reason I chose to do this project with the students at this time was because I was able to be there for the first day of the project, but then I would miss three days because I was going to Chicago for the NAEA conference, and I thought that this project would be easy for a substitute to handle once the students were all started on their projects.

When I returned from Chicago, most of the students had completed their works, but I gave them another day to work on them. I showed them an Art21 Exclusive video of Doris Salcedo called "Istanbul" where she piled thousands of chairs between two buildings. I also

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showed them the work of Tehching Hsieh, who did intense, year-long projects of endurance, such as locking himself in a prison and doing nothing, or punching a time-clock every hour and documenting each instance with a photo.

I also noticed that, even though this project was one of the most engaging (I estimated 95% of the students were working on it during class time), one student was not participating at all. He seemed to be happy just sitting in his chair, not doing anything. This was obviously concerning to me as a teacher, and I discuss some of the implications below.

Once the students were finished with this project, we exhibited their works together in the portable gallery in the hallway for the rest of the school to see.

Figure 4. 13 Student work from the repetition project displayed in the portable art gallery in the school hallway

Repetition project analysis.

Reflecting on this project brings up questions about the classroom as an environment or ecosystem that, given certain conditions, may be able to help facilitate the creation of new student understandings. As a basic curricular prompt, I think repetition was a fairly successful and exciting strategy, as so many students took it in such different directions. Many students

simply made formal decisions about their work, and did not intend to inject their projects with any sort of conceptual or metaphorical elements.

Other students, like Mary, took this prompt as an opportunity to examine and process her own autobiographical experience. In this case, Mary made nine large paper airplanes, which corresponded to the nine different homes she had moved into in her life. On each plane, she wrote notes about as many memories as she could from each location. She then connected all the planes together with string, and later exhibited those together in a wall installation (see figure 4.14). When I asked her about the meaningfulness of her project, she said "I didn't realize how much I had experienced until I wrote it down."

Figure 4. 14 Mary shows the rest of her class about her project of paper airplanes made from written memories of places she had lived

One student, Allison, used an artistic strategy with which she was already familiar, to make hundreds of carefully folded papers that stacked on top of each other to create two large cylindrically shaped bird sculptures (see figure 4.15).

Figure 4. 15 Students working with a variety of materials for their individual repetition projects

Jason used his time to hot glue hundreds of popsicle sticks together to make a rather well-proportioned replica of an Indian motorcycle (figure 4.16).

Figure 4. 16 Students working on their repetition projects during class time

   A group of three girls worked together on cutting up dozens of tennis balls and combining all of the pieces to make on large ball consisting of the remnants. These students faced failure and setbacks as they had to start over because the hot glue that they had used popped the large plastic ball they were using as a base. This led them to investigate different adhesives that would work for their project.

   There was a student who did not work on a project at all. While he was definitely the small minority in this case, At this point in the semester, I made an effort to try to learn more about this student's personal situation by talking with him, and later his councilor, who was not aware that he might be at risk or suffering in his other classes. From this point in time moving forward, I made more of an effort to connect with this student to try to get him engaged with our projects, although to be honest, I do not think I was very successful at reaching him.

   I am not exactly sure how much the students were engaged with the project since I was gone for the majority of the class time, but my assessment is quite confident that I would call this project successful overall. I think this project was well received by the students, and quite successful, as most of the students not only turned in their projects, but turned them in on time. This is also a kind of project that does not really allow for students to copy or steal from each other, since the main focus was on the process of staying engaged for five hours doing a repetitive action.

I had several students help me set up the exhibit of the collection of Repetition projects in our school portable art gallery to increase the exposure for the students' work in the context of the larger community of the school, and hopefully to give the students some validation and cultural acceptance from their peers for their work.

Repetition project iteration notes.

I want to make two observations in this section. The first one has to do with the fact that I showed both classes my own personal art project and talked about some of the rationale and motivations for engaging with a repetitive art practice. I think sharing some of my own personal work (and self) with the class showed some of my students some vulnerability, and therefore made more of a connection with many of the students. I think that was a positive factor in helping the students stay engaged with this project for five hours.

The second note I wanted to make about this project relates to the differences between my presentations between first and second periods. I think many teachers can relate to this issue. During first period on Friday, March 11, I presented about Allan McCollum and his desire to use repetition as a way to access "awe" in the viewer. This discussion led to a conversation about the sublime, which led me to ask "What is something to which you are both attracted to and scared of at the same time?" One student offered a thought about how love does that, which led to further comments, questions, and students offering their opinions around this philosophic idea of the sublime. I thought it was a fruitful and engaging discussion. When I tried to recreate a similar discussion with second period, my questions (and the group discussion) fell flat in comparison. The students in second period did not offer opinions like the students in first period.

This dynamic, among other things, caused me to respond differently on Tuesday, March 22, after I had returned from the NAEA conference in Chicago. The students in these classes had been working on their repetition projects while I was gone. During first period, I showed them an Art21 Exclusive video clip of Doris Salcedo's Istanbul project. With my classes in the past, when I showed Salcedo's video, I mostly focused on the repetition aspect of her work (1500 chairs stacked between buildings in Istanbul). But this day, (March 22, 2016) was the day of the 3 coordinated suicide bombings in Brussels. This news had created a solemn mood for the students who had heard about it, and then the mood spread as we talked about the event as a class. I created a more responsive series of questions that tried to connect Salcedo's ongoing mission to address the horrors of war, terrorism and injustice in her art to the events of the day, in addition to the more formal ideas of repetition, which I normally had focused on in the past.

This presentation went quite well, according to my personal reflective journal. But remembering how my previous presentation had not connected as well with my second period class, I supplemented this presentation with an additional presentation about the work of Tehching Hsieh, an artist I had just learned about on my trip to Chicago. This addition helped to engage the class in a new way, by responding to the lapse of student engagement that occurred during first period's presentation. I will discuss this example of a curricular adjustment and the ways I consider complexity thinking applies to my role as a teacher in the Chapter 5.

Make/Do Project Description

The driving impetus for this project was to help students find a specific process or thing that they could inquire about, and then make their own version of it, while giving special attention to the documentation of the entire process. To introduce this project, I first showed the classes a TED talk video about a man who made a toaster from scratch, he talked about his whole process, and how many times he ran into obstacles. This brought up a discussion in both classes about how students might encounter failure, and I guided the discussion towards embracing an attitude of "running toward failure, instead of away from it" (personal reflective journal). I then showed another video called "How to make a $1500 sandwich in only 6 months"-- This was similar to the man with the toaster, showing the process of producing all of the ingredients needed to make a sandwich totally from scratch and how he responded to the many roadblocks and frustrations that he encountered along the way.

Next I took each class to the library computer labs in order to allow the students to begin researching ideas for their projects. I showed each class Instructables.com, and encouraged them to start with that website to look for ideas about what they could do for their "Make/Do" project. I gave them two and a half weeks to complete their project. I encouraged those that could to do their projects in class, but I realized that many of the students would need to complete their projects at home.

The following day in class I showed Glenn Ligon's Art21 video, where he talks about how his work often mixes the message with the material. This led to a class discussion in both classes focusing on questions #1 "How does he get inspiration?" as well as #5- "What does his production process involve?" These questions helped to facilitate a collective discussion in both classes about the metaphor Ligon uses of "gestating" ideas, and likens the development of ideas for his projects as a long process to giving birth.

The following day was very difficult because the morning before class, the entire faculty was summoned to learn that a student at our school (not in any of my classes, I did not know her), had committed suicide. The faculty was then instructed to pass this news on to our first

period classes and read an official statement from the administration. This obviously was a very emotional and difficult time for my first period class. Several of my students knew this girl personally. I had a hard time directing the class toward our project. I actually had several students help me to work on other menial tasks, such as setting up work in the hallway, working on the collection of plaster hands, cleaning parts of the room, and scrubbing and wrapping potatoes for the upcoming faculty luncheon.

The following day in class was the last day before Spring break. This was difficult, as many of the students had not brought in their Make/Do projects. So I showed them Elliott Hundley's Art21 Exclusive video about his collage practice, and just put some materials in front of the students that could be used for collage, such as magazines, colored paper, x acto knives, glue sticks, and scissors. I did not tell the students that this was an official assignment, but rather presented it to them as something they could simply try (like Elliot Hundley). At the end of each period, I asked the classes if they would like to continue to work on collages when we returned from Spring Break, and the majority of the classes seemed enthusiastic about it.

The day class resumed after Spring Break was the day that the students Make/Do projects were due. I started the day with the Art21 Exclusive video about Andrea Zittel and her wagon station encampment. This video tied in nicely with our idea of making things from scratch it's about her residency that she sort of invented out in the desert by Joshua Tree and the pods that she's created for people. This video led to me using question #7 "How does she reflect on her work?" This was meant to lead into the students' presentation of their Make/Do projects. I had each student take a brief turn to present their project to the rest of the class, showing their process journal if possible.

For a final assessment of this project, I used the following point break-down, with each student submitting a written reflection on their experience:

    50 points for a final product

    100 points for a thorough process journal

    50 points for a final written evaluation about their project.

    Approximately 70%-75% of the students turned their projects in on time.

Make/Do project analysis.

I think this project was an exciting and surprisingly engaging challenge for the majority of the students. As a teacher, I was very happy to see their projects and hear about them on the last day of this project. I was also delighted to read about the various ways that the students dealt with failures and to see their various projects in process through photos that they had

included in their process journals and written evaluations. Please see the following figures for several examples of student work.

Figure 4. 17 One student made a giant Kit Kat bar (photos on the right from her process journal)

9. More panning.

10. Then suck up the gold.

Figure 4. 18 One student decided to pan for gold. He claimed to have collected $60 worth of gold. This photo comes from one page of his process journal
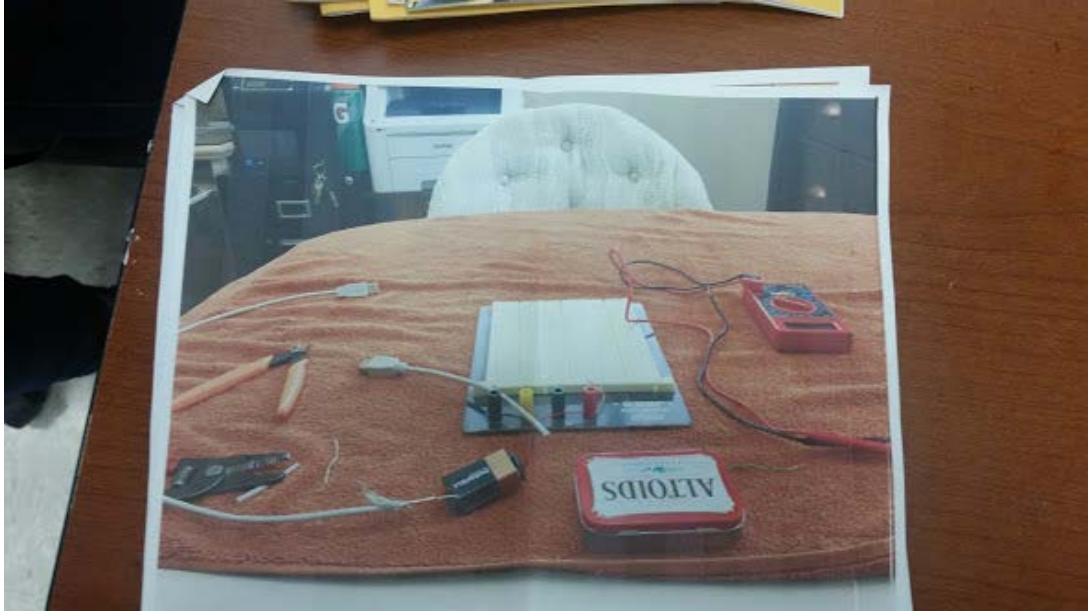
Figure 4. 19 One student made a phone charger from scratch using various electronic parts encased in an Altoids case

Figure 4. 20 Another student spent his spring break making a longboard from scratch. These photos are from four of the pages from his process journal

Figure 4. 21 One student made his own music album, including a cover and uploaded it to Itunes. Photos shown here from his process journal

Figure 4. 22 This student made several colors of lipstick from mostly crayons; photos from her process journal

I also wanted to note how this project challenged me as a teacher, because of the way the class time was structured during class time. In my reflective journal, I noted on the first day of the project:

> I'm also trying to figure out what I can do with those students who don't have stuff to work on next week because that's going to be a challenge and I think this challenge will kind of stretch my comfort zone as a teacher in terms of managing these kind of open-ended, very diverse projects. There will be very many different things happening I'm sure.

> Then, in the next day in class, I noted:

> I was worried all weekend about the kids not bringing things to work on for their

make do project. And during first period, things went pretty well. I had several students help me set up the repetition show in the gallery, I also had five or six students helping with the plaster hands making a giant plaster sculpture out of that […] I had several students cleaning things for me, organizing materials, kind of just cleaning up my room really and I felt like first period was successful and there's a lot of good energy and the time seemed to go quickly. Then the second period was me trying to do the same thing but none of the kids wanted to touch plaster. I think they were just worried about getting messy and the repetition show was already mostly hung, so I had a couple students help me with menial chores. I got my supply closet organized but I felt like a lot of the kids were sitting on their phones supposedly doing research for their Make/Do project but I think a lot of them were just kind of killing time and I'm not sure how successful that was [...] We've got Wednesday and Friday still to do this and I'm trying to decide what to do with this down time or this time with a class structure that doesn't really suit each individual maker's needs. As a researcher it is very interesting and as a teacher it's pretty frustrating to figure out what to do with these kids for these long stretches of time when everyone's working on such individualized projects.

The challenge of how to handle a classroom with over 30 students with such an open-ended structure speaks to the idea of the classroom as ecosystem. As a teacher, during these moments of uncertainty, I felt like I needed to physically circulate frequently, and to be more poignantly aware of the classroom, in order to talk with each of the students to talk with each of them to see how things were going with their projects. Many of the students who were on their phones told me that they were working on their projects at home, which left me not sure what to do with them during class time. I did not want them to simply play games on their phones during my class time, because I feared it would engender a climate of procrastination or laziness. I treat this challenge more thoroughly in the following chapter.

Make/Do project iteration notes.

One of the more poignant points from this Make/Do project had to do with the uncertainty manifest by the open ended curricular structure of the project. In both classes, I was faced with not only the challenge of trying to encourage students to work during class when they were all doing such different projects, but we also had to collectively deal with the terrible news of the suicide of a peer. In my reflective journal, I noted that this event changed my behavior in class, in that I found "I would just kind of chat with the kids and I found myself looking at the kids

with more empathy and trying to just say "*how* are you doing" instead of "*what* are you doing" like the taskmaster teacher that I usually am".

Emotions were especially raw during first period, since that is when I essentially broke the news to the students. Many of the students were caught off guard as they learned about the suicide, many tears were shed, and I even sent three students from first period down to talk with a school counselor. This event, while obviously tragic, also provided an opportunity for our class to collectively experience grief, tears, and vulnerability, which affected the sensibilities of our classroom ecosystem, and ultimately helped strengthen some of the bonds between us. I noticed this bond was more pronounced in the following weeks in first period more than second period, and I attribute at least some of that to this sad event.

Collage Project Description

As I mentioned in the previous project description, this collage project came about in a largely organic way. I did not plan this project far in advance. It came about largely as a response to the way that many of the students were using class time, when so many of them were working on their Make/Do projects at home, or outside of class. By showing the students Elliott Hundley's Art21 video and examining his practice, I think many of the students were individually curious about collage as an viable option for creating art.

I think it is important to note that with this project, when I initially introduced it to the students, I did not present it with a deadline or rubric with a breakdown for points or scores or grades. I simply put collage materials in front of the students and invited them to play with them. Some students asked about assessment, such as "How many do I have to make?", "How big should the collage(s) be?" or "How many points is this worth?" to which I responded "Don't worry about it. Just try it out. You could spend all your time making one, or make 50 small, fast ones."

The next day, I showed the students Mark Bradford's Art21 Exclusive called "Paper" in which Bradford shows his process of what he calls "collage" (addition of materials) and "de-collage" (taking materials away). I also followed this video with a modified Question #5 "Where does he get his materials?" which led to a generative class discussion in both classes. Because the vast majority of the students were engaged with this project, I gave them more time to work on them.

Both classes ended up working on collages for about two and a half class periods, and I did end up giving them scores for completing the collage(s).

Collage project analysis.

To be honest, during the first day of this "collage party" I considered not even grading them at all, and just thought it would be an activity to keep the students busy who were not working on their Make/Do projects. I found that because I introduced this project in such a subtle and natural way, the students took to it and were very engaged. I wrote in my reflective journal about this idea:

> Simply by putting things in front of kids and letting them have at it--I mean, we had lots of magazines and exacto knives which I actually think is different and when kids have that capacity for exacto knives, as opposed to ripping or cutting with scissors, I think they really got a lot more into it and we're engaged with the project.

Figure 4. 23 Students working on their collages during class

I also noted my own surprise with students' engagement on this project during class time:

During 1st period, I heard Oscar and Brock chuckling (in the back of the room) and I thought they were up to no good, but when I went back to see what they were laughing about, it was their collages (they were putting cut-outs of heads and eyes into strange juxtapositions and giggling about it), which made me happy. In fact, I think about 95%-100% of the kids were working during 1st period. It was probably a slightly lower percentage of engaged students during 2nd period, but almost the same.

At the end of this project, I considered it quite successful, based on the overall effort and engagement from the classes. Perhaps this success was partially due to shifting the focus towards the immediacy of the materials and away from a quantitative assigned score. I was more concerned about whether or not the students were working, and if they turned their collages in on time, I gave them full points.

I think the organic beginning of this project, the focus on process and playing with the materials, and the relaxed emphasis on the final score not only helped this project turn out to be one of the more successful ones of the semester, but also helped in the long term to establish a culture of experimentation and exploration in my classroom, which actually helped me transition into the following project.

Collage project iteration notes.

This project was informally borne from my own perceptions of keeping students busy during the previous (Make/Do) project, because so many of the students said that they were working on their projects at home. One of the more notable observations about this curricular transition comes about from my own perception as a teacher about how students ought to be using their time in my class. When I set up a curricular intervention that allows for students to be autonomous with their projects, that freedom inherently also breeds the potential for chaos, complexity and divergence, as well not guaranteeing any kind of tidy outcome. I also discuss this point in more detail in the following chapter.

Printmaking Project Description

This project began with an introductory speech about how I felt that our education system, with its intense focus on quantifying knowledge into scores, points, and grades does not square very well with creative modes of thinking, experimenting and playing in order to find new or original ideas. I revisited John Cleese's idea about "open" vs. "closed" mode when it comes to creativity, and then moved into a curricular strategy that I had invented to help students come up with more original content, which I called the "wheel of juxtaposition." This is essentially a

paper plate pinned to a board, with the numbers 1-20 around the outside edge of the plate. Then I led a group brainstorming session with the entire class to come up with 20 things, which I listed on the board at the front of the room. I created a new list for each class, trying to model successful brainstorming, according to John Cleese's ideas about generating creative thoughts and works. Once we had built a list of 20 things, I had each student take a turn spinning the wheel twice, and gave them the chore of making a small, quick drawing in their sketchbook of whatever the wheel gave them.
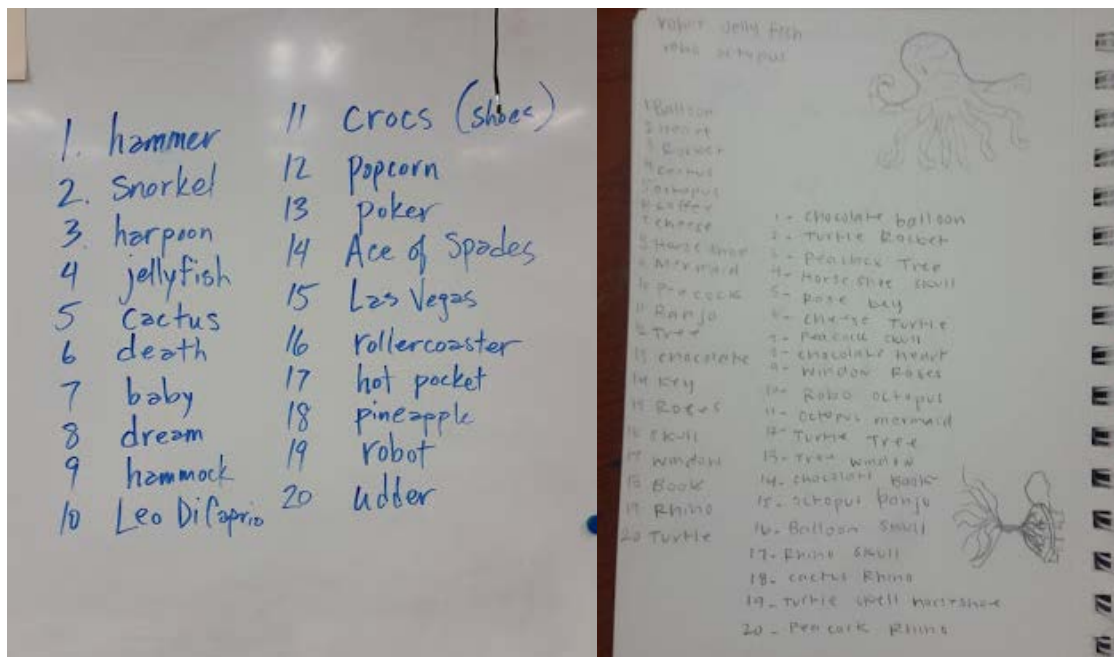
Figure 4. 24 Lists and brainstorms from the 'wheel of juxtaposition'

      The following day I showed the students the work of Dirk Fowler, a printmaker who makes band posters, and his imagery often juxtaposes unlikely elements and associations in order to come up with original content for his work, similar to the strategy that I had outlined for the students the day before.

      I told the students that they were to try to stay in the "open mode" while they brainstormed ideas, and that they were to (again) come up with at least 19 ideas in their sketchbook for an original image that would be turned into a 6" x 8" linoleum block to be carved out and then printed. I gave the students almost an entire hour of class time to brainstorm, and then I required the students to show me their final idea before I would give them a block which they could then use to transfer their drawing on in pencil, and then carve.

      The next day in class, I demonstrated how to print their image on our printing press. I required each student to turn in four "good" prints, which meant that I expected them to each

make several prints. We used acrylic printmaking inks, brayers, and a small printing press. In addition to this phase of the project, I showed the students Martin Puryear's Art21 Exclusive "Printmaking" and used question #7 "How does he reflect on his work?" in conjunction with this video clip, as Puryear is very selective and careful about when a print looks good enough for his standards.

Once they had made their edition of four, I had them each label and turn in their work along with a self-evaluation assessment sheet that I used to help me give the students a score for this project. I made sure to let them know that their idea and image being original was weighted heavily in this evaluation (33% of their total grade for this project).

Printmaking project analysis.

I have been doing a version of this project with many of my classes throughout my years of teaching art. I knew even before I began that most students enjoyed the task of carving and printing, and that for the most part, there is usually no problem getting the students engaged with this very tactile and immediate process. I was right this time around, as well.

Some of the modifications that I had made to this iteration of the project were that I tried to emphasize the idea of the "open mode" and gave the students more time to brainstorm, because I have noticed that in the past times that I have tried this project with my classes, most of the students spend as little time as possible coming up with an image to carve into their block. Many students usually just try to come up with something so that they can get onto the carving part of the project. As I expected, most students had a hard time with an hour structured purely for brainstorming after only about 10 minutes, and I would keep pushing them to work on their list.
Many students would tell me "I've already got my idea," to which I would respond with something like, "keep going, I want to see 18 more ideas."

When the students arrived at the stage of this project where they were able to carve and print their blocks, I found that the vast majority of students (90-95% according to my reflective journal) were happily engaged with the process.
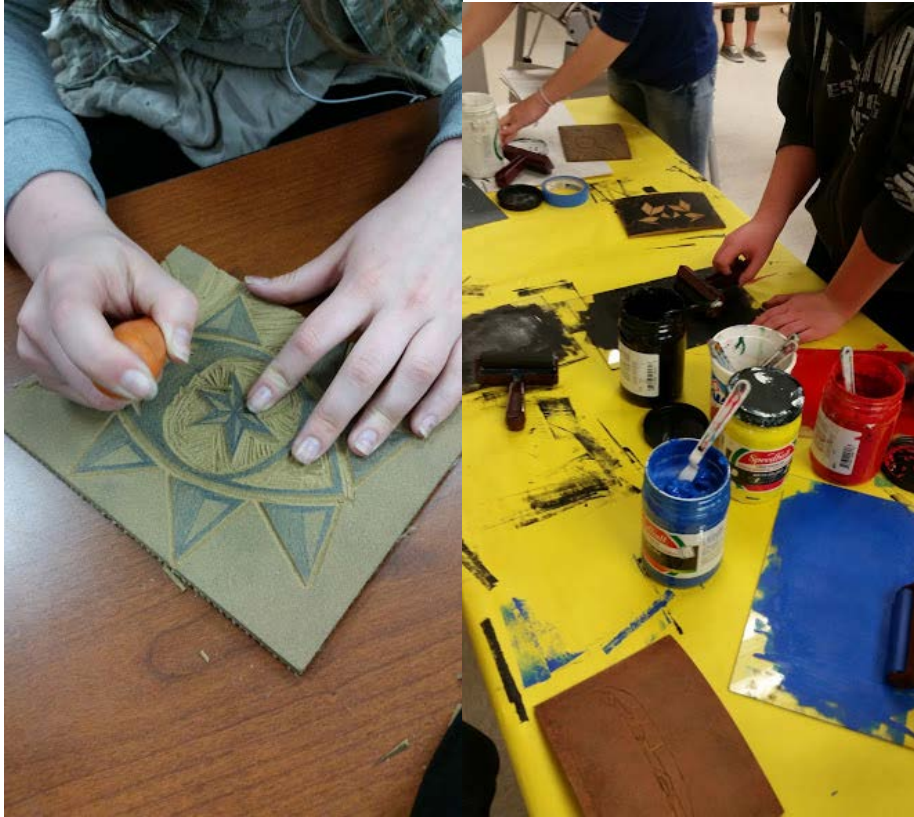
Figure 4. 25 Students working on their printmaking projects

I also made it a point to work with students during the brainstorming process phase of the project to stay away from cliched or copyrighted content for their image. I think using the wheel

of juxtaposition as a tool to set up original ideas and images was mostly successful, although not all of the students ended up using the wheel as their primary source for generating imagery. For these reasons, I found this printmaking project overall quite successful.

Printmaking project iteration notes.

This idea of students struggling with working creatively with freedom and time set aside to brainstorm is a serious issue that I think greatly affects the classroom environment, and I treat it more thoroughly in the following chapter.

Spring Showcase Entry Project Description

For this project, first I will give some brief historical context. Ridge High School has a tradition that during the last month of the semester (May), on an evening near the end of the school year, all of the project based classes (Sewing, Woodshop, Welding, Interior Design, as well as the various visual arts classes) come together in the gymnasium of the school to exhibit the student projects for our local community. The performing arts groups also put on shows, and the families and friends of the students are invited to host this event, called the "RHS Spring Showcase."

In preparation for this event, I developed a curricular project and time frame that would help them be able to create something to exhibit in the Spring Showcase, and at the same time, this project would serve as a final for the class. After approximately three and a half months of working with various media, techniques, and processes, showing the students a wide variety of artists working in their particular practices and discussing their ideas, processes, and goals, as well as having had several group and individual discussions about the subsequent conjecture that the questions spawned, I essentially told my art foundations students that they would each have four class periods (approximately five hours of studio time in class) to come up with an art project that would be ambitious and suitable for our Spring Showcase, and that this project would essentially be their final for the course.

During each of the four days of class, I showed more videos of contemporary artists, each accompanied with further class discussion. The first of these was Lucas Blalock's New York Close Up video called "99 cent store still lifes" in which he works within a very limited set of constraints to make interesting photographs of everyday items. This video was accompanied with question #6 "What does his production process involve?"

The following day in class I showed another New York Close Up video featuring Daniel Gordon in which he works with both digital and analog processes to create unique and layered

compositions. We discussed his focus on process and dedicated efforts through questions #2 "How does he start?" and question #8 "How does he reflect on his work?"

The third day of studio time I began class with Shauna Moulton's New York Close Up video, "Whispering Pines" in which she discusses her work as it relates to autobiography, and how she distorts her own history, as well as mix in elements from the context of her life in order to come up with original artworks that ultimately raise more questions about her identity. In conjunction with this video, I asked the students to respond to question #3 "What questions does she deal with?"

The fourth day of class I started each class with Mariah Robertson's New York Close Up video "Chemical Reactions" where she essentially begins with a mistake (a large roll of photo paper that was accidentally exposed) and through a series of experiments, turned it first into a series of new work and then ultimately was approached by MoMA to have a solo show there. I led a discussion throughout the video centered on question #5 "How does she deal with Materials?"

The next and last day of studio time in class before the Spring Showcase I showed the class a video about Mika Rottenberg and her process of deconstructing cliches of femininity through documenting her collaborative performances between people she finds online and her own aesthetic choices. I used a question (not in my cannon) about identity: "How are we not our bodies?" This led to a discussion with several vocal opinions about Rottenberg's work and the ideas about identity and connections to the body.

Figure 4. 26 A view of the visual arts portion from the RHS Spring Showcase

After this free studio time in class, and many of the students working on their projects at home, I had students help me set up the exhibition in the gym (on the folded-up bleachers, as well as on several easels on the floor) and we had a nice successful celebration for the Spring Showcase.

I had students fill out a final evaluation, in which they could respond to the following prompts:

1- Describe your work (media, motivation, concept, etc.)

2- How much time did you put into this project (we had approximately 5 hours in class)?

3- What is something new you learned/discovered as you made this?

4- What score would you give yourself for this project, based on effort, craftsmanship, concept, execution, and an overall final product (out of 200 points)?

Spring showcase entry project analysis.

This project was unique to the semester in that I had structured class time to be largely open studio time that was meant to give students space to develop their own ideas and voice in their individual projects. Obviously I was hoping the students would take advantage of the freedom that studio time offers to work on their own individual projects. Overall, I considered this project a success, based on the fact that in each class during the four days of allotted studio

time, I estimated 80-90% of the students were actively engaged with their various projects. Of those 80-90%, I observed the large majority of the students were genuinely excited about their projects.

However, a few students were confused or even frustrated with the freedom of this structure. For one example, I draw from my reflective teaching journal from the first day of this project:

> I noticed Jose was struggling a lot, not knowing what to do for a final project.
> He kept bugging me, saying 'What do you want me to do?' and I kept trying to push him to brainstorm to come up with his own solution. Finally I sort of gave him some guidelines like 'Work in your sketchbook. Use a ruler. Use your pencil. Make an abstract design.' And finally he kind of got into it and I think he's off and running now…

Most of the students happily embraced the structural freedom of studio time, and used the majority of class time to explore themes, concepts or big ideas; and many students chose to use non-traditional materials from which to make their projects. I think the influence of showing the students the practice of so many contemporary artists throughout the semester was evident in the approach taken by so many of the students in this final project. Following are several examples of student work. I have chosen to include many different students' work in order to illustrate the vast breadth of individual student voices, range of materials (both traditional and non-traditional), as well as the overall sense of playful, experimental, and personal nuance and effort that the students put into their work.

Figure 4. 27 Some student artworks displayed at the RHS Spring showcase
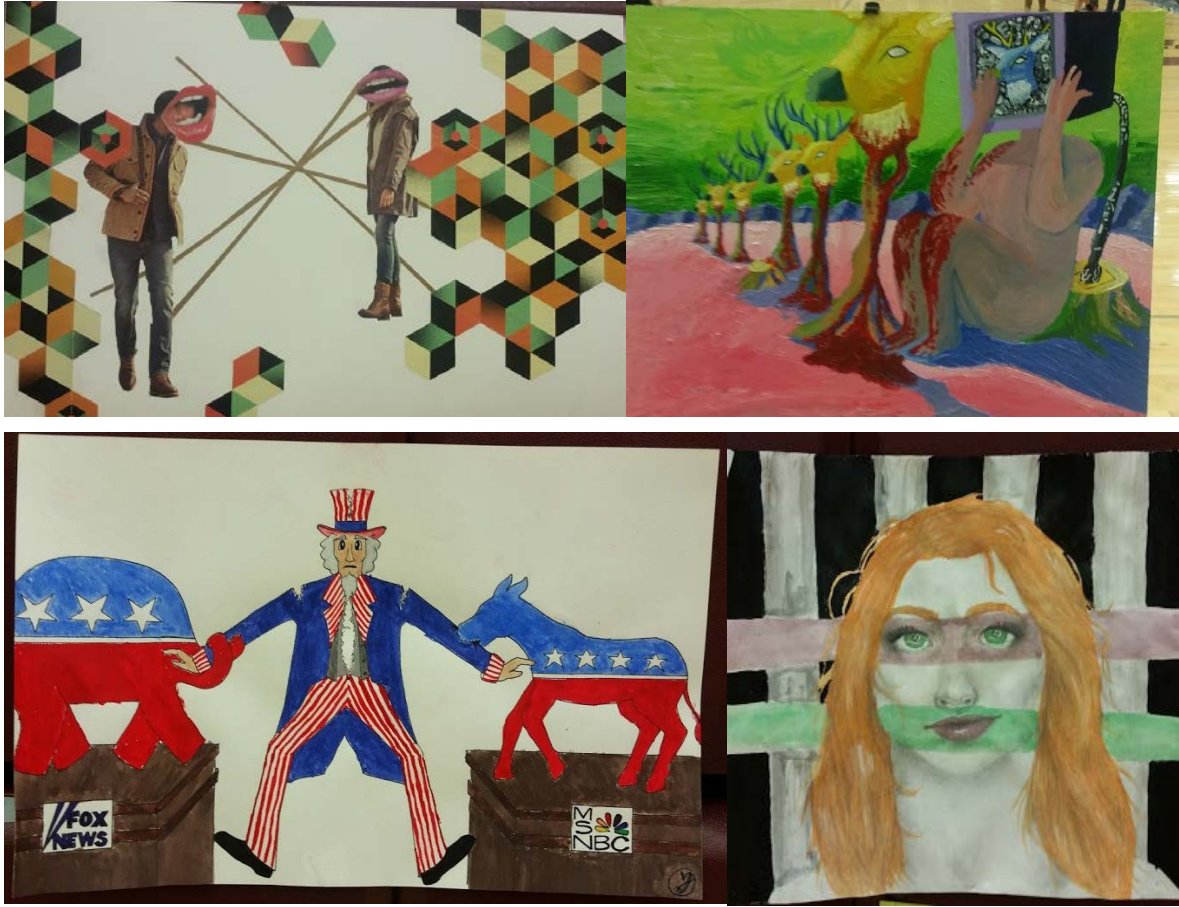
Figure 4. 28 Student artworks displayed at the RHS Spring Showcase
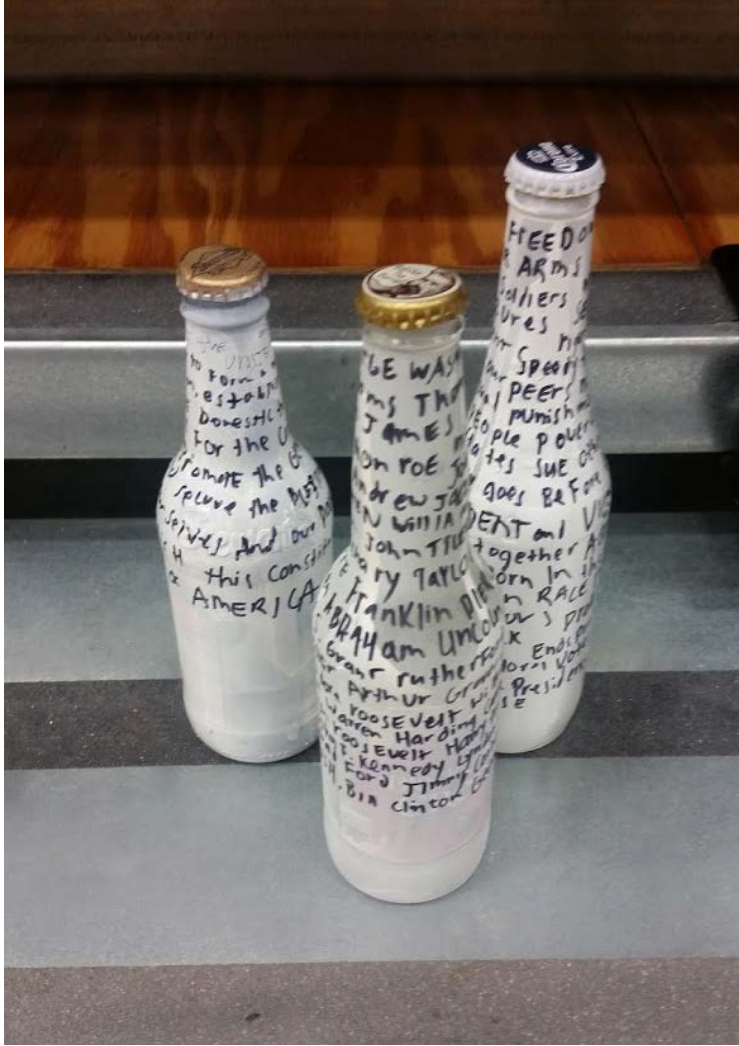
Figure 4. 29 This student wrote the 27 amendments of the constitution and the 44 names of the U.S. presidents onto three glass bottles that he had painted
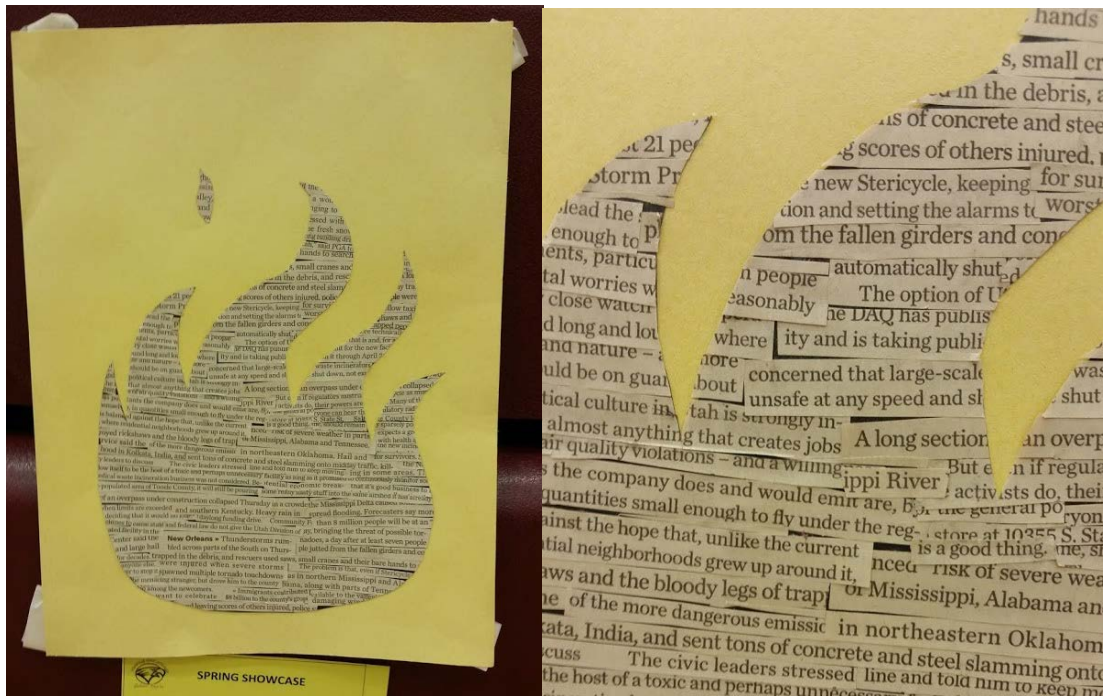
Figure 4. 30 This student work involved finding newspaper articles referencing fire and arranging the text into a cartoon flame
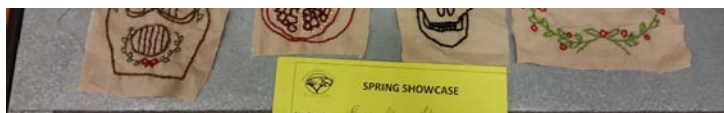
Figure 4. 31 This student embroidered images from Greek mythology onto small scraps of fabric

Conclusion

In this chapter I examined and presented in detail the whole high school art foundations curriculum for my study. The data which I collected and analysed took the form of many documented student interactions, photographs of students working, as well as photographs of their final works, and transcribed interviews with students. I also included thoughts and reflections from my own personal journal, with an emphasis on certain attentions and affectations which came from my roles as both the teacher of the class, as well as the principal investigator for this study. The curriculum in question was, generally speaking, able to engage most of the students most of the time, while opening up opportunities for students to develop their voice, to gain ownership over their art projects, to experiment with a variety of materials, and to examine the practices of a variety of contemporary artists as the students considered their relationship to their own artworks and projects.

The enactment of this curriculum also created several new questions for me. As a DBR study, my involvement during the semester helped me to consider the strengths and

weaknesses my own teaching practice, within my own classroom space, and brought to my attention many aspects of teaching and learning as they related to complexity thinking, especially regarding contemporary art and the high school classroom.

The following chapter is dedicated to the examination and elaboration of several of the theories and significance of the data that I have collected from this study. I process the data, as presented in this chapter, and specify theoretical and practical connections that I have made, as well as offer some recommendations from my involvement in this research.

Figure 5. 1 "Tyler with photo fragments" Gouache on canvas, 28" x 22"

CHAPTER 5: Conclusions, Implications and Recommendations

Introduction

The enactment of the high school art foundations curriculum in my classroom yielded many points of interest both for teaching and research. In this chapter I outline the more salient and relevant findings that I was able to draw from the data I collected and processed in this work. As a DBR study, my own local, context-specific research can potentially inform and influence other art educators and researchers interested in similar discussions about the curriculum design of a high school art foundations course, including the use of contemporary artists as creative models and how teaching and learning may be understood in terms of complexity thinking.

Crucial to describing a DBR study, I also show how the data that I have iteratively collected, analyzed, and presented generate the recommendations grounded in this dissertation, and how they relate to other teachers' contexts. This chapter is dedicated to elaborate on established theories and conversations within the literature, while also connecting these ideas to the data in this study and furnishing these discoveries in relation to my initial theoretical framework and research questions.

The findings I discuss in this chapter include a) conceiving of the classroom as an ecosystem; b) addressing the tension between contemporary curriculum and traditional structures; and c) working toward giving students more class time and curricular focus to work with and through ideas related to their art projects. In each of the three points, I offer specific observations, challenges, as well as explicit recommendations developed during this research.

Findings

The art classroom as an ecosystem[7].

One of the most notable and exciting observations from this study has to do with the conception of and disposition towards regarding the art classroom as an *ecosystem*. An ecosystem is typically described as a natural community of organisms that interact with each other and their environment. The study of the behaviors, the interactions between the organisms and their environment, and the ways that individuals function are often dependent on both internal and external factors that manipulate and determine the observed behaviors.

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[7] Eisner (2005) and Barkan (1955) have both used the term *ecology* in their work in describing classrooms, pedagogy, and learning. My treatment of the classroom as ecosystem in this study is meant to be considered a more contemporary extension and exploration of these scholars' work.

Studying complexity thinking as it applies to teaching and learning through a new designed curriculum allowed me to more easily perceive this description of the classroom as an ecosystem as a relatable and useful model as I moved forward with my research. Through the development, design and enactment of my art foundations curriculum, the research and literature described in Chapter 2, my own personal experience of teaching, and my familiarity with my own teaching context, allowed me to approach this study with practical sensibility towards this metaphor.

The phenomena of *knowing* as a way to create understandings about the self and the world through an ongoing series of perceptions and sensing qualities is also necessary in order to allow the learner to draw upon the past while simultaneously projecting into the future (Castro, 2010). I believe the most relevant words to help describe this process of knowing are *complex, relational,* and *alive*. These three terms also relate to the metaphor of a classroom as an ecosystem and support many sensibilities regarding complexity thinking (Davis & Sumara, 2006). Lastly, they were manifest in several examples from the data in my study and thus require further exploration below.

Complex.

Throughout my study I regarded the phenomena of teaching and learning through a sensibility towards complexity thinking (Davis & Sumara, 2004, 2006; Doll, 2005; Doll et al., 2005; Reeder, 2005). As a teacher, I specifically focused on creating an environment in which student art projects could emerge through a focus on experimentation, discovery, hypothetical thinking, autonomy and divergent student outcomes (see Chapter 2).

For example, when the students were working on the tape sculpture project, it was a student suggestion to use the tape sculptures as molds from which he could create larger solid sculptures that eventually led to the following plaster hands project. This suggestion was borne from a place of experimenting with the material, thinking hypothetically about the possibility of taking the current project, and coming up with a new and different solution. This particular example illustrates many aspects of the structure of complexity thinking, such as lateral exchanges of communication or neighboring interactions (Johnson, 2007), bottom-up organization (Surowiecki, 2004), ambiguously bounded structures (Davis & Sumara, 2006), and a dependence on feedback (Johnson, 2001, 2007).

As the teacher, this particular development required me to be flexible and adapt my curriculum plans to accommodate the student's suggestion and transform it from a nascent suggestion into a class project, which allowed me to respond in a complex way. In response to

this suggestion, I developed further curricular content for the plaster hands, found materials and examples, created a material demonstration, and developed specific questions which led to a discussion about and around this new process and possibility for creating something new. In both classes, I was quick to publicly give credit to the student for this development and, as the teacher, I fostered a tone of encouragement that recognized and praised specific student feedback and input so that other students might feel more comfortable to offer their ideas to the collective learning environment in the future.

The descriptions I outlined in this example helped to establish an environment that fostered a sensibility towards complexity thinking as it connects to student learning. I hope this example also helps to describe how a classroom "ecosystem" takes into account the ongoing, dynamic phenomena of learning as an intersection of curricula, student and teacher input and feedback, the responsiveness to the immediate environment, as well as the phenomena of emergent behavior as a manifestation of complexity in the classroom (Davis & Sumara, 2006; Doll et al., 2005).

Relational.

Another important aspect of seeing my classroom as an ecosystem is recognizing the relational nature of the phenomena that happened within the study. Complexity thinking regards feedback as very important to the survival and potential for a complex system to flourish (Davis & Sumara, 2006, 2008; Johnson, 2007; Shirky, 2008). I mean this to be understood as it connects with complexity thinking--that decisions and behaviors emerge in response to and are contingent upon the ongoing, dynamic situation in question.

These relational occurrences in my research took many forms, but for the sake of this report I will outline two examples from the data. The first example helps illustrate the way I think about my own classroom as an ecosystem in a way that highlights the relational aspects of complex learning systems. This example takes a position of the complex system at the nested level of the collective classroom.

This example accounts for the curricular decision of how the collage project came about. Previous to this project, the students were first working on their Make/Do projects, which took several days of class time. Students were all working on different projects, each with diverse needs and materials. I found during the final days of the Make/Do project that many students were less engaged with their projects. Several students were frequently on their phones during class time, and when I would ask them about the status of their project, many of them said they were working on their projects at home, so they could not do anything during class time. As I

mentioned in the previous chapter, this perceived lag in student engagement prompted me to respond by setting out materials such as magazines, various colored papers, exacto knives, and glue sticks in front of the students. I showed the classes Art21 Exclusive videos of contemporary artists Elliott Hundley and Mark Bradford using collage, which led to more class discussions and inquiries about the artists' practice using the eight questions of artistic practice. I consciously chose not to focus on student assessment at this stage of the project, which was a significant departure from the normal operation of the class. This response to a situation helped to reanimate many of the students engagement with art making practices during class time.

In this case, the curricular intervention was largely successful on a class-wide scale and this was in large part the way in which I chose to intervene. Instead of trying to micro-manage each student's situation with the very diverse and individualized Make/Do project, I tried to change the environment and expectations of the whole class by introducing new elements and challenges to the situation.

The second case includes several examples from the Repetition project. I chose to present to the classes my own work, a six foot square quilt of hand-stitched tally marks that took me 11 months to complete. This curricular decision to discuss my own work was somewhat difficult for me because I chose to describe in quite some detail about the motivations and choices I had made about the quilt project, which were rather personal. I hoped that by modeling my own artistic practice in relation to the other artists we had been studying, and emotionally and personally opening up about my own project would help the students be able to better relate to the ideas of contemporary art practice as a model for them that was perhaps more familiar, close, and comprehensible than relying only on curriculum content in the form of videos or slideshows.

By opening up to my students about some of my personal art practice, especially in relation to examining other artists' practices throughout the duration of the class, I was able to make myself somewhat vulnerable to the students. By relating to the students in this way, I was able to engender and reciprocate trust and safety in the classroom. I hoped that my vulnerability helped to soften the mood of the environment, and this helped create a more receptive atmosphere in which connections between myself and other students could form and become stronger.

Another example when similar vulnerable situations arose included when Wally and Alyssa both volunteered to be the class models for the figure drawing unit and in the subsequent investigations about bodies and personal identity. Each of them publicly acknowledged the parts of their bodies that were different from the norm (Wally had a

malformed hand and Alyssa was noticeably the heaviest student in the class). I regarded these public acknowledgements as not only incredibly brave in a classroom of teenagers, but how these instances helped diminish a semblance of toughness, and instead helped create a more safe space for other students to feel comfortable coexisting and sharing vulnerable, personal thoughts and ideas as they related to projects.

Lastly, earning the terrible news of a young girl in our school who had taken her life strengthened the bonds in both classes. This was especially noticeable in first period because I was the one to break the news to most of the students. This vulnerable situation caused many of us in the class to shed tears, mourn together, and slow down the pace of the class. As mentioned in my reflective journal, I found myself asking students with a compassionate tone, "*How* are you doing?" rather than, "*What* are you doing?" with my more common, task-oriented tone. Times of tragedy such as this offered all of us time and space to privately and collectively reflect on our lives, evaluate our priorities, and strengthen the relationships we share with each other. As a teacher during this tragic and unfortunate event, I was able to regard this situation as a chance to connect more with students.

Focusing on the classroom as a dynamic environment, or ecosystem, helped me develop a responsive pedagogical disposition that re-awakened the student engagement of my curriculum as it attended to the relationships between students, the curriculum, and myself. The situations I have outlined in this section speak to the relational nature of the classroom ecosystem and the dynamic interactions between as well as the interrelatedness of the various phenomena in question. Recognizing how certain situations, actions, and behaviors affect other factors in the classroom illustrates how relational and contingent these things are.

Alive.

Alive is another important descriptor for understanding the classroom as an ecosystem. This inherently attends to the idea that things can emerge naturally and develop or change directions within a complex system of their own impetus or in response to another pertinent factor or series of factors. This label may also indicate that something like a curriculum left unattended or neglected will inevitably become stagnant, stale, or even die. These organic, living interventions do not originate from artificial interventions or contrived methods that insist or impose their will upon another being or situation. Instead, living behaviors and decisions are adjacent responses to and negotiations with other wills, demands, and environments (Davis & Sumara, 2006; Johnson, 2010).

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I have chosen to identify this metaphor with an *eco*system because it inherently relates to a natural complex system of interrelated organisms and an environment. In an art classroom, this is especially relevant to my study, as the idea of a "living curriculum" is referenced by several authors in the field of curriculum studies (Aoki, 2005; Calderon-Berumen & O'Donald, (2017); Connelly & Clandin, 1988; Irwin & Chalmers, 2007; Irwin, 2003; May, O'Donoghue, & Irwin, 2014; Pinar, 1999). The concept of a living curriculum may seem foreign or even opposed to my study, which embraces a designed curriculum focused on the practices of contemporary artists, but I would contend that the extensive conversation about living curriculum is very applicable and practical approach to teaching, and I would argue that a designed curriculum such as mine can overlap, coexist, and even thrive within and around the notions of a living curriculum, as Irwin and Chalmers (2007) discuss as a balance for a healthy way to approach art education.

I would also contend that Irwin and Chalmers' notions of living curriculum are actually closely related to the characteristics of complexity thinking, as I have outlined in this study. Like complexity thinking, Irwin (2003) regards aesthetic ways of knowing as those that value "sensory awareness, perceptual acuity, attunement, wonderment, novelty, and emergence" (p. 63). Similarly, Davis and Sumara (2006) talk about the potential of complexity thinking within education as being able to foster questions that "invoke a poetic sensibility and that rely on analogy, metaphor, and other associative functions of language" (p. 7). Both living curriculum and complexity thinking harbor analogous sensibilities for pedagogical approaches by giving special attention to the unknown, an aversion to certainty, and gravitating towards "[being] amidst things worth seeing" (Irwin, 2003, pg. 66). These qualities tacitly relate to ideas about living, complex, and dynamic systems that adapt and respond to various phenomena.

This impulse to cultivate living, responsive, and adjustable teaching and learning is also supported by the new NAEA Visual Arts Core Standards (see http://nationalartsstandards.org/). The 2014 version of the written standards model this approach by identifying the revised standards as a process-oriented set of guidelines and regard the standards as a "living document" (National Core Arts Standards: A Conceptual Framework for Arts Learning, p. 6).

Approaching curriculum design with a sensibility towards awareness, attentiveness, and responsiveness depended on actions that were contingent upon the choices, positions, and points of reference from other agents (students) and circumstances. For example, when I had planned to show Doris Salcedo's work by using the content of Art21's Exclusive video "Istanbul" for the Repetition project, I originally decided to just focus on the repetitive aspects of her art practice. in this case, however, I was able to connect the tragic event of the Brussels bombing

to Salcedo's work because it had occurred that morning. Because the event was so recent and raw, the collective mood of the class, as well as the content in the video, helped to develop and reinforce a relevant, thoughtful, and strong connection with Salcedo's work.

As another example, I was able to include the work of another artist, Sam Hsieh, who I learned about during the NAEA conference in Chicago. Because this artist's work was new to me at the time, I observed that my own excitement about his practice was more relatable, fresh, and well-received by many of the students as I presented it to them.
I believe these responsive decisions helped create a more fertile ground for some more authentic and thoughtful student work to emerge in their own repetition projects. These examples also help to illustrate the importance of considering a living approach to conceptualizing the classroom as an ecosystem. Developing this kind of disposition towards a classroom leads into the second point below.

Tension between contemporary art curricula and traditional school structures[8].

One of the most apparent and distinct items of interest from this study was the intended focus on presenting more contemporary content and curricular choices to enact within the context of a traditional high school setting. This created a kind of curricular tension in the classroom. This tension was manifest in the curricular choices I made, and affected me and the students in my classes through the shape of content, discussion questions, student projects, and available materials and timeframes with which we had to work.

This tension came from emphasizing both contemporary art practices and content within the curriculum, while also simultaneously inhabiting an environment, structure, and historical precedent that tended to gravitate toward many traditional methods, approaches, and cultural expectations in my school setting.

Examples from the data.

To discuss this tension, I first offer the following curricular choices as an example from my study: I began on the first day of both classes with a TASK party, potentially one of the most contemporary, chaotic, student-centered, and open-ended activities imaginable for a classroom setting. My intention for doing this on the first day is to communicate to my students that theoretically, anything can be possible, set a tone for the class that individual student voices

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[8] The phrasing of and consideration of *contemporary* and *traditional* as a simple binary is wrought with potentially messy implications. For this study, I use these terms to indicate placeholders for ideas that are meant to help the reader understand the data as I have presented it in this chapter.

matter, and show that my classroom welcomed experimentation, play, and a focus on process (Gillespie, 2016).

The experience with TASK was followed on the second day of class with a brief introduction to class expectations for the semester and time to collectively look over the class syllabus, as well as an introduction to some more traditional, representational drawing activities. The second day of class was markedly different in its tone and level of energy, largely because I took on a much more traditional role as a teacher in the front of the room, commanding the students' time and attention with information, expectations and formal instructions.

The difference of these two days created a challenge for me as the teacher to balance two seemingly opposed pedagogical approaches. Maintaining a balance or harmony between chaos and order is a concept that has been discussed in various disciplines for centuries. In *The Birth of Tragedy*, Nietzsche (1872/1993) famously referred to the opposite but complementary personalities and impulses of Apollo and Dionysus, both sons of Zeus, who represent chaos and order, respectively. This discussion is not new a new challenge for educators. Dewey took up this issue over a century ago, framing the educator's task as a careful navigation between "old" (focus on skills, tradition, repetition of knowledge) and "new" (child-centered, dependent on motivation and self-realization) modes of education (Dewey, 1902/1952).

This conversation about balancing order and chaos is a central aspect to complexity thinking (Davis & Sumara, 2006; Larsson & Dahlin, 2012; Waldrop, 1992). For example, in my teaching situation, it would be impossible to sustain the excitement, open-endedness, energy and possibility that comes with TASK for several consecutive days or weeks in the classroom. This level of unchecked chaos would likely result in frustration, confusion, lack of direction and disorder that would leave students unproductive and disengaged with the class.

On the other hand, a classroom environment with an extreme focus on traditional structures, curriculum, and pedagogical approaches, which seems to be the dominant or default position for most of my students' experience in school, would be a very static and unengaging situation as well. In complexity thinking, movement is survival, and stasis or equilibrium is death (Davis & Sumara, 2006; Koopmans, 2017).

This balanced approach to my research, or careful negotiations in and between dynamic situations, found more success playing to both ends of this spectrum of order and chaos, but not fixating on one extreme or the other. Shirky (2010) advocates turning up the chaos as much as we can stand if we want to develop innovative and fluid responses and solutions. I found the more successful learning interactions and experiences were found within the many small, everyday pedagogical decisions that were made, especially when emphasizing more

contemporary choices in the curriculum. Sometimes these decisions were planned in advance, but often these were intuitive and immedediate choices, that were made contingent upon or in response to the given circumstances of a situation. These were the decisions that were most crucial to creating the curricular tension I am discussing here.

Another example of this tension comes from when I attempted to connect the figure drawing unit with the tape sculpture unit through ideas about identity. In this example, I began with a more traditional approach to teaching observational figure drawing by using students from the class as models with timed poses and a more controlled environment so that all of the students were simultaneously working on a similar, realistic drawing goal. Similar to the previous example of the representational drawing unit that followed the TASK party, this more traditional approach created a situation in which the students were noticeably more docile, obedient, quiet, and on task. I believe this had to do more with the structure of the curriculum and the movement toward a knowable goal, as well as an attached time limit for each drawing.

To counter the experience of this traditional day in class, I started the following day with a stronger contemporary emphasis, showing a film of Janine Antoni's *Milagros*, in which she shows how she "grafts" together sculptural body parts in a way that normally do not go together. This project sparked an interesting and engaging discussion about bodies in both classes, with some students talking publicly about the flaws of their own imperfect bodies. This video, as well as the ensuing class discussions, helped pave the way for our classes to begin the tape sculpture project. I also believe that watching and discussing this video after spending time studying each other's bodies through the traditional figure studies led to some more collective connection and complex learning opportunities. Some of the students felt safe publicly acknowledging and sharing some vulnerable information with the rest of the class, as I mentioned above, as well as taking time to explore and approach studying the body in art in a variety of ways.

I followed this figure drawing unit with a more open-ended, ambiguous and challenging task to come up with labels about their own identity in their sketchbooks (which I later tried to have the students use in order to help them brainstorm for more conceptual and contemporary possibilities to incorporate into their tape sculpture projects). Some students were confused and disengaged with this project, while some of the students flourished amidst this ambiguity.

The curricular sequences I have just described represent the bouncing between contemporary content and teaching methods, and a traditionally structured and delivered curriculum. Some of the contemporary curricular choices I made were usually designed to push students toward new and unfamiliar territories, while some of the traditional curricular choices I

made were due to necessity or to maintaining an order or structure in the classroom. Irwin and Chalmers (2007) discuss the idea that a balanced orientation between these seemingly opposed pedagogical approaches to curriculum can flourish, especially with the sensibility of an attentive educator in tune with the desires of the students and the contingencies of the environment.

The understandable prevalence and acceptance of traditional structures.

The following section explains my reasons for including many traditional approaches to teaching. Though many educators understand this implicitly, I include these descriptions as an illustration to argue that the ubiquitous, traditional expectations of the school can actually help to create the tension that can be used as a catalyst to improve conditions for student learning in the classroom.

Many art educators gravitate toward a more traditional approach to teaching largely because of their aversion to the chaos and unknown possibilities that come with a complexivist view of education. In art classrooms, it is completely understandable for educators to seek out a more mechanical system for their curriculum and pedagogy because of the staggering amount of expectations and demands on their time and attention.

Some of the major impediments to embracing contemporary content and pedagogical processes are closely related to the practical realities of being a public school teacher. It is easy to become overwhelmed with the time consuming, mundane tasks involved with running a classroom: organizing the storage closets, ordering supplies, dealing with attendance, constantly cleaning, assessing projects, exhibiting student work, and attending to other school duties such as serving on committees, attending meetings, participating in collaborations with other teachers, and so forth.

When I invest so much of my energies toward these chores, it can seem overwhelming and not worth investing time and attention toward developing new curriculum strategies, such as researching the work artists with whom I might be unfamiliar, trying to create relevant frameworks for student projects, deciding how to assess the projects, and always trying to find a clever way to engage the students with new curricular designs and interventions.

These practical realities and demanding expectations are all too familiar to many educators. Students that become used to this type of learning environment are conditioned to seek out the superficial means to an end that usually take the shape of minimum teacher expectations, the quickest path to points with the least amount of invested effort, and a motivation almost entirely governed by scores or grades (Ravitch, 2010). The increasing

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institutional pressure can create an environment that focuses heavily on these quantitative norms, which can exacerbate and magnify the expectations on teachers to conform to a standards-based system of judgments and assessments on students and their work (Chapman, 2011; Ravitch, 2010; Wexler, 2014).

These more traditional curricular approaches to teaching and learning tend to foster a disposition of teacher control, student compliance, and increasingly the normal experience for many students in my school. Specific to the art classroom, these traditional pedagogical approaches often take up a focus of skill-based, technical objectives because they are easier to assign and assess (Gude, 2004). As I contend in Chapter 2, reducing an art curriculum to so-called universal parts (the elements and principles of art and design) that may focus on form and media often omit the cultural, material and theoretical relations to art (Perkins, 2009; Tavin et al., 2007), and can leave students with a skewed, partial, or anemic relationship and experience with art in school.

Rorty's ideas about pragmatism, discussed in length in Chapter 2, support and parallel the theoretical framing of this study, including the notion of facilitating learning opportunities directly from artworks themselves. Many educators resonate with basic ideas about pragmatic, practical solutions to everyday classroom issues. During this study, I attempted to conceptually and pedagogically push against the traditional classroom culture and structure with contemporary art content and pedagogical strategies, which created the tension I am discussing here.

Tension as an agent of disequilibrium.

I attribute many of the positive outcomes from the data to the push for contemporary curricular interventions that took place in class. It is important to note that these interventions occurred against the backdrop of, or even in spite of, the default landscape of the standard, traditional, or otherwise normal school setting. I describe the tension that this curriculum created as an *agent of disequilibrium*, which gave students the opportunity to widen their scope of familiarity with the subject, to confront and consider more aspects and associations related to a given issue, and to potentially create new connections and understandings. When things in my classroom began to settle into a more predictably standardized state, the collective energy and student engagement with the curriculum would often become stagnant and weary. In complexity terms, this stasis equals death (Bergson, 2010; Davis & Sumara, 2006; Koopmans, 2017). By injecting more contemporary curricular interventions into the classroom environment, I was more equipped to stimulate the collective energy of the class by embracing this strategy as an

agent of disequilibrium to the complex system in order to rejuvenate and arouse the attention and engagement of the students.

Attending to the literature of complexity thinking, this ubiquitous traditional approach in education models the structure of a *mechanical* system, as opposed to that of a *complex* system. In Davis and Sumara's (2006) treatment of complexity in education, mechanical systems are designed to respond to an action, or perturbation, in a way in which the reaction is controlled, predictable and explainable. Examples of mechanical system structures include computers, engines, and I submit, in this conversation, many traditional art classrooms.

Complex systems however, are structured to adapt immediately to their given environment, and this often means results or responses that are difficult or impossible to control, unpredictable, and difficult to explain. Davis and Sumara offer a helpful illustration of this point: If someone were to nudge a block of wood on a table, the person will be able to deduce a reaction that can be expected. Based on Newtonian laws of physics, and considering the amount of friction, gravity, and other forces involved, one would know the wooden block will slide on the surface of the table as expected. This is a simple mechanical system. On the other hand, if someone were to nudge a dog, the laws of Newtonian physics do not really help us anticipate the reaction; "the response will be determined by the dog" (Davis & Sumara, 2006, p. 99). The dog is a complex system. It is even more confounding "...if a human, who has an even broader repertoire of possible responses, is nudged, [and] the results are even less possible to predict" (p. 99).

This tension between contemporary pedagogy and the traditional school setting had some obvious challenges to my position of teacher in a public school because of many of the limitations, practicalities and details of my situation. Davis and Sumara (2006) explain the difficult and nuanced tasks of situating studies within the field of education connected to the conversation of complexity thinking:

> [The field of education] must be simultaneously attentive to issues and phenomena across many levels of organization. Simply put, and educator or an educational researcher cannot focus solely on brain function or individual sense-making or group process or cultural contexts. Quite the contrary, all of these concerns--along with many other aspects of existence--must be incorporated into effective educational theories and practices. (p. 130)

I would also add that I often choose to see this tension as a generative and productive aspect to my students and the environment in which I was operating. Treating the tension between the traditional and contemporary approaches as an asset welcomes new possibilities

to the classroom and the curriculum. Castro and Grauer (2010) discuss the idea that imposed constraints can enable creative action and that the tension that comes from these curricular interventions can be productive for student learning. In this study, I tried to conceptualize this tension as a catalyst, or an agent of disequilibrium, that allowed students to engage with contemporary art practices, in which traditional approaches to teaching art are not thrown out, but rather added to. From this study, this tension created opportunities for the development of many artistic skill sets, competencies, material investigations, and experiments to not only be explored, but encouraged in my classroom.

Ideation Time during Class

The third of the more salient observations from my research comes in relation to the notion that many students have a difficult time coming up with thoughtful, critical, or authentic ideas for their projects in the high school art classroom. While I recognize that this is a challenge for any artist or any person, I would like to address this challenge in relation specific to the context of the art classroom. The issue of coming up with thoughtful, critical or otherwise genuinely wrought ideas and imagery is especially important to me as a teacher because I want my students to arrive at the production of imagery over which they feel a sense of ownership and authenticity.

In this study, however, I found that when students were asked to generate images for their projects, many students would uncritically use designs from their favorite skate brand or characters from Disney or logos from their favorite sports team as the content for their own art projects. By mentioning this specific problem, I do not wish to conflate students' use of popular culture in their artworks as it relates to the literature of Visual Culture art education (VCAE), as noted by Freedman (2003) and Duncum (2006, 2010), in which educators encourage the use, recontextualization and considerations of pop culture as a means of critically examining the origins, associations and relevance to students' own lived experiences. The observation I am trying to make here is the familiar problem of students' lack of criticality, when given free or unguided time to work through ideas in order to generate an image or develop an idea for their art project. Students frequently resort to familiar images in their roles as *consumers*, instead of working to develop a more nuanced or thoughtful response to class time set aside for ideation, or brainstorming and work as *producers*. This is only a part of the complex, challenging landscape of the high school art classroom when discussing VCAE issues for helping students to create authentic and meaningful art projects (Plummer-Rohloff, 2006).

These less-thoughtful student images are, in part, a symptom of the systematic cultural situation in which so much emphasis and pressure is placed on high stakes testing and increasing standardization (Lewis, 2014a), and creating a final product instead of focusing on the process (Kalin & Barney, 2014b; Lewis, 2014b). These factors were often carried into my art classroom by students, which at times created an awkward or disengaging environment.

Studious play.

Many of the projects from this curriculum asked students to find ways to create original visual content or ideas that might come from a place of self-reflection or inquiry. In many cases, the curriculum called for students to work from a place of experimentation or have a specific focus on process or engagement with materials. Most of these curricular tasks require students to venture into ambiguous territory, where a clear-cut answer is not simply laid out for them to solve. Several educational scholars (Ambagen, 2007; Kalin & Barney, 2014a; Lewis, 2014a; Neill, 1992) discuss the concept of *studious play* as a way to free the individual by suspending the rituals of educational experience and helping the student "to open up to [...] the potentiality of the world to be *rather than* it has become" (Lewis, 2014a, p. 203, emphasis in original). In this way, studious play is distinct from open free play in that studious play emphasizes an attentiveness to the potential uses and possibilities of materials and concepts free of their "proper" use, and instead creates an allowance be willfully open to to discoveries related to the task at hand.

Challenges of ideation time during class.

Specifically to my study, the challenge of getting students to use class time as a chance for ideation or brainstorming ideas in order to generate new content or visual imagery for their projects was especially difficult. For this reason I used John Cleese's concise discussion of creativity (Video Arts, 2017) as an example during class, attempting to break down a working model of creative habits into a simplified framework of "open mode" and "closed mode." Cleese makes the point that many people have a hard time staying in the "open mode" because of the discomfort that comes with ambiguity and not knowing the right answer to a question or problem. This discomfort toward ambiguity runs exactly against the grain of the current school system, especially my school, where students seem trained to seek out points or scores and are conditioned to look for the shortest possible pathway to getting a good grade without worrying too much about exploration, playing with an idea, or trying several versions of a solution to a

problem. This is a ubiquitous challenge, familiar to many educators. (Chapman, 2011; Kalin & Barney, 2014a; Walker, 2001; Wexler, 2014).

For example, several of the projects in this curriculum, such as the Six-second video project, the Printmaking project, and the Make/Do project, asked students to use most of a class period (usually between 30 and 45 minutes) to explore possible ideas or images that they could work towards as as a result of a certain curricular prompt. This was usually after collectively examining and exploring the related work of a professional artist. This 30-45 minute (largely unstructured) open brainstorming session was almost always met with noticeable discomfort from the class at large. Many students were not exactly sure how to approach or engage with a personal brainstorming opportunity. Some students were deterred by even giving a format to their brainstorms--they were not sure whether to write bullet points, make lists or drawings. Several students struggled to produce any useful content from their brainstorming session for their individual projects.

I found the open-ended process of ideation, brainstorming, or otherwise working out ideas in their sketchbooks for many of my students could be arresting and sometimes disheartening for students. This less structured time left many students floundering, not sure how to approach working toward a goal, and instead of persevering and working through the problem, many students shut down or gave up because the discomfort of not knowing the exact objective was too distressing. The students at this point, often only 3-5 minutes into the brainstorming class time, were content to just look at their phones or otherwise disengage with the project completely.

This is a significant challenge for many art educators. For the classes in my study, it was not enough to provide students with sketchbooks to work out their ideas. One of the large challenges to helping students develop complex understandings about the world and exploring ambiguous spaces and not fearing the discomfort that comes with not knowing the "right" answer has to be for teachers to develop more specific strategies, prompts, and cleverly designed interventions to help students develop skills for ideation--brainstorming, working out non-linear solutions to problems, or otherwise welcoming the discomfort of not knowing "the" right answer. Following, I offer a few examples of curricular interventions from my study that attempted to address this problem.

A classroom orientation towards process-focused practices.

Ironically for me, I found that this discussion came up frequently in my classes as we would collectively examine the practices of so many contemporary artists. In our class

discussions, many of the students noted how the artists that we studied (Art21 Exclusive videos of Diana Al-Hadid, Glenn Ligon, Abraham Cruzvillegas, and Mariah Robertson) distinctly mentioned the importance of not knowing how the final product of their practice might turn out. These artists specifically mention in their respective videos the importance of playing with a material or process or idea without any specific outcome in mind as a central component of their practice. Students seemed to grasp the importance of brainstorming and process-focused practice from a theoretical distance, but many students could not seem to translate this value into their own projects in the classroom.

Curricular interventions for a more process-based focus.

My intent to develop this skill came to the surface a few times during this study. TASK on the first day of class was a strong and effective structure to help students engage with ideas of play, the value of process, and the need to experiment with the immediate possibilities of materials and each other, usually without a clear objective. The "Wheel of Juxtaposition" was another simple curricular intervention designed to give students a structured opportunity to understand the concept of juxtaposition by encountering new possibilities through drawing two or more things that were unlikely to go together.

Kalin and Barney (2014b) discuss the idea of placing contemporary art practices in proximity with curriculum design in order for the teacher to "play host to interactive, collaborative and negotiated social engagements among students or participants" (p. 22). By modeling this kind of a disposition towards the process-oriented practice of generating ideas, teachers can help students work out solutions to their individual projects. On a larger scale, this kind of teacher modeling can help create an environment in the classroom that shapes the culture of the art room within the school; a culture that welcomes experimentation, playful exploration of possibilities, and an attitude that welcomes the failure that inevitably comes with brainstorming and processing ideas (Herring, 2011; Johnson, 2010; Kalin & Barney, 2014b).

Mary Hafeli (2015) discusses an approach to art education that also relates closely to the ethos of my research, in which she recommends art educators focus on helping students to develop an authentic artistic practices by modeling their pedagogical methods by observing and exploring the practices of professional artists. She also advocates for teaching methodologies that emerge from and are contingent upon the available materials and possibilities at hand in typical K-12 art classroom situations, instead of basing curriculum decisions on preconceived ideas or plans.

The need for more class time, practice, and teacher modeling on how to incorporate the practice of studious play, as well as curricular strategies that help students develop authentic ideas is an important observation of this research. Specific to this study, I offer the approach of examining the practices of several contemporary artists in proximity with the curricular choices and interventions. Together with the eight designed questions of artistic practice and my own intuitive decision-making and modeling as a teacher (Irwin, 2003; Kalin & Barney 2014b), I attempted to furnish a curriculum that would help develop a fertile environment where students could embrace a healthy disposition towards ambiguity when working in the classroom.

I recommend that educators develop a classroom culture and teacher disposition that welcomes and encourages student engagement with ambiguity and studious play. This sensibility often accompanies a feeling of uncertainty associated with ideation and process-oriented practices can help students generate authentic, critical, and thoughtful art projects. Specific brainstorming strategies and activities will be more effective if they are allowed to flourish within a classroom ecosystem that is socially and structurally congruent and supportive of such pedagogical approaches. Developing such a class culture can emerge more organically from art educators dedicated to helping students to develop skills to think, inquire and work like contemporary artists. This study extends what the literature says about a focus on process to specifically placing these notions of process-oriented practices, time for ideation, and studious play in proximity with the practices of contemporary artists (Graham & Hamlin, 2014; Kalin & Barney, 2014b; Walker, 2014).

In my study, I found that the student projects at the end of the semester (their final projects for the Spring Showcase) reflected a diverse, ambitious, and adventurous collection of projects. From mixed media works to paintings to folded paper sculptures to works that used unconventional materials, students found a myriad of ways to convey a variety of messages, political stances, personal symbolic interpretations, and thoughtful, unique, and idiosyncratic compositions. For a high school art foundations course, I discovered throughout the weeks in the semester, that a thorough and sustained exposure to and examination of contemporary art practices helped my students widen their conception of what an authentic art practice can be.

Identifying my pedagogical disposition as complex, relational, and alive helped me as well as the students to regard and engender a classroom as an ecosystem. This orientation as a teacher in a classroom also hearkens to Thomas Hirschhorn's mantra of being "present and productive" (Art21, Season 7).

Conclusion

In conclusion, three of the most salient and arable ideas that I discovered as I processed the data from this research are:

1. To regard the art classroom as an ecosystem by nurturing a propensity toward occurrences and interactions that are *relational, complex,* and *alive* in the art classroom. There is a prominent connection between the sensibilities of the living curriculum and complexity thinking as it relates to teaching and learning. As educators work to develop a perception of their classrooms as ecosystems, they can foster more sensibilities in which their decisions will allow for more nuanced and complex interactions with their students. These careful and thoughtful interactions can lead to a softening in the atmosphere in the form of vulnerability and trust, which create more fertile ground in which connections and confidence can more readily and frequently be made.

2. To recognize the potential power that comes from the *tension* between a curriculum that emphasizes both contemporary content and contemporary curricular approaches and the ubiquitous traditional cultures and structures of the classroom. In this study, as I made more contemporary curricular choices against the backdrop of a traditional school setting, I was able to create a healthy disequilibrium that challenged students to explore a variety of approaches to making art and maintain attentive engagement with the curriculum. Creating a tension like this in my classroom allowed me to take up a pragmatic, pedagogical stance that addressed the need to find a balance between order and chaos. Viewed through a theoretical lens of complexity thinking, my orientation toward this balance helped me to recognize when a situation may have become too chaotic, to the point of student discouragement and confusion, and how to properly respond to it. On the other hand, attending to this balance also helped me to recognize the more prevalent need to push back against the static and unvarying condition found so commonly in my school's environment.

3. To dedicate more time in class for student *ideation and a focus on process-oriented artistic practices*. This includes not only the need to develop more clever activities and curricular interventions, but more importantly, developing a classroom culture and teacher disposition that models, welcomes, and encourages student engagement with ambiguity and finding a willingness to embrace tenets of studious play. In my study, students were able to develop studio habits that exhibited a wide range of art making practices and abilities to think of and carry out a variety of adjacent possibilities in an

high school art foundations course in large part because of the exposure and examination of many contemporary artists' practices.

When Thomas Hirschhorn began his Gramsci Monument project, he said that his big ambition was to establish a new form, or term, for *monument*. Instead of the traditional archetype of a monument (a permanent, monumental structure in a park or city center), Hirschhorn chose to create the Gramsci Monument in a neighborhood in the Bronx "to a non-exclusive audience;" "it's duration has no ambition of eternity," he states, and the purpose of his monument was "to create memory" (Art21, Season 7).

I found my own goals of this study similar to Hirschhorn's aims for his art projects. Engaging with students in a high school art foundations class. However, I recognize that most of the student participants in the class are "non-exclusive," meaning that most (if not all) do not come to my class with significant access to or experience with contemporary art. The designed curriculum must also operate within the limited time frame of a semester, and so I do not have the ambition of eternity with this class. Possibly most important, I also desire to help the students create a collective memory about art through a series of experiences, projects, and engagements that I hope will live on in the minds of the students even after the semester, the curriculum, (the monument), is over.

Similar to Hirschhorn, but specifically related to the context of art education, my big ambition was to establish a new term or form for the way art foundations could operate within the high school classroom. The main focus of this research study has been to rethink and remake a high school art foundations curriculum by focusing the collective attention of the classroom on contemporary art practices. To address this aim, I chose to focus my efforts as both the teacher and the principal investigator of this study on two main points, which relate closely to my two main research questions and are listed again below:

1. How might a contemporary curricular approach to teaching a high school Art Foundations class afford students to learn to inquire, think, and make work like contemporary artists?

2. How might a complexivist view of teaching and learning inform a study that revolves around a curricular structure designed to include contemporary art in the high school classroom?

Through a guiding focus on contemporary art by examining many contemporary artists' specific practices with my students, I designed and carried out several curricular interventions and class projects intended to help students to inquire, think and make work like contemporary

artists. This study has also afforded me an opportunity to examine the phenomena of student learning in the high school art classroom through a theoretical lens of complexity thinking.

Complexity thinking recognizes the dynamic and interconnected nature of phenomena as things emerge and interact with each other as well as their surrounding environment. Examining knowing and learning in this way has not only afforded me the ability to conceptualize and enact the designed curriculum for the study, but also to act, reflect, and respond to things as they occurred during the semester. Thinking complexly has also affected the way I have written and presented this research.

The design-based research (DBR) methodology for this study allowed me to thoroughly and iteratively examine the experiences of the students as they engaged with the designed curriculum. The data for the study emerged from two high school art foundations classes that ran the duration of a semester (four and a half months from January 19 to May 27, 2016), and included 67 students and 13 class projects. The design and enactment of these projects were largely drawn from and influenced by the practices of many contemporary artists. In conjunction with examining the works of these artists, we often referred to the eight questions of artistic practice, which I designed prior to the start of the semester. This methodology not only allowed me to reflect on, respond to, and make adjustments as things developed, but ultimately provided a space in which to draw my own conclusions and create my own theories in relation to my teaching context.

The data I processed from my research in my own classroom describes how a contemporary approach to curriculum design and pedagogical intervention in a high school art foundations course could provide a beneficial and constructive ethos that can help guide teachers and students towards building new and meaningful understandings and connections about the world through experiencing, reflecting on, and connecting with the practices of contemporary artists.

This study is historically situated in an exciting and productive time in the field of art education. Many educators and scholars are currently attempting a large variety of approaches, focuses, and accessibilities toward effective and practical pedagogies related to art education (Campbell, 2012; Chalmers, 2004; Efland, 1990; Zimmerman, 2009). This particular study takes on some of the theoretical, historical and philosophical implications about what *foundations* can mean for educators and students as it relates to knowing and learning, especially in the high school art classroom. This study seeks to create curricular solutions and educator dispositions that are more engaging, provide more possibilities for students to learn and develop authentic art making practices, and function and thrive within a living and responsive classroom context.

Despite my own particular teaching context in the 21st century, I continue to resonate with many of the same concerns and issues that Manuel Barkan (1955) addressed and treated in his work over six decades ago, namely, the need for educators to be attentive to the needs of their individual students and to be able to create environments and engaging curricular interventions and designs that expose children to the power that art can have to help them as a viable way to see and know and respond in the world. Barkan says:

> Individuals, as they work in the arts, react to stimuli in their environment by composing interpretive visual forms. This process of reaction and composition involves the play of sensitive judgement. The thrill of expanding sensitivity becomes the source of wholesome satisfaction. (p. 4)

Through these aims, art educators can work towards achieving the larger goals of general education--seeking to prepare children to be thoughtful, active, democratic members of society. Art education has the tangible potentiality to engage students' energy and attention into meaningful action and transformative power.

Research Interests for the Future

This study, along with my ongoing practice as an art educator, has made me very aware of the need to research and create more curricular interventions aimed to help students embrace the ambiguity that comes with developing authentic art projects. I will continue to promote the development of individual student artistic practices based primarily on the study of a variety of unique and nuanced professional artistic practices.

More than just a collection of clever curricular ideas or prescribed lesson shortcuts, I recognize the need for art educators to focus on cultivating a rich classroom ecosystem that allows for the emergence of these individual student artistic practices. I intend my future research interests to extend some of the findings from this qualitative study.

For example, I want to examine in depth successful and 'fertile' art classroom ecosystems where ambiguity is celebrated and explored and where students feel empowered to focus on process, experiment, and develop authentic artistic practices. I want to analyze not only the designed curricula of successful art educators, but also classroom ecosystem--I want to investigate the many ecological factors, teacher choices, dispositions, and motivations that contribute to a successful art classroom. I anticipate further study related to the energy, attitude, and attention of the teacher, as well as the factors of time, history, and culture as they relate to and influence the ecosystems of strong art classrooms and art programs.

I also anticipate a continued focus on complexity thinking as a theoretical lens through which I can examine these issues. I hope to become more fluent and knowledgeable in the

ever-expanding literature of complexity thinking within the context of art education. I want to offer rich descriptions and analysis of what works well, and also to be able to identify ways to effectively and practically respond to improve pedagogy within art classroom ecosystems.

I look forward to paying particular attention to the curricular overlaps between examining the practices of contemporary artists and the intersection of 21st century competencies within these strong art classroom ecosystems. I hope to be able to better connect with larger systems and conversations among colleagues in general education to be able to demonstrate the values that a quality art education within the school system can contribute.

I hope that my future research, in conjunction with this study, can offer a useful perspective on how I was able to rethink and remake a high school art foundations curriculum.

Figure 5. 2 "Cheyanne and Gavin with photo fragments" Gouache on canvas, 28" x 22"

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Appendix 1- Commentary about the LDS culture at Ridge High School.

Ridge High School is found within the geographic and cultural heart of Utah Mormonism (otherwise known as members of the Church of Jesus Christ of Latter Day Saints, or LDS). 71% of students in the school during the time of this study were also enrolled to attend a period of seminary, which takes up one of their free elective options when registering for classes. Seminary is an LDS institution with an adjacent building to our campus. This, along with many other LDS cultural and spiritual beliefs and traditions, greatly shape many of the cultural norms of the community of our school.

Some notable examples of this unique school culture include the teachings that Mormon youth (students in my study) do not drink coffee or alcohol, do not swear, do not go on dates until they are 16, and do not have sex until they are married. The LDS church also geographically divides their membership into wards, which can have between about 400-600 members each. The wards in the two towns of this study are geographically very small (usually a few blocks in any neighborhood), and they meet together quite frequently. Besides a 3-hour block of church meetings every Sunday, most youth meet at least once per week to participate in various activities, service projects, or other endeavors that include a shared set of spiritual and cultural values.

Many Mormon youth prepare to go on missions for the church while they are in high school. Boys can go when they are 18 years old, and are strongly encouraged to serve missions. For LDS boys, serving a mission is a significant rite of passage, widely considered a duty and an obligation. Mormon girls may also serve missions when they turn 19 years old, but are not under the same obligation or cultural pressure to serve missions. For LDS youth preparing for missions, their individual behavior is very significant. If they are not living in harmony with these standards, they may not be found worthy by their ecclesiastical leaders, and in such cases must repent and postpone their mission preparation until their leaders deem the individual's behavior and attitude to be acceptable.

The strict moral code guiding the majority of the students of our school creates a very unique cultural and social atmosphere. The students at our school, whether they are highly-active Mormons, less-active Mormons (who may not adhere as strictly to these moral guidelines), or not Mormons at all, are aware of these standards and their role as the accepted guidelines followed by the majority of the community.

It is my own observation as a teacher at this school that because of this unique atmosphere, there are noticeable social barriers that divide many students into different and

perhaps even opposing groups. For example, the "good Mormon" students have almost always occupied the positions on the student council (school leadership) since the formation of the school. These students tend to organize and operate many of the protocols, cultural and historical school traditions, dances and other activities that happen, and because this group represents the social and cultural majority of the community, in many ways this group has shaped the school culture. The "other" (non-Mormon or less active Mormon) students tend to harbor a general resentment and suspicion of the majority culture. My observation has been that many of these "other" students may feel anywhere from indifferent to slightly marginalized to fully angry and oppositional toward the dominant culture of Mormonism in the community.

Appendix 2- Video URLs from the curriculum content

Project	Artist or video description

TASK   Oliver Herring- Art21 Exclusive "TASK"

https://art21.org/watch/extended-play/oliver-herring-task-short/

Representational   The Art Assignment YouTube channel (PBS Digital Studio) "I could do

Drawing   that"

https://www.youtube.com/watch?v=67EKAIY43kg

Grid Drawing   Chuck Close on Seasame Street Big Bird interview

https://www.youtube.com/watch?v=J7WPBXfNxZo

Grid Drawing   Chuck Close on Colbert Report

http://www.cc.com/video-clips/lx17lm/the-colbert-report-chuck-close

Grid Drawing   Malcolm Morely- In the studio

https://www.youtube.com/watch?v=zdeP9qpg_7s&t=70s

Six second video   William Lamson- "Actions"

https://www.williamlamson.com/index.php/projects/11-actions

Six second video   Koki Tanaka- "Everything is everything"

https://www.youtube.com/watch?v=ym0LaSAn5n8&t=36s

Hirschhorn-inspired   Thomas Hirschhorn- Art21 Exclusive "Gramsci Monument"

Foucault monuments

https://art21.org/watch/extended-play/thomas-hirschhorn-gramsci-monument-short/

Hirschhorn-inspired   The School of Life YouTube channel- "Michel Foucault"
Foucault monuments
https://www.youtube.com/watch?v=BBJTeNTZtGU

Hirschhorn-inspired   Mark Dion- Art21 full segment (season 4)
Foucault monuments
https://art21.org/watch/art-in-the-twenty-first-century/s4/mark-dion-in-ecology-segment/

9 Figure Drawings   Protko YouTube channel "Gesture"
https://www.youtube.com/watch?v=74HR59yFZ7Y&t=373s

Tape Sculpture   Janine Antoni- Art21 Exclusive "Milagros"
https://art21.org/watch/extended-play/janine-antoni-milagros-short/

Plaster Hand   Diana Al-Hadid- New York Close Up "Diana Al-Hadid's Suspended
Reality"
https://art21.org/watch/new-york-close-up/diana-al-hadids-suspended-reality/

Plaster Hand   Abraham Cruzvillegas- Art21 Exclusive "Autoconstruccion"
https://art21.org/watch/extended-play/abraham-cruzvillegas-autoconstruccion-short/

Repetition   Do-Ho Suh- Art21 Full segment (season 2)
https://art21.org/watch/art-in-the-twenty-first-century/s2/do-ho-suh-in-stories-segment/

Repetition   Marina Abramovic & Ulay- "Scream" performance from 1978

https://www.youtube.com/watch?v=KeaUOdvo0BA

Repetition   Allan McCollum- Art21 Exclusive "Over 10,000 individual works"
   https://art21.org/watch/extended-play/allan-mccollum-over-ten-thousand-individual-works-short/

Repetition   Doris Salcedo- Art21 Exclusive "Istanbul"
   https://art21.org/watch/extended-play/doris-salcedo-istanbul-short/

Make/Do   "How to make a $1500 sandwich in only 6 months"
   https://www.youtube.com/watch?v=URvWSsAgtJE

Make/Do   Thomas Thwaites- TED Talk "How I built a toaster from scratch"
   https://www.ted.com/talks/thomas_thwaites_how_i_built_a_toaster_from_scratch

Make/Do   Glenn Ligon- Art21 full segment (season 6)
   https://art21.org/watch/art-in-the-twenty-first-century/s6/glenn-ligon-in-history-segment/

Collage   Elliott Hundley- Art21 full segment (season 7)
   https://art21.org/watch/art-in-the-twenty-first-century/s7/elliott-hundley-in-secrets-segment/

Collage   Andrea Zittel- Art21 full segment (season 1)
   https://art21.org/watch/art-in-the-twenty-first-century/s1/andrea-zittel-in-consumption-segment/

Collage   Mark Bradford- Art21 Exclusive "Paper"
   https://art21.org/watch/extended-play/mark-bradford-paper-short/

Printmaking   Dirk Fowler- "The perfect poster"

https://www.youtube.com/watch?v=WTx_qPOl7t4

Printmaking   Martin Puryear- Art21 Exclusive "Printmaking"

https://art21.org/watch/extended-play/martin-puryear-printmaking-short/

Class Final   A brief history of John Baldessari narrated by Tom Waits

https://www.youtube.com/watch?v=eU7V4GyEuXA

Class Final   Lucas Blalock- New York Close Up "99 cent still lifes"

https://art21.org/watch/new-york-close-up/lucas-blalocks-99%C2%A2-store-still-lifes/

Class Final   Daniel Gordon- New York Close Up "Daniel Gordon gets physical"

https://art21.org/watch/new-york-close-up/daniel-gordon-gets-physical/

Class Final   Shana Moulton- New York Close Up "Shana Moulton & Whispering Pines"

https://art21.org/watch/new-york-close-up/a-brief-history-of-shana-moulton-whispering-pines/

Class Final   Mariah Robertson- New York Close Up "Mariah Robertson's Chemical Reactions"

https://art21.org/watch/new-york-close-up/mariah-robertsons-chemical-reactions/

Class Final   Mika Rottenberg- TATEshots "Mary's Cherries"

http://www.tate.org.uk/context-comment/video/tateshots-mika-rottenberg

Appendix 3- Protocol and consent forms for participants

INFORMATION AND CONSENT TO PARTICIPATE IN A RESEARCH STUDY

Study Title: Rethinking and Remaking a High School Art Foundations Curriculum
Researcher: Jethro Gillespie
Researcher's Contact Information: jethrogillespie@gmail.com
                                                              801-830-6574
Faculty Supervisor: Dr. Juan Carlos Castro
Faculty Supervisor's Contact Information: JuanCarlos.Castro@concordia.ca
                                                                       (514) 848-2424 ext. 4787

You are being invited to participate in the research study mentioned above. This form provides information about what participating would mean. Please read it carefully before deciding if you want to participate or not. If there is anything you do not understand, or if you want more information, please ask the researcher.

A. PURPOSE
The purpose of the research is to examine the way learning happens in a high school art foundations course when students engage with a curriculum that focuses primarily on contemporary artists and their practice in order to inform student ideas and actions as they connect to art making in the classroom.

B. PROCEDURES
If you participate, you will be photographed and video recorded during the normal course of the class. You may also be asked to participate in a brief audio-recorded interview with Mr. Gillespie about your experience in the class sometime during the semester.

In total, participating in this study will happen over the duration of the semester (2nd semester (Jan-May, 2016).

C. RISKS AND BENEFITS
You might face certain risks by participating in this research. These risks include:
        -Discomfort that may occur with a recorded interview.

You might or might not personally benefit from participating in this research.

Potential benefits include:
-Participants will be engaged with a new curriculum that will help them to connect more deeply with art and art making practices as they consider the role of art and creativity in their lives.

D. CONFIDENTIALITY
We will gather the following information as part of this research:
  -photo and video documentation of student participants, as well as some photo
and video documentation of the artwork that is created during their time with the art foundations course.

-audio recordings from student interviews about their experience in the art foundations class.

We will not allow anyone to access the information, except people directly involved in conducting the research (Mr. Gillespie and Dr. Castro), and except as described in this form. We will only use the information for the purposes of the research described in this form.

We (the research team) will know the participants' real identity, but student participants will use a pseudonym (fake name) in the final research and their real identities will not be disclosed.

We will destroy the information five years after the end of the study.

E.   CONDITIONS OF PARTICIPATION

You do not have to participate in this research. It is purely your decision. If you do participate, you can stop at any time. You can also ask that the information you provided not be used, and your choice will be respected. If you decide that you don't want us to use your information, you must tell Mr. Fillmore (principal of RHS) before May 29, 2016.

Mr. Gillespie will not know which students may have turned in the consent forms for this study until after final grades have been given for 2nd semester (after May 29th, 2016), so that students do not feel coerced into participating, and to ensure that student participation with this study is in no way connected to their grade in the class.

As a compensatory indemnity for participating in this research, you will receive a coupon for a free drink at Swig. There are no negative consequences for not participating, stopping in the middle, or asking us not to use your information.

Please keep these 2 pages for your own records

G. PARTICIPANT'S DECLARATION

I have read and understood this form. I have had the chance to ask questions and any questions have been answered. I agree to participate in this research under the conditions described.

NAME (pleaseprint) _____

SIGNATURE _____

DATE _____

If you have questions about the scientific or scholarly aspects of this research, please contact the researcher. Their contact information is on page 1. You may also contact their faculty supervisor.

If you have concerns about ethical issues in this research, please contact the Manager, Research Ethics, Concordia University, 514.848.2424 ex. 7481 or oor.ethics@concordia.ca.

Please return this page signed to Mr. Fillmore (principal of RHS) in the front office