VISUAL DIALOGUE: LEARNING JOURNEYS, 21ST CENTURY SKILLS, AND ARTS-BASED RESEARCH IN THE UNIVERSITY ART STUDIO

A Dissertation

by

LEONEL ENRIQUE MONSIVAIS

BS, The University of Texas at El Paso, 1990
MFA, Texas A&M University-Corpus Christi, 2007

Submitted in Partial Fulfillment of the Requirements for the Degree of

DOCTOR OF EDUCATION

in

EDUCATIONAL LEADERSHIP

Texas A&M University-Corpus Christi
Corpus Christi, Texas

December 2017

VISUAL DIALOGUE: LEARNING JOURNEYS, 21ST CENTURY SKILLS, AND ARTS-BASED RESEARCH IN THE UNIVERSITY ART STUDIO

A Dissertation

by

LEONEL ENRIQUE MONSIVAIS

This dissertation meets the standards for scope and quality of
Texas A&M University-Corpus Christi and is hereby approved.

Lynn Hemmer, PhD	Nancy J. Smith, EdD
Chair	Committee Member

D. Scott Elliff, EdD	Louis Katz, MFA
Committee Member	Graduate Faculty Representative

December 2017

ABSTRACT

Alignment between liberal arts and professional preparation has a distinct, if not complex, historical relationship. However, little is known about how university art professors engage students in learning experiences that are situated in contemporary conditions of globalization, innovation, and technology. This study investigated how art instruction was used to create learning journeys that capture 21st century social and vocational outcomes through the experiences of two art educators and two students. An arts-based research design was used, blending conventional data collection (interviews/observations) with alternative forms of representation (drawings/sculpture).

The context, social setting of the study, and the art studio, were presented, along with how the deliberate methods that studio art professors used in studio art instruction created student professional learning that prepares students to address workplace, and global challenges. The critical findings suggest that intellectual rigor was fostered between the arts and professional practice by including (1) technical elements of art education, (2) artistic work activities for students to access deeper areas of their psychological/social experience, and (3) opportunities for students to explore personal imagery as a means to prepare them for increasingly complex life and work environments. In turn, students engaged in new experiences, processes, and techniques to curate a personalized learning journey, extending beyond the boundaries of studio-based courses.

The findings centered on how the participants recognized that specific skills, knowledge, and identity served students to construct their learning journeys. The critical themes identified surrounding students' learning journeys centered on students' approaches to learning, artistic development, being enterprising, communication and support, and setting personal standards.

Students demonstrated mastery of 21st century skills, such as critical thinking,

flexibility/adaptability, initiative, productivity, leadership, and social/cross-cultural skills by

adapting to change, through a discipline of "making something out of nothing."

DEDICATION

I dedicate this dissertation to my loving family, my lovely wife Monica, and my beautiful children, Jessie, Azalée, and Leonel.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

LIST OF FIGURES

CHAPTER I: INTRODUCTION

Liberal arts programs in institutions of higher education have long held a position as contributors to help shape someone's personal path, as individuals search various ways, in which to make sense of the world. For example, during the 1960s and 1970s while a counterculture of sex, drugs, and rock and roll arose, it was also a time when young adults were viewing college as more than a means for vocational or career training. As Lears (2015) explained, young adults were returning to colleges, exploring questions surrounding an "ethical life amid the demands of illegitimate power" (para 3). At that time, the liberal-arts curriculum helped to pose "fundamental questions, resisting conventional answers" (para 4). Even today, a liberal arts program can provide students with a holistic education, one that covers the arts, humanities, and science, while also cultivating a sense intellectual curiosity connected to post graduate pursuits.

There are those such as Deresiewicz (2014), who propose that the purpose of college in general is to "enable you to live more alertly, more responsibly, more freely: more fully" (pg. 82). He goes on to state,

> the liberal arts curriculum remains the best training you can give yourself in how to talk and think – to reflect…for the sake of citizenship, for the sake of living well with others, above all, for the sake of building a self that is strong and creative and free. (p. 84)

Stated more succinctly, Deresiewicz goes on to say, the purpose of college is to "build a self" (p. 84), and,

> … it is only through this act of introspection, of self-examination, of establishing communication between the mind and the heart, the mind and experience, that you become an individual, a unique being-a soul. And, that is what it means to develop a self. (p. 84)

Visual artistry is a capability that is essential to being human. McCarthy, Ondaatje, Zakaras, and Brooks (2004), stated that artistry could develop an aesthetic experience that can forge an individual's intrinsic personal awareness that is central to the human experience. A person's exposure to aesthetic experiences in art can increase human individual capacities, which include an ability to "perceive, feel, and interpret the world of everyday experience" (McCarthy, et al., 2004, p. 47). Yet, with contemporary circumstances of educational policy and reform centered on accountability, science, technology, engineering, choice, and demands for usefulness and relevance, the arts have been marginalized, with scarce local resources being reallocated, away from arts programs (Darling-Hammond, 2010; Deneen, 2010; Ravitch, 2010.) For instance, as reported in the *Daily Texan Online* (January 25, 2015), the College of Fine Arts at the University of Texas, Austin, in 2015, was forced to freeze admissions to its musical theatre, music business, and musical recording technology programs due to University budget cuts and a deficit within the college. Similarly, other institutes of higher education are challenged to analyze and prioritize which programs to implement to meet a myriad of contemporary demands that can be overwhelming to an institution (Dickeson, 2010).

Further compounding the demise of both the arts and humanities, is the neoliberal landscape in which "political economic practices that proposes that human well-being can best be advanced by liberating individual entrepreneurial freedoms and skills within an institutional framework characterized by strong private property rights, free markets, and free trade" (Harvey, 2005 p. 2). As a result, there has been a seismic cultural shift away from using arts as a vehicle in which individuals to gain new dimensions of knowledge and understanding, of self and of the world around them.

While Taylor (2017) contends that the central guiding philosophy underlying neoliberalism is that "individuals own themselves and property, and it is wrong to interfere with their ownership" (p. 112), this statement all but ignores the notion of one owning their education, as a life-long learning journey. Rather, Taylor explains that education and its value have been treated as an externality by economic models (e.g. levels of education, certain disciplines), because its "values were not easily represented by a market price" (pg. 113). Further, Taylor explains universities, pressured by financial and market pressures, have led to best practices in which administrators strategically prioritize academic resources. Certainly, as Dickeson (2010) points out, programs at the university level come and go, but now, under the lens of a corporatized university; there is little input from faculty as to which programs stay and which programs are eliminated.

However, with the rise of contemporary 21st century conditions of globalization, innovation, and technology, in the areas of creativity, ingenuity, and talent there is a renewed interest in the value of the artistic mind (Pink, 2009). Artistry, in turn, has become a big part of a renewed effort to ensure that a college student's education prepares him/her to compete globally.

According to the Association of American Colleges and Universities (AACU; 2011), in the United States there is a current need for graduating college students to be prepared to think creatively and democratically in order to succeed in global challenges in the 21st century. Similarly, universities in Asian countries, such as China, Japan, Taiwan, and Hong Kong, that traditionally offer rigorous academic programs, are switching to offer liberal education classes to prepare creative thinkers who can compete globally (Fischer, 2012). These countries have restructured their curriculum in such a way that values the need to produce creative thinkers to be

able to stay ahead of global competition (Humphreys (2009). The tenets of creativity in the spirit of global competition lie in economic gain and entrepreneurial innovation (Kalin, 2016).

In 2005, the AACU (2011) began a ten-year national advocacy, campus action, and research initiative called Liberal Education and America's Promise (LEAP). This initiative advocated for a liberal education in all fields of study to ensure all higher education students, are "achieving the kind of education they need for life, work, and citizenship" (AACU, 2011, p. 8). The LEAP promoted a list of prescribed learning outcomes and a list of principles of excellence normally only addressed by liberal arts colleges (AACU, 2011). As such, the interpretation of the world experiences through the artistic mind (McCarthy, et al., 2004) goes hand-in-hand with achieving a type of education needed for life, work, and citizenship.

A liberal education follows the educational philosophy implemented at liberal arts schools (AACU, 2011), and traditionally associated with artistry. Artistry and visual capacity increase a person's ability to interpret, perceive, and feel (McCarthy, et al., 2004), therefore, developing the capacity to acquire a wider knowledge of world culture and society (AACU, 2012) and allowing to see the bigger picture (Eisner, 2008). Development of visual capacity, such as that used in artistry, includes a person's aesthetic, psychological, and educational development (Gardner, 1994). When individuals are able to make discerning and judicious decisions, and understand one another's feelings, the influence of art filters beyond the personal domain of the individual, and can influence a community's self-identity by uniting people together (McCarthy et al., 2004). For this reason, the LEAP's essential learning outcomes addressed sensibilities that become part of the student's educational development.

However, in certain disciplines, (e.g. nursing, teaching) the arts may remain more as the implementation of certain artistic activities that can be connected to clinical observation,

problem-based learning, or case-based discussion. These types of artistic activities are thought to enhance the cognitive attributes and logical reasoning of students (Chan, 2014; Jalongo, 1999; Romeo, 2010) allowing them to engage in present learning and create the internal motivation for lifelong learning. Yet, these activities are often about inserting elements of art, within a specific curriculum, as opposed to nurturing the artist within self. For early childhood, preservice teachers, it may be one college class focusing on the arts in general (Jalongo, 1999). For nursing students, it may be in interdisciplinary course in "visual literacy and medicine, to enhance the students' ability to make physical diagnoses and unbiased observations by exposing them to products of the fine arts" (Chan, 2014, pg. 925). However, these artistic activities do not necessarily help to increase one's confidence and competence as an artist (Russell-Bowie, 2012).

Education should culminate in skills that provide the means to problem-solve, effectively, and in a meaningful way (Herrington & Oliver, 2000). However, the pinnacle of education should be more far-reaching than that. Education should culminate with an apotheosis in a person's life. Education cannot realistically reach epitomical proportions simply through narrowly scoped standardization, testing, and accountability. Gardner (2008) explained that the ability to integrate divergent ideas into a unified synthesis is essential in today's world because through art, synthesis becomes tangible without having to use words. As such, artistic development is important, even more so, in today's world.

Statement of the Problem

Even though there appears to be a renewed interest in the value of the artistic mind, little is known about how university art educators approach the engaging of students in learning experiences that are situated and/or authentic in relation to contemporary conditions of globalization, innovation, and technology, and 21st century skills. With creativity taking a

central role in the 21st century through need for innovation, and higher education facing new challenges, the need to investigate teaching and learning in higher education studio art courses has emerged (Salazar, 2013). More specifically, while there is some literature on how arts are incorporated into specific classrooms, courses, and disciplines resulting in that course or discipline receiving credit for being inclusive of the arts, little is known about a student's full immersion in the arts, specifically in studio art.

Through studio art education, educational competencies, such as problem-solving skills and critical thinking skills are utilized in a meaningful and beautiful way that the student may be able to contribute back to changing society, and being a part of society. For instance, it is within the development of studio art programs, that Chicago (2014) shares her own evolution of a pedagogical approach, changes to eventually become linked closely to the tenets of democratic and student-centered learning, amidst what she considers still to be a male dominated discipline. She shared, "I see my role as a teacher in a very different way…my focus is to help participants transform personal experience into content-based expression in the tangible form of visual art" (p. 190). While Chicago's work in the studio arts is grounded in feminist art movement, it is not without question as to how her pedagogical approach can transcend over to her students making a difference in society. Kennedy (2016) is concerned with how student-centered, everyday context approaches can be used as a means to un-structure the learning process and to resist and respond to larger systemic issues with our society; issues related to socio-economic inequality, sexism, or racism. Yet, Kennedy is also quick to point out how, "The desire to connect students to their own lived experience is needed now more than ever as universities and studio art programs are pressured to link their programs to specific job creation metrics and learning" (p. 81).

At the university level, art instruction may lend itself to cognitive apprenticeship learning because art instruction is situated in apprenticeship in which the apprentice, the student, learns processes from the master artist, the art instructor. Therefore, in this way, art instruction can provide an authentic context. However, fine art education in general "is poorly understood beyond subject 'insiders' so its knowledge outcomes and graduate attributes remain obscured" (Logan, 2013, p. 34). As such, educational leaders and policy makers may not understand the ways in which the arts can be an essential priority in the future of the United States. This study, therefore, brings forward the contextual and discursive perspectives, of both, art educators and students as a means to not only describe what takes place inside the higher education art classroom, but to also inform and further refine perceptions surrounding art education as necessary.

Research Purpose and Questions

The purpose of this study was to investigate the experiences of two art educators, and two students (currently enrolled in a studio art course) in a higher education institution in South Texas to understand how art instruction is used to create learning journeys that capture 21st century social and vocational outcomes.

The research questions that guided this study were:

1. How do art educators in higher education describe using studio art projects to create learning journey experiences for their students?

2. In what ways do art educators in higher education demonstrate the use of studio art instruction in their courses in relation to 21st century social and vocational outcomes?

3. What are the learning journey experiences of students in higher education who are engaged in art instruction?

4. In what ways do art students demonstrate the principles of liberal arts learning in their professional learning?

Operational Definitions

For the purpose of the study, the following terms are adopted.

1. Apprenticeship – a learning context in which the learner is first seen as observer and gradually partakes in the community of practice.

2. Authentic learning experiences – learner centered school experiences that relate to the real world.

3. Cognitive apprenticeship – a student/teacher relationship similar to a real apprenticeship in which the apprentice, or student, learns the cognitive skills from the teacher

4. Community of practice – the learning community of study that a student enters at the university, such as a university course, or field of study.

5. Iconography – the subjects, symbols, and motifs used in an image to convey its meaning (Frank, 2014, p. 16).

6. Real apprenticeship – a student/teacher relationship in which the apprentice, or student, learns the skills of a trade from a master artisan, or teacher.

7. Real-world – a paradigm of existence situated in reality.

8. Painting – the process, art of coating surface with painting for an artistic effect.

9. Sculpture – art that is founded on the manipulation of three-dimensional space.

10. Studio art educator – an art professor in higher education.

11. Studio art projects – university-level assignments that are founded on the visual art process or visual art media.

12. South Texas – the southernmost geographical area of the state of Texas.

13. University – a four-year institution of learning beyond high school level.

14. University art educator – an individual that teaches studio arts at the university level.

15. Personal learning-student-directed, self-learning, and educational goals that students set for themselves through a personal learning environment, which includes learning tools, learning communities, and services, that may or may not intersect with an institution's learning program (Educause, 2009).

16. Professional learning- sound and integrated student learning in higher education, that prepares students to address workplace, and global challenges (AACU, 2016).

Methodological Framework

The study was grounded in arts-based research (ABR). Arts-based research is a methodology that uses the ways of thinking and representation traditionally associated with the arts to understand the world (Barone & Eisner, 2012), helps one to view social science critically, and widens the creation of new methods (Leavy, 2009). Barone and Eisner (2012) posited that ABR helps the reader to connect with the author's experience through expression of the form. Through artistic methods that express in a representational way, ABR conveys what cannot be expressed through "quantification, prescription, and formulaic practices" (p. 4). Leavy (2009) stated that ABR uses the natural harmony between research and the aesthetic possibilities of the arts to convey meaning holistically. The advent of new media creates new conceptual possibilities (Barone & Eisner, 2012).

Arts-based research "crosses the borders of art and research" (Denzin &Lincoln, 2008, p. 46). Leavy (2009) asserted that visual art is instrumental in analysis and interpretation of data by offering multiple interpretations and perspectives. In addition, Barone and Eisner (2012) explained that arts-based research has the power to explain, in some cases more profoundly, than

non-visual discourse, by communicating through the creation of images. The artist possesses the tools to bring forth society's inner discursive realities and is able to communicate this reality publicly (McCarthy et al., 2004). Through creativity, the artist can find novel solutions to solve problems, while preventing judgement from hindering innovative thinking (Block & Leisure, 1987).

Gardner (2008) affirmed that the ability to integrate divergent ideas into synthesis is essential in today's world because through art, synthesis becomes tangible without having to use words. Derrida (1974) posited that signs or sign systems are needed to communicate meaning. McCarthy et al. (2004) added that in the meaning system of symbols, which is developed over generations within the society in which the artist flourishes, is where the artist's medium of choice is anchored, whether it is language, image, sound, or movement (p. 41). The subjects and symbols that an artist uses to convey meaning is known as iconography (Buser, 2006). McCarthy et al. (2004) stated,

> In working with the medium, the artist moves back and forth between his or her vision and the perspective of the imagined audience in a process of protracted labor. What is completed becomes an object in the physical world, which others can encounter and explore. (p. 41)

Theoretical Frameworks

This study used the theoretical frameworks of situated learning and cognitive apprenticeship, both of which are rooted in social learning theory (Bandura, 1977; Miller & Dollard, 1941), to understand how art instruction is used to create learning journeys that capture 21st century social and vocational outcomes.

Bandura (1977) postulated that learning takes place within an environment where observations take place through social resources. People learn by watching and then choose to imitate, mutate, or disregard the observed action. At the university level, studio art instruction lends itself to the notion that the student learns processes from the master artist, in this case the art educators, by observing and doing.

Education should encompass skills that can provide the means to problem-solve, effectively, and in a meaningful way (Herrington & Oliver, 2000). Situated leaning refers to learning that is relevant, real-world learning, and can bridge the context of a situation with new knowledge acquired (Herrington & Oliver, 2000). In situated learning, learning occurs in a natural unintentional way through an activity as part of a cultural context (Lave & Wenger, 1991). A central characteristic of situated learning is cognitive apprenticeship (Lave & Wenger, 1991). Cognitive apprenticeship is a method of learning-through-guided-experience similar to a traditional apprenticeship, except with an emphasis on cognitive and metacognitive skills and processes, rather than physical skills and processes (Collins, Brown, & Newman, 1988). In Cognitive apprenticeship, the apprentice first observes, and then gradually fully partakes in the community of practice (Lave & Wenger, 1991). In cognitive apprenticeship, learners begin outside the center of expertise and slowly move toward the center of expertise through legitimate active participation (Deneen, 2010). The transition toward legitimate participation, known as legitimate peripheral participation, takes place in a socio-cultural community of knowledge and practice (Lave & Wenger, 1991; see figure 1).
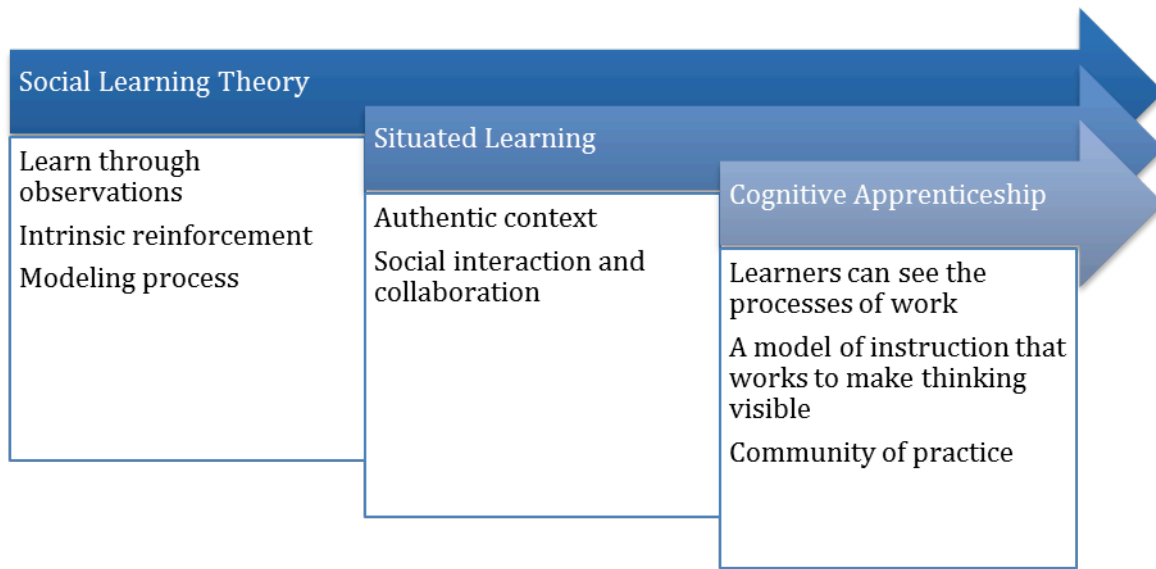
Figure 1. Theoretical framework overview.

Limitations of the Study

There were several limitations to this study. First, in order to narrow the focus of this study, the researcher focused on teaching and learning within studio art. Variations of studio art related specific art disciplines, (e.g. painting, sculpture) were a limitation found in the study. While studio art settings may share similarities, there are also differences.

Second, the data collected for this study were limited to two studio art disciplines at one institute of higher education, in south Texas and included two art professors and two graduate students. These studio art programs at this particular institute of higher education and the participants may be representative of other studio art programs in other parts of Texas and the nation, however, this study only reported the findings of a small sample, which may or may not be a true representation of a larger culture.

A third limitation exists in what Eisner (2008) refers to tensions inherent in arts-based research. The first tension lies between what is imaginative and what is referentially clear (p. 19).

Smith (2003) said of his work, that he did not anticipate how his work would look as the end product because, "the battle for solution is the most important" (Smith, 2003, p. 767). In other words, many times, the *magic*, or the creative epiphany, occurs during the course of the quest for the solution to a previously unforeseen problem. Smith explained, "The conflict for realization is what makes art, not its certainty, its technique, or material" (p. 767). The second tension lies in what Eisner (2008) referred to as the tension between the particular and the general. ABR makes "general observations from particular circumstances" because "the conditions that make a study arts-based are conditions that personalize the study" (p. 22). The third tension in arts-based research is the tension in trying to create a research with aesthetic properties, while at the same time trying to convey a message. The fourth tension lies in the "puzzlements" (p. 22) that are created as a result of using art as research. The generated results in arts-based research often times present more questions than answers. The fifth perceived tension in arts-based research, as described by Eisner (2008), is the tension of the construction of reality in arts-based research while keeping a level of objectivity, which is counter-intuitive to the freedom in the creation of art.

The fourth limitation of the study lies in the nature of the visual versus the verbal in the use of ABR. Representing research through art aims to convey meaning using the visual representation of educational research (Quinn & Calkin, 2008). There is an apparent contradiction in relation to how to use art forms of description in conjunction with writing a qualitative dissertation, which can be quite discursive. D. Smith (1996) stated, "The order of the whole can be perceived, but not planned. Logic, and verbiage, and wisdom will get in the way. I believe perception as being the highest order of recognition" (p. 577).

However, even though ABR is deeply anchored in planning, logic, and wisdom to aid in its conception of aesthetic ideas, and to form the whole, ABR does retain qualities consistent with the creation of visual art as well. ABR provides a balance between an artist's discursive logic and an aesthetic conception that represents the researcher's perception (Eisner, 2008; Leavy, 2017). The possibilities of the study lie in expanding the possibilities for ABR using three-dimensional artwork. Cahnmann-Taylor and Siegesmund (2008) proposed that arts-based research better addresses the layered complexity of creating meaning by building on experiences. Through ABR, research informs the perception of the whole. Barone & Eisner (2012) posit that art forms of description are valuable means to explain multiple realities that are not always necessarily discursive. Barone and Eisner (2012) explained, "Non-discursive theory is not an oxymoron as long as our conception of theory is expanded beyond the narrower confines of traditional scientific discourse" (p. 156).

Chapter Summary

Traditionally, the purpose of liberal arts programs in institutions of higher education has been to help students find their personal path to make sense of the world in a variety of ways. The American Association of Colleges and Universities (AACU; 2011) state that there are contemporary global conditions that necessitate that American graduating college students are prepared to think creatively and democratically to compete globally. In response, the AACU (2011) maintains that the Liberal Education and America's Promise (LEAP) initiative was instituted to prepare students to face political, economic, cross-cultural, environmental, and civic global challenges, through a liberal education.

A liberal education follows the educational philosophy traditionally associated with artistry and implemented at liberal arts schools (AACU, 2011). Pink (2009) also suggested

preparing for the future by developing qualities found in artistry. Pink (2009) found that challenges associated with globalization, innovation, and technology, can be faced with artily qualities such as creativity, ingenuity, and talent. To develop as a self, means developing as a unique individual, a soul, through self-introspection and developing a mind-heart connection (Deresiewicz, 2014). Yet, activities in the arts and humanities often center on inserting elements of art, within a specific curriculum, as opposed to nurturing the artist within self.

The arts have been marginalized with reallocation of resources that were scarce to begin with, due to contemporary directions on educational policy and reform centering on science, technology, engineering, and math (STEM; Darling-Hammond, 2010; Deneen, 2010; Ravitch, 2010). In addition, the neoliberal political and economic attitudes, characterized by strong private property rights, free markets, and free trade, that exist on the premise individual entrepreneurial freedoms and skills within an institutional framework, have also added to the marginalization of the arts and humanities (Harvey, 2005). As a result, using arts as a venue for knowledge and understanding, of self and of the world, has been all, but overlooked. The guiding principle underlying neoliberalism is that people exercise complete ownership of themselves and their property without interference with said ownership (Taylor, 2017). This statement does not account for people's ownership of their education, as a life-long learning journey. On the other hand, there exists a misrepresentation of education and its value in economic models because it is difficult to represent the value of education by a market price (Taylor, 2017).

This study used the theoretical frameworks of situated learning and cognitive apprenticeship, both of which are rooted in social learning theory (Bandura, 1977; Miller & Dollard, 1941), to understand how art instruction is used to create learning journeys that capture

21st Century social and vocational outcomes. The study investigated the experiences of two art educators and their students in a higher education institution in South Texas.

CHAPTER II: LITERATURE REVIEW

The purpose of this study was to investigate the experiences of two art educators and their students in a higher education institution in south Texas to understand how art instruction is used to create learning journeys that capture 21st Century social and vocational outcomes. Golden-Biddle and Locke (2007) refer to situating a study in literature as the joining of literature through "active selection and shaping of literature" in what they call "inter-textual coherence" (p. 31). Golden-Biddle and Locke (2007) explained that the process of using inter-textual coherence involves, "Constructing existing knowledge in a way that makes room for our research and invites the contribution our work can make" (p.31).

With the increasing role of arts in higher education, it is important to consider "the principles of liberal-arts learning to professional learning" (AACU, 2012, p. 5) that embrace teaching and learning which differs from methods that are more traditional. The growing alignment between liberal arts and professional preparation has a distinct, if not complex historical relationship. As such, a review of the literature will include historical and cultural contexts in the use of the studio arts in higher, the science, technology, engineering, art, and math (STEAM) initiative, the components of the university, art studio courses, the art of critique, and innovation and creativity.

Historical and Cultural Contexts in Visual Arts Education

The first section examines the history and cultural contexts in the area of visual arts in higher education in the United States. Visual arts education did not develop parallel and at the same time as the development of general school education (Smith, 1996). Education in the visual arts has always existed in the Americas, since pre- and post-Columbian times even before schools existed. However, the paradigm that is used to view what art education is today has

differed historically (Smith, 1996). The role that women artists have had in American cultural influences has been significant since pre-Columbian times and continues today. For instance, the role of early Native American women's in pottery making and the link to traditions is evidenced as influencing modern day American potter, Maria Martinez (Marriott, 1948).

Further, Efland (1990) found that art teaching practices today are a direct reflection of the "beliefs and values" of those who promoted art education in the past" (p. 1). Historically, due to accessibility, art instruction has depended on "class and gender and how the social status of the art instruction is seen by the society in which it is created" (Efland, 1990, p. 2) It wasn't until the 1960s, that art in visual art education developed as a multi-faceted intellectual activity with cognitive and affective benefits (Dobbs, 1992). In the 1980s, discipline-based art education became a theoretical approach of instruction composed of aesthetics, studio production, and art criticism (Kaelin, 1989).

Illeris (2013) stated that, historically, art education has revolved around learning processes that produce a reflexive manipulation of materials by students with a focus on the individual. However, understanding the past is always influenced by current predominant interpretations (Hicks, 2012). The history of art education can be better understood by looking at the ways in which artists and studio art educators view and interact with the world (p. 3).

Current art education should connect to "contemporary art, global issues, and the lives of young people" (Hoekstra & Groenendijk, 2015, p. 213). Major influences in art education depend on "pedagogical and research developments in higher education" (Hicks, 2013b, p. 196). Hicks goes on to state, that there are three current trends that help define the artistic experience are "art as research, the emerging influence of digital technology, and the nature of educational experiences in higher education" (p. 197). Another contemporary trend in art education is

incorporating the development of student artists, not solely as an individual, but as part of a *social togetherness* to be performed (Illeris, 2013). Theoretical, historical, and cultural contexts help to understand the diversity of how art knowledge is distributed and known through what Hicks (2013b) calls "human visual and material culture" (p. 197), the social interaction by people exchanging ideas.

However, Ornstein and Eng (2015), stated there is a current trend in education that emphasizes high-stakes testing, and neoliberal ideals (Kalin, 2016) that is self-defeating. A culture of high-stakes testing undermines the global readiness of students by narrowing the very curriculum, which it claims to support, and disenfranchising authentic learning through a misappropriation of creativity away from the arts (Ornstein & Eng, 2015). Appropriation of creativity away from the arts has taken shape through a neoliberal business bias that emphasizes economic and entrepreneurial innovation (Kalin, 2016). Therefore, to develop a student base that is prepared for global challenges, educational leaders must advocate for policy that includes a definition of creativity that continues to include the arts, education, and society. (Kalin, 2016). Therefore, in this way, understanding learning experiences and artistic phenomena within the university studio arts can help educational leaders and policy makers can develop an understanding and affect educational policy in a positive direction (Logan, 2013).

The Meaning of Art and Content: Developing Cognition

Crucial to understanding arts' content and meaning are discourse, perception, imagination, and emotion (Hubbard, 2008). Perception, imagination, and emotion translate into student engagement in the arts that is multi-dimensional through learning how to "see, think, and engage" (Hicks, 2013a, p. 100). Development in the arts allows students to develop in technical skills in the production of works, in expression through "empathetic and cognitive processes," in

art criticism and art appreciation through critical skills, as well developing the tools to interact and affect society, by providing the "materials, ideas, and problems" to work with (Hicks, 2013a, p. 100). Meaningful insights into human dimensions can be achieved using the skills used in the analysis of artworks (Hubbard, 2008).

Meaning from artworks comes from the complete artistic experience and not just the artistic object, therefore allowing for explanation through text (Hubbard, 2008). Meaning in a work of art is conveyed through a system of subjects, symbols, and motifs, collectively referred to as iconography (Frank, 2014). The human sensory system allows "people to perceive the physical environment, which allows the arts to refine our sensory system and create the grounds for imagination" (Eisner, 2002, p. 4). The use of art creates an opportunity to imagine, which has the dual purpose of picturing what can be possible, but also allows trying things out in our head before committing them to reality (Eisner, 2002). Art then, allows for representation, which helps "transform the contents of consciousness within the constraints and affordances of a material" (p. 6). Artistic objects exist as part of origin and operation in experience to create meaning in relation to material and human effort and achievement (Dewey, 1934).

Adding Art to STEM: To What Purpose?

Although, the arts and American economic competitiveness are interconnected through the need for development of creativity and innovation (Bequette & Bequette, 2012), in the United States in the last decade, there has been much pressure on colleges and universities to prepare students for the science, technology, engineering and mathematics (STEM) fields. A specific program designed for a specific purpose, STEM is "to integrate and apply knowledge of math and science in order to create technologies and solutions for real-world programs, using an engineering design approach" (Jolly, 2014, para. 5). According to the National Conference of

State Legislatures (2015), institutes of higher education are incentivized to promote and emphasize STEM field, with at least 15 states offering some type of bonus, or premium for high-demand degrees.

Cohen (2016) reported in the *New York Times* that elected officials, such as Kentucky Governor Matt Bevin, "want[ed] to nudge students away from the humanities and toward more job-friendly subjects like electrical engineering" (para. 2). The President's Council of Advisors on Science and Technology (2012), suggested that the United States needs one million more STEM baccalaureates in the next decade (AACU, 2014), while state legislatures are finding ways to reduce the funding for humanities, and increasing incentives for STEM majors at public institutions. This direction is being propagated by reports that due to rapidly advancing technologies, and with a need for deepening scientific knowledge,

The knowledge-based economy, so entrenched in STEM fields, is characterized by an ever-increasing demand for highly skilled workers. State pushing for performance-based funding measures tied to higher education funding and to particular outcomes like certain degrees earned or coursework completed only strengthened the importance of STEM, while stripping away the arts and humanities. According to the Organisation for Economic Co-operation and Development (1996), "Changes in technology, and particularly the advent of information technologies, are making educated, and skills labour more valuable and unskilled labour less so" (p. 7).

After years of concentrated focus, emphasizing STEM, Bequette and Bequette (2012) stated that educators are pressing to include *art* as part of the STEM design. Otherwise, known as STEAM, STEM plus the arts is a program that has all the benefits of STEM, with the added dimension that arts provide. According to Erickson (2013), it is predicted there will be a demand

in the work force for millions of STEAM related jobs within the next ten years according to Labor statistics.

Erickson (2013) stated there is a need in the new millennium for innovation through problem solving and critical thinking, which is attainable through STEAM, if not a liberal arts education. Gurnon, Voss-Andrae, and Stanley (2013) recommended that injecting the arts into STEM could both harness creativity in the sciences and address the non-science student. Adding the arts to STEM, means adding creativity in the true sense of the word, not solely for "neoliberal economics and entrepreneurial innovation," but as a "discursive term representing political, educational, artistic, economic, and social processes of our times" (Kalin, 2016, p. 32).

Yet, an argument exists that the purpose of STEAM should not be so much about teaching art, but rather how to apply art in real life situations so that this applied knowledge leads to one's deeper learning (Jolly, 2014). Understanding how the arts fit within STEM, Storkskieck (2011) offers two considerations. First, he poses that how one refers to art is an important construct. Is it to be used as a means to expand the toolbox of science and engineering, to make that particular discipline more appealing and thus acceptable and useful to people. His second consideration, if art is interjected into say research, is it because research may be seen as lacking creativity and fun. In these views, he asks us to consider art being used to free the scientist mind.

Interestingly enough, moving from STEM to STEAM, requires developing a new framework, especially when considering an art/science, art/technology, art/engineering, or art/mathematics, art/pedagogy path. This framework requires a relationship between two disciplines, one being art. In STEAM, art is ever-present. The tools and methods to integrate art and STEM require new models for creative problem-solving and interdisciplinary partnerships. To foster problem solving that uses creative thinking to arrive at solutions, it is important to

understand what the characteristics of creative thinking are. Piirto (2011) identified

characteristics of creative thinking as the Seven I's of Creativity: inspiration, imagery,

imagination, intuition, incubation, and improvisation.

However, in all these cases, it would be easy to place the emphasis on the STEM rather

than art. New ideas, such as those from a project description for the Network for Sciences,

Engineering, Arts and Design (n.d.), linking the arts with STEM calls for moving towards

understanding,

> Multiple intelligences, the situated and embodied character of learning and cognition, and
>
> the critical contributions that studio-thinking and studio practice can make to learning in
>
> other domains provides a starting point for developing new frameworks for pedagogical
>
> approaches that bridge the gulf between art and science and support effective cross-
>
> disciplinary research initiatives in art/science pedagogy. (p. 2)

Components of the University Studio Art Course

University studio art courses range from introductory to advanced teaching and learning.

In the introductory courses, students are familiarized with the fundamentals of a specific art

discipline, such as sculptural (or other art disciplines such as painting) processes that involve an

understanding of addition, subtraction, and substitution of material. This trains students in the

ability to execute, discuss, qualify, craft, and compose productive conceptualization and creative

problem solving. The intermediate studio art courses (again in sculpture) may focus on material

exploration, experimentation, the development of technical skills and critical analysis. Moving

along toward an advanced studio art course, activities may include having students focus on the

relationship between idea, form, and materials. Students are then asked to produce a body of

work that is unified, has clarity, craftsmanship, and effective presentation.

The design of the studio art space is dependent not only on the discipline under study, but also on the desired learning environment that aligns to learning theory (McFee & Degge, 1977) and the spatial aspect to ensure usability (Araca, 1986). Understandably, equipment specific to an art discipline is required. Many art institutions today equip students in the studio arts with the tools, education, and knowledge to prepare them to view and have a personal interaction with today's world (Ewing, 2012). Students in studio art engaging in art making (e.g. ceramics, painting, printmaking), use the tools of the craft as if they are the artist.

According to Marschalek (2004), students in studio art are engaged "in real world problems – not exercises, use tools of the artist, and produce art objects" (p. 34). Art professors teaching in the studio art space, are in fact regarded as professionals. They are there to help the art student individually or through small group teaching/learning episodes to learn terminology, techniques, and use of materials to create. Lubell (2012) stated that art instructors across higher education schools have a meaningful influence on their students.

While Edström (2008) noted there may be a lack of educational reference frames for teaching in the studies, there has been literature concerned with how the relationship between the student and *supervisor* (e.g. studio art professor) within the studio affects student learning (Blair, 2006; Webster, 2004). Belluigi (2016) offers several constructs that have emerged from the literature, relating to relationship between the student and supervisor and pedagogy, specifically for an art design and architecture studio pedagogy. She posits that learning is affected both by the context of study and by the type of experiences students have. The roles of student and supervisor in studio art are also built around the conditions of "culture, context and circumstances," which she states may "enhance, constrain or maintain student involvement" (p. 22). Austerltiz and Aravot's research (2006) indicated that with each episode of interaction

between the student and supervisor, and the nature of the work itself being a work in progress, approaches to learning are refined based the type of interaction and roles assumed by the student and supervisor. Below are brief summaries of six various types of student-supervisor roles explained by Belluigi (2016).

The master-apprentice model. Originally conceived during the medieval times, an apprentice worked with a master while making the master's art. This relationship focused more on the master's practice as opposed to apprentice's process of learning. If used in contemporary times, Edström (2008) explained that the focus is on teacher activity.

The atelier coach. Through a one-to-one studio conversation, the supervisor offers constructive criticism on the student's "ideas and proposals," and "helps the student "realise their ideas" (p. 23). However, as Belluigi points out, others (e.g. Swann, 1986; Elkins, 2001), question the value of the teaching/learning method. Swann, as reported by Belluigi, questioned whether this method would be sustainable amidst organizational change, pressure, and new educational requirements. Elkins, on the other hand, was concerned as to whether this method was of value to the student's intellectual development.

The reflective practitioner. Here, Belluigi references the work of Hetland, Winner, Veenema, and Sheridan (2007) to explain. When supervisors use observation, and formulate immediate feedback on their student's work (one-on-one in the studio), they are engaging in a reflection-in–action practice. This type of relationship requires a sensitive, trusting, and responsive teacher–student relationship, so the student will be able to respond, if not, adapt to what emerges from the process (Usher, Bryant, & Johnston, 1996). Through feedback, discussions between student and teacher construct new knowledge. Meaning can change through

the individual or group's perception of its significance (Greenlaw, 2015) in the reflection process.

The critical friend. As explained by Belluigi, there is a perceived equality, where the supervisor/teacher "forego[es] their own desires or intentions imposed or projected on the student for willingness to facilitate the student's achievement of their own intention" (p. 24). She cautions that perhaps this critical friend model may best be used at the postgraduate level because of the sense of collegiality, if not equality.

The liminal servant. Informed by McLaren's (1993) work, Belluigi explains that the "supervisor aims to assist the student's construction of knowledge via critically reflective dialogue that involves both cognitive and social dimensions of learning: that is, scaffolding the students' engagement with the underlying structures of the discipline" (p. 25).

The Art of Critique

Davis-Soylu, Peppler, and Hickey (2013) stated that traditionally, art portfolios have been used to provide feedback in the form of an art critique. Feedback is important to communicate progress to the art student, as well as to stakeholders inside and outside the art community (p. 214). There is a need to revamp the portfolio critique into one that focuses on the student's growth in the art community and not just on the artifact resulting from the art creation process (Davis et al., 2013).

Using "assemblage assessment," portfolios inform progress in student identity and participation and growth in the arts community together with a voice portfolio where student, student groups, and the teacher are recorded in conversation regarding the production of the student artwork and voiced over the presentation of the images of the work (p. 221). The focus of the artistic endeavor should hone in on "transdisciplinarity, critical dialogue, cultural production,

global discourse and artistic reasoning" to better understand visual and material culture (Hargrove, 2012, p. 8). Art education today should focus on global influences in contemporary art, such as hybridity of culture through identify as self, one's nationality, and path of migration (Hoekstra, & Groenendijk, 2015).

Innovation and Creativity: A Draw for 21st Century Leadership Skills

Complexity marks the contemporary world at the intersection of the new millennium and the 21st century (Barnett, 2000, 2004; Fullan, 2001; Gachago, Morkel, Hige, van Zyl, & Ivala, 2017; Kotter, 1996). As such, learning amidst the complexity of the contemporary world according to Koh, Chai, Wong, and Hong (2015) has five dimensions: social-cultural, cognitive, metacognitive, productive, and technological. Complexity in the 21st century means preparing for a future that is not only unknown, but also unpredictable due to complex change for which its tenets cannot be foreseen (Barnett, 2004). Therefore, preparing for this unique type of unknown future has to take place not in the form of "knowledge or skills" but in the form of "human qualities and dispositions" (p. 247). As the world grows in complexity, the rate of change also grows exponentially, in an unpredictable manner, and in a non-linear fashion (Fullan, 2001).

Leadership. Contemporary society is complex due to socially driven changes, such as immigration, economic growth, and global mobility (Monteiro, 2014). In this environment of change, strong leadership is needed and must remain innovative to keep up with a world that gets more and more complex every day (p. v). Leadership is the directional guidance of individuals toward improvement (Elmore, 2000). Individuals must work together, and they must become as complex as the society they live in (Kotter, 1996). The chief role of leadership is to mobilize the collective capacity to challenge difficult circumstances, and as a result "change can be influenced

but not controlled," therefore, leaders can begin to influence change by understanding why change occurs (Fullan, 2001, p. 136).

The need for individuals to create new ideas constantly depends on a type of leadership that can guide these individuals to optimize innovation and creativity, one situation at a time (Ezzat, leMason, & Weil, 2017). To lead effectively in a precipitately complex world, students in higher education need to be prepared as leaders through learning in context over time. Students must be prepared for a world of "supercomplexity," where concepts are fluid and elusive (Barnett, 2000, p. 257).

Professors need to be successful leaders to breed leaders through a "model for leadership that is not top down" (Fullan, 2001, p. 3). Preparing students through this leadership model can prepare students to face the future for a knowledge economy because a convergence exists in the contemporary era between the corporate world the world of education (Fullan, 2001). The corporate industry needs people as workers and the education industry needs people to educate.

Creativity. There are obvious prerequisite skills that are components of learning, such as critical thinking, and problem solving. However, Trilling and Fadel (2009) stated that learning in the 21st century should include creative, collaborative, and effective communicative skills as part of an education that prepares students in a contemporary world that depends on innovation. Creativity has emerged as the center of a global movement toward innovation, because world economies today are driven by creativity and innovation since innovation in world markets creates more jobs (Ezzat et al., 2017). The innovation process can include "idea generation, evaluation, development, and implementation" (Ezzat et al., 2017, p. 2). However, in idea generation, or ideation, cognitive preconceptions of solutions sometimes hinder the generation of ideas by blocking the creative process with solutions that are obvious in what is called fixation

(Ezzat et al., 2017). Therefore, leaders of innovation are tasked with the job of guiding followers into overcoming ideation fixation.

Leaders can lead effectively by following Fullan's (2001) five core capacities of leadership. The first capacity is having a moral purpose because education as a whole is about changing people's lives. Therefore, working cooperatively with others is an important aspect of leadership that is part of the other four leadership capacities. The second capacity suggested is understanding change, which is about "strategizing and innovativeness" (p. 31). In other words, leaders who understand change know that innovation is not solely about the generation of ideas, but about finding ideas for thinking critically and finding solutions to the complexities that arise. The third leadership capacity is building relationships between people. The centerpiece of Fullan's building relationships is two-fold. It includes building emotional intelligence together with intellectual quality for individuals to work together to solve problems through innovation, especially during challenging situations. The fourth step is knowledge building in individuals by turning information into knowledge, thus understanding and cultivating a culture of sharing that information. The fifth and final capacity of leadership needed to succeed in a culture of change as described by Fullan is coherence making. Leaders in the 21st century need to be able to navigate through the dynamisms of change by successfully creating an organized effort to work through non-linear challenges in a reconfiguration of "new interactions and ideas" (p. 115).

Links to Studio Art. The current emphasis on high-stakes testing undermines the global readiness of our students by narrowing the curriculum and by extension disenfranchising authentic learning (Ornstein & Eng, 2015). Therefore, educational leaders must advocate for conceptions of creativity that continue to be a discursive term representing processes in the arts, education, and society, and must resist the current narrowed appropriation of creativity through a

neoliberal business bias simply focused on economic and entrepreneurial innovation (Kalin, 2016).

Fullan's (2001) leadership model for the learning experience in the context of non-linear, complex development is that of slow knowing. This model can be applied to learning in higher education studio art courses, as well. Learning must be intensive and must always center on cultivating the capacity to improve one's moral purpose and knowledge of nonlinear change processes. This is necessary to build relationships with diverse groups, to build knowledge, and to strive for coherence of the dynamics of change that is perpetually in a reconfiguration process. The reconfiguration process involves what Erickson, Lanning, and French (2017) identified as the ability to analyze, predict, and conceptualize, while being able to collaborate, plan, and act responsibly. In the context of complex, non-linear, change, slow knowing in context over time is crucial to assess and develop an approach for solutions (Fullan, 2001). The seemingly paradoxical nature of slow knowing does not mean taking a lot of time because it is more of an attitude to approach carefully discriminating nuances in complex contexts (Fullan).

By promoting an atmosphere conducive to scrutiny of ideas measured against the collective purposes of the organization, people become connected in social learning through experimentation and discovery (Elmore, 2000). According to Elmore, "large scale improvement depends on distributive leadership, which depends on members with varying expertise making coherence of contexts" (p. 36). He goes on to state,

> learning in the context where you work is more specific, so it tailors to the social
> situation. Learning in context involves developing leadership and improving the
> organization as you go. Such learning changes the individual and the context

simultaneously because all members have a mutual respect and commitment to large-scale improvement and working with diversified need of varying job roles. (p.36)

There is a need for leaders at all levels of the organization; therefore, it is essential to have an initiative for everyone to become better leaders (Fullan, 2001). Members must have buy-in, so that leadership can become an intrinsic commitment in all members of the group. Leaders must be nurture leadership through close proximity of all daily routines to create the building foundation of a strong organization. The goal is not to create leaders that are epic, but to create leaders at all levels of the organization who, in turn, cultivate leadership in others. Yet, a strong leadership model exists with the knowledge that the organization will outgrow them. Therefore, leadership that is a perfect fit is not very common in a society in knowledge and innovation economy (Fullan, 2001).

Leadership is the engine that drives change in the 21st century (Kotter, 1996). Leadership that is dynamic and adaptive is able to contend with global competition. It is imperative that students learn about leadership and management in a fast-paced society in which the momentum for innovation is continually rising (Kotter, 1996). Students entering the workforce must possess the adaptability and willingness to stay dynamic. Organizational transformation depends on its members' capacity to deal with a changing environment.

Theoretical Frameworks

This study used the theoretical frameworks of situated learning and cognitive apprenticeship, both of which are rooted in social learning theory (Bandura, 1977; Miller & Dollard, 1941), to understand how art instruction is used to create learning journeys that capture 21st Century social and vocational outcomes.

Bandura's social learning theory (1977) explains human behavior through symbolic and self-regulatory processes. Under social learning theory, even emotional responses are influenced by experiencing the observation of others' responses to emotional stimuli (p. 2). New behaviors can be learned through direct experience or by reinforcement through the observations of others' reactions. New patterns of behavior can be created by organizing responses in to certain patterns or sequences (p. 8).

Herrington and Oliver (2000) found that knowledge attained at the university should be retrievable in real-life contexts because situation and cognition are interdependent (p. 1). University knowledge is not the end product, but a tool used to find solutions. Their goal is not to drop formal instruction over "on-the-job-learning," but rather to find the appropriate venues for learning that is meaningful (Herrington & Oliver, 2000). Situated learning strategies should provide lessons with an authentic context, that is, with an opportunity to use the learning the way it will be used in real-world problems (Lave & Wenger, 1991). The way to achieve this goal is through activities that are authentic, through opportunities to experience modeling form experts, using multiple perspectives, and collaborative construction of knowledge (Herrington & Oliver, 2000). Situated learning uses cognitive apprenticeship, in which the apprentice first observes, and then gradually fully partakes in the community of practice (Lave & Wenger, 1991). In cognitive apprenticeship teaching and learning environments are interconnected in content, methods, sequencing, and sociology (Stalmeijer, 2015).

Content, or knowledge, is delivered through the apprenticeship method of modeling, by sequencing an increasingly level of difficulty, and sociological relevant context (p. 355). Learners begin outside the center of expertise and slowly move toward the center of expertise through participation in a community of practice (Deneen, 2010). The transition toward

legitimate participation, known as legitimate peripheral participation, takes place in a socio-cultural community of knowledge and practice (Lave & Wenger, 1991).

Summary

The literature review is a way to align knowledge from the study through the intersection of literature from research to construct new knowledge. The theoretical, historical, and cultural contexts of art education help to understand the diversity of how art knowledge is distributed and known through in the social interaction of people. Discourse, perception, imagination, and emotion help understanding how content and meaning in art develop in a cognitive way (Hubbard, 2008). Student engagement in the arts is multi-dimensional and helps the learner perceive through imagination and emotion (Hicks, 2013). Therefore, injecting the arts into the STEM model can promote injecting creativity systems into the sciences, as well as addressing the non-science student (Gurnon, Voss-Andrae, and Stanley, 2013).

In a time when neoliberal economics and entrepreneurial innovation, are the driving forces of globalization, creativity, as it pertains to the arts, helps process contemporary political, educational, artistic, economic, and social issues in an authentic manner (Kalin, 2016). Therefore, university studio art courses provide students in the visual arts an authentic engagement with real-world conditions (Marschalek, 2004). Art instructors in higher education have a meaningful influence on their students (Lubell, 2012) individually, or through small group by providing teaching and learning experiences (Marschalek, 2004). The unforeseeable future of the 21st century due to innovation and creative needs (Barnett, 2004), links the learning experience in higher education studio art courses to Fullan's (2001) leadership model because learning must be intensive and must always center on cultivating the capacity to improve one's moral purpose and knowledge of nonlinear change processes. Therefore, this study used the

theoretical framework of situated learning and cognitive apprenticeship, which are rooted in

social learning theory (Bandura, 1977; Miller & Dollard, 1941), to understand how art

instruction is used to create learning journeys that capture 21st century social and vocational

outcomes.

CHAPTER III: METHOD

The purpose of this study was to investigate the experiences of two university art educators and two students currently enrolled in one of the professor's arts-based courses in a higher education institution in south Texas to understand how art instruction is used to create learning journeys that capture 21st century social and vocational outcomes.

The research questions that guided this study were:

1. How do art educators in higher education describe using sculpture projects to create learning journey experiences for their students?

2. In what ways do art educators in higher education demonstrate the use of art instruction in their courses in relation to twenty-first century social and vocational outcomes?

3. What are the learning journey experiences of students in higher education who are engaged in art instruction?

4. In what ways do art students demonstrate the principles of liberal arts learning to professional learning?

Rationale for Qualitative Research

Qualitative research investigates "things in their natural settings, attempting to make sense of or interpret phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2011, p. 3). Charmaz (2006) explained that qualitative research looks at the participant's "implicit view" of reality and the researcher's "grounded theories" (p. 10) that are both constructed interpretations. Therefore, qualitative research exists in the constructionist epistemology of social sciences, because what humans perceive as reality is actually a negotiated discourse (Willig, 2001). The constructionist epistemology is a paradigm or worldview that

informs qualitative research by developing subjective meanings from humanity's point of view (Creswell, 2007).

Crotty (1998) described epistemology as a way to understand or explain how we know what we know, and Patton (2002) described constructionism as being anchored in sociology. Patton maintained that constructionism looks to answer questions based on how people, in a particular setting, construct their reality and meaning through social interaction. Therefore, a constructionist epistemology creates meaning in a social context. According to Spradley (1980), in all social situations, someone is situated in a place performing an act, which constructs an individual truth for the participant. An object or event may possess different meanings based on how people interact with it socially, and both the object and the subject's needs must be brought together to construct meaning (Crotty 1998).

Qualitative research "draws attention to the fact that human experience, including perception, is mediated historically, culturally and linguistically" (Willig, 2001, p. 7). Qualitative research is messy because its design is malleable and allows its methodology to be revised as new learning emerges (Leavy, 2017). Crotty (1998) suggested that a qualitative research also uses a theoretical perspective from which to ground the context of the study. As such, the researcher analyzed and interpreted the social situations surrounding the participants teaching and learning from within the studio-art classroom, from the participant's point of view, as a professor of art and as an art student.

Arts-Based Research

The social setting, such as the university art studio, is a situated place where people interact and as Spradley (1980) suggested, this situated place creates an individual truth for the participant. Relying on Denzin and Lincoln's (2008, 2011) and Leavy's (2009) work, Arts-based

research allows art to merge with research in several ways. First, while qualitative research investigates "things in their natural settings, attempting to make sense of, or interpret phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2011, p. 3), ABR helps view social science critically, and widens the creation of new methods (Leavy, 2009). ABR increases "voice and reflexivity" in the research process by helping to understand, deeper, the diversity of multiple realities in a non-linear way that is not possible by simply using the written text (Butler-Kisber, 2008, p. 268). As such, ABR is a methodology that uses thinking processes and ways of representation traditionally associated with the visual arts to understand the human experience (Barone & Eisner, 2012).

In the study, ABR helps the reader to connect with both participant experiences as well as the researcher's experience through expression of the form (Barone & Eisner, 2012). Through artistic methods that express in a representational way, ABR conveys what cannot be expressed through "quantification, prescription, and formulaic practices," (Barone & Eisner, 2012, p. 4) nor statistical designations. The researcher used sketches and sculpture, to express the findings, which emerged from the data. These included artworks allowed for representation of the findings to take shape in both two- and three-dimensions.

Leavy (2009) asserted that visual art is instrumental in analysis and interpretation of data by offering multiple interpretations and perspectives. Leavy goes on to state that visuals such as maps, models, and diagrams are a trustworthy methodological technique to interpret data. This study used visual arts such as sculpture, and drawing, and the written word to express findings. In addition, Barone and Eisner (2012) explained that through visual communication, ABR sometimes has the ability to explain in a way that is more profound than non-visual discourse. Through an ABR design, the researcher sought to provide contextual and discursive perspectives

that complement the art instructor's and students' identities as artists (Collanus, Kairavuori, & Rusanen, 2012). Further, Collanus et al. (2012) stated that both education and the arts are dynamic, and therefore, constantly evolving. Collanus et al. (2012) also stated that the art instructor's contextual and discursive perspectives are major components of teacher identity as well.

Subjectivity/Positionality

My Qualitative Arts-based Journey

In my qualitative arts-based journey of this study, I immersed myself into the literature. As a result, I am partly inside of the study. See Figure 2.
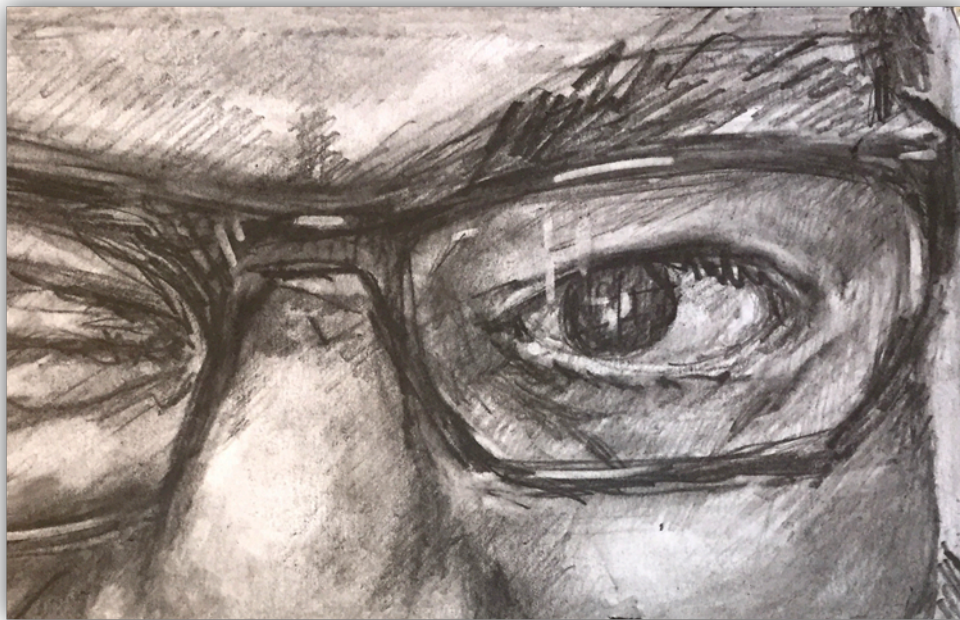
Figure 2. I am partly inside of the study.

I am an artist. I remember working on my first drawing on our small kitchen table when I was about five or six years old. The youngest of all my uncles, my uncle Adrian, showed me how to draw a luchador, a masked Mexican wrestler from *Lucha Libre*. Throughout my life, I

received a strong artistic influence from my father, *Lio el Monsi, el Maestrín*, the young maestro, as his friends affectionately called him. My father was an artist, a poet, and an idealist. I grew up watching my father paint portraits of his friends or family members, not to mention the eight by ten-foot mural of cowboy scenery in his bedroom wall.

I am also an educator. As a young person, I knew art would always be part of my life, but I never once thought about becoming an educator. My mother, *la Profe*, the teacher, was a career educator in Mexico. Although, I grew up seeing the great level of respect and admiration, which her students, her fellow educators, and her community had for her for being an elementary teacher in Mexico, and even after accompanying her to her prestigious retirement ceremony in Saltillo, the state capital of Coahuila, Mexico, I never even contemplated becoming an educator myself. However, in the narrative of my life, as a young college student, I was an art major, then decided to switch majors to education, and graduated with a bachelor's degree in education, followed by a Master of Fine Arts degree in sculpture, 15 years later. I have been art educator for most of my professional career, teaching all levels, from pre-kindergarten, elementary school, middle school, high school, through the university level. I have often felt I hold a dual identity as both an artist and an academic.

Having a background in art, even after extensive reading about the possibilities of ABR, I was uncertain of what the arts-based dissertation process would bring. I was eager to merge both, the creation of artwork, as part of a written dissertation, and the linguistic modes inherent in the dissertation process. At first, I wondered if the linguistic process would inhibit the artistic process because I would be explaining the participants' discourse in detailed text first. I also wondered if the artistic representations would feel too literal, mechanical, premeditated, and devoid of any evocative qualities. Normally, in creating a work of art, I usually begin with a

concept, and render the visual imagery using a particular technique, a process, using a particular medium of choice, but the viewer leaves conclusions open-ended for interpretation. My insecurities stemmed from using an artistic mode that would simply illustrate something that had thoroughly been explained in text. However, this process taught me that both, what Gardner refers to as the verbal-linguistic, the written, and the visual-spatial, the artistic, can both occur as part of the same process of creating a dissertation. Artistic representation served as a vehicle to process information from the study concurrently with linguistic modes of communication (Barone & Eisner, 2012).

Research Design

Location of the Study and Selection of Participants

The location and participants for the study were chosen using purposive selection. Polkinghorne (1995) stated that purposive selection is sometimes referred to as purposeful sampling. However, purposive selection is preferred in qualitative studies because the word sampling in purposeful sampling might be misconstrued to infer that the sample is representational of a population, as it does in quantitative studies (Polkinghorne, 1995). The aim of this study was to obtain an in-depth understanding of an experience by looking at appropriate models that best exemplify that experience, and not a statistical representation of the population. According to Merriam (2009), purposeful selection is the selection from which the most can be learned. Lincoln and Guba (1985) stated that purposive selection helps to represent "local conditions, local mutual shapings, and local values" accurately (p. 40).

Research Site

The chosen site for the study was an institution of higher education in south Texas with a graduate level arts program. The university is a doctoral-granting institution that offers more than

80 degree programs to over 12,000 students. It has the federal designation of Hispanic Serving institution, and provides a foundation to close education gaps. As part of its strategic plan, 21st century innovation, creativity, and discovery, and results in student success are a priority. As such, curricula and co-curricula incorporate high impact education practices such as practicum, service learning, and capstone projects. The plan also prioritizes elevating graduate education to support its goal to reach emerging research status by providing graduate students with opportunities for career and professional development, leadership skills and research presentation. Lastly, because this university values creative activity in the visual and performing arts, as stated in the strategic plan, and evidenced in the facilities, infrastructure and the personnel (university website, strategic plan), it was selected for the study.

Participants

The participants who could offer insight into how art instruction is used to create learning journeys that capture 21st century social and vocational outcomes in south Texas were desirable and therefore selected. All participants were over the age of 18. Two experienced university art professors and two graduate level art students working under the direction of each professor served the purpose of gaining an in-depth understanding of university art learning experiences. One instructor, Ché, a professor of painting, has six years of teaching experience, while the second professor, David, a professor of sculpture, has 30 years of teaching experience. Juan Carlos and Rosie, graduate students in the art program served as the student participants in the study. Juan Carlos is studying painting under Ché and Rosie is studying sculpture under David.

When, Where and How Participants were Contacted and Recruited. The participants were asked to participate in the study using phone calls and/or email, in conjunction with a phone/email script and solicitation letter as a template. After the potential participant agreed to

participate in the study during the initial telephone/email conversation, the researcher invited the participant for a face-to-face meeting. An appointment was set with the professors according to their availability and the meetings took place at the professor's university campus office or personal studios, during regularly scheduled office hours, after scheduled class, or weekend.

Students were recruited through the recommendation of their professors. An appointment time was set with the students according to their availability during the students' regularly scheduled school days or weekends, in a private place, the participants' university office, the participants' art studio, or researcher's art studio. At the initial meeting, the researcher further explained the study, expectations, risks, and benefits to each participant. Each participant was afforded the opportunity to ask any questions at that time. Once the participant was satisfied with all answers and information regarding the study, then the researcher invited the participant to review and sign the informed consent form. The consent form provided information that may affect the participants' decision whether or not to participate in the study. The consent form acknowledged the participants' agreement to participate in the study. The consent form also explained the research, the purpose of the study, and the reason for their selection as possible participant in the study. Then the researcher signed the informed consent form and provided the participant with a signed copy. To maintain confidentiality, all participants were assigned a pseudonym that was either selected by the participant or assigned by the researcher.

The Art Professors

Ché, an art professor of painting. Ché, a native of south Texas has been an art professor of painting for six years. Even though Ché was accepted into prominent universities along the east coast of the United States after receiving his BFA degree, he decided to move to New York City to work as a gallery director. Ché's former painting professor had opened a

gallery in New York and invited him to curate. Ché remembered feeling like a "scared little chicken, I'm going to the big city." Ché was 24 years old at the time, when he was "thrust" into what he described as "the center of the art world in New York City." Ché said that is how he "got exposed" to a "massive world" of art through the New York gallery experience. Ché said, at the time, he was not sure what else he wanted to do in art. Ché worked in this venue for a total of ten years. While working at the gallery, he began taking courses in traditional painting techniques. After that, when an MFA program in painting opened in south Texas, Ché returned to his roots in south Texas and began his MFA studies. After graduating with his MFA degree, Ché worked as the city arts director, and in several other professional venues in his hometown, before becoming an assistant professor of art in painting. He teaches Design III Color Theory, Painting I, Intermediate Painting, Advanced Painting, and Graduate Painting. He has been teaching in higher education for six years.

Ché credits his parents with instilling in him the importance of work. Ché's mother was an English teacher, and his father was a math teacher. Ché said his mother taught him about speaking properly, explaining correctly, and the discipline for researching the importance of a topic, all of which he uses today in both his own artwork, and in teaching his students. From his father, Ché said he learned how to work physically with his hands, which helped him on the physical aspect of making art. From both, he learned how his cultural orientation and lens of being Mexican-American provided him ways of understanding that cut across his personal and professional experiences.

For example, Ché shared a story of how his father refused to discard old items even though they may no longer serve their original intended purpose. His father would hold on to old things because he envisioned being able to make them useful, purposeful, for something else.

Translating this to his own artistic practice, Ché seeks to "see how far you can push your own work zone," one that also embroils his dad's motto of "making it work." In return, Ché developed a guiding principle, which he refers to as the "element of experimental." As evident in his most recent series of artwork, Ché used this personal context of family, culture, and life experience as a source of inspiration for a recent body of work, which he called the "Backyard Reliquary" series. Ché aimed at documenting his Dad's "treasures" through a series of drawings, one of which is presented in Figure 3.

Figure 3. Dad's "treasures."

Through this series, Ché illustrated his interpretation of the "American can-do spirit, but really the Chicano idea of 'why throw it away when you can still use it for something else' spirit." It was through his art, Ché discovered a personal symbolism celebrating the preciousness of the old useless objects as symbolic relics. Yet, he had to experiment as an artist with how to convey the elements of his culture, family history, and his upbringing in such a way to capture the essence of his dad's moral code of *making it work*. Ché has exhibited his artwork in galleries and museums nationally and internationally. For example, Ché was part of the "We Are You Project International: Traveling Exhibit," which traveled across the United States.

He has exhibited his work at the Universidad de Oaxaca, Oaxaca, Mexico. He has also exhibited his art at private galleries, university galleries, and museums in the states of Arizona, California, Kansas, Massachusetts, New Jersey, New York, Tennessee, and Texas. He was featured in articles in periodicals and magazines such as *Texas Monthly, The Bend: Coastal Life Magazine*, and was featured in an article in *The Monitor* in McAllen, Texas among others. Ché has also received grants from the Texas Commission for the Arts, and the Coastal Bend Community Foundation. Ché is part of numerous private art collections such as that of famous actor and comedian, Cheech Marin. Ché has worked as city public arts manager in south Texas, and university gallery director, before moving into higher education.

David, an art professor of sculpture. David received a Master of Fine Arts (MFA) degree in Missouri in 1976, and is currently a professor of art in sculpture. He fondly remembers growing up on a farm in the Midwest, and attributes this type of upbringing as nurturing the "love of working with his hands that sculpture allows." He recalls how his dad's background of working in a steel foundry (a factory that uses molten metal to produce castings) taught him much about the importance of hands-on work, and moving from thinking about something in a

conceptual manner to creating something actual. As he reflected, he shared that even before he learned how to write, he was drawing and that perhaps this was an early indicator of his path to becoming an artist. He said, "I didn't even know what I was doing back then. Once, I went to elementary school, I realized that no one else did (know how to draw), only a few of us."

As an avid sculptor, David has had professional art studios in Illinois, Ohio, Arizona, and Texas. David has been part of competitive art exhibitions in the United States in New Jersey, Montana, and Texas, and group exhibitions in Florida, California, Louisiana, New Mexico, Minnesota, Texas, Wyoming, and in England. He has also been part of invitational exhibitions in Arizona, New Mexico, and Wyoming. David has earned art commissions in the United States, England, Italy, Mexico, and Poland. David has also conducted lectures as part of his professional activities. David has conducted professional lectures in the United States in Alabama, Illinois, Tennessee, Texas, and in the countries of Canada and Poland. He received an award for Outstanding Commitment and Service from the Mid-America College Art Association in 2014.

As part of his artistic style, David embraces a variety of styles. He stated that many artists choose a style or a direction for their artwork, and sometimes spend their entire careers working in that same direction. According to David, sometimes an artist might experience, in some way, success in one specific style of imagery, or concept, early in an artist's young career. Because this type of success usually means monetary success, this sometimes limits an artist's ability to grow and change. David added, "Some artists are reluctant to really try to break away from that, so it becomes a reluctance to change, grow, and experiment. You're kind of trapped by your successes."

Although, some artists capitalize on one style, David thrives in using a variety of styles. Originally, he was interested in becoming a political cartoonist. This personal early interest still

influences David's personal artwork that he does for himself. According to David, the artwork still has more of a social and political commentary. For example, the artwork below, (See Figure 4) is a commentary on the effects of an invasive species. The imagery in the sculpture depicts a mutated plant that is budding a human skull. The plant is growing out of a city completely inundated in brackish waters. The plant seems to morph out of an unnatural composition of metal leaves and a bronze skull. The statement that David makes with his work is that humankind is poisoning and the planet beyond recognitions a result of human greed and disregard for nature.

Figure 4. A Commentary on the Effects of an Invasive Species

As David became more involved in sculpture, he started creating formal sculptural pieces in the form of large outdoor, commissioned work. David stated, "It is a long, drawn-out process, but it validates your direction, your design, your expertise."

David has taught in higher education for 30 years as an adjunct professor, part-time professor, but mostly as a full-time professor. He teaches all aspects of sculpture, to include undergraduate, intermediate, advanced, and graduate level sculpture classes. David partly attributes the ability to have the freedom to experiment, and research, and develop his artwork, by working for the university system. David added that working for the university partially facilitates personal growth as an artist because not only does it provide having a paycheck doing what you love, which is teaching students your craft, but it also promotes research. As an integral component of his classes, David specializes in working with metal, using such techniques as casting, forging, and welding. While most of David's students in his career have been sculpture students, he has had general art majors in his classes needing an art class to fulfill their degree plan requirements. David's goal has always been for his students to complete his class with more knowledge, experience, and self-confidence than they had when they entered his class. Many of David's former students have moved on to become college and university art professors themselves.

The Art Students

Juan Carlos, a graduate student of painting. As an undergraduate student, Juan Carlos received a BFA degree in with a concentration in painting and drawing. He is currently in his last year working toward earning a MFA degree in painting. Coming from humble beginnings in the Rio Grande Valley of south Texas, or as south Texas locals refer to it, "the Valley," he described himself as the "oddball in the family, who chose to go to college," and "a bigger oddball when he decided to major in art." He said most on his dad's side of the family either joined the military or ventured into vocational trades. For example, Juan Carlos' father is a certified diesel technician by trade, a certified welder, and has a history of working in the industrial sector for 40 years. His

paternal grandfather was a "jack of all trades working in trades such as roofing and electrical work." His mother's side of the family was in the ranching business, with his maternal grandfather a working as a cattle rancher. Juan Carlos stated, "It was kind of odd, that I had a background of industry and manual labor, and military service, and I was the first one in my family to go to college." However, Juan Carlos said his family was very supportive, which is what helped him get through the struggles of completing a college education.

After his graduation, with a BFA, Juan Carlos returned to his hometown and his high school alma mater to teach high school art. Juan Carlos explained that it was important to him to teach art in a way to break underactive, stagnant teaching practices in the art department that had been prevalent in the high school. He wanted to offer hope to the students in the Valley to further their education, and he felt he could do that by teaching fundamental art skills in an innovative way. After teaching for five years, Juan Carlos met Ché, the university painting professor in this study. Eventually, after much contemplation, he applied and was accepted into the same MFA program where Ché worked. As a result, Juan Carlos is currently a full-time graduate student pursuing his MFA in painting.

Rosie, a graduate student of sculpture. Rosie is originally from Chicago, Illinois. She received an Associate's degree in Illinois before completing a Bachelor of Fine Arts degree with an emphasis in printmaking. Even though Rosie is a candid and outspoken individual, she did not know what to expect when she was admitted into a Master of Fine Arts (MFA) program in south Texas, especially in the area of sculpture. However, Rosie was not afraid to face the unknown, nor afraid to face the vulnerabilities of embarking on a journey in unfamiliar territory.

She initially struggled in the MFA program as a first-year graduate student studying sculpture, even though she was short only three courses to complete her undergraduate program

in sculpture. According to Rosie, she said she found out she was "in-deep;" she realized the faculty were not telling her what to make. She was expected to make artworks, but because she was now a graduate student, there were no specific projects assigned. It would be up to her to come up with a cohesive body of works. She said she felt "lost, like she didn't know what she was doing." She said the faculty was telling her, "Make something." She was lacking crucial training in indispensable methods needed to make sculpture. Yet, through her perseverance and desire to remain receptive to instruction of new knowledge, Rosie continued to move forward in the MFA program.

Data Collection

Denzin and Lincoln (2011) stated that, "case study, personal experience, introspection, life story, interview, artifacts, and cultural texts and productions, along with observational, historical, and visual texts that describe routine and problematic moments and meanings in individual's lives" (p. 4) can be used to collect empirical data in qualitative research. For this research, the data collection methods included interviews, observations, documents and artifacts (Jorgensen, 1989), photographs, and journal entries represented by text and/or drawings.

Interviews. Interviews are conducted in an effort to better understand a phenomenon from the subject's point of view and the meaning they construct based on their experiences (deMarrais, 2004). Kvale (1996) described research interviews as conversations with structure and purpose, which allows subjects to describe a situation in their own word and from their own viewpoint. Interviews should be conducted through open-ended questions to guide the interview and follow-up questions that may surface through active listening of participants' responses (Kvale, 1996). Over the course of eight months, the researcher interviewed each participant three times with each interview lasting approximately one hour. Interviews that were long focused

conversations were conducted to solicit perspectives of university art professors and their students of how learning journeys are created and experienced (deMarrais, 2004).

Kvale (1996) suggested that knowledge obtained from interviews is constructed from verbal communication and from the interaction between the interviewer and interviewee. Knowledge obtained from the interviews "requires awareness of the complexity of self-reports and the relation between experience and language expression" (Polkinghorne, 1995, p. 137). The interchange of ideas about a topic of mutual interest between the participant and the interviewer allows for construction of knowledge through a conversation (Kvale, 1996). The interview allows participants to provide descriptions of specific situations with respect to the meaning they construct regarding those events (Kvale, 1996).

The design and use of an interview protocol included a form with approximately five opened-ended questions, (Creswell, 2007). Kvale (1996) observed that the shorter the questions by the interviewer are, the longer the subjects' answers will be. The researcher gained a deeper understanding of the phenomenon through long focused conversations during the interview process by listening to the participants studied (deMarrais, 2004). The interviews took place in a mutually agreed upon location, sometimes a coffee shop or a studio-art classroom or in the office of one of the participants, depending on what were convenient for the participant. All interviews recorded and transcribed into a password-protected word document and stored in a locked cabinet in researcher's home office.

The first interview asked the professors and students general questions to establish a rapport between the researcher and the participant, and to extract general identifiable information. The type of question asked included general questions about their personal background and the art course they taught or were enrolled in. The details of the questions

coincided with each other as they related to the professor or student. For example, a question for the professor might ask to describe their teaching philosophy, while the student question might ask what they hope to accomplish with taking the course. Another example might include a professor question that asks an assignment assigned in class, while a corresponding question for the student might ask what they are working on. For the second interview, the questions included follow-up questions from the first interview. The questions for this interview were directional. The questions focused on topics, projects taught, and learned, and teaching and learning practices. The third interview centered on learning journeys connections to globalization, innovation, and technology. This interview also investigated interdisciplinary learning, studio-based curricula, critical thinking, and assessment. An example of the one of the transcribed portions with David is below, (see Figure 5).

Figure 5. Excerpt of David's Transcript.

Observations. Jorgensen (1989) described the purpose of participant observation as a methodology that creates "practical and theoretical truths" (p. 14) about the participant's experience. According to Jorgensen (1989), participant observation is seen more as an art form that is non-linear with non-prescriptive procedures because participant observation seeks to understand unique realities of human existence. Creswell (2007) stated that observers could begin observing as an outsider, and then move into the setting and observe as an insider. As the researcher becomes an insider in the world of the participant, s/he becomes a participant observer. Spradley (1989) explained that a participant observer, also known as a complete-participating researcher, should look introspectively within his/her inner feelings to understand new situations fully.

Four observations (Jorgensen, 1989) were conducted at the university's art studios where the art professors teach. The purpose of the observations was to record events, behaviors, and artifacts (Marshall & Rossman, 1989). An observation protocol (see Appendix B) was used as a guide to compile various elements observed. Appendix B, shows the observation protocol adopted from Mack, Woodsong, MacQueen, Guest, and Namey (2005, p. 20), and Merriam (1998, pp. 97-98), that was used for this part of the process. In addition to using this conventional approach, the researcher also used an arts-based approach to sketch drawings related to the elements observed, (see Figure 6). These observations were recorded in both written form and journal entries in a sketchbook diary to conceptualize and record events from the researcher point of view, as a full participant. Taken together provided a detailed record of "objective observations and subjective feelings" (Spradley, 1980, p. 58).

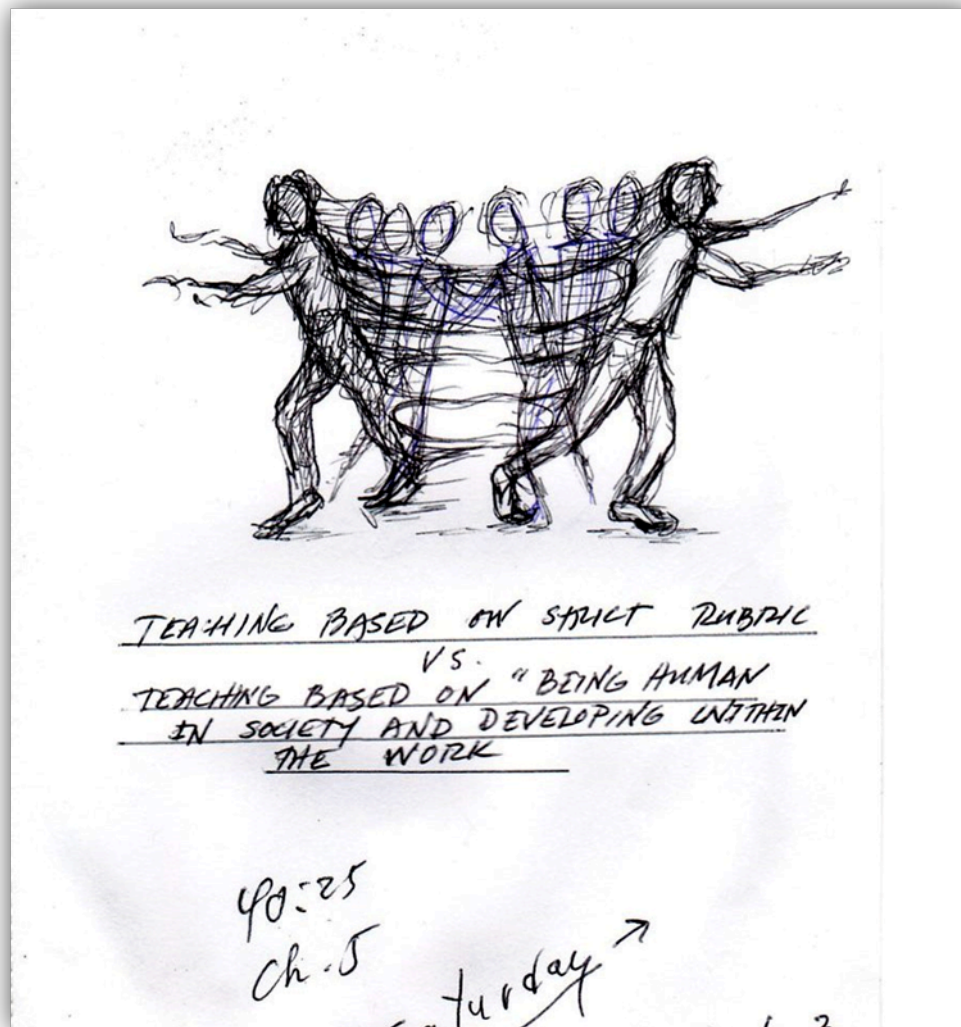*Figure 6.* Sketch related to the elements observed.

Artifacts. Polkinhorne (1995) stated that the collection of data is iterative, "moving from data collection to analysis and back" (p. 142). Artifacts collected for the study ranged from photographs to capture the social spaces within the work and art practices, syllabi, assignments, press clippings, and art exhibit invitations. (see Figures 7 & 8).

First Assignment   Intermediate Sculpture –Arts 3304

Cast aluminum in green sand

This assignment deals with the development of a pattern using cardboard or combinations of found objects with modeled elements. Design a composition making a political statement as the basis of the relief. In today's highly charged political environment, choose a topic that resonates with your individual views and beliefs. In your sketchbooks, begin drawing out symbols or forms that related to your concept. Using this menu of shapes, symbols and forms, design a composition that can be rendered in clay.

The size restrictions are 12" square maximum and the relief can rise above the surface up to 3 inches. Approach this as a drawing that casts shadows and shows the illusion of volume, perspective, etc. Texture works well in this process.

Approach: find a large enough board to accommodate your design with a 2" border. Using clay, foam core, plywood etc., establish the shape of the composition. Begin to build up from the surface using found objects or forms manipulated in wax, clay etc.

Once the composition is completed, a two-part resin sand mold will then be made from the clay pattern. This sand mold will capture the details of your design. After the mold has cured, the pattern materials are removed. The mold is then prepped to receive for the hot metal.

After the metal has cooled, the mold is broken away, the sprues and gates are sawed off and the cleaning of the aluminum relief begins. Faux finishes can then be applied to the aluminum to give it a contrast of colors before the cast can be either waxed or spray varnished.

Due date: First Critique, February 2

Figure 7. Class assignment.

Figure 8. Syllabus.

Photographs. Photographs, such as that of David leading a group of undergraduate, and graduate sculpture students, in an iron-casting event during the Dia de Los Muertos, Day of the Dead Festival (see Figure 9), were important to the study. The photographs served as both, a

visual question when prompting the participants to talk about themselves, and their work, and as

part of the data analysis process to triangulate data.

Figure 9. An iron-casting event.

The use of photographs, while providing aesthetic element (Leavy, 2009), can also help

to document the participant's reality. Collier and Collier (1986) have long argued, "Photographs

are charged with psychological and highly emotional elements and symbols" (p. 108).

Photographs are also capable of drawing out more of the participants' profound and significant

"personal conceptions and relations to the world" (Carlsson, 2001, p. 131). A photo analysis

table adapted in part from Petersen and Østergaard (2003) guided the process of photo

elicitations and analyzing photographic data (see Figure 10).

Photo Analysis Table

	Role of researcher	Photos are taken by the researcher
Status of the photo		
Photos as elicitation -photo views		The photos are taken by the researcher and then used as an interview prompt with the participants
Photos as data per se -photo analysis		Used to triangulate the data in the analysis phase of the study.

Adapted in Part from Petersen and Østergaard (2003).

Figure 10. Photo Analysis Table.

Journaling. The researcher retained detailed records of "objective observations and

subjective feelings" (Spradley, 1989, p. 58) which were recorded as journal entries drawings,

and/or sketches in sketchbook diary. Merriam (1998) describes research journals as an

introspective record of the researcher's experience in the field. These experiences include "ideas,

fears, mistakes, confusion and reactions" (p. 110). Journal entries and drawings were scanned,

and saved as PDF files in an electronic database in the researcher's personal computer. Figures

11 and 12 provide evidence of how the journal was used to record observations as well as my

thoughts about what I saw in the studio-art classroom.
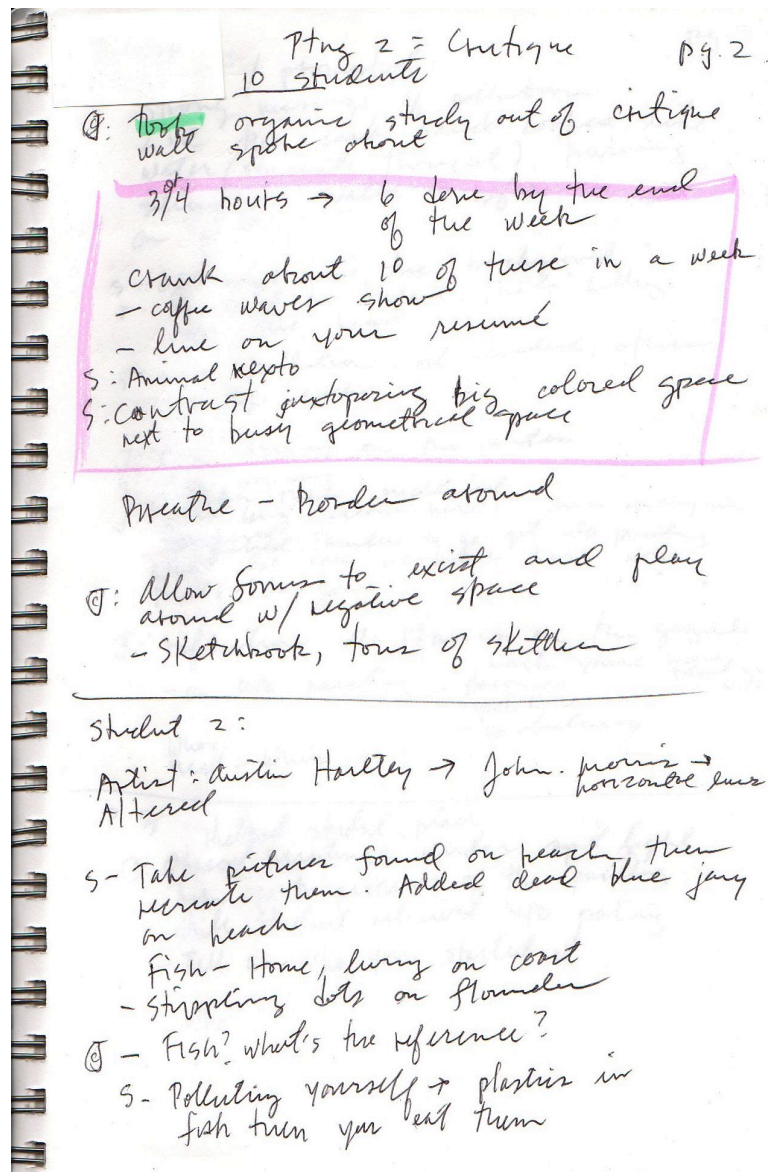
Figure 11. Observation journal entry.
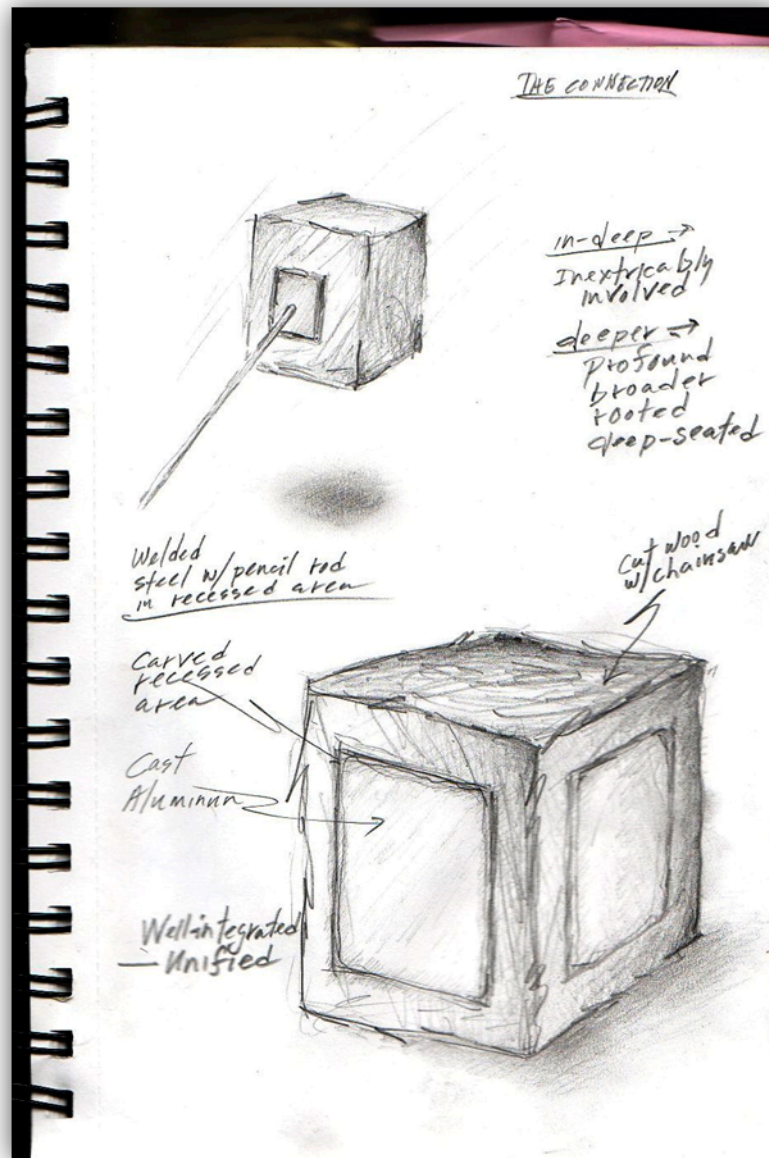
Figure 12. Drawings.

Data Management

The management of data in an extensive study such as this one can be problematic without systematic planning and organization. An arts-based, qualitative methodology demands attention for detailed data analysis and data management protocols. The following procedures helped to ensure a controlled oversight of the proper application of the methodologies used.

All participants' interviews were recorded using the researcher's personal audio recorder. The recorder was stored in a locked filing cabinet in the home office of the researcher when not in use. The researcher took photographs using his personal camera and uploaded the images to a password-protected computer file. Then the images were deleted from the camera. A password-protected computer was used to write up the findings. When not in use, the computer remained in researcher's home office.

Data Analysis

Qualitative data analysis, with an arts-based component, required a process deciphering the data by filtering, organizing, cataloging, and identifying themes (Holliday, 2002). First, the data collected in the study were analyzed using constant comparative analysis (Glaser, 2008) to code and categorize the data, while data were still being collected. In this chapter, the results generated by the study design are defined and described. The data were analyzed to identify patterns, categories, and themes among all sources with a simultaneous comparison of all social incidents observed (Creswell, 2007; Goetz & LeCompt, 1981). This part of the data analysis process included identifying participant and classroom characteristics commonly related to identify what type of learning is taking place.

Second, as social phenomena were recorded, photographed, classified, and coded, the researcher compared them across categories. As a researcher who is also an artist, I wanted to present and situate the participants' voices in light of the complex layers of background information (Crook, 2009). According to Charmaz (2006), identifying codes in this manner would help the researcher grasp what actions are taking place, and help infer the meaning of these actions. In addition, Charmaz (2006) suggested, "pursuing telling terms" (p. 57). Therefore, the participants were interviewed and the conversations were transcribed verbatim.

61

With each data collection opportunity, a continuous refinement of analysis compared

previous events with new topological dimensions. For instance, interview transcripts and

artifacts were analyzed, organized into retrievable sections of codes, and then categorized.

Saldaña (2003) describes codes as words or short phrases, which capture the essence of a portion

of the language used in an interview. Bryman (1986) stated that coding should be done while

data are still being collected, which allows the researcher to gain a better understanding of the

data and a chance to clear up any ambiguities which may arise. Each unit of data from the

interviews was analyzed and highlighted using a variety of colors to spotlight salient

information. The researcher's words were first highlighted in hot pink to separate the

researcher's words. After analysis of the participants' transcripts, salient information was

highlighted in a variety of colors to create visual contrast and separate varying information. The

colors were chosen for their vibrancy, contrast against other colors, and ability to spotlight

prominent information. The salient information from the interview was assigned a code word or

phrase on the margins of the written transcript. Notes and/or drawings were also sketched in the

researcher's sketchbook. When coding of each interview was exhausted in its entirety, the codes

were categorized and organized by thematic subject. Saldaña (2003) recommended trusting one's

instincts when organizing data and extracting themes. See Figure 13.
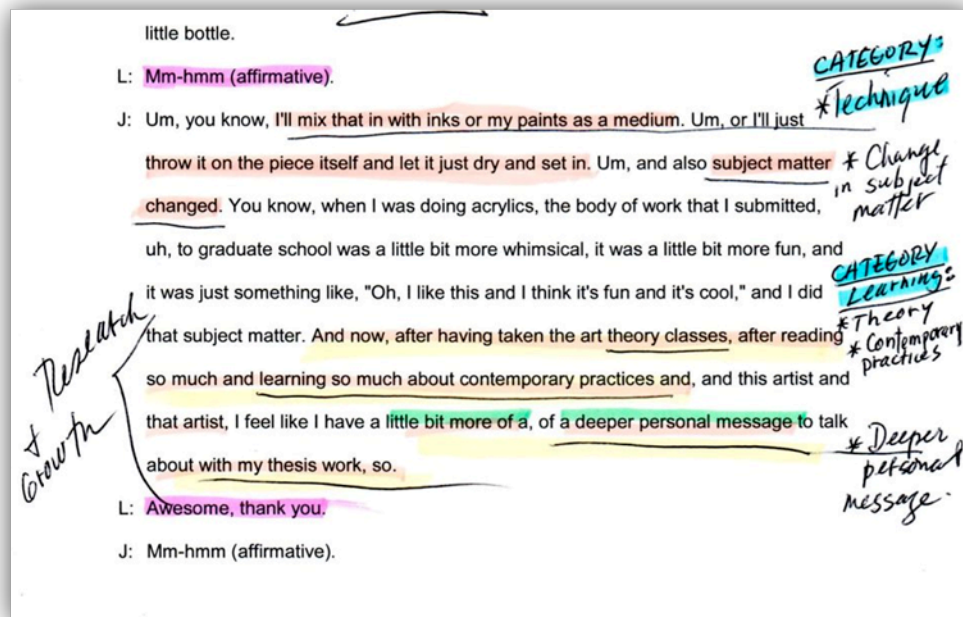
Figure 13. Extracting themes.

At times, analysis of the data within a participant's dialogue opened up new insights into participants' data. Other times, analysis of one participant's dialogue crossed and opened up deeper meaning in the content in another participant's dialogue. Therefore, codes, categories, and themes emerged in that fashion as well (see Figure 14.
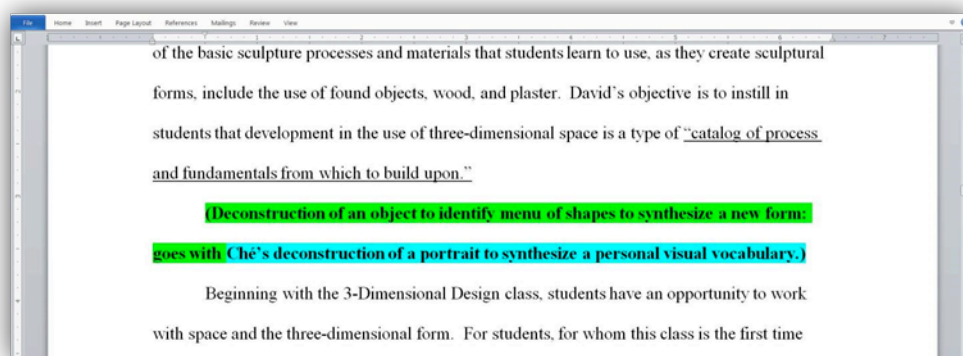
Figure 14. Analysis of dialogue.

Next, after coding all data, the codes were organized according to the categories that emerged from the data. Interrelationships among categories were identified as the data were coming in (see Figure 15).
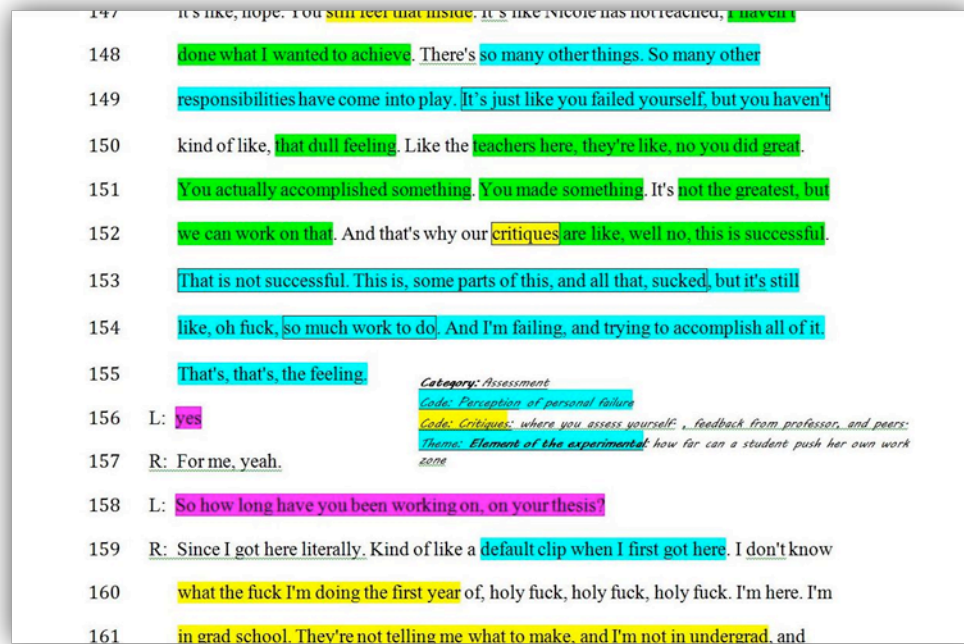
Figure 15. Interrelationships.

Finally, diagrams and drawings were created to show the categories and interrelationships. As new data emerged from the subsequent interviews, at times codes had to be re-coded, or themes had to be adjusted and expanded according to new discoveries (see Figure 16).
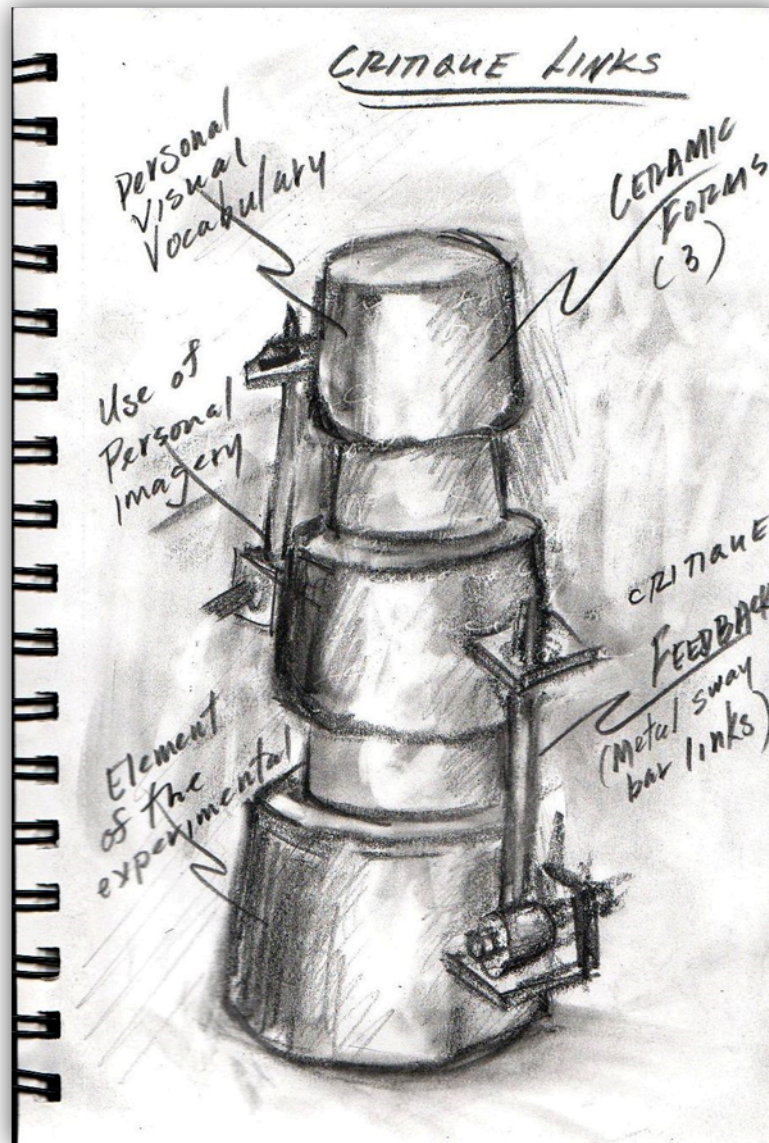
Figure 16. Diagrams and drawings created.

Data Representation

As a methodological approach to the representation of my findings, I created personal

arts-based artworks. Denzin and Lincoln (2011) stated that qualitative research builds a natural

understanding of unique and aspects of the everyday world by interpreting representations,

"including field notes, interviews, conversations, photographs, recordings, and memos to the

self." (p. 3). Leavy (2009) asserted that visual art is instrumental in analysis and interpretation of

data by offering multiple interpretations. Barone and Eisner (2012) explained that ABR has the ability to explain, in some cases more profoundly than non-visual discourse, by communicating through the creation of images.

The effort to represent data by creating a two- and three-dimensional forms may be informed by other aspects of the creative process, as well, not simply the data. Smith (1960) stated that, "the order of the whole can be perceived, but not planned. Logic and verbiage and wisdom will get in the way" (Smith, 1960, p. 577). Quinn and Calkin (2008) identified a type of artwork known as Research Based Art (RBA), which is artwork as an "aesthetic representation of educational research that utilizes non-linguistic forms to communicate to an audience" (Quinn & Calkin, 2008, p. 4).

According to Quinn and Calkin (2008), RBA uses planning, logic, and wisdom, to create aesthetic ideas to form the whole, superficially seems to be in direct contrast to Smith's (1960) statement related to perception, planning, logic, and verbiage. However, both concepts can coexist, and are not completely at odds of each other, as first perceived. The RBA has inherent qualities that are consistent with the creation of visual art. The RBA is conceived through the artist's perception of the aesthetic representation. Through the RBA, research informs the perception of the whole. Therefore, through this process, logic, verbiage, and wisdom can inform perception and recognition.

Reciprocity and Ethics

Miles and Huberman (1994) stated that the researcher must take measures to ensure that all discussions involving the study will remain strictly confidential and be limited to the confines of the study. According to Spradley (1980), the participant should be well informed about the purpose and aims of the study.

Benefits

There are not be any tangible benefits, nor incentives afforded to the participant in return for involvement in the study. Some of the non-profitable benefits to the participants might include an improved understanding of their academic discourse.

Risks and Protection Means

The risks associated with the study were minimal and not greater than risks ordinarily encountered in daily life. Provisions were in place in case the participants felt uncomfortable at any time. Participants had the option exit the study at any time without penalty or risk of any data gathered from the participant was be used in the study. The study adhered to strict confidentiality standards by allowing participants the opportunity to choose a pseudonym and if the participant did not wish to choose a pseudonym, the researcher assigned one to maintain confidentiality. Only the researcher and the participant have knowledge of the pseudonym. All documents were stored in a password protected computer file. Audiotapes were stored in a locked file cabinet in the principal investigator's office. No identifying information about the participants will be presented, or published, at any time. Participants also had the opportunity to withdraw any data source at any time without penalty. Only the principal investigator had access to files and audio tapes.

Trustworthiness and Rigor

Academic rigor and trustworthiness were ensured through a thorough review of literature, using member checks, using peer-debriefing strategies, bracketing, and keeping a subjectivity notebook. Saldaña (2003) stated that a thorough review of existing literature and by using multiple data sources to identify patterns academic rigor and trustworthiness could be obtained. Peer-debriefing will help identify emerging patterns as research data is reviewed (Lincoln &

Guba, 1985). Bracketing by having a trusted colleague interview the researcher can help identify and temporarily set aside his or her values and assumptions regarding the study (Fischer, 1994). Peshkin (1988) recommended that the researcher maintain a research journal to preserve subjectivity, as well.

In addition, in order to understand the participant's realities, triangulation between three sources of data collection and analysis were used. Denzin and Lincoln (2008) posited that because triangulation in itself is enough to describe a participant's reality, "triangulation can be a form of validity or an alternative to it" (p. 8). The raw data in this qualitative, arts-based study included several interviews, several observations, and photographs of the participant to explore the ways in which he uses sculpture projects to create authentic learning experiences amongst students at university level. Denzin and Lincoln (2011) stated that multiple realities coexist in a nonlinear manner because the reader encounters realities to delve in and become one with the multiplicity of contexts, and thus develop a new type of sensibility. Denzin and Lincoln (2011) stated that using a variety of methods shows an attempt to reach an in-depth understanding of the participant's experience.

CHAPTER IV: FINDINGS

Introduction

The purpose of this study was to investigate the experiences of two university art educators and two students currently enrolled in each of the professor's studio courses in a higher education institution in south Texas. The study's design used arts-based research (Barone & Eisner, 2012) to understand ways in which studio art instruction was used to create learning journeys that capture 21st century social and vocational outcomes. The data collected included participant interviews, observations university art studios (studio art classrooms), documents and artifacts, photographs, and journal entries. Findings are represented by text and/or drawings, and in some cases sculptures.

The purpose of this chapter is to present the findings in relation to the participant's learning journeys. First, I present the context, social setting of the study, the art studio (art class), followed by how the professors used art instruction with method and intention to create a model of learning for their students. The critical findings are organized around how the professors recognize that specific skills, knowledge, and identity are necessary in the advancement of a student's learning journey. The art students' experiences were organized and presented around critical themes of students' approaches to learning, artistic development, being enterprising, communication and support, and setting personal standards.

Arts-based research was used to help the reader to connect with both the participant experiences, as well as the researcher's experiences, through the expression of the form (Barone & Eisner, 2012). Leavy (2009) stated that visual art is essential to analyze and interpret data by offering the understanding of varying perspectives at multiple levels. As such, I created artistic renderings of the findings through sketches, and sculptural representations, to illustrate the

teaching, learning, and identity development as experienced by the participants. In addition, the participants shared certain personal artworks as a means to gain a deeper understanding of their individual learning journeys and some are presented in photographs, in this chapter.

Figure 17 presents the critical themes that emerged in the study in their pertinent theoretical frameworks. The main theoretical frameworks of the study are situated learning (Harrington & Oliver, 2000; Lave & Wenger, 1991), and cognitive apprenticeship (Deneen, 2010; Salmeijer, 2015; Stein, 2001), which both fall under the theoretical framework umbrella of social learning theory (Bandura, 1977). The themes that emerged in the study are listed next to the pertinent theoretical framework in which each theme belongs. In social learning theory, learning takes place through observations, intrinsic reinforcement, and the modeling process. Situated learning takes place in an authentic context, through social interaction, and collaboration. Furthermore, in cognitive apprenticeship, learners observe the processes of work in a community of practice, through legitimate peripheral participation (Lave & Wenger, 1991), thus making thinking visible. Students begin at the peripherals of knowledge in a community of practice and slowly progress toward the center of knowledge as new knowledge is acquired. Sections from Figure 17 are explained following each theme section to further describe the themes' relation to theoretical framework in which the theme belongs.

THEME	THEORETICAL FRAMEWORKS	
	Social Learning Theory	
	Situated Learning	**Cognitive Apprenticeship**
Context Social setting, artistic discourse, studio-art classroom	• The painting studio • The sculpture studio	
Studio arts Teaching Approaches to teaching: Ché	("Situated teaching" would be more applicable because professors are not on the receptive end.) The teaching practice is based on situated learning. • Art is personal. • Roots of painting. • Digging deeper: Experimental processes. • Element of exposure.	(The teaching practice is based on cognitive apprenticeship.) • Roots of painting. • Digging deeper: Experimental processes.
Studio arts Teaching Approaches to teaching: David	• The act of learning begins with an idea. • Intentional sequence of courses. • Object reassembly • Teaching of three-dimensional space	• The act of learning begins with an idea. • Object reassembly. • Teaching of three-dimensional space
Studio arts Learning Approaches to learning: Juan Carlos	• Artistic development: Finding our own path. • Inspiration	• Artistic development: Finding our own path. • Inspiration

Studio arts Learning
 	
Approaches to learning:
 	
Rosie
	• Learning is all about being enterprising
	
	• Enterprising requires a certain type of communication and support.
	
	   o The hoverer
	
	   o Off in an away world
	
	   o Sense of perfection
	
	   o Not on the same page
	
	• Setting personal standards and goals: Day of reckoning
		• Learning is all about being enterprising
		
		• Enterprising requires a certain type of communication and support.
		
		• Setting personal standards and goals: Day of reckoning

Figure 17. Critical themes in pertinent theoretical frameworks.

Context

Social Setting, Artistic Discourse, and the Studio-Art Classroom

The social setting is critical to the study. It is the point of interface between an environment and the interaction between people, and aids in the creation of an individual truth for the participant (Spradley, 1980) and as such for the study, takes place in art studios (painting and sculpture) of a south Texas university. Artistic discourse between the professors, students, the reader, and researcher also cannot be ignored in this study. Arts-based research allows for an engagement and understanding of human experiences using the visual arts in the process (Barone & Eisner, 2012). The mixture of artworks of the participants and the researcher, presented amidst 21st century educational initiatives, shaped the discourse surrounding determined individual learning journeys. Despite variation of artistic genres and specific themes encountered in the study, the researcher was moved by a desire to place art at the center of representation of the findings as a way to symbolize the artistic truth, for each participant, of the prevailing notion of their learning journeys amidst 21st century conditions of globalizations, innovations and technology.

It was evident from the institution's mission statement that studio art instruction takes into consideration preparing students to meet the needs of a changing world through innovation. According to Fullan (2001), organized social learning is measured against the collective purpose of the organization. Students at this institution are prepared to meet contemporary global needs. Aligned with the institution's mission, the art department, mission statement recognizes its role in strengthening the relationship between 21st century skills and global needs as extremely important to the vision of the university as a whole. The contributions of the art faculty, in reaching these desired goals, are visible through how they teach. For instance, at this particular

university, the expectation is that students graduating from this school and department will have engaged in experiential learning, developing leadership, teamwork, and organizational skills. Therefore, art professors must ensure that through their coursework they are able to integrate 21st century technology with service of expressing and understanding human experience, all the while engaging the students with the community through cultural enrichment and community outreach programs.

While the art department offers several different areas of study, this research focused on painting and sculpture. As per exemplar syllabi, the painting program's main objectives are to help students develop cognitive, psychomotor, and affective skills. In turn, the sculpture program provides students the opportunity to work in a variety of media to create works of art in three dimensions. The learning outcomes outlined in a syllabus form a sculpture course include "Demonstration of basic principles, language, and theories of contemporary sculpture; understanding how concepts and ideas are formulated; and displaying a working knowledge of the processes and techniques of material manipulation."

Both programs, painting and sculpture, are branches of the visual arts that may result in two types of Bachelor degree programs, the Bachelor of Arts (BA), and the Bachelor of Fine Arts (BFA) degrees, and a Master of Fine Arts (MFA) degree. The BA degree is a general art degree in which students engage in learning art skills and concepts by exploring a variety of art media, art techniques, and art history. The BA degree at this university requires a minimum of 57 credit hours of courses in visual art. In the BFA degree, students complete a required minimum of 75 semester hours in art courses. The BFA program is a professional art degree that requires a specialization area in one medium, and usually requires students to create a cohesive body of work and present it in a senior student exhibition before graduation. In addition, students

interested in pursuing a graduate degree at the university where this study took place can enroll in the terminal degree in studio art, which is the MFA. The MFA degree consists of the completion of 60 graduate hours. Students synthesize a body of works through an investigation, a cohesive body of artworks, write a thesis, and present a professional art exhibition of their body of artworks conceived during their MFA studies. Figure 18 shows the theme of *context* is only based on the theoretical framework of situated learning because this theme of learning in artistic discourse, and studio art learning is situated in the social context of the art studio, whether in painting, or in sculpture. This theme does not represent attributes of cognitive apprenticeship.

Theme	Situated Learning
Context Social Setting, artistic discourse, studio-art classroom	 • The Painting studio • The Sculpture studio

Figure 18. Theme: Context.

Inside the University Art Studio

The classroom in the field of studio-arts is referred to as the art studio, or simply, the studio. Art studio courses, specifically in the program areas of painting and sculpture, served as the social setting to the study. University art studios are characterized as a space dedicated to a particular art discipline to prepare students for the rigors of building specific sets of skills, so that students can achieve growth and mastery of their artistic expression. While the type of media used in a university art studio typically characterizes the art studio, university art studios might vary from one university to another, as well as from one studio to another. Yet, certain aspects of the art studio are common across studios around the world.

The painting studio. At the university level, the common primary medium used in the painting studio is oil-based paint. Therefore, the first sensorial impression as you enter a university painting studio might be the way the studio smells. The smell might be a mixture of paint, linseed oil, dammar varnish, and mineral spirits, each with their own unique scent, as students work independently form each other in a continuous pattern of mixing materials as they paint. These materials combined result in a palette of smells, each lingering in the space, as the wet paint sits, waiting to dry on the wet canvasses sitting on the easels in the room. For the artist at work, these smells are familiar, if not welcoming. To the non-artist, the smells may be strong and possibly offensive.

At the university where this study took place, undergraduate students work in a painting studio on campus. Graduate students typically use an off-campus painting studio, but in some cases, they may share workspace with undergraduate students in the campus studio. The physical space of the on-campus painting studio consists of one major room in the second floor of the art department building measuring about 4,000 square feet. This major room is divided into two spaces in which students from varying levels work. These two spaces comprise the painting studio where undergraduate painting students work. Easels line the peripherals of the room inside the two sections. Stretched canvases, with paintings previously started, sat on each easel. Students' used paint pallets sat correspondingly in each small painting area that individual students were working on.

Walking into this space, one will most often see students standing by their easel or sitting on a stool while they work. In one section of the studio, the beginning, painting students positioned themselves in their own personal space, as they worked side by side one another. The intermediate and advanced painting students work in the adjacent part of the room.

Inside the painting studio, students work independently according to the parameters of the current painting that they are working on, with the freedom to walk about the room, or take a break as needed. Students often speak to one another, to take time for a short break, or to look at one another's recent work developments. Sometimes, students confer with one another for feedback on what they are working on. According to one of the student participants of the study, Juan Carlos, much of the learning that takes place in the studio arts happens by students talking to one another and asking questions because many art students have backgrounds in a variety of other fields. During the time that students work on their art during class time, sometimes, students offer suggestions to one another regarding evocations about the artwork or regarding comments about the technical approaches to the work. While the professor works with a student one-on-one, the students work independently as they develop their painting through layering and manipulation of the paint on the canvases (see Figure 19).
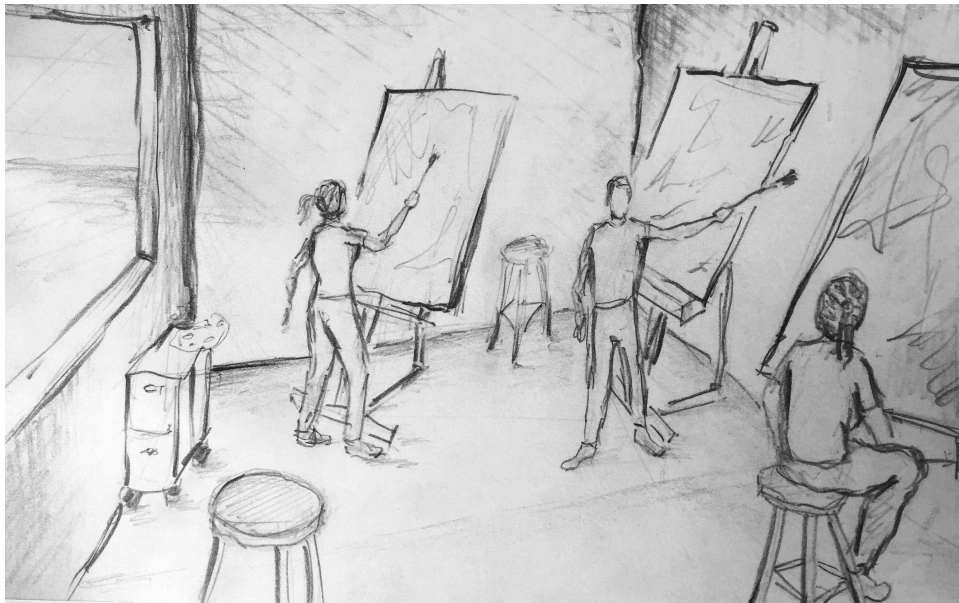
Figure 19. The painting studio.

As outlined in the graduate level painting course syllabus, the objective of the painting class is to investigate visual thinking skills, such as content, imagery and knowledge of historical

and contemporary art forms through painting. The visual thinking skills framework provides a teaching and learning platform that allows individuals to generate creative ideas, yet problem solve in an effective manner. Along with using various painting media, the painting art professor, Ché, teaches in a manner that allows students to engage in a methodological; step-by-step approach to thinking, in which the students break down complete problems into single and manageable components. Students then are able to develop lifetime creative methods of analytic thinking, and the ability to solve problems quickly and effectively. Students in the painting studio learn to incorporate individual expression, maintain visual organization, and use them as part of visual composition. Students also learn to create paintings by controlling the formal properties of painting, which include the elements of art and the principles of design.

Although, the assignments in the beginning painting class might be a bit more specific than the upper level courses, as students move up through the program, the assignments become more open ended. As per the course syllabus in Painting I, the course goals from the beginning of the program are designed to extend students' visual knowledge, critical thinking skills, as well as apply skills and concepts developed in the art department's introductory courses of drawing and design. The Painting I course performance objectives listed in the class syllabus include developing skills in critical thinking, concept construction, specialized vocabulary, and art history to develop cognitively. Students' preparation also includes development in manipulative skills, work-oriented skills, and specific process skills to develop psychomotor skills. Students develop behavioral skills such as positive self-esteem, and a positive attitude toward others in the art studio environment, while nurturing a respect for the facilities, and equipment, and the development a positive work ethic, and constructive work habits, as part of affective skills development.

In the beginning courses in painting, the assignments are a little more prescriptive. For example, as evidenced in the Painting I course syllabus, one of the first assignments planned over a two-week period included the development of skills and techniques by an "introduction to underpainting through the development of a simple still life with simple fabricated forms." This type of assignment is designed to build a strong foundational background. Another beginning assignment from Painting I is a second simple still life painting, but "using more complex forms and studies in Grisaille." Grisaille is a type of painting done in monochromatic tones of gray, which subsequently have forms with a sculptural look to them. These types of prescriptive assignments have narrowed down parameters and instructions, because they are more of a study than a creative endeavor. The goal of this type of assignment is to help students begin to think critically, and pull components from technical skills and knowledge, and pair them with historical contexts, while building a discipline of working in a studio successfully. As students grow in the program, they begin to buy-in, and start aligning themselves in such a way that helps them begin to match a variety of acquired components together to be used in the future. Through practice and feedback, students can springboard into an advanced form art development in the upper-level courses.

To begin to understand what the goal of a graduate level, studio art course is, first, the definition of the word assignment has to be clarified. As outlined in the class syllabus from the MFA painting class, graduate students are not assigned projects per se; a more accurate term is used to supplant the term assignment to dictate what product the MFA student is expected to produce. A more accurate term for what students in the MFA program create is a graded activity. The graded activities involve a process of interaction primarily between the graduate student and the mentor professor, the graduate committee chair. However, the process also involves

interaction between the graduate student, and other professors, other graduate students, as well as interaction with students in the lower ranks in the undergraduate program.

The graduate MFA painting students are graded based on progress throughout the semester, and are provided constant on-going feedback throughout the process. Students are also provided formal feedback in the form of a series of three formal critiques in which the student's graduate committee. The committee convenes to discuss concepts with the graduate student to help the student fine tune his/her progress in the context of content, imagery development, application of materials, and influence of issues or elements into the making of the work (see Figure 20).

Master of Fine Arts (MFA) Painting Semester Grading Criteria

Graded Activity
Critique 1
1. Graduates will begin to choose a selection of three contemporary artists who influence them in some form for their presentation
2. Graduates identify the four areas (content, imagery, application, and influence) for the analysis of their chosen contemporary artists.
3. Graduates select quotes from the master painter to connect the artist's influences to their work.
4. Graduates identify the same four areas (content, imagery, application, and influence) pertaining to their own work.
5. Graduates present at least 2 new paintings that are 40% complete, pointing out demonstrable ways in which the four areas above are evident in their work.

Critique 2
1. Graduates will present 2 paintings that are 70% complete, pointing out demonstrable ways in which the four areas (content, imagery, application, and influence) above are evident in their work.
2. Graduates will describe their paintings' content, composition, and style.
3. Graduates will explain the personal meaning of their paintings, how their ideas, and feelings came together in imagery, color, and form.
4. Graduates will articulate the choices they made in the production.

Critique 3
1. Graduates will present 2 paintings that are 100% complete, pointing out demonstrable ways in which the student grew and developed through their work.
2. Graduates will incorporate the analysis of an artist that they identified as having influenced them in their paper as they present their own paintings.
3. Graduates will show their presentation of three contemporary influential artists.

Final Grade
Critique 1	25 points
Critique 2	25 points
Critique 3	25 points
Presentation	25 points
Total	100 points

Grading Criteria:
Grading will be based on the six works you complete throughout the semester and determined by progress, craftsmanship and creativity. Of the six, the lowest grade will be eliminated. The letter grade and its corresponding numerical value is as follows:

"A" (90 – 100)
- Excellent work and consistent, exemplary effort
- A strong compositional sense (ordering of edges, shapes, values, clarity, detail etc.)
- All illusions of spatial movement and volume are clear and easily understandable

"B" (80 – 89)
- Above average work, shows considerable growth
- Compositional sense is becoming stronger.
- All spatial movement and volume are clear and easily understandable

"C" (70 – 79)
- Satisfactory work, some progress, good attendance

"D" (60 – 69)
- Work needs improvement, poor attendance
- Spaces and volumes are unclear and ambiguous
- Lack of control over materials and illusions

"F" (Below 59)
- Shows little progress and effort
- Insufficient growth in skill

Figure 20. Grading criteria.

The Sculpture Studio

The sculpture studio has a different first-impression than the painting studio. The presence of objects that are three-dimensional is more physical and varied. Whereas the painting studio is lined with a repetition of canvases throughout the painting studio, in the sculpture studio the presence of different three-dimensional objects, combined with bulky machinery from a resin sand mixer, to welding machines, and heavy-duty tables is noticeable. Because sculpture takes up real space and exists in real time, as each semester wears on, more and more physical objects occupy every corner of the studio.

The sculpture studio consists of four main working areas, three inside areas and one outside. Inside, one can find a wood workshop, a main sculpture working area, and a wax room. The outside area consists of a foundry area for metal casting using molten aluminum, bronze, or cast iron. Outside there is also an area for welding, and a burnout kiln for lost-wax molds. In the lost wax process, a wax positive form is encased in an investment mold, and heated in a kiln to burn out the wax, so that molten metal can be used to fill in the void created inside the investment mold once the wax has disappeared.

Sculpture students from the beginning, intermediate, advanced, and graduate classes, as well as the introductory 3-D design class, share the wood shop. Students from all other art studio disciplines such as painting, printmaking, photography, drawing, ceramics, and graphic design, also often share the wood shop. The wood shop also includes a small tool room. In the wood shop, there is a heavy-duty worktable to hammer or glue sections of wood together. Several major stationary tools, such as a table saw, a miter saw, a band saw, a drill press, and a belt sander line the perimeter of this space. The whole area is equipped with a dust-collection system.

The rest of the sculpture studio's sections are student-working areas (see Figure 21). The second room adjacent to the wood shop is the main indoor student working area. Several heavy-duty maple wood tables with stools furnish this room. One of the walls inside the main working space of the sculpture studio lie shelves where current student's works reside. Students wishing to work inside, and out of the south Texas heat, primarily work in this room. Otherwise, students can work in the outside covered working space. The last student working area is the wax room, where students can prepare wax blanks to be invested, or encased, in molding material such as a plaster-sand mix.
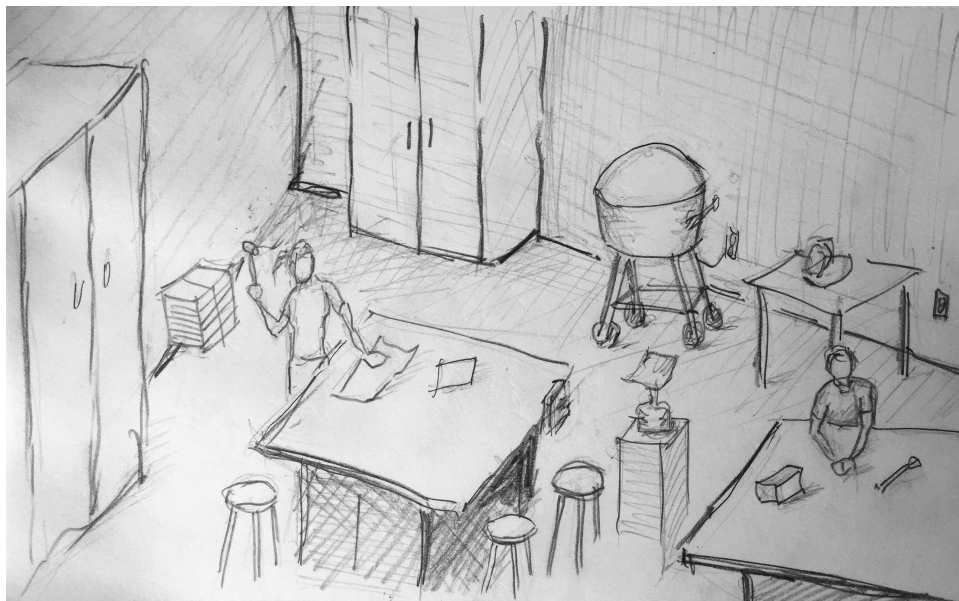
Figure 21. The sculpture studio.

As described in the syllabi for sculpture classes that David teaches, the objective of the sculpture program is to provide students opportunities to work with a variety of media and sculpture processes. Students learn to create artworks through foundry processes using aluminum, bronze, and cast iron. Students also learn to create sculpture through fabrication processes using steel, wood, ceramics, carving, and mold making. An emphasis for sculpture classes also includes generation of ideas and concepts, quality of the work, and development of

art content through sculpture, as well as the importance of craftsmanship. In addition, emphasis is placed on the importance of completing artworks is in sculpture classes because finishing artworks is crucial for reflection on the decision-making processes used in the creation of the works (see Figure 22).

Intermediate Sculpture – Arts 3304

First Assignment: Cast aluminum in green sand

This assignment deals with the development of a pattern using cardboard or combinations of found objects with modeled elements. Design a composition making a political statement as the basis of the relief. In today's highly charged political environment, choose a topic that resonates with your individual views and beliefs. In your sketch- books, begin drawing out symbols or forms that related to your concept. Using this menu of shapes, symbols and forms, design a composition that can be rendered in clay.

The size restrictions are 12" square maximum and the relief can rise above the surface up to 3 inches. Approach this as a drawing that casts shadows and shows the illusion of volume, perspective, etc. Texture works well in this process.

Approach: find a large enough board to accommodate your design with a 2" border. Using clay, foam core, plywood etc., establish the shape of the composition. Begin to build up from the surface using found objects or forms manipulated in wax, clay etc.

Once the composition is completed, a two-part resin sand mold will then be made from the clay pattern. This sand mold will capture the details of your design. After the mold has cured, the pattern materials are removed. The mold is then prepped to receive for the hot metal.

After the metal has cooled, the mold is broken away, the sprues and gates are sawed off and the cleaning of the aluminum relief begins. Faux finishes can then be applied to the aluminum to give it a contrast of colors before the cast can be either waxed or spray varnished.

Due date: First Critique, February 2

Figure 22. Sculpture, first assignment.

This assignment is an exercise in promoting student fluency in developing of content under specific parameters, as well as developing technically in metal casting techniques. The assignment addresses the needs of the intermediate-level sculpture student. The content parameters are that the artistic object has to speak to creating a political statement. The specific technical parameters have to include cardboard, found objects, and have to measure 12 inches in width and height, and have no more than three inches in depth. In addition, students learn the mold-making process using a two-part resin and sand. Then, as a class student learn the process of melting metal using a gas furnace. Students also learn as a class to pour the molten metal into

the mold. After the metal cools, students break the mold and clean the sculpture in relief, then apply a patina effect.

It is important to note that as students make progress into the subsequent advanced and MFA sculpture classes, students continue to cast sculpture using the same method. In the MFA sculpture class, in particular, students cast on an as-needed basis. Depending on the needs of the direction of their progress, students may be casting often or otherwise. In addition, MFA sculpture students work on their own conceptual direction, which means MFA students construct their own conceptual parameters.

Studio-Arts: Teaching and Learning

The artist educators and art graduate students who participated in this study presented diverse experiences and expertise, yet shared similar ideas about teaching and learning how to create art, specifically as it related to their disciplines. Ché, the art professor of painting, and David, the art professor of sculpture, qualified certain elements of their teaching as important: For Ché, it was that art is personal; for David, it was about building identity as an artist. In Figure 23, I present a visual of the natural progression and connectedness of the ways in which Ché and David describe their approaches to teaching to how Juan Carlos and Rosie, as graduate art students, describe their own personal journey to learning.
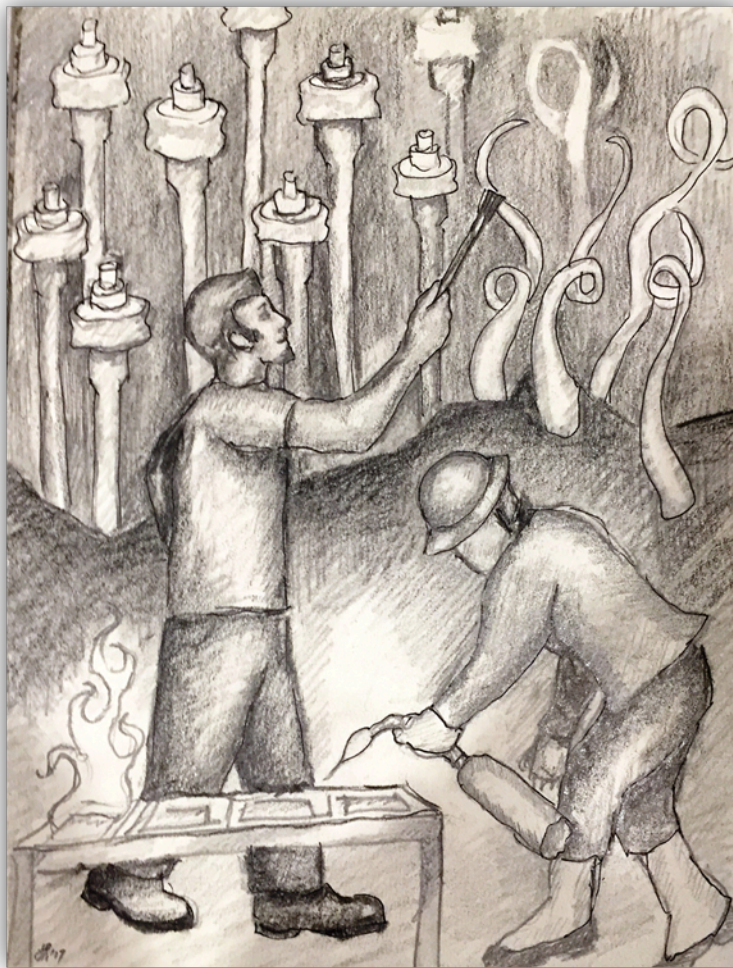
Figure 23. Teaching, a natural progression and connectedness.

The natural progression and interconnectedness of the ways in which Ché and David describe their approaches to teaching concentrates on students developing in their own work through the students' own efforts, research, and exploration. As a result, with the Ché and David's guidance, Rosie and Juan Carlos discovered their personal voice and developed their own personal system of symbols, or iconography, to express their own personal content and contexts. Ché and David's teaching approaches manifested themselves in the Rosie and Juan Carlos' ability to construct a personal contribution to world of art.

Teaching in the university art studio is distinctive from the traditional classroom in that it requires teaching that allows for the integration and application of learning (Lackney, 1999). The art studio is central to the art curriculum. Studio-art students work under the supervision of a master artist. Students in studio art begin with specific assignments in the beginning courses and gradually move toward creating more of an independent type of graded activities as student progress into the upper-level courses.

Approaches to Teaching

From the data, the ways in which the art professors engaged in teaching became clear, especially within the studio classroom centered on the helping students discover their identity as an artist.

Ché. While it is expected that teachers in general should have extensive experiences in the subject matter they teach, Ché, believes that teaching in the studio-arts is where art manifests into a psychological and social experience of "being human." Ché clarified that, whereas, non-studio-arts subjects, such as mathematics, biology, or chemistry, might be based more on a strict rubric, teaching in the studio arts is based on what pertains to "being human in society, and how to develop within the work."

Art is personal. Ché's approach to teaching revolves around the idea that relationship between art and self, and making it personal. He explains that the artistic details generated from a personal or particular happening experienced by the artist exists:

In a personal narrative there exists an object, an important component or ingredient, whether real of fictitious, that is very important to you. To someone else, it might not have any meaning, but to you, it is very important. So, the artist carries on that personal

85

narrative to other works of art without needing to explain it; so, it becomes the personal imagery.

This personal imagery can take the form of either a recurring theme in an artist's work, a style of working, or a discovered technique. For example, as evidenced in his class syllabi, by the time students reach the advanced or graduate level, the emphasis of the classes is on the investigation of students' individual expression through the students' use of alternative materials, and the combination of other art disciplines with painting media. Yet, he recognizes that developing personal imagery, helping students to recognize their own identity as an artist, he helps them to develop certain skills that in turn can ground a specific style, and reflect who the students is as an artist. He does so by first using traditional approaches to teaching painting.

Roots of painting. Ché begins the first painting class, Painting I, with teaching "the roots of painting." He begins by teaching students how to hold a brush, how to stand, how to stretch a canvas, and all the basics of how to make a traditional oil painting. He stated that some students believe they know how to paint when they first enroll in his classes, but in actuality, their experience is lacking. Therefore, he teaches them how to do it correctly. Ché believes that if students learn how to paint correctly, then "they can do anything after that."

Ché believes one misconception that many students have, when they begin taking his classes, is that a great painter is one who can paint in a photographically realistic manner. Therefore, Ché makes students ask themselves if they are trying to paint photographically realistic to "impress others or for themselves?" He added that once a student can prove that they can paint realistically to themselves, then they can put that aside, and begin "just making work." What seemingly looks like a contradiction, challenging students to question what is realistic and to whom, one of his first assignments for his students is to make a painting that is, strictly,

photographic. In doing so, he wants his students to find out about making a photographic painting, yet after mastering this technique, students "never have to do it like this again." Since, his students now know "how to, they don't have to use it as a crutch to show people how good [they] are."

Beyond the painter is an artist. Although, Ché's background is in traditional painting techniques and media, and he teaches the painting classes, he believes in helping students develop as artists as a whole, and not just a painter. Ché explained that the students who enroll in his painting classes have a wide variety of background training in painting. While some of his painting students have never picked up a painting brush in their lives, others have been painting for a long time. Ché believes in students exploring other media because it opens up more opportunities for them as artists.

Once students are past an initial apprehension about developing the freedom to create, Ché is able to shift the students' focus on what the "paint can do." Then, in the Intermediate Painting class, students focus on developing and synthesizing their own personal voice in their artwork. By the time students reach the Advanced Painting classes, students apply their synthesized personal voice in their work, while they shift their focus to exploring. As students "evolve, they get a little bit better, and they explore for deeper issues, or personal issues."

For example, during an observation during a summer Intermediate Painting class, Jose had students work on a painting assignment in which students had to research a master painter and adapt elements of the master artist's painting into a student's personal work. Students used the master artists style or technique into their own painting. During the art critique, which is a class session used as an evaluative session, at the end of the assignment time frame, in which

students and professor come together to discuss and offer constructive criticism of each students work, Ché asked students a series of questions,

"Who (artist) did you start with?

What did you do different (from the master artist)?

How did you evolve with your own imagery?"

The student had created a painting with focus on the principle of design of pattern, in conjunction with the element of art of shape, and created a work inspired by the work of artist Peter Halley (2016). Peter Halley is an internationally renowned artist who works predominantly with various reconfigurations of geometric colorful shapes. Ché's student had previously created a print inspired by this same artist. Therefore, the student wanted to create another artwork inspired by the same artist he had been researching. For his painting, Ché's student had added the image of a horse in addition to his geometric shapes, therefore adding the organic shape of the horse to contrast with the geometric shapes. The student's painting was very busy visually. The student explained that he wanted to portray a feeling of chaotic animal temper. Ché recommended to "Be aware of what you put out there." He advised to test the images on the painting to see if it would work better without the image of the horse by taking a picture of the painting and manipulate it electronically on a computer using a digital editing program such as Adobe Illustrator. Ché told the student specifically, in the public forum of the critique, as the rest of the nine students in the class listened for the nuggets of knowledge in the real-life lesson unfolding in front of them, also knowing that the critique of their work was next. Ché said, "It's up to you. It's super busy (visually speaking). Lose the horse to see it is less busy." He also suggested to the student to "allow the forms to exist" and to "play around with the negative

space" in the painting. Ché concluded his recommendation by suggesting to the student to keep a sketchbook, "tons of sketches."

Using himself as an example, Ché teaches his students that, although, he is a traditionally trained painter, he prefers to call himself an artist. For this reason, he tells his painting students, "Don't be a painter, be an artist. Allow yourself that opportunity to explore all media." This helps students to allow themselves opportunities to create while using their own developed personal imagery.

Digging deeper: Experimental processes. According to Ché, in the studio arts, students learn to dig deeper in varying degrees to develop further within their work. By teaching students to "push their own work" can catapult the student's work forward creatively to see what they can do with it. In the self-discovery process through this experimentation, students search to find something that is important to them. However, this "pushing their own work" requires the acquisition of skills in conceptual development. In the context of a traditional Painting course, Ché teaches using an instructional design element that captures experimental processes.

Students must be willing to destroy in order to create. Ché has an expectation for his students to be willing to destroy their own work as part of the process of creating because according to Jose, some creations cannot be planned, they can only be discovered through experimentation, and through accident. By teaching students to "push their work forward" to see "what they can do with it," is a way that Jose uses to lead his students to find their own imagery and finding their own voice.

In the pursuit to help students "dig deeper," Ché pairs his assignments in conjunction with the use of contemporary materials. Ché is always looking out for new and creative assignments. For instance, the process of surface manipulation has been traditionally performed

for years on canvas, Mylar, or other surface materials. Ché described Mylar is a translucent drafting film that is preferred by artists because of its quality.

During an observation of one of Ché's painting classes, he used a contemporary paper used in modern applications called, Yupo paper. Ché described Yupo paper as an opaque version of the drafting film, Mylar. Yupo paper is a synthetic paper made of polypropylene (yupousa.com). Although, Yupo paper originated in Japan in 1969, the contemporary developed version of this synthetic paper has the qualities of smooth, white, paper. Yupo paper also has the additional properties of resin film because it is waterproof and chemical resistant. It was the combination of these properties that made Yupo paper the ideal material for Ché's assignment.

What was important about using Yupo paper to paint on was because with a traditional media such as canvas, the applied paint would immediately begin to sink into the canvas' surface. Whereas, with the Yupo paper, the paint is suspended on the surface for a while before it adheres to its surface. This allows for further manipulation of the paint by "smearing it, moving it, or twisting it." Because oil paint, by nature takes time to dry, the painting remains "malleable, and movable."

Using these attributes of the Yupo paper, Ché challenged his students with an exercise that required students to deconstruct a newly created and completed portrait by manipulating the paint and wiping away portions of the portrait. The objective of the lesson was for the students to problem-solve using critical thinking through the synthesis of the final deconstructed image. Ché stated that the exercise was a way to teach students "whatever you do, you can always fix it. If you ever make a mark, it can be fixed. You can always erase it. It can always be twisted." Students then explored deconstructing portraits using different media. Students deconstructed the portrait on paper, then on canvas, then on Mylar, and finally on Yupo paper. The objective was

to see if students could find something that had not been done before, and see what they could do with it. As a result, one of the students, for example, took his completed painting home, carefully dripped acid on it, used mineral spirits to move the paint around the remaining paper, then burned sections of it. As the acid ate away at this surface, it created what Ché called a "beautiful imagery."

Elements of exposure. Today, students have more access to modern-day technological tools, access to information on a global scale, as well as abundance and global accessibility to materials through either internet ordering, or modern-day accessibility through the retail industry. According to Ché, by helping students to open themselves to explore everything they can do with their own work, painting class becomes more than "just painting." At the same time, Ché believes that travelling internationally "as much as you can" is important to get a "different sense of community, a different sense of culture, and to see how the experience carries back into your own artwork." He, himself, lived and taught in New York City, and credits numerous opportunities to see original artworks as extremely valuable to one's development as an artist.

Ché stated, "Exposure makes a difference for students. In New York City, if the student wants to see how Van Gogh painted, for example, you can go to the Metropolitan Museum and see an example of Van Gogh's painting in person." He continued, "that painting on the wall is a better teacher than one can ever be" because it is the existing example of what one, as a teacher is trying to explain. If a teacher's objective is to teach about the Dutch, Post-Impressionist artist, Van Gogh, seeing the original painting makes big difference as a teaching tool. For students, and teachers, that live in south Texas, far away from places like New York City, there are fewer opportunities to expose students to some of the master artists and their work. Recognizing that

many of his students are from rural, suburban areas, Ché encourages students to consider moving to what he considers a massive metropolitan city, one that has a well establish arts community.

Under Ché's approaches to studio arts teaching, see Figure 24, the theme of *approaches to studio arts teaching* for Ché belonged under both theoretical frameworks of situated learning as well as cognitive apprenticeship. However, under situated learning a more appropriate heading would be *situated teaching* because as a professor, Ché was not on the receiving end of learning. Furthermore, the theme of *element of exposure* belonged only under situated learning primarily because this theme involved the learner learning from situations. The themes of *art is personal, roots of painting,* and *digging deeper: experimental processes* were part both frameworks because Ché teaches in the context of his teaching method.

Theme	Situated Learning	Cognitive Apprenticeship
Studio arts Teaching Approaches to teaching: Ché	("Situated teaching" would be more applicable because professors are not on the receptive end.) The teaching practice is based on situated learning. • Art is personal. • Roots of painting. • Digging deeper: experimental processes. • Element of exposure.	(The teaching practice is based on cognitive apprenticeship.) • Art is personal. • Roots of painting. • Digging deeper: experimental processes.

Figure 24. Theme: Ché's approaches to studio arts teaching

David. David's approach to teaching centers on the idea that art is about "filling in the blanks" in your own experience. He believes in helping students identify their own identity in their own work. This helps students recognize what they have to say, and how they can say it

92

using three-dimensional space through sculpture. David helps students create experiences that "build confidence, one step at a time." Through a well-rounded background in sculpture techniques, students gain the confidence to fuse an idea in three-dimensional space.

David carves out time during his day to work with all students. For him, it is important to find out about each, and every, student, and work individually with students' strengths. It helps that David identifies students' interests early in the program. He explained that finding out about the student, as an individual is important because some students come with an abundance of experience, while others come with no experience, at all. By finding out about the student as an individual, he is then able to gain the student's confidence and in turn, is able to work one-on-one which also helps students develop their own self-confidence. In this way, David is able to offer new experiences, processes, and techniques to students. David stated, in turn, "Confidence builds momentum in a student's career." In art, it is important to take the experience, make it your own, and turn it into something much, much, bigger.

The act of learning begins with an idea. Artwork begins with an idea and in turn so does learning. David explained that early in his career, students were asking him the question, "how do you get an idea?" After thinking about it, he recognized that this skill set was elusive and needed to be addressed within the curriculum. To introduce the concept of ideation, in a manner that they can connect with, David begins by having students use themselves, first, as a source object in one of his assignments. Students, in addition to themselves, use nature and natural forms, as well as "man-made" objects to serve as source objects that David uses to help students compose. These source objects present a menu of shapes and forms by which may serve as a catalyst for student inspiration, which David calls "personal data of imagery." As such, he

revised his curriculum to help students arrive at ideation in a progressive way by building on courses from introductory classes to advanced classes in a systematic process.

Intentional sequence of courses. According to David, sculpture courses build on one another beginning with a strong foundation in a 3-dimensional design class. David begins to teach the basic skills or the fundamentals of activating three-dimensional space in 3-D Design and in Sculpture I. He introduces assignments that deal with assemblage of various materials and objects, and mold-making techniques. Some of the basic sculpture processes and materials that students learn to use, as they create sculptural forms, include the use of found objects, wood, and plaster. David's objective is to instill in students that development in the use of three-dimensional space is a type of "catalog of process and fundamentals from which to build upon."

In Sculpture I, students use plaster to make molds, as well as for casting the finished product. Students then progress into using more advanced and complex mold-making materials, such as silicone rubber, sculpting wax, and resin-sand molds. In this course, students also learn to cast sculptural forms using metal. Bronze, aluminum, and iron are some of types of metal used to create sculptures in David's class.

By the time students reach Sculpture II, they begin using more advanced processes and techniques. Some of these processes and techniques include metal brazing, and using an acetylene torch to work on metal. In Advanced Sculpture, it is common to find students in David's class using metal inert gas (MIG) welding. In MIG welding, a welding machine is used to create an electric arc between the metal piece and a wire electrode from a spool in the welding machine, which causes the metal to melt and become fused together. The amount of artwork produced by students in David's classes depends on the level of the classes. Students in the beginning course, Three-Dimensional Design, work on six to eight quick assignments in a

semester. Some assignments in this class might take longer depending on what David is trying to transmit to their experience in three-dimensional design. Sometimes these assignments involve multiple steps to arrive at a final level. Students in the Advanced Sculpture class have four or five assignments in a semester. Graduate sculpture students do not have assignments because they work toward synthesis of their thesis projects. They are continually producing art works working towards that goal by attempting an innovative use of materials and processes.

Object reassembly. Beginning with the 3-Dimensional Design class, students have an opportunity to work with space and the three-dimensional form. For students, for whom this class is the first time that they experience working with 3-dimensional space, David uses an assignment that has proven successful over the years, which he calls, "Object Reassembly." In this assignment, students bring a manmade object. Students then visually break down all the parts that make up the object and draw them in their sketchbook. Then students use the sketches a type of "menu of shapes" to compose a freestanding artwork that looks nothing like the original source object. Through this assignment, David teaches his students how to see shapes and "potential forms" in the everyday world around them. In this way, students can potentially find, in everyday objects, how they can use those shapes and forms to create unique three-dimensional forms.

Teaching manipulation of three-dimensional space. In working with MFA students, David's expectations through learning objectives require students to demonstrate proficiency in the principles of three-dimensional composition through processes, materials, and techniques through their completed work. Graduate students develop a personal voice and style. Students develop their specific vernacular through professional competency and depth of knowledge in their comprehension of the formal language of three-dimensional design, and composition.

95

Students research an independent creative direction to develop a pre-thesis concept. Critiques are the modus operandi for assessment, but the final accomplishment to achieve the Master of Fine Arts degree in sculpture is the written thesis and sculpture thesis exhibition.

In David's approaches to studio arts teaching, see Figure 25, the themes of *approaches to teaching*, *the act of learning begins with an idea, object reassembly,* and *teaching of three-dimensional space* were part of both theoretical frameworks. During this type of teaching, David's teaching involved teaching concepts that work with students' own experiences, yet involve teaching using three-dimensional space in the context of creating artwork in an art studio and preparing an art exhibition, which are the skills used by professional artists as well. The theme of *intentional sequence of courses* only pertained to situated learning because this theme deals with the planning aspect of the curriculum and not the active learning process.

Theme	Situated Learning	Cognitive Apprenticeship
Studio arts Teaching Approaches to teaching: David	• The act of learning begins with an idea. • Intentional sequence of courses. • Object reassembly • Teaching of three-dimensional space	• The act of learning begins with an idea. • Object reassembly. • Teaching of three-dimensional space

Figure 25. Theme: David's approaches to studio arts teaching

Approaches to Learning

Juan Carlos. Juan Carlos, as a graduate painting student, and despite already having taught art to others (high school students), continues to develop as an artist. He seeks to learn more about broader concepts in art theory, art history, and how to incorporate those broader concepts to his studio practice.

Artistic development: Finding your own path. Beyond artistic developments, Juan Carlos is eager to learn about the business aspect of the art world. Here, he draws from Ché's, his painting professor, and experiences as a New York gallery director to learn about how to price artwork for sale and how to market artworks. Juan Carlos stated, "Given his [Ché's] background work in the gallery system in New York City, all those years, I kind of want to learn the business side of it from him. I've already started to." In the art gallery system, art galleries represent artists as an agent to exhibit the artists' artwork for publicity and profit. Juan Carlos has learned how to get art gallery representation as an artist, or how to arrange to have an art exhibit in one. He said he learned that art gallery personnel scout "group shows," or art exhibits that are comprised of several artists exhibiting their work together in the same art exhibit. If the gallery scout likes what they see in an artist or their work, they may recruit the artist for a solo exhibition. One way he learned to network with galleries is by reaching by sending out invitations to all art galleries in the area where he might be having an exhibition.

A clear distinction to Juan Carlos' approach to learning surrounds reflection and decision-making. Juan Carlos believes that that to grow as an artist, it is important to understand how "learning is about finding your own path, your own abilities, and your own sense of problem-solving." He mentioned that he remembers being 18 years old and thinking, "I'm going to be the next 'big thing' in tattooing," or "I'm going to be the next biggest thing in illustration." Yet he had no idea how that was going to happen and no one really talked to him about how to go about it, back then. However, Juan Carlos pushed forward and that despite financial hardships, he enrolled in college soon after graduating from high school.

Fast forward to present day, he believes that becoming and being an artist is about more about discipline, where one has to establish a routine, and have a solid work ethic. He shared that

while, artists "have flexibility, you have to respect the field and spend the time and do the work." For him, university student-artists committed to the profession need to treat the discipline of studio art along the lines of a nine-to-five job. He adds, "I hate the stereotype that the artist lives in the studio, is penniless, and eating their paints, doing nothing but smoking cigarettes and drinking booze" because most of the artists he knows "work two jobs, go to school, put in the hours, do the work."

Becoming a practitioner in the art world requires learning the specific artistic professional requirements, art-making techniques and disciplines. The university's Department of Graduate Studies is helpful in this regard. For Juan Carlos, he feels that his university art program prepares students for a vocation in the arts includes a "very sharp focus" on several aspects of becoming a professional artist and best practitioner in the art world. For instance, as the undergraduate level, students train on how to write grants, how to look for fellowships using a variety of websites, and how to look for graduate programs. Juan Carlos added that at the graduate level, students are taught how to put a packet together to submit artwork to a gallery or a museum. Graduate students are also prepared on how to do a lecture, and how to submit an employment application to teach at a university or community college.

Inspiration. As part of the preparation in the pursuit of the MFA degree, the expectation for Juan Carlos is to synthesize a group of artworks that represent a conceptual body of work. In many ways, his humble beginning and coming from a working-class family served as an inspiration for his thesis. Juan Carlos chose to make a statement through his artworks, using the strength of the working class as a metaphor to describe how the working class is the driving force that society relies on to move forward. Juan Carlos chose to represent his iconography, or the symbolic imagery of his works, by exploring historical elements of the auto industry. For

example, the Chevy small block engine has a historical reputation as a workhorse engine Chevy used for decades in many of its automobiles. Chevy used it in small cars, big cars, fast cars, and working trucks. So, Juan Carlos wanted to capture the aura that the Chevy small block engine had historically as the workhorse engine that became the heart of the Chevy auto industry.

As part of his aesthetic representation, Juan Carlos included sensory cues that prompt the viewers' brain to associate his artwork with characteristics relating to auto mechanics (see Figure 22). Juan Carlos moves the viewers to begin to understand his cause by creating emotions and feelings through the imagery and symbolism that Juan Carlos uses in his paintings. For example, an auto mechanic might experience the smell of motor oil and might have grunge on his clothes. By incorporating motor oil as part his paintings, Juan Carlos forces the viewer to, perhaps, smell a hint of scent of motor oil while observing one of his paintings. Juan Carlos might include a grungy feel to his paintings by combining painting techniques and effects on the paint surface to complement the effect.

Figure 26. Art and Association.

The Figure 27 exhibits Juan Carlos' approaches to studio arts learning, in which the themes of *artistic development: finding our own path,* and *inspiration,* were part of both, situated learning and cognitive apprenticeship. Learning for Juan Carlos was about learning how to be a practitioner in the art world, reflection, decision making, and developing as an artist. Juan Carlos' approaches to learning also included finding the inspiration to develop conceptual creations as part of evolving in the Master of Fine Arts degree.

Theme	Situated Learning	Cognitive Apprenticeship
Studio arts Learning Approaches to learning: Juan Carlos	• Artistic development: finding our own path. • Inspiration	• Artistic development: finding our own path. • Inspiration

Figure 27. Theme: Juan Carlos' approaches to studio arts learning

Rosie. Even as an undergraduate, Rosie said she always felt that printmaking was too flat, having to print on paper, even though one can potentially print in other types of surfaces that may not be flat. On the other hand, in 3-dimensional design, she found a freedom to work with "non-flat" 3-dimensional forms. As an undergraduate student, this newly found love of 3-dimensional media, paired with an encouraging sculpture faculty that was non-restrictive as to what could be accomplished, helped spark an interest in Rosie to pursue continuing to work in sculpture, even if that meant waiting until her MFA.

Learning, it is all about being enterprising. Rosie is enrolled in a three-year MFA program, specializing in sculpture, yet when she first arrived in south Texas and enrolled in the program, she admits she lacked crucial training in indispensable methods needed to make sculpture. However, she remained receptive to instruction. According to her, she maintained an attitude of "I know nothing, teach me everything." She prides herself on being an outspoken person, asking many questions regarding tools and their use, processes, and other technical aspects of sculpture instruction.

While Rosie is a very independent learner, who enjoys learning and being taught she also wants learning to be enterprising. In many ways, how Rosie described learning as enterprising fits well with how by entrepreneurs used the term, particularly involving risk, innovative

approaches to solving problems, coping with uncertainty and change (OFSTED, 2004). When Rosie graduated with a BFA degree in Illinois, a junior faculty professor recommended that she pursue a MFA degree in south Texas. Upon acceptance into the program, she was both scared and excited. Not being sure where to begin, Rosie said she defaulted into what was familiar territory.

As an undergraduate student, she had worked with expandable polyurethane foam, a type of material that sprays out of an aerosol can, to make organic forms made of lightweight polyurethane. Therefore, when she began her graduate studies in south Texas, she began by making forms by using polyurethane foam again. Using silicone rubber, she made molds of the polyurethane forms. From the replicas created with the molds, Rosie then cast the forms using molten aluminum. Using the experimentation process, and trial and error, Rosie began hanging the newly created aluminum forms. After she partially painted one of the forms, a fellow graduate sculpture student, gave her some feedback and observed that the painted form had an exceptionally interesting aesthetic appeal. She then began coloring more of the forms. Next, she tried applying a variety of chemicals to the surfaces of the forms to create a patina effect. The patina did not create the desired effect. Instead, the aluminum surface of the forms, tuned white, gray, and crusty. On one of the forms, Rosie added copper leaf to the surface and salt. The surface turned teal, and began to shed pieces off from the surface. Rosie observed that the active changing of the forms' surface was as if it was technically alive.

After returning from a vacation with her parents during one of the school's breaks, Rosie observed that one of the forms had developed some sort of crystals on the surface. She was pleased with the direction these changes had taken, so she decided to follow those changes as an inspiration. Since then, Rosie has created forms that include other type of crystals in a more

controlled fashion. Some of her sculptural forms have a variety of crystals growing on them. Some of her sculptures have sugar crystals. Other forms have crystals from Epsom salt. The quality that Rosie liked about her work was the ephemeral appeal of creating sculptures that "did not stay how they were."

Discovering the making of organic sculptural forms with crystals growing on them propelled Rosie's work into its current direction of artistic development. The culminating stage of Rosie's Master of Fine Arts degree involves forms that have textures that seem to come from nature. After creating forms with natural-looking textures, she takes a mold of them using silicone rubber. By having a mold of the textural form, she can reuse the forms in a variety of infinite configurations. After creating a newly configured form, she casts the forms using aluminum or bronze metal. The final forms resemble different unusual organisms, or bases that include a combination of forms with crystals growing on them.

Enterprising requires a certain type of communication and support. Rosie believes in being direct and to the point when communicating. She believes in being open-minded. If something needs to be changed, she believes in working towards changing it. Rosie said her Mom taught her to be that way because her Mom would say, "well, if you don't like it, change it, or get the hell out of the way." However, this learning to be enterprising did not always work well for Rosie. She mentioned that she had a professor during her undergraduate program that did not like her self-proclaimed "bluntness." In Rosie's opinion, she did not complete a specialization in sculpture, though she lacked only three courses, because this particular professor did not understand her. Interestingly enough, Rosie attributed much of the learning through being enterprising to ways in which she engaged with her professors. While Rosie has worked with a variety of professors, she favors working with those who are enthusiastic,

resourceful, and energetic. Though she readily admits, she "prefers to be on her own, and then ask questions." Rosie stated that she has a professor that teaches this way. She shared, "If you have a question, ask him. If you don't have a question, he'll leave you alone until, he sees that, hey you should be asking questions about that." Some interactions with other professors/instructors run along a continuum that either complemented or clashed with her self-proclaimed "blunt" personality.

The Hoverer. Rosie goes on to describe one of her professors as a hoverer. A hoverer, according to Rosie is one who is constantly looking over your shoulder, being overly cautious and over protective like a father would. She did not particularly like this type of professor because she did not like being "fathered." She felt like she already had her real father, which did a good in his role as a father. Rosie felt frustration with this professor because she felt he took too long to work through and explain a particular sculpture process. She felt that what took him a couple of months to work through, should have taken a week to teach. Though not to be negative about this professor, Rosie shared that she actually enjoyed this particular professor's insights and feedback and that she felt she learned a lot during this particular professor's critiques or discussions about her work, individually of as a class.

Off in an away world. Rosie described another type of professor as being, "a little bit off, in an away world." Rosie stated that working with this type of professor she realized that sometimes she was going to on the same page with this professor and sometimes she was not. On the days when student and professor were not on the same page, she would say to herself was not listening to what they had to say for that day. The following day they could resume constructive a dialogue. She believed that one of her professors in this category had a form of attention deficit disorder (ADD), as she herself does. While she connected strongly at times with this particular

professor, she felt she either had to keep the professor from veering into a stray tangent than what was the focus of the conversation where she needed help.

Sense of perfection. As mentioned before, Rosie came out of a BFA program with a specialization area in printmaking, and without the completed specialization in sculpture. As a result, she was lacking some of the pre-requisite skills needed to embark on a comprehensive sculptural emphasis as part of a terminal degree in sculpture. In the MFA program, she soon discovered that some professors require graduate students to do things perfectly. In Rosie's experience of working with some professors who are very good at what they do, some can be very particular and expect graduate students to be perfect. Rosie stated, "We are grad students. We can't do 'shit' perfect. We're failures, until maybe our last year. By then maybe, we will be a tiny less failures."

One particular type of professor that Rosie described as having to work with, as an MFA student is the type described as strict and with a sense of perfection. This type of professor is very good at what he does, and is very particular. Yet, this professor had his quirks such as a penchant for having everything being on a timely manner. Rosie exclaimed, "Don't let him tell you three times because then you'll be fucked." She believed this professor wanted to things to be done perfectly.

Not on the same page. Another type of professors is of the type that Rosie described as not being on the same page. This type of professor exhibited characteristic traits perceived as not compatible with Rosie's own personality. On one occasion, Rosie believed that a certain professor in this category did not talk well to women. She came to this conclusion by observing that this professor only used one-word answers when answering her questions. She believed that the professor appeared to be nervous when in the proximity of women. According to Rosie,

despite this particular professor's demeanor, she longed to learn more from him because she wanted to obtain more training in her medium, which was printmaking. However, in the end, she decided not to pursue this professor's medium because she felt awkward around him. As a result, when Rosie needed to use the printmaking equipment, in this professor's studio, Rosie used it at night when no one was around in that studio.

Setting personal standards and goals: Day of reckoning. For Rosie, graduate school has been very difficult. She stated that although, graduate students are learning a lot, sometimes it is very difficult to come up to these professors' standards. As a graduate student, art students have to present an exhibition of their artworks developed while in the graduate school program, along with a written thesis. What Rosie has experienced has been that, as part of the goal to have a thesis show that is up to standard with an advanced degree, she has also set personal standards and goals for herself. Therefore, at the end of every semester, and at the end of every year, she lays out what she has accomplished, only to realize that the she has not reached the goal that she had set for herself. For example, after not completing the 20 artworks she wanted to accomplish by the end of the semester, Rosie said, she told herself "It's not failure; it's learning how much you can do." However, at the same time, deep inside, she was also cognizant of the fact that she had not achieved what she wanted to achieve.

Studio art students participate in critiques at the end of their assignment. Students and the professor engage in a discussion of each of the artworks by every student in the class. Rosie described these critiques as a point of reckoning. In her words, "Well no, this is successful. That is not successful. This, parts of this, and all of that 'sucked.'" Rosie stated, "There are many other things that come into play, during development as a student." She described having a "dull feeling of having failed yourself, but in a way you haven't." As shown in Figure 23, while her

professors may provide positive feedback telling her that she has actually accomplished

something by telling her, "you actually accomplished something. You made something. It's not

the greatest, but we can work with that," Rosie said it is at this point that sometimes she gets a

feeling of "failing and trying to accomplish all of it at the same time."

Figure 28. Rosie with one of her professors.

In Rosie's approaches to studio arts learning, Figure 29, Rosie's emergent themes, of

learning is about being enterprising, enterprising requires a certain type of communication and

support, and *setting personal standards and goals: day of reckoning,* were part of the two

theoretical frameworks, situated learning, and cognitive apprenticeship. However, although the

theme, *enterprising requires a certain type of communication and support,* was part of both

theoretical frameworks, its subsections did not fit under cognitive apprenticeship because, *the*

hoverer, off in an away world, sense of perfection, and *not on the same page,* represented the

types of teaching, which in Rosie's opinion, were not compatible with her learning style. The rest

of the themes are part of both theoretical frameworks because these themes represent Rosie's

approach to learning through a love of three-dimensional media, and encouraging non-restrictive

faculty that lead Rosie to approach learning with *ganas,* a fearless and energetic desire for learning.

Theme	Situated Learning	Cognitive Apprenticeship

Studio arts Learning
 	
Approaches to learning: Rosie
	• Learning is all about being enterprising
	
	• Enterprising requires a certain type of communication and support.
	   o The hoverer
	   o Off in an away world
	   o Sense of perfection
	   o Not on the same page
	
	• Setting personal standards and goals: day of reckoning
		• Learning is all about being enterprising
		
		• Enterprising requires a certain type of communication and support.
		
		• Setting personal standards and goals: day of reckoning

Figure 29. Theme: Rosie's approaches to studio arts learning

Summary

The purpose of this study was to investigate the experiences of two university art educators and two students currently enrolled in each of the professor's studio courses in a higher education institution in south Texas. Arts-based research (Barone & Eisner, 2012) was used to understand ways in which studio art instruction was used to create learning journeys that capture 21st century social and vocational outcomes. Interviews, observations of university art studios (studio art classrooms), documents and artifacts, photographs, and journal entries were used to

collect participants' data. Text and/or drawings, and in some cases sculptures were used to represent the findings.

This chapter presented the findings of the participant's learning journey experiences. The context, social setting, of the study, the art studio (studio art classroom), were presented, along with how the deliberate methods that studio art professors used in studio art instruction created student learning. The critical findings centered on how the professors recognize that specific skills, knowledge, and identity served students to construct their learning journeys. The critical themes identified surrounding students' learning journeys centered on students' approaches to learning, artistic development, being enterprising, communication and support, and setting personal standards.

Arts-based research was used to communicate in visual form in conjunction with textual format the experiences of the participants as well as the experiences of the researcher (Barone & Eisner, 2012). Analysis and interpretation of data using artistic representations allows for a deeper expression of meaning (Leavy, 2009). Through the creation of artistic renderings of the findings, sketches, and sculptural renderings illustrated participants' teaching, learning, identity and development. In addition, a selection of images of the participants' personal artworks was presented to provide a deeper understanding of the participants learning journeys.

CHAPTER V: CONCLUSIONS, IMPLICATIONS, RECOMMENDATIONS

The purpose of this chapter is to present a précis of the study, conclusions from the results, implications generated from the results, recommendations for action, and to present my own learning journey as a result of conducting this study. The first section of this chapter summarizes the study by presenting the statement of the problem, purpose of the study, research questions, and methodology. In the second section, the intersection of methodology, theoretical framework, and literature review provides the framework for synthesis of the conclusions of the findings. The third section presents the study's implications from the findings. The fourth section provides recommendations and considerations for future studies, followed by an explanation of my own learning journey.

Précis of the Study

Statement of the Problem

Herrington and Oliver (2000) stated that education should culminate in skills that provide development of competent and meaningful problem-solving skills. Yet, the pinnacle of education in a person's life should culminate in an epic feat. Education is life changing, and pivotal in a person life because education transforms people. Education should culminate in a momentous apotheosis in a person's life. Simply through narrowly scoped standardization, testing, and accountability, and without an artistic component, education cannot realistically reach such a level of quintessence. Studio arts education plays a significant part in a student's development, using educational competencies, such as problem-solving skills, and critical thinking, and uses them in a meaningful and beautiful way that the student may be able to contribute back as a member of society and affect change in society.

In our contemporary world, divergent ideas abound. Thereupon, in our contemporary world, artistic development is critical to a greater degree than ever before. The ability to unify divergent ideas is essential in today's world because art provides a venue to synthesize new ideas visually without necessitating the use words (Gardner, 2008). As such, in today's world, artistic development is fundamental.

Research into undergraduate and graduate studio art has been limited (McKenna Salazar, 2013). Even, in the midst of a revivified interest in artistic development, little is known about how university studio art educators approach the engaging of students in learning experiences that are situated and/or authentic in relation to contemporary conditions of globalization, innovation, and technology. University-level, studio art instruction can provide an authentic context for learning because art instruction resembles a real apprenticeship in the acquisition of artistic skills, in which the student is the apprentice, learning processes from the art instructor, the master artist. However, art instruction may also provide the constructs for situated learning and cognitive apprenticeship, through student apprenticeship of cognitive skills, as well.

Logan (2013) stated that the artistic phenomena that occur inside the studio in the university setting are unclear to those outside the art discipline, particularly those experiences in the studio arts. Therefore, it is imperative that educational leaders and policy makers at all levels of the educational system develop the fluent understanding of the studio arts context regarding learning to influence educational policy. On that account, this study exhibits the contextual and discursive perspectives of studio art educators and studio art students to detail what occurs in the university art studio, and to delineate and hone insights surrounding art education.

Purpose of the Study

The purpose of this study was to investigate the experiences of two university art educators and two students currently enrolled in each of the professor's studio art courses in a higher education institution in south Texas to understand how art instruction is used to create learning journeys that capture 21st century social and vocational outcomes.

This study used two research paradigms, constructivism and arts-based research to explore the contextual and discursive perspectives, of both, university art educators and students as a means to not only describe what takes place inside the higher education art classroom, but to also inform and further explore perceptions surrounding art education.

Research Questions

1. How do art educators in higher education describe using studio art projects to create learning journey experiences for their students?

2. In what ways do art educators in higher education demonstrate the use of studio art instruction in their courses in relation to twenty-first century social and vocational outcomes?

3. What are the learning journey experiences of students in higher education who are engaged in art instruction?

4. In what ways do art students demonstrate the principles of liberal arts learning in their professional learning?

Methodology

This qualitative study used constructivism and art-based research (ABR; Barone & Eisner, 2012) to investigate the contextual and discursive perspectives of two university art

educators and two students enrolled in each of the professor's studio courses. While qualitative research investigates the "meaning, people bring to situations in a natural context" (Denzin & Lincoln, 2011, p. 3), ABR can expand the possibility of multiple, diverse realities and understandings (Butler-Kisber, 2008). Arts-based research can counteract the predominantly linear nature of written texts, thus increasing voice and reflexivity in the research process (p. 268). Visual representations can access the subconscious by circumventing "conscious interpretive processes" needed to process written texts (Leavy, 2007, p. 215). Withal, two art educators and two students from a university in south Texas participated in this study. Qualitative data collection methods included interviews, observations, documents and artifacts (Jorgensen, 1989), photographs, and journal entries represented by text and/or drawings. Data were coded and categorized while data were still being collected using constant comparative analysis (Glaser, 1965)

Conclusions

In Response to Research Questions

> ***Research Question 1*: *How do art educators in higher education describe using studio art projects to create learning journey experiences for their students?*** To answer this question, two aspects of the question have to be considered: Fist, how is an art project defined? Second, what do the professors do to create learning journey experiences for students?

> *Defining art projects*. As evident from the findings in the study, it is important to first define what entails an art project in a studio art course because the nature of what constitutes an art project varies fundamentally in the advanced and graduate-level courses from the beginning courses. For Ché and David, assigning an art project is not always prescriptive, a task, nor a chore to be completed. Rather, it demands a certain "catena mundi," a connection of worlds,

where a particular project/assignment is activity that is graded. Assignments are a piece, which together with other assignments/projects, combine to form a bigger endeavor. A particular project/assignment is intentional and serves as a "link of the world" of interconnectedness. For instance, in the beginning studio art courses, certain projects might have specific outcomes, with clearly pre-defined parameters assigned. In learning journey in these foundational studio courses, taught by Ché and David, art students are expected to demonstrate the use of basic principles of the medium, the language common to the discipline, and understand theories that help to inform the practice of creating art.

As an example, in the students' learning journey in beginning sculpture courses, the metal casting process is one of the first techniques learned, and is achieved through a series of steps. For the use of resin sand molds, as an example, the process begins with the mixing of a two-part resin with sand to create the mold. Then, once the resin sets or dries out, molten metal is poured into the mold. Metal, such as aluminum, or bronze, is melted in a crucible using a gas furnace. The molten metal is poured into the resin sand mold when the metal reaches the correct temperature. In the beginning sculpture courses, part of the art-making lesson involves learning the process in addition to the development of concept within the parameters specified.

In another example, in the beginning painting classes, one of the techniques learned is scumbling. In the scumbling process, using dry-brush technique paint is applied over dried layers of paint previously applied. By this process, the top layer of paint applied with the semi-wet brush does not cover completely over the under layers. Therefore, the under layer of paint is allowed to show through sporadically through the top layers of paint. From up close, the various colors show through the layers, but at a distance, the viewer's eye perceives the colors as blended-together. As students learn the process in the application of technique, students also

develop in their creativity and innovation. As in the beginning sculpture courses, in the beginning painting courses, the parameters for the assignment were prescribed and students followed a definitive direction from the professor, in addition to developing conceptualization and problem solving to develop in a personal art content.

It is important to discern what constitutes an art project because as the art student progresses into the upper level studio courses in their learning journey, the parameters that exist for projects and assignments in the beginning courses are gradually withdrawn when students reach the more advanced or graduate level studio courses. Eventually, there are no specific assignments assigned to the student at all. The mature art student, one who has progressed through the studio arts into the graduate program, for instance, is responsible for what Ché refers to as a "graded activity." As David stated, "through their own personal efforts, graduate students in the MFA program research and identify a topic for exploration." Graduate students pursue a concentration of study over an extended period of time, while adjusting, redirecting, making connections, and ultimately deciding when the artworks are done. The creative decisions are guided through reflection from the professor's feedback, and through checkpoints following milestones created through formal critiques with instructors, rather than by predefined prescription. David, as sculpture professor, said the final assessment of an art project happens through a set of actions that take place during the designated critique, either as a group, or individually, between the art professor and graduate student. At the highest level of the MFA students' learning journey development, the students prepare a professional one-person MFA thesis exhibition along with a written thesis. David described the thesis as a prolonged engagement. Graduate faculty members review, grade, and/or critique, both the exhibition, and the thesis.

Creating the learning journey. Catterall, Davis, and Fei Yang's (2014) offered that student engagement in learning journeys requires a more critical orientation, and reasoned student voice in action. Similarly, in Ché and David's studio courses, learning journeys begin by providing students the opportunities to engage to develop a way of thinking where the production of art equals the production of knowledge. However, the creation of knowledge in studio art is different from traditional knowledge creation in other disciplines. In studio art, students discovered themselves as artists by developing a personal artistic voice by creating a personal idiom. Graduate students created their knowledge through the opportunity to create without prescriptive instructions. Students learned methodical risk-taking to construct their own realities.

The professor's class syllabi, observations, and participant interviews made clear that Ché and David aimed to help students develop superior sculptural and painting proficiency through "expertise in studio practices" as they progressed from the beginning to advanced studio courses. While the teaching of foundational technical skills could have been done in a rote and task assigned manner, Ché's and David's instructional practices are grounded in the belief and understanding that students are able to learn technical skills through a very deep and thoughtful process that includes conceptual knowledge. Students grow, mature, and develop technically through demonstration. Students also develop conceptually through reflection and feedback, and cognitively through analysis, perception and deep thought. Students develop affectively through learning how to perceive emotively (see Figure 24).

Figure 30. The technical, conceptual cognitive and affective.

Skills that are essential to thrive in 21st century conditions include the abilities to "analyze, abstract, conceptualize, predict, collaborate, plan, and act responsibly" (Erickson, Lanning, and French, 2017, p. 3). Yet, developing to perceive emotively is a crucial component to be able to face complex problems in the 21st century. The focus of curriculum and instruction should be on what students will be able to "know (factually), understand (conceptually), and do (skillfully)" (p. 7). The combination at the heart of Ché's and David's teaching practices, lay in

117

helping students to develop a conceptual direction understanding that is dependent on their medium, and then being able to transfer that understanding with consistency through their produced art works.

       Research Question # 2. In what ways do art educators in higher education demonstrate the use of studio art instruction in their courses in relation to twenty-first century social and vocational outcomes? Life at the onset of the 21st century has been characterized by rapidly shifting, fast-paced, competitive change (Fullan, 2001; Kotter, 1996; Trilling & Fadel, 2009). Therefore, to cope with change that is fast-paced, students still need the traditional skills such as critical thinking and problem-solving even more so today, but a set of other essential skills is also needed (Trilling & Fadel, 2009). The skills that are essential for success in the 21st century, and should be taught as part of a student's education are "creativity, collaboration, and communicative skills through interactive exchange" (p. xxiii). Greenlaw (2015) stated, "The metanarrative of twenty-first century skills undervalues the role of the teacher as an experienced expert who can frame students' learning by contextualizing and theorizing along with the students" (p. 897).

       However, teachers are the educational leaders that are the human component guiding students through their learning journey. Fullan (2001) stated that educational leaders must work continually to remain effective in a contemporary culture of change. As such, professors must also work continuously to remain effective in contemporary conditions. The professors in this study stay current in contemporary ways through participation. They are current and active artists. They stay current through personal participation in the world of art, pushing the limits with their own work, exhibiting their work in galleries, and museums, and participating in current artistic professional trends, such as conceptual art shows, and art commissions. In turn,

David and Ché shared these experiences with their students through their classes. Ché identified one of the requirements to be a good teacher is expertise in the field. David's emphasis in his sculpture classes is the experiencing sculpture in a professional manner through making quality artwork, arriving at conceptual results, art content, and consistency the works produced. In addition, artwork completion is emphasized because reflection is not tenable unless the works are finished. Harrington and Oliver (2000) posited that reflection is an assessment process that allows students to "return to the experience, attend to feelings, and re-evaluate the experience" (p. 16). Reflection allows students to revisit the decision-making of the artwork's process. To promote reflection that is meaningful, the learning activities must be authentic, and exist in an authentic context (Herrington & Oliver, 2000).

The studio courses are part of a broader curriculum that prepares students for art-related careers and teaching at the college/university level. Part of this initiative requires graduate students to be leaders among the undergraduate students through the graduate students' work ethic, and through communication with undergraduate students as needed. In studio art, MFA students also write extensively in the required art history classes, gallery practices classes, and in some studio courses. In Ché's painting MFA class, for example, there is a writing component required from students. However, in studio art, the artwork is the product. The message conveyed by artwork is presented to the viewer visually (Smith, 2000). The measure of accomplishment is in the artwork. Graduate students create as strong a body of artworks to prepare for their professional pursuits as artists and/or educators.

Ché stated that through the combination of learning experiences, students create a personal "data bank of personal imagery" that helps students build confidence. By advocating that students use what is available to students today, Ché helps students take a painting and make

it more than a painting. In turn, students are able to access their personal imagery in their work as their contribution to the discourse of art that is relevant to the 21st century. David stated, "Confidence builds momentum in a student's career. In art, it is important to take the experience, make it your own, and turn it into something much, much, bigger."

Ché and David are always extending the boundaries of studio-based courses thus keeping in step with developments in a nascent 21st century. Both David and Ché have been creating learning opportunities for students in their lessons by allowing students to use new materials that have emerged in relatively recent time. For example, a recent medium that students can use is technology. Technological breakthroughs mark the new landscape of innovation therefore students' use of technology open the door for new opportunities in innovative applications.

Sometimes, students might have to travel abroad to have those experiences. For example, a 21st century technology tool that has emerged in the last few years is the 3-D printer. Using a 3-D printer involves a computerized mechanism that heats plastic filament to create a rendition of an image that was scanned electronically. Rosie experienced a new version of this emergent technology while traveling abroad as part of a school-sanctioned trip with David, her professor, and another MFA student, to Krakow, Poland for an art residency. As part of her learning journey in this trip abroad, Rosie witnessed a bigger than life 3-D printer that expels ceramic clay. A clay extruder is a piece of equipment typically found in a ceramic studio that expels clay through an opening in the mechanism. The use of the 3-D printer, a 21st century device, as a sculptural tool is still in its infancy at the university where this study took place, with an ability to produce small scale forms no bigger than ten inches squared. However, the 3-D printer, combined with a clay extruder that Rosie witnessed in her trip abroad, used a technical process

that is innovative. In the process, David helped Rosie forge and experience that influenced her learning journey.

The contemporary 21st century world is characterized as a knowledge society that is marked by fast-paced innovation (Fullan, 2001). Fullan stated that is important for leaders to foster leadership in others. Education and business leadership is coming closer together due to the needs of knowledge societies because the convergence that occurs when "corporations need souls and schools need minds" (p. 136) Therefore, students need to be prepared as leaders and professors need to be successful leaders to breed leaders.

Research Question #3. What are the learning journey experiences of students in higher education who are engaged in art instruction? Learning journeys are characterized by an educational development that allows students to become more engaged in academic opportunities that penetrate different fields of study through critical thinking and a sharpened student voice (Catterall, Davis, & Yang, 2014). The learning journeys of the students in the study helped them access deeper areas of their psychological/social experience in the university art studio to develop a personal voice through personal imagery within their work. By adapting to change, students were able to incorporate new experiences into their learning journeys.

When the students in the study began their journeys, the outcome of their learning journeys could not be foreseen. As it turned out, the students' notion about what their learning journey would entail turned out to be different from the direction of their actual journeys. What students, created was not completely preconceived. In Rosie's experience, when she began her MFA studies, she did not have a concept of what her artwork would entail, nor the direction her work was going to take. Her previous sculptural experience was limited, and her focus in her bachelor's degree was in two-dimensional work, and not in the sculptural focus of her MFA

121

studies. Yet, she found her direction through trial and error, with the help of her fellow MFA

peers, and through the interaction with her professors. Rosie's aluminum castings of organic

forms accidentally oxidized on the surface, which led her to pursue surface manipulations that

developed organically. The accidental surface effect on the forms that developed and morphed

into a practice of creating organic forms that grew crystallized formations on the surface.

On the other hand, for Juan Carlos, the journey took a different development. Juan Carlos

did have a preconceived notion of what his journey would entail, yet the actual developments in

his journey were very different from what he originally thought. Unlike Rosie, Juan Carlos

background painting in his undergraduate field was the same as the field for his MFA studies.

Therefore, Juan Carlos had expectations and an idea of what he was going to make for his

artworks as a graduate student. His work, however, took a different direction, as his depth of

knowledge in painting grew deeper through classes in art history, and traditional painting

techniques that were new to him. Through his learning in historical and cultural understanding of

contemporary art contexts, he was able to find his personal context for his work, and developed

the content that translated into his paintings. His rooting in the Valley of south Texas, as a

Mexican-American young man, with a background in a tradition of blue-collar work ethic,

helped Juan Carlos identify his iconography to use in his body of artworks.

Through daily growth in their particular learning journey, the students were able to evolve in the

development of their work. Geenlaw (2015) stated that students and teachers' discussions may

facilitate a collective construction of knowledge, in which "meaning of the content shifts

according to the individual and group perceptions in its significance" (p. 898).

Organized social learning occurs between people when they encounter new ideas, in an

environment that is welcoming to scrutiny (Elmore, 2000). Through student critiques in the art

studio curriculum, students were able to reflect and evaluate their progress. Students developed proficiency in professional aspects of the studio art experience, development of consistency within quality artworks, development of concept, and development of content for their works. In a current movement of 21st century skills, the content-centered traditional role that the teacher plays in the development of students is sometimes seen as outdated and no longer necessary, because new educational needs in the 21st century are centered on process (Greenlaw, 2015). However, in the learning journeys of this study, it was evident that a partnership between the student and the teacher lead to student growth. It did not always work out, as in Rosie's interaction with some of her other professors that she worked with. Through interaction with students, as the learning journey unfolded, instructors also learned, and the events of the students learning journey, contributed to the professors' journeys, as well. The interaction of people in the art studio environment forged the growth that occurred.

__Research Question # 4. In what ways do art students demonstrate the principles of liberal arts learning in their professional learning?__ A liberal education is an approach to learning that includes real-world contexts to prepare students to deal with a contemporary world that is complex, diverse, and in constant change (AACU, 2017). Through, education in a specific major, in conjunction with a general education component in disciplines, such as science, culture, and society, students are better prepared to meet challenges in a present-day world (AACU, 2017).

In the study, David identified using a strategy of adapting to change through a discipline of "making something out of nothing." In the artists' tradition, the artist begins with an empty page in the sketchbook. Then, the artist begins to grow an idea by forming it through inspiration and intuition to create a mental vision. Making something out of nothing describes innovation.

Rosie and Juan Carlos used intuition and pulled from personal experience to create imaginations "out of nothing." Factors that can influence innovation can sometimes be of a cultural or personal nature, external, or internal (Gachago, Morkel, Hitge, van Zyl, & Ivala, 2017).

Rosie had to adapt to new surroundings, a new field of art, and a new direction for her artwork. Rosie had to adapt to the complexities of change on many levels. Rosie moved from Chicago to south Texas. She found that cultural diversity had a different configuration in south Texas. The culture in south Texas was different from what she was used to in the north. She described the faculty as conservative and over protective. Rosie was used to a more independent and detached approach from her previous professors. In addition, in her pursuit for a direction in her sculptural work, Rosie had to adapt to find a direction to give form to her work through guided improvisation. She began by investigating organic shaped three-dimensional forms and surface treatments through trial and error. Then, Rosie steered her developments in her work guided by new discoveries. If she discovered a particular effect on the surface of the aluminum or bronze metal used to create her sculptures, she investigated what caused the effect to be able to reproduce the same effect on the surface of a new metal casting of the same material. At times, her experimentation lead to new accidental surface effects.

Juan Carlos, on the other hand, had to adapt by humbling himself and become receptive to the idea that the answer he was looking was within his own experience. Juan Carlos began his learning journey confident that he already knew the direction he was going to take in his artwork. However, his actual journey took a more personal and cultural direction. The conceptual meaning of his work turned out to have more depth, and more psychological levels than he ever anticipated. Juan Carlos' investigation in his body of works that he created provided imagery and insights that described social and cultural aspects of the human experience. Using imagery of car

engines, and auto parts as iconography, he was able to portray the human existence of the working class of society. The coldness of an inanimate metal engine block was transformed into the warmth of the spirit of hard working people.

David and Ché guided Rosie and Juan Carlos, as both students learned to navigate through their learning journey, and arrived at using creative thinking. Creative thinking is an essential component to adapt to contemporary elements of change. Piirto (2011) identified inspiration, imagery, imagination, intuition, insight, incubation, and improvisation as seven characteristics of creative thinking, which she called the Seven I's of creativity. David and Ché guided Rosie and Juan Carlos to arrive at developing their own personal imagery and personal vocabulary. The students' professional learning allowed them to develop the skills necessary to continue to work and thrive in a state of developing new ideas and concepts, which are skills essential to cope with complex, diverse, and constant change, essential to 21st century learning. Five common dimensions that characterize 21st century learning are the social-cultural, cognitive, metacognitive, productivity, and technological dimensions (Koh, Chai, Wong, & Hong, 2015). These dimensions intersected with the goals of liberal education of preparing students for complexity, diversity and change, in a real-world context (AACU, 2017). Students in this study developed in a social/psychological context, and developed cognitive and metacognitive skills through reflection practices that included formal and informal critiques.

Implications of the Results

Situated learning refers to learning that takes place in the same social context that the learning will be used in, rather than in an abstract, non-contextual traditional educational setting (Lave & Wenger, 1991). This allows for learning that is authentic because students are able to internalize the learning as a contextual experience. Students are able to use the learned content,

and directly apply it into practice because content is acquired through the active participation in an activity (Stein, 1998). A characteristic of situated learning is cognitive apprenticeship. Cognitive apprenticeship refers to learning that is similar to a real apprenticeship in that the learner has the role of the apprentice and the teacher is the expert (master) of acquired knowledge (Lave & Wenger, 1991, Stein, 1998). In a traditional apprenticeship, the apprentice learns a trade under the direction of a master craftsman. However, as the name implies, cognitive apprenticeship refers to cognitive development and not the learning of a craftsman's trade. Cognitive apprenticeship in an educational setting uses the framework of legitimate peripheral participation in which the new learner begins at the peripheral areas of knowledge in a community of practice, and the instructor is at the center of knowledge (Lave & Wenger, 1991). In the learning journey, as the learner gains knowledge and experience in the field, s/he slowly moves toward the center of knowledge. Stein (2001) stated, "The interaction of working and learning in the same context has seldom been explained beyond the claim of increased relevance" (p. 415).

However, the relevance of working and learning in the same context is evident in this study because cognitive apprenticeship lends itself to describe the learning journeys of two graduate studio art students, Rosie and Juan Carlos. In this study, not only does learning in a studio art setting resemble a traditional apprenticeship because students learned a craft from a master craftsman, the instructor, but the learning journeys of the students in the study also took the form of cognitive apprenticeship in the development of skills needed to prepare for 21st century learning. In investigating the learning journeys of the two students, this study showed that the two art professors in studio art invested themselves into the community of practice in the studio art setting by providing what painting professor, Ché, called "direct and honest feedback"

to students. Through this feedback, the professors helped students develop in their own work through the human factor in the form of psychological and the social elements.

The professors helped students figure out what the students could do to contribute to the discourse of art, and develop a way to express that visually. For example, when Rosie and Juan Carlos began their journey as students in the Master of Arts program, they had no idea what form their artwork would take. The two students had no preconceived idea of what theme would permeate their content in their investigation of their body of artworks, or what imagery would be used as a vehicle to communicate that content. Rosie and Juan Carlos also did not know ahead of time, when they started their learning journey, what would be the exact choice of art medium they would use, nor what the application of such medium would look like. When both students began their learning journey as graduate students in studio art, they had no idea what set of conditions would present themselves as catalyst for direction and/or inspiration to create the work, nor did they know what would be the specific combination of elements that would come together. In fact, Rosie began as a "clean slate" in the sense that her Bachelor of Fine Arts background was in a different art field, in printmaking, then what she embarked on in sculpture in the MFA program. Rosie did possess formative training in courses such as drawing, two-dimensional design, three-dimensional design, and some undergraduate sculpture courses that provided her with the necessary foundation in composition, and training in visualization of space. However, she had much to learn to, even, to begin creating successful sculptures because she had no experience in many of the processes used to make sculpture, such as welding, and the lost wax method.

Juan Carlos, on the other hand, did have a Bachelor of Fine Arts degree in the same area of painting as that of his concentration area in his Master of Fine Arts degree that he pursued.

Yet, both students could not foresee what they were going to make because the artwork was conceived through a layering of experiences and feedback that came as part of their learning experience. In other words, the iconography, "the subjects, symbols, and motifs used in an image to convey its meaning" (Frank, 2014, p. 16)" that is the vehicle for the conceptual rendering of the sculptures, or paintings, that the students developed, were genuinely new, had depth of knowledge, and were original. In a characteristic example of situated learning (Lave & Wenger, 1991), learning took place in a natural unintentional way in the cultural context of the community of practice in the university art studio. The process was transparent; therefore, the events that unfolded in the learning journey were genuine. The students' learning journeys evolved through Rosie and Juan Carlos' interaction with their professors' feedback. Part of the professors' journeys were also found as part of the students' work, as well, because much of what the professors input is based on the professors' unique experiences, as well.

Implications

Implications for Policy

The findings of this study contribute an imperative piece of evidence that informs and creates important considerations for developing educational policy, not only policy in regards to art instruction, but educational policy in general, because the findings inform the discourse of learning, learning in a studio art setting, and education, as a whole. The evolution of art education rests in the policies in higher education as a place of research and teaching (Hicks, 2013b). "Understanding the benefits of the arts is central to the discussion and design of policies affecting the arts" (McCarthy et al., 2004, p. iii). There is a contemporary need for exploring the pedagogical structure of the studio art curriculum in the 21st century, and the emerging importance of creativity (McKenna Salazar, 2013).

The way the new millennium has begun has indicated that students are learning in novel and different ways, that access to knowledge is more and more universal, and knowledge is interdependent across disciplines in increasingly new ways. David described the skills learned in sculpture as developing a personal voice and style, based upon the student's unique efforts in exploration and research. Ché described the knowledge acquired in painting that includes "digging deeper" into the students' personal experience to develop artistic conceptual content based on psychological and social contexts. These skills learned in studio art are skills that are essential in addressing 21st century needs, such as working globally across cultures. These cross-cultural encounters do not only include varying ethnic and national cultures that are inter-accessible, more so today, through global accessibility that is omnipresent today, but also include cross-cultural encounters across divergent industries that are increasingly finding common ground, as well as new evolving human interactional platforms.

Implications for Educational Leadership

The study has implications for educational leadership by highlighting what Logan (2013) referred to as "knowledge outcomes and graduate attributes of fine art education (p. 34)." The contextual and discursive perspectives, of Ché and David as art educators, and Rosie and Juan Carlos as students, provide an insight of what takes place inside the higher education art studio. The implications of the study for educational leadership help to inform educational leaders and policy makers as to the ways in which the arts can be an essential priority to the future of the United States by refining current perceptions surrounding art education.

The contemporary world is characterized by what Kotter (1996) described as a culture of change. Leadership through a context of change involves approaching complex problems through leadership that is not top down, and involves leaders, as well as all members of an

organization (Fullan, 2000). Therefore, leadership is an essential element necessary to navigate through the complexities of change (Kotter, 1996). Socially driven change, including immigration, economic growth, and global mobility are some of the contemporary changes affecting societies across the globe (Monteiro, 2014). The model for leadership begins with learning that is organized, takes place in context around a social setting that involves all members of the group (Elmore, 2000). Thus, education necessitates adaptation to a global mindset by embracing cultural diversity, and ethnicity, through multi-cultural awareness in teaching and learning (Monteiro, 2014).

Embracing multicultural diversity also includes other cultural identities from varying groups, such as gender groups, school culture from institution to institution, even varying cultures form department to department within a same institution, and others. Contemporary education necessitates educational leaders to take into consideration adapting to a global mindset by embracing innovation as well. Educational leaders must foster an expanded meaning of creativity that continues to include art, education, and society, and must resist a current trend of appropriating the use of creativity with a neoliberal business bias simply focused on economics and entrepreneurial innovation (Kalin, 2016). "High-stakes testing has narrowed the curriculum, and undermined authentic learning, and by extension, (has undermined) global readiness" (Ornstein & Eng, 2015, p. 121).

Change and innovation permeates all strata of society including education (Monteiro, 2014). Innovation has become an economy replacement for a "knowledge-dependent economy" in creative societies (Ezzat et al., 2017, p. 2). Innovative leadership that expands human potential requires a better approach than neoliberal high stakes testing (Ornstein & Eng, 2015). To foster innovation as an economy, leadership must nurture creativity through the "management of

contextual factors through feedback and non-verbal devices" in what is referred to as situational creative leadership (Ezzat et al., 2017, p. 30). Ché and David as higher education instructors are educational leaders, whose expertise and training lies in feedback and ideation.

The use of feedback can help team members overcome cognitive fixation, or cognitive preconceptions to solutions, which impede the generation of new ideas, or ideation, and creativity (Ezzat et al., 2017). Rosie's and Juan Carlos' studio art journeys centered on training and experience in giving and receiving constructive criticism to and from other students, and professors, in studio art critiques in a non-linear and natural way. "Leaders can drive followers' ideation path according to the leaders' expertise" (Ezzat et al., 2017, p. 17) through feedback.

Therefore, the impact of Ché's and David's instruction in studio art in innovation has a double potency effect by preparing their students in feedback and ideation, because the use of feedback and ideation are two essential components in studio art education. Rosie and Juan Carlos' instruction contain a relevancy to contemporary leadership needs.

Implications for Learning Journeys

Learning journeys include student development in critical thinking and student voice through academic opportunities (Catterall et al., 2014). David and Ché, the two university professors in this study, used the studio arts instruction to teach students maturity, and autonomy to be able to carry on an individualized conceptual direction through a developed expertise in the manipulation of materials and the application of techniques related to their artistic statement. David and Ché engaged their students in learning experiences that are situated and/or authentic in relation to contemporary conditions of globalization, innovation, and technology.

The complex world of the 21st century demands that students prepare for a future that is not only unknown, but also for a future for which conditions are unforeseeable due to its

multiplicity dynamic (Barnett, 2004). The student, learning journey should not focus on "Knowledge, and skills," but rather on "human qualities and dispositions" (p. 247). In the learning journey process of Rosie and Juan Carlos, the combination of all the components in studio arts training coming together laid a fertile ground for creativity to flourish. Rosie and Juan Carlos did not know what direction their artwork was going to take, just as Smith (2000) stated that he did not know what he was going to get when his artwork was completed.

The creative point of arrival turned out to be an unforeseeable result that was created in the process. A sculptural sketch was created to synthesize a comprehensive conclusion from the results of the study that represents elements of the students' learning journey through the process of attaining the skills necessary to become a university prepared artist (see Figure 10). Attention was given to label it as a sculptural sketch rather than a sculpture because the three dimensional form was used as a vehicle to demonstrate the concluding inferences rather than a focus on the purely aesthetic value. Although, it is the belief of the researcher that a completed sculpture makes for an excellent venue to communicate research conclusions, at the time of synthesizing the conclusions for the study, having enough visual information on the form to exhibit the conclusions was prioritized, similarly to the (drawing) sketches also produced by the researcher, rather than prioritizing completing the artworks. In addition to the tension in ABR mentioned in the limitations of this study, Eisner (2008) identified the balancing between artwork that has aesthetic properties and achieving credible epistemic orientation, as a tension in arts-based research.

The mechanism of the process of studio arts learning has several elements that are interdependent with the components working together similarly to the parts in the engines depicted in Juan Carlos' paintings. Therefore, the title of the sculptural sketch is *The Mechanics*

132

of Studio Arts Learning. To describe the sculptural sketch, the artistic merits considered must be discussed first. The three-dimensional form was created using rigor in the use of the elements of art, such as form, space, value, and texture, and the principles of design, such as unity, variety, proportion, scale, repetition, rhythm.

In the use of the elements of art, the form encompasses positive and negative space. Space is manipulated by using considerations of what space will be occupied with the mass from the clay and the automotive mechanical parts, the old sway bar links removed from a truck. Considerations of space were also used in the decision of how the negative space was portrayed, such as in how far apart should the mechanical links be positioned exposing the empty space. Value, in the artistic sense of the meaning of chiaroscuro, or the play on shadows and highlights, were also considered. In addition, decisions were made by the researcher on how the texture of the whole piece would add to the aesthetic value of the piece. The researcher decided to leave a smooth surface on the clay as it dried.

Major consideration was also placed on use of the principles of design. The principle of visual unity had to be addressed in the creation of the piece in how the shadows and highlights influence the overall look of the form, for example, and the proportion of all visual components in relation to the whole. The principle of visual variety was used in deciding to have three varying sizes of the clay components, juxtaposed with two metal car parts. The principle of scale was also used in conjunction with the principle of proportion in the decision to create each varying section and placing the bigger portion is at the bottom of the form, while the smaller of the sections is at the top. This stacking effect of the varying sections was used to create visual lift through proportion and scale. The manipulation of the distance in-between the separating sections from one another was also considered to create visual rhythm through the repetition.

The feedback links, represented by the two automotive sway bar links, illustrate what professor Ché described as sincere and direct feedback. Ché identified this was one of the main benefits for students enrolled in a university studio course. Ché said, you can learn art concepts and techniques online, using any of the popular modes of online instruction such as YouTube, or a Podcast, but the benefit of taking a university studio course lies in the reciprocal action achieved through the professor's feedback. The feedback links also represent the feedback from formal class critiques that occur at the end of a graded activity. Finally, the feedback links are representative of feedback from peers in the studio course, as students work and develop in their learning journey inside the studio art course.

Rosie described feedback as an uncomfortable part of the studio arts model, but it is a major part of the journey. Much growth takes place during a critique because, whether it is a class critique at the undergraduate level, or a graduate level individual critique between the graduate students and all members of the graduate committee, the constructive criticism is coming at the student from all directions. Yet, the criticism is constructive, which helps the student evaluate his/her progress. It is not linear like an exam. It is important, especially because as the learning journey progresses from the beginning courses, into the upper level courses, the student creates his/her works from an individual and mature perspective. For example, as David stated, the expectation of the graduate student is to arrive at a conceptual direction in content in their works through a proficient use of materials and techniques. David identified as exploration, research, and student efforts, as preconditions to the creation of advanced works of art. The core section of the sculptural sketch connecting the three major sections illustrates this part of the process. Since there are no specific assignments assigned for the graduate student in studio arts,

the student is engaged in a perpetual cycle of self-reflection; thereby making visuals from it (see

Figure 31).
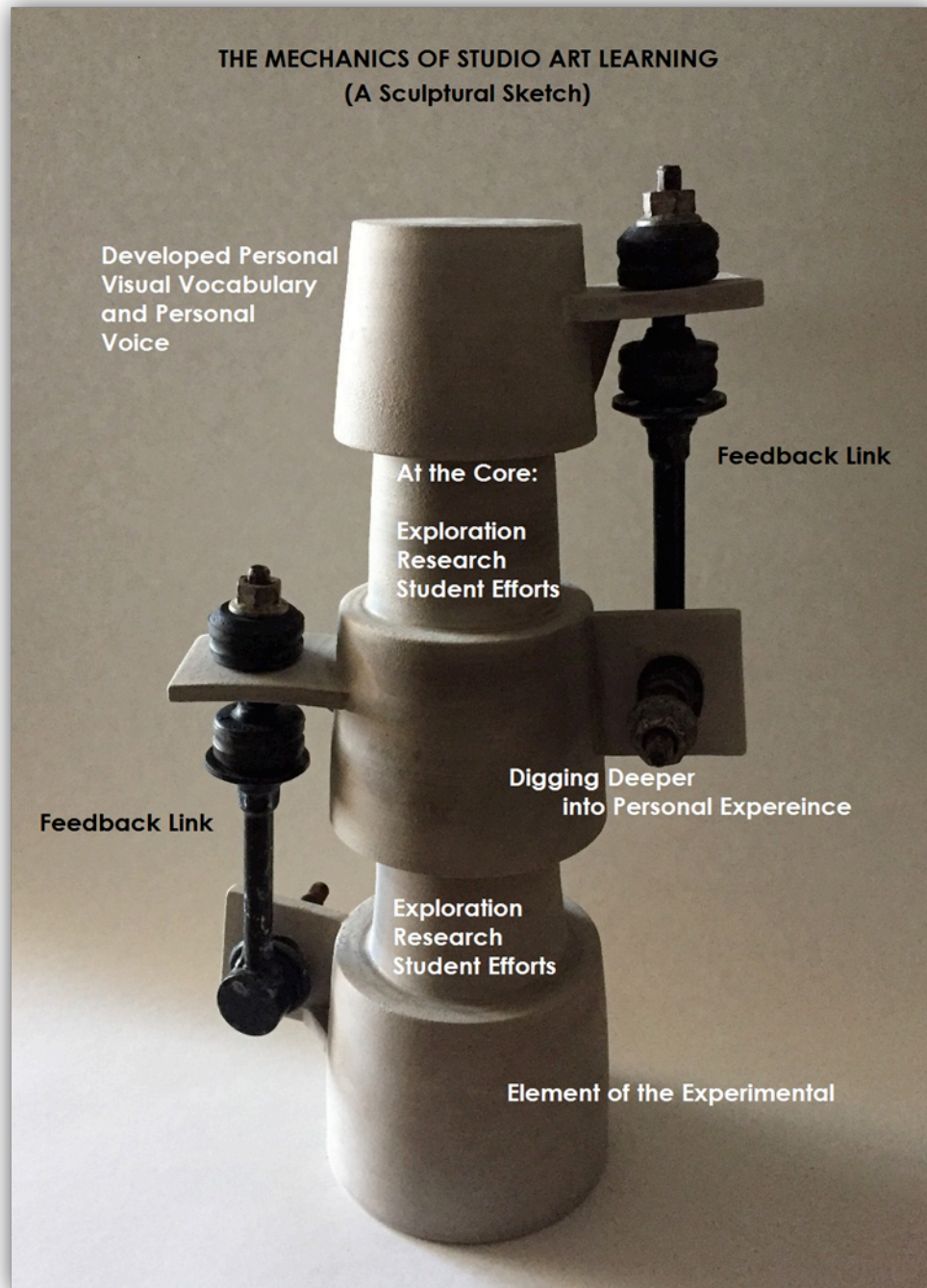
Figure 31. The mechanics of art.

Implications for 21st Century Goals

In the push for 21st century skills, a frail line exists between two divergent currents, the push for accountability through a 21st neoliberal platform, and the need to develop creative minds to succeed in 21st century global needs. However, in the current state of educational affairs in the United States, there is a neoliberal agenda that promotes accountability above all else, "High-stakes accountability cannot adequately cultivate real world and dynamic skills, like the ability to adapt, innovate, or recognize opportunities and solve problems (Ornstein & Eng, 2015, p. 121).

Therefore, creativity does not fit accountability (Kalin, 2016). Results confute that accountability is the key to thriving in the 21st century. In fact, accountability deviates from the way students in this study created a path to achievement. In the 21st century, higher education is facing changes and new challenges in the content and delivery of studio art education at the university level (McKenna Salazar, 2013).

Education innovation is embedded in organizational change (Fullan, 2001). Ché described studio art teaching as psychological and social experiences that are based on "being human." Yet, new media applications were a result of the incorporation what is available to students today into Ché's and David's courses. Juan Carlos and Rosie addressed 21st century skills, such as using critical thinking, flexibility/adaptability, initiative, productivity, leadership, and social/cross-cultural skills by adapting to change, through a discipline of "making something out of nothing." David and Ché used the same discipline of "making something out of nothing" to confront changes and challenges from the university administration policies, state changes, and new requirements.

Implications for Arts-based Methodology

As a component of culture, art helps negotiate meaning about reality in the world; therefore, it is a paradigm, or worldview (Cunliffe, 2005). Therefore, ABR is also a paradigm that is useful to process reality in the world (Leavy, 2018). However, "ABR is not art for art's sake" (Leavy, 2018, p. 12), ABR is "art for scholarship sake" (Rolling, 2010, p. 102). Proficiency in the use of art varies according to the needs of the project because the use of art in ABR is in the service of the aim of the research study (Leavy, 2017, p. 191). Art-based research is an appropriate methodology to use when the study seeks to explore, and describe the participant's view of reality (Leavy, 2017; Barone & Eisner, 2012). Developing the ability to see and think deeply in perceiving is the necessary ingredient to combine what may seem like a contradiction, the esthetic nature of arts and the goal to dissertate a discourse (Cahnmann-Taylor & Siegesmund, 2008).

Humans have a cognitive sensory bank of impressions that exist in a pre-analytic state that provide for two sides of artistic development to exist, a cognitive artistic capacity, and an aesthetic artistic capacity (Cahnmann-Taylor & Siegesmund, 2008). Through a well-developed cognitive artistic capacity, and independently from aesthetic counterpart, qualitative reasoning is able to expound by facilitating a linguistic discussion of the visual representations (p. 232).

The research in this study proved that the key to expand discourse lies in the inventive nature of art, and in the ephemeral nature of art that rings true within the core of human nature, which Ché referred to as the psychological and social aspect of art. In the study, visual art helped to expand textual discourse by offering another layer of meaning. Data were analyzed linguistically, and the findings were presented both linguistically and through artistic representations when appropriate. Drawing sketches were included to express, in a visual form,

137

results from analysis of the data using both the cognitive artistic capacity, as well as the aesthetic artistic capacity. In the current 21st century educational neoliberal atmosphere of quantification system of accountability through standardized testing, where there is only one right answer to a question, ABR as a qualitative methodology offers multiple realities with the added layers that can be constructed through visual art.

<div align="center">**Recommendations for Further Studies**</div>

Studies into Arts-based Research

Art as a form of research helps to expand our understanding of the human cultural interactions that have the potential to help reshape world (Hicks, 2013, p. 197). ABR is a paradigm that can be used as a lens to view the world (Leavy, 2017). Although this study focused on using sculpture and drawing to assist in the representation of the findings, future studies might focus on the use or sculpture and drawing during the entire research process. Of particular interest is the use of art during the analysis process.

This study focused on using artistic representation to reflect of the findings, therefore the artistic process was on hold till the later part of the research process, during findings, and after data collection and analysis. Future studies might benefit to explore if it is possible for a professionally trained artist/researcher to *turn off* or *hold* the visual aspect of the researcher's cognition, until the latter part of the research process, as when art is needed to express the findings. Arts-based research aims to inform research and not just art for art's sake (Rolling, 2010). Cognitive processes were sometimes purely visual for the author of this study, a professionally trained artist. Even if the recoded section as in the journaling part of the process is in textual form, the visual may already pre-exist cognitively in what Siegesmund and Cahnmann-Taylor (2008) referred to as the sensory bank of the brain. Therefore, future studies may benefit

from exploring how and when a professionally trained artist/researcher is able to access the visual cognition either during data collection, data analysis, presentation of the findings, analysis of the implications, or to be stored for future reference.

Creativity and Innovation in 21st Century Leadership and Policy

In the contemporary era, innovation is at the center of interest in a knowledge economy (Kalin, 2016; Salazar, 2013). However, there has been a systematic transfer of creativity for the purpose of neoliberal hybridity tendencies of global economics and away from the arts (Kalin, 2016). In a contemporary era of globalization, cultures and individuals are integrated into hybrid perspectives (Hoekstra & Groenendijk, 2015). Studio art instruction should focus on the students' contemporary world by focusing on intercultural "hybrid constructions of identity, cultural transference, and migration" (p. 216). Policy makers focus on the importance of the arts on social and economic goals such as globalization and innovation (McCarthy, et al., 2004). However, "policies should focus on building individual capacity for arts experiences" (p. 71). Therefore, future studies might benefit from investigating ways investigating further how policy makers in the 21st century can "balance the focus of art education in studio art, to negotiate student creative autonomy" (Hicks, 2013b, p. 197). New technology "has had, and continues to have a significant impact on the creation, meaning, and evolution of our visual and material culture" as well as "the way in which art is disseminated and understood" (Hicks, 2013, p.196). Opportunities in higher education for art studio students present challenges and opportunities in art using new technologies.

Studies into Non-Degree Art Students

One limitation of this study lay in choosing two students who were committed to improving their, skills, and knowledge in the production of art. Future studies may want to

139

consider the non-degree seeking art student that who is taking an art class just to satisfy a portion of the requirements in their degree plan, and what are the implications for what they learn in the studio class.

Concluding Thoughts

When I began this study, the premise was that something happens in the university, studio art instruction that is useful to the direction of where we are headed as a society. The bustling sounds indicated that innovation and creativity are the needed ingredient to be able to function and thrive in a globalized society in the 21st century, where cultural diversity is becoming homogenized, social challenges abound, and technology advancements are at the forefront at a constantly increasing rate. When I began the study, I had read Kotter (1996), Fullan (2001), and Pink (2006, 2009) all of whom mentioned we were living in a knowledge economy. By the time I reached the end of my dissertation research in 2017, what I discovered is that we have transitioned from a knowledge economy into an innovation economy. However, innovation and creativity as it relates to an innovation economy, is in neoliberal terms. The economics and entrepreneurial word economy gives it away. When, innovation and creativity are being mentioned, it is with a business bias in neoliberal economics and entrepreneurial innovation terms, and away from creativity as it pertains to studio arts (Kalin, 2016). Through the whole process of situated learning in studio arts, the type of creativity and innovation that is nurtured in studio art education, creativity and innovation act as a "discursive term representing political, educational, artistic, economic, and social processes of our times" not just industry alone (Kalin, 2016, p. 32). The learning journeys of the participants were about how to develop the confidence and freedom to create, and finding a personal direction; by learning technical processes, concept

development (ideation), finding innovative solutions to problems, looking for content, finding a personal voice (idiom), thus finding a meaningful contribution to the metanarrative of art.

<center>**References**</center>

Araca, A. (1986). An index method for examining secondary art classroom furniture, facilities,

    and spaces. *Art Education*, 39(2), 13.

Association of American Colleges and Universities. (2011). *The LEAP vision of learning:*

    Outcomes, practices, impacts, and employer's views. Washington, DC: Author. Retrieved

    from https://www.aacu.or/org/sites/default/files/files/LEAP/leap_vision_summary.pdf

Association of American Colleges and Universities. (2014). *2014 Transforming STEM higher*

    education. Washington, DC: Author. Retrieved from

    http://www.aacu.org/meetings/stem/14

Association of American Colleges & Universities. (2016). *Land of opportunity-but for whom?*

    How higher education can lead. Retrieved from https://www.aacu.org/meetings/

    annualmeeting/am16

Association of American Colleges and Universities. (2017). *What is a 21st century liberal*

education? Washington, DC: Author. Retrieved from https://www.aacu.org/leap/what-is-a-

liberal-education.

Austerlitz, N. & Aravot, I. (2006) The emotional structure of the student tutor relationship in the

    design studio. In Proceedings of the 3rd CLTAD International Conference. *Enhancing*

    Curricula: contributing to the future, meeting the challenges of the 21st century in the

    disciplines of art, design and communication. London: CLTAD, pp. 79-94.

Blair, B. (2006) *An examination of the learning value of formative feedback to students on*

    undergraduate design courses through the process of the studio critique. (Doctoral

    Dissertation). London University Institute of Education, London.

<center>142</center>

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review,*84(2), 191-215. http://dx.doi.org/10.1037/0033-295X.84.2.191

Barnett, R. (2000a). Supercomplexity and the curriculum. *Studies in Higher Education,* 25(3), 255-265.

Barnett, R. (2004b). Learning for an unknown future. *Higher Education Research & Develoment,* 23(3), 247-260

Barone, T., & Eisner, E. (2012). *Arts based research.* Thousand Oaks, CA: Sage.

Belluigi, D. Z. (2016). Constructions of roles in studio teaching and learning. *International Journal Of Art & Design Education*, *35*(1), 21-35. doi:10.1111/jade.12042

Bequette, J. & Bequette, M. (2012). A place for art and design education in the STEM conversation. *Art Education*, 65(2), 40-47.

Blair, B. (2006). *An examination of the learning value of formative feedback to students on undergraduate design courses through the process of the studio critique.* (Doctoral Dissertation). London University Institute of Education, London.

Block, J. & Leisure, J. (1987). *Understanding the three dimensions.* Englewood Cliffs, NJ: Prentice-Hall, Inc.

Buser, T. (2006). *Experiencing art around us.* Belmont, CA: Thompson Wadsworth.

Cahnmann-Taylor, M. & Siegesmund, R. (2008). *Arts-based research in education: Foundations in practice.* New York, NY: Routledge.

Catterall, J., Davis, J. , & Yang, D. F. (2014). Facilitating the learning journey form vocational education and training to higher education. *Higher Education Research & Devlopment,* 33(2), 242-255. doi:10.1080/07294360.2013.832156

Chan, Z.C. (2013). Exploration of artistry in nursing teaching activities. *Nurse Education Today,* 34(6), 924-928. doi:10.1016/j.nedt2013.11.009

Charmaz, K. (2006). *Constructing grounded theory: A practical guide through qualitative analysis.* Los Angeles, CA: Sage Publications.

Chicago, J. (2014). *Institutional time: Acritique of studio art education.* New York: NY: Monacelli Press.

Cohen, P. (2016). A rising call to promote STEM education and cut liberal arts fuunding. *The New York Times.* Retrieved from https://www.nytimes.com/2016/02/22/business/a-rising-call-to-promote-stem-education-and-cut-liberal-arts-funding.html

Collanus, M., Kairavuori, S., & Rusanen, S. (2012). The identities of an arts educator: Comparing discourses in three teacher education programmes in Finland. *International Journal of Education through Art,* 8(1), 7-21.

Crook, M. (2009) Finding the stories, telling the story: narrative in the academy. In Kouritzin, S., Piquemal, N., & Norman, R. (Eds.), *Qualitative research: Challenging orthodoxies in standard academic discourse(s).* New York, NY: Routledge.

Collins, A., Brown, J.S., Newman, S.E. (1988). Cognitive apprenticeship: teaching the craft of reading, writing, and mathematics. *Thinking: The Journal of Philosophy for Children,* 8(1), 2-10. doi:10.5840/thinking1988129

Crotty, M. (1998). *The foundations of social research: Meaning and perspective in the research process.* Thousand Oaks, CA: Sage Publications.

Darling-Hammond, L. (2010). *The flat world and education: How America's commitment to equity will determine our future.* New York, NY: Teachers College Press.

Deneen, P. J. (2010). Science and the decline of the liberal arts. *The New Atlantis,* 26, 60-
68.

Denzin, N. & Lincoln, Y. (Eds.). (2008). *Collecting and interpreting qualitative
materials.* Thousand Oaks, CA: Sage Publications, Inc.

Denzin, N. & Lincoln, Y. (Eds.). (2011). *The Sage handbook of qualitative research.*
Thousand Oaks, CA: Sage Publications, Inc.

Deresiewicz, W. (214). *Excellent sheep: Miseducation of the American elite and the way
to a meaningful life.* New York, NY: Free Press.

Derrida, J. (1974). *Of grammatology (G. C. Spivak, Trans.).* Baltimore, MA: John
Hopkins University Press.

Dewey, J. (1934). *Art as experience.* New York, NY: Perigee Books.

Dickeson, R. (2010). *Prioritizing academic programs and services: Reallocating
resources to achieve strategic balance.* San Francisco: CA: Jossey-Bass.

Dobbs, S. (1992). *The DBAE handbook: An overview of discipline-based art education.*
Los Angeles, CA: Getty Center for Education in the Arts.

Edström, A. M. (2008) Art students making use of studio conversations. *Art, Design &
Communication in Higher Education,* 7(1) 31–44.

Educause. (2009). *Seven things you should know about personal learning environments.
Educause Learning Initiative.* Retrieved from https://www.educause.edu/ir/
library/pdf/ELI7049.pdf

Efland, A. D. (1990). *A history of art education: Intellectual and social currents in
teaching the visual arts.* New York, NY: Teacher's College Press.

Eisner, E. W. (2008). Persistent tensions in arts-based research. In Cahnmann-Taylor, M.

& Siegesmund, R. (Eds.), *Arts-based research in education: Foundations in

practice.* New York, NY: Routledge.

Eisner, E. W. (2002). *The arts and the ction of the mind.* New Haven, Lndon: Yale

University Press.

Elkins, J. (2001). *Why art cannot be taught: A handbook for art students.* Urbana, IL:

University of Illinois Press.

Elmore, R.F. (2000). *Building a new structure for school leadership*. Washington, CA:

Albert Shanker Institute.

Erickson, P. (2013). Full steam ahead. *American School & University,* 85(10), 36-39.

Ewing, J. (2013). Head first: Educating a new generation of figurative sculptors. *Scuplture

Review.* 61(4), 8-17.

Fischer, K. (2012). Bucking cultural norms: Asia tries liberal arts. *Chronicle of Higher

Education*. 58(23), p. 1-8.

Frank, P. (2014). *Preble's artforms: An introduction to the visual arts.* Upper Saddle, NJ:

Pearson Education, Inc.

Fullan, M. (2001). *Leading in a culture of change.* San Francisco, CA: Jossey-Bass.

Gardner, H. (1994). *The arts and human development: A psychological study of the artistic

process*. New York, NY: Basic Books.

Gardner, H. (2008). *Five minds for the future.* Boston, MA: Harvard Business Press.

Golden-Biddle, K. & Locke, K. (2007) *Composing qualitative research.* Thousand Oaks, CA:

Sage Publications, Inc.

Greenlaw, J. (2015). Deconstructing the metanarrative of the 21st century skills movement. *Educational Philosophy and Theory; Incorporating ACCESS*. 47(9), 884-903.

Gurnon, D., Voss-Andrae, J., & Stanley, J. (2013). Integrating art and science in undergraduate education. *PLOS Biology,* 11(2), 1-4.

Halley, P. (2016) *Biographical Summary: Group Exhibitions.* Retrieved from http://www.peterhalley.com

Harvey, D. (2005). *A brief history of neoliberalism.* Oxford, UK: Oxford University Press.

Herrington, J, & Oliver, R. (2000). An instructional design framework for authentic learning environments. *Educational Technology Research and Development*, 48(3), 23-48.

Hetland, L., Winner, E., Veenema, S. & Sheridan, K. M. (2007). *Studio Thinking: The Real Benefits of Visual Arts Education* . New York, NY: Teachers College Press.

Hicks, L. (2012). Historical contexts and emerging practices. *Studies in Art Education,* 54(1), 3-5.

Hicks, L. (2013a). Art education: Thing or device. *Studies in Art Education*, 54(2), 99-102.

Hicks, L. (2013b). New pathways and further research. *Studies in Art Education,* 54(3), 195-197.

Hoekstra, M. & Groenendijk, T. (2015). Altermodern art education. *International Journal of Education through Art,* 11(2), 213-228.

Hubbard, O. (2008). The act of looking: Wolfgang Iser's literary theory and meaning making in the visual arts. *Jade,* 27(2), 168-180.

Humphreys, D. (2009). College outcomes for work, life, and citizenship: Can we really do it all? *Liberal Education,* 95(1), 14-21.

Illeris, H. (2013). Potentials of togetherness: Beyond individualism and community in Nordic art education. *Studies in Art Education,* 55(1), 78-83.

Jalongo, M. R. (1999). How we respond to the artistry of children: ten barriers to overcome. *Early Childhood Education Journal*, *26*(4), 205-208.

Jolly, A. (2014). STEM vs. STEAM: Do the arts belong? *Education Week Teacher.* Retrieved from http://www.edweek.org/tm/articles/2014/11/18/ctq-jolly-stem-vs-steam.html

Kalin, N. (2016). We're all creatives now. *Journal of Canadian Association for Curriculum Studies,* 13(2), 32-44.

Kaelin, E. F. (1989). *An aesthetics for art educators.* New York, NY: Teachers College Press.

Kennedy, C. (2016). Review: Institutional time: A critique of studio art education by Judy Chicago. *Radical Teacher: A Socialist, Feminist, and Anti-Racist Journal of the Theory of Teaching,* 104, 78-81. doi:10.5195/rt.2016.262

Koh, J. H. L., Chai, C. S., Wong, B, & Hong, H. (2015). *Design thinking for education: Conceptions and applications in teaching and learning*. Singapore: Springer.

Kotter, J. (1996). *Leading Change.* Boston, MA: Harvard University Press.

Kvale, S. (1996). *An introduction to qualitative research interviewing.* Thousand Oaks, CA: Sage Publications, Inc.

Lackney, J. (1999). A *history of the studio-based learning model*. Retrieved from http://edi.msstate.edu/work/pdf/history_studio_based_learning.pdf

Lave, J. & Wenger, E. (1991). *Situated learning: Legitimate peripheral participation.* Cambridge, UK: Cambridge University Press.

Leavy, P. (2009). *Method meets art: Arts-based research practice.* New York, NY: The Guildford Press.

Leavy, P. (2017). *Research design: Quantitative, qualitative, mixed methods, Arts-based research, and community-based participatory research approaches.* New York, NY: The Guildford Press.

Leavy, P. (Ed.). (2018). *Handbook of arts-based research.* New York, NY: The Guildford Press.

Lears, J. (2015). The liberal arts vs. neoliberalism. *Commonweal Magazine,* 142(8). Retrieved from https://www.commonwealmagazine.org/liberal-arts-vs-liberalism

Logan, C. (2013). Living artists: Identity, independence and engagement in fine art learning. *Art, Design & Communication in Higher Education, 12*(1) 33-48. doi:10.1386/adch.12.1.33_1

Lubell, E. (2012). Making the connection how sculpture students feel about the figure and their peers. *Sculpture Review,* 61(4), 18-25.

Marschalek, D. G. (2004). Four Learning Environments for the Contemporary Art Education Classroom: Studio, Information, Planning, and Electronic. *Art Education*, 57(3), 33-41.

Marriott, A. (1948). *Maria: The potter of San Idelfonso.* Norman, OK: University of Oklahoma Press.

McCarthy, K.F., Ondaatje, E. H., Zakaras, L., & Brooks, A. (2004). Gifts of the muse: Reframing the debate about the benefits of the arts. *Research in the Arts.* Santa Monica, CA: Rand Corporation. Retrieved from http://www.rand.org/

McFee, J. K., & Degge, R. (1977). *Art, culture, and environment: A catalyst for teaching.* Belmont, CA: Wadsworth Publishing Co.

McLaren, P. (1993). *Schooling as a ritual performance: Towards a political economy of educational symbols and gestures*. London: Routledge.

Merriam, S. (2009). *Qualitative research: A guide to design and implementation.* San Francisco, CA: Jossey-Bass.

Miller, N. E., & Dollard, J. (1941). *Social learning and imitation.* New Haven, CT: Yale
     University Press.

National Conference of State legislatures. (2015). *Performance-based funding for higher*
     education (Data file). Retrieved from
     http://www.ncsl.org/research/education/performance-funding.aspx

Network for Sciences, Engineering, Arts and Design (SEAD). (n.d.). *Bridging STEM to STEAM:*
     Developing new Frameworks for ART/SCIENCE pedagogy. Retrieved from
     http://deas.viz.tamu.edu/about/pdf/STEAM.pdf

Organisation for Economic Co-Operation and Development (OECD). (1996). Knowledge-based
     economy. *Organisation for Economic Co-Operation and Development,* 102*(*96), 1-46.

Ornstein, A. & Eng, E. (2015). 21st century excellence in education: Introduction. *Society,* 52(2),
     121.

Pink, D. (2006). *A whole new mind.* New York, NY: Riverhead Books.

Pink, D. (2009). *Drive: The surprising truth about what motivates us.* New York, NY: Riverhead
     Books.

Piirto, J. (2011). *Creativity for 21st Century Skills: How to Embed Creativity into the*
     Curriculum. Rotterdam, The Netherlands: Sense Publishers.

Polkinghorne, D. (1995). Narrative configuration in qualitative analysis. *Qualitative Studies in*
     Education, 8(1), 5-23.

President's Council of Advisors on Science and Technology. (2012). *Engage to excel: Producing*
     one million additional college graduates with degrees in science, technology,
     engineering, and mathematics. Retrieved from

hhttps://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/pcast-engage-to-excel-final_2-25-12.pdf

Quinn, R. D. & Calkin, J. (2008). A dialogue in words and images between two artists doing Arts-Based Educational Research. *International Journal of Education & the Arts,* 9(5), 1-29.

Ravitch, D. (2010). *The death and life of the great American school system: How testing and choice are undermining education*. New York, NY: Basic Books.

Rolling, J. H. (2010). A paradigm analysis of arts-based research and implications for education. *Studies in Art Education,* 51(2), 102-114.

Romeo, E.M. (2010). Quantitative research on critical thinking and predicting nursing students' NCLEX-RN performance. *Journal of Nursing Education,* 49(7), 378-386. doi:10.3928/01484834-20100331-05

Russell-Bowie, D. E. (2010). Developing preservice primary teacher's confidence and competence in arts education using principles of authentic learning. *Australian Journal of Teachers' Education,* 37(1). http://dx.doi.org/10.14221/ajte.2010v37n1.2

Salazar, S. M. (2013). Studio interior: Investigating undergraduate studio artteaching and learning. *Studies in Art Education,* 55(1), 64-78.

Saldaña, J. (2003). Dramatizing data: A primer. *Qualitative Inquiry*, 9(2), 218-236.

Smith, D. (2003). Tradition and identity. In Harrison, C. & Wood, P. (Eds.), *Art in theory 1900-2000: An anthology of changing ideas* (pp. 766-767). Malden, MA: Blackwell Publishing.

Smith, D. (1996). Notes on my work. In Chipp, H. (Ed.). *Theories of modern art: A sourcebook by artists and critics* (pp. 576-577). Berkeley, CA: University of California Press, Ltd.

Smith, P. J. (1996). The *history of art education: Learning about art in American schools.* Westport, CT: Greenwood Press.

Spradley, J. P. (1980). *Participant observation.* Belmond, CA: Wadsworth Group.

Stalmeijer, R. E. (2015). When Isay…cognitive aprnticeship. *Medical Education,* 49, 355-356. doi:10.111/medu.12630

Storkskieck, M. (2011). Stem or STEAM? *Science Blogs:The Art of Science Learning.* Retrieve from http://scienceblogs.com/art_of_science_learning/2011/04/01/stem-or-steam/

Swann, C. (1986) Nellie is dead. *Art and Design Education,* 1(1), 18-20.

Taylor, A. (2017). Perspectives on the university as a business: the corporate management structure, neoliberalism and higher education. *Journal for Critical Education Policy Studies,* 15(1), 108-135.

The Daily Texan Education Board (2015). *The Daily Texan Online,* 2. Retrieved from http://dailytexanonline.com/2015/cuts-to-the-college-of-fine-arts-are-part-of-a-damging-trend

Trilling, B. & Fadel, C. (2009). *21st Century skills: Learning for life in our times*. San Francisco, CA: Jossey-Bass.

Usher, R., Bryant, I. & Johnston, R. [Eds] (1996). *Adult Education and the Postmodern Challenge: Learning Beyond the Limits*. London: Routledge

Webster, H. (2004) Facilitating reflective learning: excavating the role of the design

    tutor. *Journal of Art, Design and Communication in Higher Education,* 2(3) 101–

    11.

Willig, C. (2001). *Introducing qualitative research in psychology: Adventures in theory*

    and method. Philadelphia, PA: Open University Press.

Yang, A. (2012). Science as a matter of (liberal) art. *Liberal Education,* 98(2), 60-63.

Yupo Corporation America. (2017). *What is Yupo?* Chesapeake, VA. Retrieved from

    yupousa.com/what-is-yupo/

APPENDIX A: Interview Protocol

Questions for art professors:
Interview 1:

1. Tell you a little about yourself and your art course. For example, what is your professional background? What is your course that you teach like? How would you describe the students in your class?

2. What is your teaching philosophy?

3. Describe some of the art projects assigned in your class.

4. What are any recent changes that your course has encountered?

5. What do you consider to be some of the educational benefits that your class provides?

6. What factors do you feel enable art educator to teach effectively as members of professional community?

Interview 2:

1. Earlier you shared that students complete course project _____ (e.g.); tell me more about how you arrived at including that particular project in your curriculum.

2. How do you approach, accomplish, and ensure student learning in art when instruction is also studio-oriented?

3. Can you describe some educational elements that contribute to a global and just society?

4. What do you consider to be examples of exemplary teaching practices within art education?

5. What do you consider to be examples of exemplary learning practices within art education?

6. In what ways, if any, does your instruction include aspects of engaging students in academic opportunities that span across different fields of study?

7. Can you describe a time when you helped a student o problem-solve?

Interview 3:

1. In what ways do your art studio and instructional practice reflect globalization, innovation, and technology?

2. In what ways do you bring technology into your classroom?

3. What are some of the innovations occurring in your field of study and how have you brought that into your classroom?

4. In what ways have, you incorporated or planned for interdisciplinary learning between departments?

5. In what way are studio-based curricula separate from or similar to mainstream classroom curricula?

6. As a professor of art, how do you operationalize critical thinking in your curriculum, instruction and assessment? As a professor of art, how do you define creativity in your classroom practice?

7. In what ways do you use collaborative approaches to teach and assess students?

Interview Protocol

Questions for art professors:

Interview 1:

1. Tell you a little about yourself and your art course. For example, what is your professional background? What is your course that you are enrolled in like? How would you describe your professor?

2. What do you hope to accomplish by taking this course?

3. What are you currently working on? How has your work in this area developed over the course of your study?

4. Describe some of the skills you acquired, or were strengthened by, from the studio course?

5. In what ways do you feel the need to develop as an artist, as a student, as a means to prepare you for a career?

Interview 2:

1. Earlier you shared a topic or course project that you were currently working on (___); can you tell me more about how the curriculum helped you grow?

2. How is learning measured in your course?

3. Can you describe a project that you were involved in as part of your course that may prepare you for a global and just society?

4. What do you consider to be examples of exemplary teaching practices within art education?

5. What do you consider to be examples of exemplary learning practices within art education?

6. In what ways, if any, is your professor engaging? How?

7. Can you describe a time when your professor helped you problem-solve?

Interview 3:

1. In what ways does your art studio reflect globalization, innovation, and technology?

2. In what ways does your professor bring technology into your classroom?

3. What are some of the innovations occurring in your field of study and how have you brought that into your artwork?

4. In what ways have, if any, have you experienced interdisciplinary learning between departments?

5. In what way are studio-based curricula separate from or similar to mainstream classroom curricula?

6. As a student of art, how do you describe critical thinking in your curriculum, instruction and assessment? As a student of art, how do you define creativity in your classroom practice?

7. In what ways, if any, have you used collaborative approaches to learn?

Appendix B

Observation Protocol		
Category	**Includes**	**Researchers should note**
Physical Setting	Physical environment and context.	Anything that might indicate membership in groups or in subpopulations of interest to the study. Clothing, age, gender, physical appearance. How is space allocated?
	What kinds of behavior is the setting designed for?	What objects, resources, technologies are in the setting?
The Participants	Who is in the scene, how many people, and their roles?	What brings these people together? Who is allowed here? Who is not here who would be expected to be here? What are the relevant characteristics of the participants? Gender, age, ethnicity, profession, years of teaching?
	What people do, who does what, who interacts with whom, who is not interacting.	Who speaks to whom and for how long, who initiates interaction, tone of voice?
Activities and Interactions	What is going on? Types of arts-based experiences?	Is there a definable sequence of activities? Participant teaching or learning experience?
	How do people interact with the activity and one another?	How are people and activities connected or interrelated?
	What norms or rules structure the activities and interactions?	When did the activity begin? How long did it last? Is it a typical activity or unusual?
Conversation	What is the content of conversation?	Who listens? Quote directly, paraphrase and summarize conversations. Use tape recorder to back up note taking. Note silences and nonverbal behavior that add meaning to exchange, physical behavior and gestures, verbal behavior and interactions.
Subtle Factors	Less obvious but perhaps as important to the observation.	Informal and unplanned activities. Symbolic and connotative meaning of words. Nonverbal communication such as dress and physical space. Unobtrusive measures such as physical clues. What does not happen that should have happened? (Patton, 1990)
	Human traffic	How and how many people enter, leave, and spend time at the observation site? Where people enter and exit, how long they stay, who they are (ethnicity, age, gender), whether they are alone or accompanied
	People who stand out	Identification of people who receive a lot of attention from others. These people's characteristics, what differentiates them from others, whether people consult them or they approach other people, whether they seem to be strangers or well-known by others present Note that these individuals could be good people to approach for an informal interview or to serve as key informants

My own behavior	How is my role, as an observer or intimate participant, affecting the scene I am observing?	What do I say and do?
	What thoughts am I having of what is going on?	These thoughts become "observer comments," an important part of field notes.

Adapted from: Mack, Woodsong, MacQueen, Guest, and Namey (2005, p. 20), and Merriam (1998, pgs. 97-98).