

AN ABSTRACT OF THE THESIS OF

Kristen S. Andersen for the degree of Master of Science in College Student Services Administration presented on April 21, 2016.

Title: Visual Expressions of Anxiety: An Exploration of how Students with Anxiety Perceive and Interact with Formal Learning Environments

Abstract approved: _____

Daniel W. Newhart

The purpose of this thesis is to better understand how students who experience anxiety that interferes with their daily functioning perceive and interact with their formal learning environments such as classrooms and lab spaces so that instruction in these spaces may be improved. Specific attention was paid to the ways in which the student's anxiety influenced their ability to perform tasks necessary to their learning. The research exists in the intersection of student life and learning, formal learning environments (psychological, social, and physical aspects), and disability studies.

Visual art was used as an additional communication tool to gather and express information that might not be as easily expressed through written and/or verbal communication alone. The study used Arts Based Research (ABR) methods to help create a more complex understanding of the experiences of students with anxiety by exploring it in a different way. The students who were involved in the study are referred to as "co-creators" in this text to emphasize their active role in

the research and the importance of their contributions. Incorporation of art in the data collection, synthesis, and dispersal of information opened the research to a broader audience. ABR emphasizes the importance of the research audience. In keeping with the ABR tradition, this study included an exhibit of the research for the broader community and includes actionable information to improve practice.

Through analyzing and synthesizing the data I developed 5 main themes. The first theme from the data is that the co-creators experiences dealing with anxiety in higher education can be organized as a self-fulfilling cycle. The second theme, “painful, social, silence”, can be considered as being a part of the broader cycle because it references the most salient things for them, social interactions that feel heavy with distant silence. Many of these most salient things are tied to negative outcomes and require students to develop and use “survival strategies” such as those covered in the third theme. These first three themes all produced frustration for the co-creators, both directly and indirectly, which is summarized in the fourth theme: frustration with a system not built for your success. Lastly, all of the co-creators discussed hope for a different reality in the future. These findings in combination with the information from the literature review informed the recommendations and conclusion.

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Visual Expressions of Anxiety: An Exploration of how Students with Anxiety Perceive
and Interact with Formal Learning Environments

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APPROVED:

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I understand that my thesis will become part of the permanent collection of Oregon State University libraries. My signature below authorizes release of my thesis to any reader upon request.

Kristen S. Andersen, Author

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Chapter 1: Introduction

I write from an urge to speak, from reading and not seeing, from searching and not finding. I paint from this pain and lack of representation of self or soul. I argue that though progress has been made away from the perception of disability as deficit, we have more yet to do because students with anxiety are still experiencing barriers to their academic success. In many situations disability is still seen as inferior, often through stigmatization (internal and external) of the natural human variation associated with the disability (Davis, 2013a; Pattyn, Verhaeghe, Sercu, & Bracke, 2014). This stigma and general devaluing of the experiences of people with disabilities results in those who identify that way being unable to participate fully in society and their education (Corrigan, Druss, & Perlick, 2014; Eisenberg, Downs, Golberstein, & Zivin, 2009). This inability to participate, though recognized as undesirable, is sometimes seen as unavoidable or a “natural consequences of their differences” (Sivers, 1998a, p. 15). This research is guided by a belief that this perception is fallacious in that it is built on a deficit model of disability. This study aims to explore how the barriers to success and engagement in formal learning environments for students with anxiety are constructed by and in relation to those environments, not as the sole result of their individual differences. Thus, the research is applicable to the fields of Disability Studies, Student Affairs, and Faculty Development.

This research contributes to the field of Disability Studies because the level of anxiety (defined at the end of this section) discussed in this thesis is often considered a

disability (Bickenbach, 1993; Bickenbach, Chatterji, Badley, & Üstün, 1999; Charlton, 1998c; Davis, 2013b; UPIAS, 1976; World Health Organization, 1980). The research is applicable to Student Affairs because it addresses inequities that students with anxiety face, retention and engagement for students with anxiety, and helps broaden the fields understanding of the student population (Council for the Advancement of Standards in Higher Education, 2014). For instructors and the people who are involved in their professional teaching development, the research will provide insight into how students with anxiety experience the classroom environment that is created and continuously defined by those in it, thus informing practitioners on the relationship between anxiety and pedagogical practices. As such, the research aims to paint a more complicated and nuanced picture of what experiencing an anxiety disorder is like as a student in the formal learning environment.

I organize literature that surrounds my research into three categories: theoretical perspectives of disability and their influence on current United States (U.S.) legislation, the U.S. higher education landscape including characteristics of typical formal learning environments and the pedagogical practices used in them, and literature on student life, mental variation, and mental wellbeing in higher education. The literature is organized in this way to provide an understanding of the cultural and legal background from which the current state of the formal learning environments and student experience arose from so as to give context to the current research. The primary theoretical perspectives I cover are broad ways in which disability has been conceptualized in recent history. These perspectives are referred to as the Medical

Model, the Social Model, and the Capabilities Approach (Riddle, 2014b). The perspectives represent different ways of conceptualizing disability and thus they influence the way someone acts and the decisions they make. The review of legislation traces how theoretical perspectives on disability have informed legal practice and statutes such as section 504 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and the ADA Amendments Act (ADAAA). These theoretical perspectives, laws, and practices are illustrative of broad patterns in U.S. cultural conceptualizations of disability in which the U.S. higher education system operates.

In regards to the student population, it is difficult to provide numbers around mental illness and psychiatric disability on college campuses since what they represent is complicated and shifts based on the theoretical perspective from which you are looking. There is great variation between numbers of reported psychiatric disabilities among students, students being treated for such a disability, and those experiencing a disability. Even within the rate of reported diagnosis for psychological disabilities there is variation between studies from 1.7% to 7.1% (American College Health Association, 2015, p. 3; Raue & Lewis, 2011). Within the year prior to being surveyed, 17.3% of students reported being diagnosed or treated for anxiety, 14.5% for depression, 10.9% for both anxiety and depression, and 8.7% for panic attacks (American College Health Association, 2015, p. 15). In reference to experiences of psychiatric disability, 23.7% of students reported that anxiety affected their academic performance and 14.6% said the same of depression (American College Health Association, 2015, p. 5). This complexity in understanding the nuances of defining what students experience psychological

disabilities is reflected also in the research around help-seeking behaviors and lack thereof (Arria et al., 2011; Eisenberg, Downs, et al., 2009; Eisenberg, Goldberstein, & Gollust, 2007; Gruttadaro & Crudo, 2012; Hunt & Eisenberg, 2010; Pattyn et al., 2014).

Corresponding research on students with mental illnesses in college shows that they experience many barriers in formal learning environments to engagement such as fear of being stigmatized for their mental illness and feeling unwelcomed or unsupported by their institution (Brown & Broido, 2014; Gruttadaro & Crudo, 2012). These studies, though they do not directly reference them, share an interest in student engagement with theorists such as Astin (1985) and Kuh (G. D. Kuh, Kinzie, Buckley, Bridges, & Hayek, 2006; G. D. Kuh & Pike, 2005). The student engagement literature converges often with literature on effective pedagogical practices (National Survey of Student Engagement, 2014). In U.S. higher education formal learning environments fall on a spectrum from the teacher-centered model that views the instructor as the holder and manager of knowledge, to the learner-centered model that views all participants as “knowers” and learning as a process of exploration (Smithee, Greenblatt, & Eland, 2004; Wulsin, 2013). In regards to academic success in these environments, students report that their mental illnesses often negatively affected their academic performance, such as: receiving lower grades on exams, projects, or the course overall; receiving an incomplete or dropping a course; or experiencing a disruption in capstone project work like thesis, dissertation, or research (American College Health Association, 2014b), a concept that is backed by other research studies that do not focus on self-report data (Collins & Mowbray, 2005; Eisenberg, Downs, et al., 2009).

With this research study I explored what it is like to be an undergraduate student with anxiety in the typical formal learning environments of a U.S. university. I did this exploration with students who I refer to as “co-creators” to emphasize their active role in the research and the importance of their contributions. To achieve this I did an arts-based research study as it allowed us to explore experiences of anxiety with a unique perspective. This perspective elicited robust understandings as a result of the interaction between art, voice, and experience. By using Arts Based Research methodologies (Leavy, 2015b) as detailed in Chapter 3, I was able to center on the co-creators experiences and honor their stories. Arts Based Research also allowed for increased understanding of the co-creators experiences and aided in the distribution and integration of the findings into the higher education community. In this study, participants were asked to complete a visual journal with at least three entries over the course of a ten-week term. On weeks one, five, and nine I met with the participants and conducted informal interviews about their journals. These interviews were transcribed and coded for commonalities in ideas from the description of the images and the experiences of having anxiety.

This research fills a gap in the understandings of how students with anxiety experience and interact with formal learning environments by centering their own perspective. Disability Studies does not cover these experiences because it looks broadly at disability and structures that create disability, but often disassociates it through theory from the lived experiences of individuals (Davis, 2013b; Vehmas, 2008). Research on the U.S. formal learning environments and how they are experienced by learners is

also very broad, often aiming to figure out how students learn and what leads to effective student engagement, but it does not narrow down to the experiences of students with mental illnesses or, more narrowly, anxiety (National Survey of Student Engagement, 2014; Smithee et al., 2004). An important subsection of this research is the literature on Universal Design for Learning (UDL) which addresses the problems of “one-size-fits-all” curriculum, particularly in reference to students with disabilities (Wakefield, 2011). Though the principles of UDL have application to students with psychiatric disabilities, the research they are based on has few references to mental illnesses (National Center on Universal Design for Learning, 2012). Research on mental wellbeing of students in higher education often does not employ qualitative research methods, with few exceptions (Gruttadaro & Crudo, 2012) this results in the personal voice and experiences of student mental wellbeing being lessened and at the periphery in an overview of the research. Thus, when trying to understand the experiences of students with anxiety in the classroom, the voice of those students is not a salient point in the literature. This specifically is a problem in that students with anxiety report that their mental illness negatively affects their academic performance and ability to succeed; and they have low rates of help seeking (American College Health Association, 2015; Collins & Mowbray, 2005; Eisenberg, Downs, et al., 2009).

A Note on Language

I want to give space to clarify my reasoning behind a few intentional language choices that I made in the development of the study and will continue to use in this thesis so the reader may better understand the decisions and the message of the text.

First, as you will see in the discussion on positionality, I come from a place of defaulting to person-first language (e.g., person with a disability) thus I use person first language to reference individuals with disabilities and do so through out this paper for consistency. This is not meant to be a prescriptive action since not all people with disabilities use person first language. In fact, I identify as a disabled person when I describe myself. The use of person first language also allows for the distinctions to be more explicit when discussing theories of disability and the interaction of person, body, environment, and disability (this is particularly clear in the Social Model discussion).

In this document the person first language is complicated by an attempt to balance precision of language with brevity in reference to anxiety. It is particularly challenging to strike this balance when talking about anxiety because it is both an emotion, a category of “mental disorders” (according to common and medical understandings) (U.S. National Library of Medicine, 2016), and in impairment. To be precise I would use language along the lines of “people who experience anxiety that interferes with their ability to function or perform necessary daily activities” but it is unrealistic to say that every time. Thus, for the purposes of this document, “people with anxiety” has the aforementioned meaning.

The last language choice I would like to clarify is the use of the term “co-creator”. For the most part this term is operationalized as a synonym for the more common research “participant”. The reason I use co-creator is to emphasize the active role these people played in the study and centralize their contribution and efforts. The first part of the term, “co”, demonstrates that these people were working with me

through out the data collection and synthesis process. As I detail in Chapter Three, we engaged in dialogue during our meetings around how to visually represent their experiences. We worked collaboratively in those meetings to build understandings of what anxiety in higher education “looks” like. “Co” also represents how I would check in with these people to make sure I was representing their ideas fully. The second part of the term, “creators”, is meant to emphasize the work and energy these people put into the creation of visual journals for the study and their influence on the subsequent summary pieces. I use this to make it clear that from the beginning I was not intended to be the sole “creator” of this work. The study was entirely dependent on working collaboratively and along side others during the creation process.

Chapter 2: Literature Review

When beginning to do research on the experience of students with mental illnesses in the classroom I began by searching the OSU library's catalogs, Summit, and ILL, I also used the databases JSTOR, EBSCOhost, ERIC, and Google Scholar. I found that most research, which I will describe in more depth later, focused on barriers to student success, campus wide support services to address those barriers, and student use of the services (Arria et al., 2011; Brinckerhoff, 1992; Collins & Mowbray, 2005; Eisenberg, Downs, et al., 2009; Eisenberg, Goldberstein, et al., 2007; Herbert et al., 2014; Hunt & Eisenberg, 2010; Marshak, Van Wieren, Ferrell, Swiss, & Dugan, 2010; Megivern, Pellerito, & Mowbray, 2003; Mowbray et al., 2006; Pattyn et al., 2014; Rath & Royer, 2002). Aside from a few research articles on academic success and mental illness which will be addressed later (Eisenberg, Goldberstein, & Hunt, 2009; Graham-Smith & Lafayette, 2004), I could not find anything on the experiences of students with anxiety in the higher education classroom.

Disability Services as a support service for students with disabilities within higher education showed up in the literature on mental illnesses. This inspired me to look into another section of research so I consulted the first text in which I had seen disabilities as a whole discussed in reference to college students, Chapter 12 of *Student Engagement in Higher Education* (Brown & Broido, 2014). There I found different theoretical perspectives on disability (Brown & Broido, 2014, p. 190). Through informational interviews with E. Kerekes-Mishra and T. McEdwards of Disability Access Services at Oregon State University (OSU) I learned that many institutions follow the theoretical

perspectives of the Medical Model of Disability, the Social Model of Disability, or some combination of the two (personal communication November 4, 2014; personal communication November 6, 2014). From these conversations I focused on the two models to try and provide a strong theoretical backing to my research.

That led to research from the field of Disability Studies, which goes in depth into issues impacting students with disabilities, and is inclusive of mental illnesses in definitions of disability. From what I could find it does not include information specifically about the experiences of students with anxiety in university formal learning environments (Altman & Barnartt, 2001; Davis, 2013b; Oliver & Barnes, 2012). This chapter is a culmination of my research into surrounding literature and is intended to provide an overview of the literature surrounding my research. The chapter will review the theoretical perspectives that have shaped thinking on disability and how they interact with legislation, the broad U.S. higher education landscape including characteristics of typical formal learning environments, and lastly the student experience in reference to mental wellbeing in higher education. These parts of the literature review will provide the research literature context for my research. As described in the introduction, I have organized the literature in this way to build an understanding of the cultural and legal background from which the characteristics of current formal learning environments and student experience arose so as to give context to this research study.

Theoretical Perspectives on Disability

Historical perspectives of disability are described as the Moral Model, in which disabilities are thought to be caused by a moral failing of one's own or of one's ancestors, for which one must repent and thus any disadvantage is deserved (Sivers, 1998a, pp. 56 – 59). From the Moral Model emerged the Medical Model which had the intent to define disability with a rigid set of parameters based on the medical definitions of ability and decrease the number of people with disabilities through preventative and restorative treatments (Riddle, 2014a; Sivers, 1998a, pp. 59 – 74). The Social Model arose as a response to the Medical Model and provides a lens through which to look closely and with detail at how the socially constructed environment impacts individuals with disabilities and argues that all disabilities are the result of a culture disadvantaging certain impairments that are natural to human evolution (Oliver & Barnes, 2012; Riddle, 2014a; Scotch, 2000; Sivers, 1998a, pp. 74 – 76).

There is disagreement as to what the most effective perspective is, which has resulted in a form of “stalemate” among researchers (Riddle, 2014a, p. 13). Though there is general consensus that the Medical Model is inadequate and perpetuates the very thinking that leads to the disadvantaging aspects of disability, the use and limitations of the Social Model as an alternative are contested (Oliver & Barnes, 2012; Shakespeare, 2014a). In the following overview of these theoretical perspectives I hope to show the values and limitations of the models and discuss an alternative perspective for use in this study.

The Medical Model. For consistency, I will use the “Medical Model” to refer to what is also known in the literature as, or conceptually contains, the “personal tragedy

model”, the “individual pathological model”, the “physiological/mental deficit model”, the “Bio-medical approach”, and the “rehabilitation approach” (Riddle, 2014a, p. 14; Rioux, 1997, p. 4; Silvers, 1998a, p. 59). The Medical Model represents a cognitive shift that began in the 1960s away from the Moral Model and toward a perception of people with disabilities as needing to be confined to a class “subject(ed) to special treatment” (Silvers, 1998b, p. 5). This reasoning represents an attempt by the Medical Model to separate those who are unable to contribute fully from those who simply do not want to do so (Silvers, 1998a). In the second half of the 20th century there was an attempt to create eligibility requirements for disability insurance and social welfare (Silvers, 1998a). To do so, a definition of disability needed to be created (Silvers, 1998a, p. 61). The increased medical involvement in the definitions development shows the popularity of the Medical Model in that time (Silvers, 1998a, p. 61). The overall goal of the model is to reduce the number of individuals with disabilities through preventative measures and curative treatments, that whenever possible should be emphasized by medical professionals (Riddle, 2014a; Silvers, 1998a). The goals of the Medical Model show the assumption made by practitioners that the “normal” way of functioning in an environment is the only way to achieve the “usual” quality of life (Riddle, 2014a; Silvers, 1998a, p. 64).

The advent of the Medical Model was the first time that people with disabilities were recognized as a minority and joined with other groups demanding equality (Silvers, 1998b). The Medical Model remains similar to the Moral Model in that the responsibility for the disability is still on the individual experiencing it, though now the disability is

attributed to poor health habits or bad genes (resulting from ancestors' failings) which invite "condemnatory judgments" upon the persons character (Silvers, 1998a, pp. 59 – 60).

The perspective of the Medical Model are well reflected in definitions of impairment and disability from the World Health Organization's *International Classification of Impairments, Disabilities, and Handicaps* (1980). In this document, impairment is defined as "any loss or abnormality of psychological, physiological, or anatomical structure or function" which includes "existence or occurrence of an anomaly, defect, or loss in a limb, organ, tissues, or other structure of the body, including systems of mental function" and "reflects disturbances at the level of the organ" (World Health Organization, 1980, p. 47). Disability is defined as "any restriction of lack (resulting from an impairment) of ability to perform an activity in the manner or within the range considered normal for a human being" (World Health Organization, 1980, p. 143). The language used in these definitions illustrates the potential of the Medical Model to have a negative influence on individuals with disabilities by defining them as "other" and reinforcing the view of disability as deficit through words like "abnormality", "loss", "defect", "disturbance", and "lack" (World Health Organization, 1980).

The Medical Model is praised for focusing efforts on the protection of people with disabilities but did not spur the development of ways to distinguish those who are disabled by an impairment from those who are not (Silvers, 1998a, p. 62). This ambiguity lead to millions of dollars being spent on claims processing, hiring experts to prepare

and follow through on claims, and investigating fraudulent claims (Sivers, 1998a, p. 62). The Medical Model is critiqued for not recognizing the critical role that structures within the environment like supportiveness, adaptability, and accessibility play in the creation of disability (Sivers, 1998a, p. 62). Sivers posits that how much someone is socially limited by their impairment or the environment is the “outcome of complex interactions between the individual’s limits and the limits of [their] environment” (Sivers, 1998a, p. 63). The Medical Model’s lack of recognition of this relationship is said to create an meaningless ranking of the quality of life associated with performing functions in a certain way (Sivers, 1998a). In this ranking, more value is placed on non-aided ways because of the assumption that mechanically aided ways are inferior, despite this not always being the case in our society (Sivers, 1998a). When discussing this idea, Sivers provides the example that using a vehicle as a mode of transportation is not “deprecated as the crutch of defective hikers”, but that is the way aided modes of functioning for people who are disabled are viewed (1998a, pp. 62–63).

Another main critique of the Medical Model is that it creates more difficulties by imposing standards of function in an attempt to normalize a group already deemed lacking because its members do not function in the typical way (Sivers, 1998a, p. 65). Policies built from the Medical Model free society from the perceived burden of “the disabled” (often labeled as having a sickness, defect, or deviance in health) because it puts forth that these individuals will either be “cured” and return as normal, or they will be sequestered from society for the “purpose of their continued medical treatment” (Sivers, 1998a, p. 66). This is problematic, because by conceptualizing disability as

illness we naturally try to avoid it and will thus try to quarantine individuals so the illness does not spread (Sivers, 1998a). Sivers sums up the critiques of the Medical Model as follows:

Rather than broadening the social participation of people with disabilities by reducing their isolation, theoretical egalitarians who are unprepared to alter interpersonal conventions turn to distributive schemes that compensate people with disabilities for their isolation but continue them in it. For it is less distressing to minimize the occasions when conventional practice must sustain exchanges between nondisabled and disabled individuals than to be compelled to change it (Sivers, 1998a, p. 23).

In response to the issues and critiques that arose from the use of the Medical Model, the Social Model was developed.

The Social Model. As Adam Samaha (2007) puts it, due to its complexity there is no way to describe the Social Model that will please all of the scholars, particularly because the “volume of writing on the model is almost staggering” (p. 6). The Social Model as a whole is the product of philosophy mixing with Britain’s disability movement that was then adopted by U.S. disabilities activists because it “illuminated and gave direction to social reform” (Sivers, 1998a, pp. 75 – 76). One of the first documents that exhibited the alternative to predominant thinking on disability that would become the Social Model is the *Fundamental Principle of Disability* by the Union of the Physically Impaired Against Segregation (UPIAS) (1976). Despite the Social Model being around since the 1970s and the increase in academic interest, the dominant meanings of disability in most western societies is still in keeping with the Medical Model (Oliver & Barnes, 2012).

One of the strengths of the Social Model put forth in the literature is in its description of how individuals interact with the environment around them and specifically how that environment is created. In terms of perceiving individuals with differing abilities, believers in the Social Model say that everyone, regardless of functional ability or longevity, has the right to a decent standard of living and to be treated with respect (Oliver & Barnes, 2012). With the Social Model, disability goes from being a natural consequence of an impairment that disadvantages people in society, to a remediable “state of society, which disadvantages a minority of people” (Riddle, 2014a; Scotch, 2000; Silvers, 1998a, p. 75). In general, conception of the individual through the Social Model is characterized by a series of cognitive switches from the Medical Model. People with disabilities shift from being patients to people with rights and the conceptualization of disability shifts from being a natural physical phenomenon to something that is socially constructed (Riddle, 2014a; Scotch, 2000; Silvers, 1998a). Isolation shifts from being an unavoidable outcome of impairment to the correctable outcome of individual interaction with “stigmatizing social values and debilitating social arrangements” (Silvers, 1998a, p. 76).

In addition to looking at the individual, the Social Model also provides a critical lens from which to look at the environments in which the individual exists. Through this lens it can be observed that people are disabled, often unnoticeably, by unfriendly and at times hostile environments that they must adapt to (Silvers, 1998a, pp. 74–45). Sara Goering, a researcher on disabilities, observes the environment-individual interaction in the statement that “disability is not a state of the body, but a lack of fit between the

body and the social/physical/attitudinal environment that leads to social limitation or disadvantage” (Goering, 2002, p. 374). In regards to the development of human environments, often the development is based on a limited view of the range of human ability, and thus people with abilities that differ from that which is expected must either figure out alternative ways to access those spaces, or not engage with them at all (Scotch, 2000). For this reason the Social Model says that people with disabilities are often marginalized by the constructed environment in which “assumptions of the inability to participate become self-fulfilling prophecies” (Scotch, 2000, p. 215).

The Social Model purports that if one comes to believe that nothing in human evolution mandates the dominant group’s ways of functioning is inherently optimal, one would realize that being perceived as normal is dependent on being in situations or environments that are accustomed to one’s way of functioning (Silvers, 1998a). The issue arises in that the normal range of functioning that our environments are created for is shaped by the expectations and perceptions of the larger, predominantly able, society (Scotch, 2000). Thus the Social Model implies that people with disabilities are limited much more by a discriminatory environment than by their impairment (Scotch, 2000, p. 214).

The definitions from UPAIS provide clarity on the ideas central to Social Model. According to UPAIS, an impairment can be defined as a lack or defection in a limb, organ, or mechanism of the body (1976, p. 14). Disability is socially constructed, meaning that if an individual is treated as though they have a disability, or they experience a socially defined limitation, then they have a disability or a limitation

(Charlton, 1998c, p. 8; Riddle, 2014a; UPIAS, 1976). The Social Model's definition can be seen in the language of the *Americans with Disabilities Act* (ADA) of 1990 which states that disability in regards to an individual is "a physical or mental impairment that substantially limits one or more of the major life activities of such individual", "a record of such an impairment", or "being regarded as having such impairment" (Congress, n.d.).

The Social Model is not without its critiques, the main one is that though the model intends to not allow for assumptions to be made about the experiences of a person with a disability, it creates a disconnect between understandings of disability and the experiences of illness and pain (Silvers, 1998a). This makes it so pain and suffering from an impairment and not the environment are not welcome in conversations on disability (Shakespeare, 2014b, p. 44). This is part of a larger critique that the Social Model is very dichotomous in assertions that impairment is not the problem, but that the issue lies only in the way impairment is treated by society (Riddle, 2014a, p. 15). Shakespeare observes that the Social Model "overstates the social creation of disability, and fails to give an adequate account of the complexities of disabled people's lives" (2014b, p. 46).

Critics of the Social Model say that one cannot address disability as simply a social issue because even in a society with open attitudes and architecture there would still exist some individuals who could not participate fully because of their impairments (Goering, 2002, p. 378; Riddle, 2014a, p. 15). Therefore, critics say there must still be a limit on the definition of disability and accommodation of different modes and levels of

abilities (Goering, 2002). They say that researchers must be careful and thoughtful in these definitions though because definitions under the Medical Model are too narrow and put onus on the individual in an attempt to get rid of their need for accommodation instead of liberating their talents (Goering, 2002; Silvers, 1998a).

Overall, the Social Model allows for increased understanding of why an individual experiences a disability, but critics say it cannot be operationalized because it over simplifies the experience of disability and thus cannot address all of the issues by simply attempting to remove social barriers (Riddle, 2014a; Shakespeare, 2014b). Shakespeare says this is true even for the many researchers who speak to their use of the Social Model, but in analysis of their data they, by necessity, use a nuanced, multifaceted approach (2014b). With both the Medical and Social models being critiqued in their use, the need arises to define a theoretical perspective that is nuanced and capable of addressing the complexities of lived experience.

The Capabilities Approach. In the literature of disability research as a whole, one of the main frustrations is with the tendency to focus on definitions and semantics, at the cost of detracting from larger issues, such as discrimination, oppression, and inequality (Oliver, 1990). Simultaneous, it is important to understand the environment in which a disability is cultivated to understand the experience of the disability (Oliver, 1990; Riddle, 2014b; Scotch, 2000; Silvers, 1998a). The previous sections on the Medical Model and the Social Model provide an understanding of two common perceptions of disability that are often present in U.S. environments (Oliver & Barnes, 2012; Riddle,

2014b; Silvers, 1998a). Though other disability theories exist, I will only cover one more since it is theoretical framework from which I conducted this research.

The Capabilities Approach was first expressed by Amartya Sen in “Basic Capability Equality”, as an alternative form of equality that Sen argues is superior to those more commonly used (1980). In the model, capabilities are defined as freedom to choose a set of functioning which would result in various life states (Riddle, 2014c). Martha Nussbaum describes the approach as a doctrine that, through a set of fundamental entitlements implicit in human dignity, specifies “necessary conditions for a decently just society” (2006a, p. 155).

The Capabilities Approach has a foundational belief that individuals are different and that these differences result in varying abilities to convert goods into capabilities (Sen, 1980). This shifts the focus away from the possession of goods and toward what one is capable of doing with those goods and what goods do to and for people (Riddle, 2014c; Sen, 1980). This shift is crucial to conversations of justice because it recognizes inequalities that may arise from multiple identities and that equality in provision of goods does not equate to equality of capabilities (Riddle, 2014c; Sen, 1980). In regards to the study of disability, Nussbaum’s work on the capabilities approach is useful because it provides an explicit list of ten basic capabilities (Riddle, 2014c). Nussbaum states that if one is able to access all ten capabilities, then one is living a life worthy of human dignity (Nussbaum, 2006c). The ten “Central Human Capabilities” from Nussbaum (2006c) are summarized as follows:

1. *Life*. Living a length of life desired; not dying prematurely.

2. *Bodily Health*. Being adequately nourished and sheltered; being able to have good bodily health, including reproductively.
3. *Bodily Integrity*. Being able to move freely and without fear of threat or harm including sexual assault and domestic violence; opportunities for sexual satisfaction and reproductive choice.
4. *Senses, Imagination, and Thought*. Being able to use ones senses to imagine, think, and reason in a way informed and cultivated by an education. Being able to use imagination and critical thinking in the creation and production of work of one's own choice. Being protected under freedom of expression.
5. *Emotions*. Being able to build connections to things and people; to love others and grieve in their absence; to experience justified anger. "Not having one's emotional development blighted by fear and anxiety" (p 77)
6. *Practical Reason*. Being able to form morals and critically reflect on the direction of one's life; protection for conscience liberty and religious observance.
7. *Affiliation*. Being able to feel and express sympathy, engage in various social interactions, and live with others with the bases of self-respect and nonhumiliation. Being treated as a being whose worth is equivalent to that of others, this includes nondiscrimination.
8. *Other Species*. Being able to feel and live with concern for animals, plants, and nature.

9. *Play*. Being able to enjoy activities, laugh, and play in the manner of ones own choosing.
10. *Control over One's Environment*. Being able to and having the right to effectively take part in political decision-making. Being able to hold property with equal rights to do so as others; having the right to equal employment.

Though Nussbaum's and Sen's work in the capabilities approach provides a good basis for egalitarian thought, Riddle states that it is limited in its views of justice and ability to include people with disabilities into the framework (Riddle, 2014c).

Legislation and interpretation. In the United States, Section 504 of the Rehabilitation Act (*Rehabilitation Act*, 1973), the Americans with Disabilities Act (ADA) (Congress, n.d.), and the Americans with Disabilities Act Amendments Act (ADAAA) (Congress, 2009) all play a major role in the way disabilities are treated at higher education institutions (Brown & Broido, 2014; Leuchovius, 2003; Shaw, Keenan, Madaus, & Banerjee, 2010). Section 504 of the Rehabilitation Act was the first piece of national legislation that addressed disability as a civil rights issue (Brown & Broido, 2014). Under this act, all programs or activities that receive federal funds must allow people with disabilities to participate in or benefit from them without discrimination based on their disability (*Rehabilitation Act*, 1973).

The ADA, a landmark in civil rights legislation, is grounded in the belief that disability is socially constructed and shaped by our environments, both physical, cultural, and behavioral (Scotch, 2000; Silvers, 1998a, p. 75). The ADA was an attempt to address the discrimination of people with disabilities more broadly by expanding

protection to private employers, public places, and state or local government programs (Congress, n.d.; Scotch, 2000). Since it describes at the interaction between an individual's impairment and the environment in which the individual must function, the ADA has a complex conception of who has a disability and what treatment is discriminatory (Scotch, 2000).

However, the flexibility in the language of the ADA allowed room for interpretation which may have led to the increased reliance in the interpretation of the law on common and limited understandings of what people with impairments are capable of (Scotch, 2000). Inevitably, the Medical Model influenced the way the Original 1990 Americans with Disabilities Act was interpreted by the courts and thus enacted in the workplace, requiring that individuals prove they are disabled and thus covered by the ADA (Silvers, 1998b, p. 11). Robert Burgdorf, who drafted the ADA, states: "proving that one is disabled is the direct antithesis of the goals underlying the nondiscrimination mandates of the ADA and sections 501, 503 and 504 of the Rehabilitation Act" (Burgdorf, 1997, p. 561). Under the interpretation of the laws, not only do individuals have to prove that they are disabled, but also that despite the disability they are capable of the job they have been performing or have applied for (Burgdorf, 1997, p. 561). The major rulings that narrowed the definition of disability and exemplified the thinking described above are *Sutton v. United Air Lines, Inc.* (O'Connor, 1999) and *Toyota Motor Manufacturing, Kentucky, Inc. v. Williams* (O'Connor, 2002).

On September 25, 2008 Congress enacted the ADA Amendments Act because, as stated in section 2 (a)(3), "while Congress expected that the definition of disability

under the ADA would be interpreted consistently with how courts had applied the definition of a handicapped individual under the Rehabilitation Act of 1973, that expectation has not been fulfilled” (Congress, 2009). Thus it can be inferred that the ADA Amendments Act is an attempt to return to its Social Model intentions. This attempt is limited because it is addressing disability within an ableist society and thus can never truly be a part of the Social Model, which would address how society disables individuals. This legislation is used in higher education when making determinations about disability and the provision of services. To understand the place my research has, it is also important to understand what typical U.S. classrooms are like both physically and psychologically, and what the U.S. population of students with mental illnesses is like.

Broad U.S. Higher Education Structure and Formal Learning Environments

Across the U.S. most professors and instructors are hired by individual departments through a highly competitive process that values diversity (Smithee et al., 2004). These people handle most teaching, often along with graduate assistants at larger institutions who cover more lower level courses and lab sections. Students are usually given the opportunity to provide feedback on the instructors teaching and the class as a whole at the end of the academic term (Smithee et al., 2004). Cohen and Kisker describe modern U.S. Higher Education as a “diverse set of institutions absorbing changes in enrollment, responding to market pressures for new or career-oriented curricula, churning out a fairly constant ratio of degrees and certificates” (2009, p. 462).

To provide context for research on how classrooms are experienced, it is important to understand what the typical classroom is like. As with many things, to express all of the complexities of the classroom in a concise way is to do the impossible. Thus, I will only provide an overview of the physical classroom, the psychological classroom, Universal Design for Learning, and barriers to engaging in the formal learning environment.

Physical classroom environment. Often a class in the U.S. is in a lecture hall, often a lower level course where potentially hundreds of students sit and quietly listen to the instructor, or is a smaller course which is typically a lab/recitation and higher division, field specific, course (Cimasko, Paiz, & Gherwash, 2013; Smithee et al., 2004). Research on classroom environments shows that seating students in rows, like in traditional lecture halls, encourages on task behavior and academic learning (Wulsin, 2013). In contrast, more open arrangements like clusters or pods facilitate social exchanges and encourage peer teaching and learning (Wulsin, 2013). Currently there is a trend toward more flexible spaces that allow for use of multiple pedagogical strategies such as switching between lecture and small group discussion (Wulsin, 2013). The trend toward flexibility is indicative of a shift that is occurring, or in some cases has occurred, which is summed in a quote by Eric Mazur, Professor of Physics and Applied Physics at Harvard University

Education is not about transferring information from one to many; it is about learning within the student... today, information is ubiquitous and readily available, and students can pick it up when and where they want... the classroom ought to focus on assimilation and application of knowledge to new contexts. ("A landmark gift for learning," 2011).

The same type of in depth analysis on how space is structured and the implications space has on the types of learning is also seen in a larger conversation around pedagogy and different teaching strategies and beliefs.

Psychological and social classroom. Two main pedagogical approaches to instruction can be described as the learner-centered approach and the teacher-centered approach (Smithee et al., 2004). In the learner-centered approach there is a blend of lecture, group discussion, and application of theory where the instructor's role is to present content and facilitate dialogue while the learner listens, takes notes, thinks critically, participates in dialogue, and demonstrates understanding (Wulsin, 2013). In the learner-centered approach, both the instructor and the students direct learning through participation (Wulsin, 2013). There are many forms of evaluation used, including between peers, student to instructor and instructor to student (Wulsin, 2013). Teacher-centered learning is characterized by being lecture based with the instructor as the source of knowledge (Wulsin, 2013). In the teacher-centered approach, the teacher is the holder and strategic director of knowledge, and students are the empty and submissive receivers of knowledge whose job it is to sit, listen, take notes, read, memorize, and demonstrate memorization (Freire, 2000; Wulsin, 2013). Learning in the teacher-centered approach is top down and evaluated solely by the instructor and on student performance (Wulsin, 2013).

The larger pedagogical shift is toward student-centered learning and away from teacher-centered learning (Wulsin, 2013). However, the shift is slowed by a strong focus on faculty as researchers which has led to the devaluing of their roles as teachers

(Wulsin, 2013). Due to the precedent they set, prominent research institutions have a large impact on the broader culture and pedagogy of higher education, and thus “it is crucial that they engage more fully with the urgent task of restructuring the teaching and learning environment” (Wulsin, 2013, p. 9). This is especially true because of the numerous negative implications that the teacher centered model has been shown to have throughout literature where it is referred to as “traditional” pedagogy, or the “banking model” (Charlton, 1998d; Freire, 2000).

Speaking to the influence of the teacher-centered approach, prominent disability writer James Charlton says that U.S. education has two main social functions: to “teach acquiescence to power structures operating in the educational arena” and to “teach acquiescence to the larger status quo, especially the discipline of its workforce” (1998d, p. 31). In Paulo Freire’s *Pedagogy of the Oppressed*, traditional instruction is said to mirror, teach, and reinforce the oppression that society as a whole exhibits (Freire, 2000). Here the teacher (Freire’s oppressor) wants to change the thinking of the student (Freire’s oppressed) and not the situation that creates the oppression because if the students can be taught to adapt, “the more easily they can be dominated” (Freire, 2000, p. 74). Critical analysis of this approach says that it dehumanizes both the teacher and the student, and is successful in perpetuating dominant narratives, producing monoculture, and re-affirming existing power structures (Bowles & Gintis, 2002; Freire, 2000). In regards to disability we see the reinforcement of dominant power structures in that schools are often still segregated with forms of “special education” and special schools for students with disabilities (Charlton, 1998d).

Despite the pedagogical differences, there are still many things consistent across the U.S. Higher Education landscape. In interactions with faculty and peers, often people with disabilities are paternalized, meaning they are treated as though they need to be taken care of for their own good and without agency (Charlton, 1998b). This is also exhibited through institutionalizing individuals against their will, assuming an individual needs help, directing questions about the person to others around them, and in general assuming an individual has a lack of ability that is inferior by nature and results in them being unable to care for themselves (Charlton, 1998b, p. 53). These behaviors are left over from the teacher-centered approach mingling with the pervasive ableism in U.S. culture. If cognitive bias is not consciously addressed with consistent attempts to dismantle it, it will never go away (Gilovich, 1993; Haselton, Nettle, & Andrews, 2005).

Across U.S. Higher Education standards of student performance are largely determined by faculty and often based off of completion of readings, quizzes, oral presentations, “research papers, or short essays and exercises” (Smithee et al., 2004, p. 9). Participation in class is also commonly required and the main forms of participation are asking questions & engaging in discussions (Smithee et al., 2004). Often institutions have strict definitions of cheating and plagiarism that follow from a larger US values of independence (Smithee et al., 2004). Standards of behavior, such as those exemplified in an institutions standard of student conduct, stem from U.S. values of fairness and independence and are created with the intent of achieving safe and productive learning environments (Smithee et al., 2004). These often permit free speech but do not allow

behavior that does, or has the potential to, harm or threaten others (Smithee et al., 2004).

Other ideas that are foundational to U.S. learning environments are the rights of the individual, personal responsibility and self reliance, freedom of choice, interactive/participatory learning, liberal education, independent critical thinking, democratic principles, and communication (Smithee et al., 2004, p. 11; US-UK Fulbright Commission, 2014). In U.S. classrooms proper and direct communication is often vital to academic survival (Smithee et al., 2004). Such communication is usually oral, meaning if a student does not understand, they are expected to verbally ask for clarification in a direct and specific way. Communication through academic writing that is direct, clear, conveys a message to all readers, and follows a logical progression is also valued.

Universal Design for Learning. In response to this “one-size-fits-all” curriculum, Universal Design for Learning (UDL) was developed to address the problems and barriers created by traditional pedagogy (Wakefield, 2011). As Edyburn put it, though “students with disabilities had gained physical access to the general education classroom concerns were being raised about how these students would gain access to the ‘general curriculum’” (2010, p. 33). The most recent iteration of the UDL framework aimed at improving access to curriculum consists of three principles meant to guide UDL work and provide a framework for the UDL Guidelines (Wakefield, 2011). The principles are as follows and are summarized from the UDL Guidelines Version 2.0 (Wakefield, 2011, pp. 8–9):

1. Provide multiple means of representation. Learners may require different ways of approaching content and by having multiple representations they can make connections within and between concepts.
2. Provide multiple means of action and expression. Learners navigate the learning environment and express their understandings in different ways.
3. Provide multiple means of engagement. Motivation to learn and be engaged varies across learners. Many things influence these variations in affect and result in different necessities for engagement.

These principles are meant to provide direction to UDL curriculum and aide when the path is ambiguous (Wakefield, 2011). The principles can be further broken down into guidelines. The purpose of the UDL Guidelines is not to be prescriptive but rather to provide strategies for addressing common curricular barriers though it is important to clarify that these strategies are not intended to be used with just a few students but to be applied and integrated into the course structure and learning environment (Wakefield, 2011). For a complete and thorough list of the UDL principles, guidelines, and checkpoints see the UDL Guidelines Version 2.0 (Wakefield, 2011). Though the principles of UDL are applicable to students with psychiatric disabilities, the extensive research they are based on has few references to mental illnesses let alone anxiety (National Center on Universal Design for Learning, 2012). Along with curricular barriers addressed by UDL, there are many other barriers to engagement for students who experience anxiety.

Barriers to engagement. It is important to clarify what is meant by engagement before trying to discuss what could be a barrier to it. For the purposes of this thesis, engagement is defined consistent with the literature on student engagement by Astin (A. Astin, Korn, & Green, 1987; A. W. Astin, 1985, 1993) and Kuh (G. D. Kuh et al., 2006; G. D. Kuh & Pike, 2005; George D. Kuh, Cruce, Shoup, Kinzie, & Gonyea, 2008). These texts provides an in depth exploration of what engagement is but for the purposes of this section it will be summarized as meaning the time and energy given toward educationally meaningful activities (A. Astin et al., 1987). Students with psychiatric disabilities often face multiple barriers to their engagement in higher education. Brown and Broido (2014) cite familial pressures to focus on academics and fear of stigma that would come from disclosure as one of these barriers to student engagement. Students with mental illnesses reported that they felt their college did not welcome them, and that they were penalized, like by losing financial aid, for their mental health problems causing them to receive lower GPA's and changing to part-time status (Gruttadaro & Crudo, 2012).

Another attitudinal barrier is ableism which leads to the belief that accommodations only benefit "the disabled" and are costly to implement, that people who are disabled are held to a lower standard, and that an accommodation is less desirable (Griffin, Peters, & Smith, 2007). This leads to social constructions of stigma that students with disabilities are not capable, and thus need to be saved from their limitations by the able (Brown & Broido, 2014). This mentality shifts the onus of access onto individuals with disabilities, who thus must ask to participate instead of the

institution proactively creating access (Brown & Broido, 2014). The presence of this mentality is shown in that students report their institutions are not supportive because they do not educate faculty, staff, or students on mental health (Gruttadaro & Crudo, 2012). Because of this, stigma persists and professors do not follow accommodations, perpetuating the idea that the student must ask if they need anything (Gruttadaro & Crudo, 2012).

A large barrier for engagement is students identifying as disabled, and their perceptions of self-reporting as such. A student must identify as having a disability and understand how this identity impacts their learning for them to be successful in higher education (Getzel & Thoma, 2008). Identifying themselves may be difficult for students who don't identify as disabled because they are anxious about it, or would rather wait to disclose until an issue arises (Getzel & Thoma, 2008).

Mental Wellness in Higher Education Institutions

In this section I will review the literature on prevalence of students who experience mental illness, issues surrounding help-seeking behaviors, support services for mental wellness, and the relationship between mental illness and academics. These topics are important for understanding my research because they provide insight into what students experience in regards to mental wellbeing, how institutions treat these students, and potential struggles they may face.

National prevalence of students with Mental Illnesses. To provide context for the research, another important part of literature on the U.S. higher education landscape is the work regarding students with mental illnesses. According to data

provided from institutions, in the year from 2008-2009 11% of undergraduates reported having a disability (U.S. Department of Education, National Center for Education Statistics, 2013). Looking specifically at students with mental illnesses in the same data set, of the 11% percent who reported having a disability, 15% reported that disabilities were mental illnesses/psychological or psychiatric conditions, this translates to roughly 1.7% (Raue & Lewis, 2011, p. 3). These numbers are lower and inconsistent with findings from other research that looks at the percentage of students with mental illnesses. The lower percentage of students in the aforementioned study could be in-part because only 50% of students with mental illnesses say that they disclose to their institution (Gruttadaro & Crudo, 2012, p. 9).

According to the American College Health Associations National College Health Assessment (ACHA-NCHA II) which surveyed 66,887 undergraduate students nationally in 2014, 6.7% of students self-reported on the assessment as being diagnosed with a “psychiatric condition” such as depression or anxiety (American College Health Association, 2014b, p. 3). From that same assessment, within the last 12 months students reported being diagnosed with or treated for the following (with rates of incidence in parentheses): anxiety (14.3%), depression (12.1%), a combination of anxiety and depression (8.6%), panic attacks (6.9%), and Obsessive Compulsive Disorder (2.4%) (American College Health Association, 2014b, p. 15). The ACHA-NCHA II also assessed indicators of mental health, instead of just the diagnosis. In the last 12 months, students reported the following (with the rate of incident in parentheses): feeling overwhelmed by all they had to do (87.1%), feelings of overwhelming anxiety (54.7%), feeling things

were hopeless (47.8%), feeling so depressed that it was difficult to function (33.2%), seriously considering suicide (8.6%), attempting suicide (1.4%) (American College Health Association, 2014b, pp. 13–14).

The ways in which an institution interacts with its students with disabilities can have an impact on many aspects of the student's experience. In a national survey, 92% of institutions require verification documentation for disabilities, often a letter from a service provider like a doctor or a testing agency (Raue & Lewis, 2011, p. 3). Students report that they receive information about Depressions and Anxiety from 56.3% of institutions, stress reduction from 62%, and suicide prevention from 39.6% of institutions (American College Health Association, 2014a, pp. 1 – 3). Though there may exist support structures like those mentioned, students don't always utilize them.

Help-Seeking, rates of and reasons not to. Students' understanding of their disabled identity not only helps them understand their lived experience, but is also crucial for them to seek help. Recent research says that 43% of students with mental illnesses did seek help, and 57% did not (Gruttadaro & Crudo, 2012, p. 12). Of those who did not seek help, many reasons were given as to why. Students said they would rather try and figure it out themselves (Eisenberg, Speer, & Hunt, 2012, p. 712), they were unaware that they qualified or had the right to receive accommodations saying that their stress and anxiety were normal parts of the college experience (Eisenberg et al., 2012; Gruttadaro & Crudo, 2012), and they did not know services were provided for mental health conditions (Collins & Mowbray, 2005; Gruttadaro & Crudo, 2012). Students also reported that the process for acquiring accommodations was too

burdensome and required too much expensive documentation (Gruttadaro & Crudo, 2012). Students' daily lives also impacted their help-seeking behaviors, as they cited things such as a busy schedule (Eisenberg et al., 2012; Gruttadaro & Crudo, 2012) and incompatible office hours (Gruttadaro & Crudo, 2012) as why they didn't seek help.

Stigma is another large reason for a lack of help seeking (Gruttadaro & Crudo, 2012). It is important to note that this is a fear that others will stigmatize them, because research shows that recently students have lower internalized stigma levels (Eisenberg et al., 2012). One study showed that 65% of students with mental illnesses who were not receiving treatment reported having low feelings of stigma, and positive beliefs about treatment (Eisenberg et al., 2012). This combined with students not perceiving their need as serious or worthy of attention lead to a new conceptual hypothesis (Eisenberg et al., 2012). It is likely that students perceive help-seeking behaviors similar to how exercise and a balanced diet is viewed, though it is healthy, many people don't engage in the healthy behaviors (Eisenberg et al., 2012).

Support services. Though students may not always see a need, there are still many vital support services on campus for students and the institutions community as a whole. Fifty-five percent of students with mental health problems reported that they accessed mental health services and supports (Gruttadaro & Crudo, 2012, p. 14). These students reported that services are most helpful when staff understand mental health issues and help students communicate those issues with professors, help students develop a plan for addressing mental health problems, and when the process for getting accommodations is easy and clear (Gruttadaro & Crudo, 2012). Students reported that it

is not helpful when staff only focus on physical disability, professors do not honor approved accommodations, support services don't check in with students on accommodations or listen to student needs and concerns, and when students are not informed of resources and how access them (Gruttadaro & Crudo, 2012).

Academics. For students with mental illnesses, academics can pose a challenge, specifically in regards to academic success, or the lack thereof. Within the last 12 months, students reported the following factors as negatively affecting their academic performance with the percentage of incidence in parenthesis following: stress (32%), anxiety (22.8%), sleep difficulties (22.4%), cold/flu/sore throat (16.3%), work (14.3%), depression (14.1%), internet use/computer games (12.5%), participation in "extra curricular" [sic] (11.7%), and a learning disability (3.4%) (American College Health Association, 2014b, p. 5). These numbers are of importance because as mentioned earlier 6.7% of students reported having a psychiatric condition but 22.8% and 14.1% of students rated anxiety and depression respectively as impactful (American College Health Association, 2014b, pp. 3 – 5). It is also of note that 3.4% of students reported that a learning disability negatively affected their academics, though 4.8% report having a learning disability (American College Health Association, 2014b, pp. 3–5). These statistics are important because in regards to psychiatric conditions a smaller number reported having a condition than reported being negatively affected by it, and for a learning disability the converse is true, a higher number reports having a condition than being negatively affected by it (American College Health Association, 2014b).

The student reports that mental health problems impact their academic success are also backed in research (Collins & Mowbray, 2005; Eisenberg, Goldberstein, et al., 2009). Mental illnesses negatively impact a student's ability to concentrate, find motivation, and participate in healthy social interactions, all of which are vital to their success (Collins & Mowbray, 2005). One study found that depression correlates with a GPA drop of .17 and depression and anxiety together drop GPA by .40 overall (Eisenberg, Goldberstein, et al., 2009, p. 20).

In regards to retention and graduation the research shows mixed results. In one study there was no difference in retention and graduation rates between students with mental illnesses and their peers who were not mentally ill, but did find that students with disabilities (broadly defined) take longer to graduate (Wessel, Jones, Markle, & Westfall, 2009). In a six year graduation and retention study, students with no disability graduate in 4.44 years, students with visible disabilities graduate in 4.61, and students with invisible disabilities graduate in 4.67, but all graduated at roughly the same rates (Wessel et al., 2009). In comparison, a different national study shows that students with mental illnesses have many characteristics of nontraditional or "at-risk" [sic] students and experience disadvantages because of those intersections of identities (Mamiseishvili & Koch, 2011). Students with disabilities are often older, live off campus, and are first-generation students, all of which may present potential barriers and contribute to higher attrition rates (Mamiseishvili & Koch, 2011).

Persistence of students with disabilities from the first to second year is 76.4%, students with depression have a 76.2% persistence, and students with

emotional/psychiatric conditions persist at a rate of 73.7% (Mamiseishvili & Koch, 2011, pp. 98 – 100). Research has found that social and academic integration are vital to student learning, development, and persistence (Mamiseishvili & Koch, 2011; Wessel et al., 2009). The research suggests that social integration is more influential on student success than academic (Mamiseishvili & Koch, 2011, p. 99). Degree aspirations (aiming for higher degrees) and net price of attendance (more out of pocket, more persistence) were also large predictive factors (Mamiseishvili & Koch, 2011). When students are asked, 64% of students with mental health problems who did not persist to graduation said they left for a mental health reason (Gruttadaro & Crudo, 2012, p. 8).

The Need For a More Detailed Picture

To humanize the process of education, Freire (2000) says educators must have “profound trust in people and their creative power” (p. 75), but that trust is not seen with students who are mentally ill. Silvers argues that by defining which impairments constitute a disability worthy of accommodation, we are in effect equating these impairments to incompetence (1998a, p. 26).

For this reason I do not use the historic theoretical perspectives of disability and instead adopt the Capabilities Method to address the complexities of the students lived experiences. In Charlton’s (1998c) *Nothing About Us Without Us* he references this complexity by saying that to look at the phenomenon of disability oppression, you must look at how the oppression is perpetuated through relations and structures, such as the those that exist in the classroom as mentioned before (p. 69). By looking at these structures and interactions, Charlton suggests that one could begin to understand how

people think, feel, and cope with how the oppression manifests in their lives (Charlton, 1998a). From the research we know that students with mental illnesses have lower GPAs, take longer to graduate, experience a high rate of the illness affecting their academics but low diagnosis, identification, and support (American College Health Association, 2014b; Eisenberg, Goldberstein, et al., 2009; Wessel et al., 2009). I want to know what about the formal learning environments impact them, leading to these experiences. Specifically, I seek to explore how students with anxiety perceive and interact with formal learning environments, what aspect are most salient and influential to their experiences, and how the environment influences their anxiety and ability to perform activities needed for their success.

These questions are not answered directly in current research because of a gap in the understandings of how students with anxiety experience and interact with formal learning environments. Disability Studies takes a broad look at disability and structures that create disability, but often disassociates it through theory from the lived experiences of individuals (Davis, 2013b; Vehmas, 2008). Similarly, research on the U.S. formal learning environments and how learners experience them is also broad. This research often aims to figure out how students learn and how to teach in ways to promote that, but it does not narrow down to the experiences of students with mental illnesses or, more narrowly, anxiety (National Survey of Student Engagement, 2014; Smithee et al., 2004). An important area of research addressing formal learning environments is that on Universal Design for Learning (UDL). This work addresses the problems of “one-size-fits-all” curriculum, particularly in reference to students with

disabilities (Wakefield, 2011). Though the principles of UDL have application to all students, the research they are based on has few references to mental illnesses (National Center on Universal Design for Learning, 2012). Research on mental wellbeing of students in higher education often does not center the voices and experiences of student, with few exceptions (Gruttadaro & Crudo, 2012) resulting in those aspects being pushed to the periphery. With my research design and thesis broadly, I hope to re-center these experiences and understandings in addressing my research questions. By using Arts Based Research methodologies (Leavy, 2015b) as detailed in the next chapter, I will be able to center on the co-creators experience as a way of actualizing justice.

Chapter 3: Methodology

My research serves to further the understanding of the experience of undergraduate students with anxiety in higher education's formal learning environments. Specific attention was paid to how the student's anxiety impairment develops into a disability, is sustained, and/or decreases. Attention was also given to the structures of the formal learning environment that influence the student's ability to perform activities needed to be successful. To do this I employed Arts-Based Research methodology (Leavy, 2015b).

Many people will experience symptoms of a mental illness during their life, and most of these symptoms will start during the typical college years (Eisenberg et al., 2007). Most students who experience symptoms of mental illness do not seek accommodations at the symptomatic onset and thus do not receive the services they need to be successful, sometimes for their entire time in higher education (Eisenberg, Gollust, Golberstein, & Hefner, 2007). Though research has been done on students with mental illnesses (Eisenberg, Gollust, et al., 2007), less has been done to look at their experiences in the classroom and how that influences their willingness to seek help.

Research paradigm, tradition, and shape

In current research, the barriers that students with anxiety experience have mostly been explored through the use of surveys that, with few exceptions (Gruttadaro & Crudo, 2012), have minimal freedom for students to verbally share their lived experiences and thoughts, thus we have little understanding of the nuances of the student experience, only of the populations broadly. To nuance the perception of

students with anxiety in the classroom, I used visual Arts-Based Research (ABR) methodology (Leavy, 2015d). Broadly defined, ABR as a methodology is a form of artistic inquiry that blends the creative art-making process with the act of research by embracing the similarities between the two and deepened understanding that art can bring (Gerber, 2012; Leavy, 2015c). ABR practices are a set of methodological tools that researchers from any discipline may use at any point in their research (Leavy, 2015c). Using ABR allowed for a fine grain understanding of what the experience of having anxiety in the classroom is like (Leavy, 2015c).

It is vital that research does not confine itself to only a specific “elite” audiences or methodology, as a part of this, researchers need to work to find new ways of answering their questions. Patricia Leavy (2015c) speaks to this need to expand our methodologies saying “there is a moral and ethical imperative for researchers to use available resources, including creating new and transdisciplinary approaches to research, in order to serve the communities in which we are enmeshed” (p. 22). Leavy (2015c) refers to research as having a “shape” that the audience perceives which may be different than what the researcher intended so it is important to consciously contour the shape of the research through the relationship between the goals of the research, the methodology, and the research process. To address a wider variety of issues and communicate with diverse audiences, researchers need to be able to perceive their research in different shapes and produce knowledge in more shapes (Leavy, 2015c).

One of the greatest strengths of ABR is its ability to do this, to cultivate ways of understanding, or new “shapes” of research, different from those of quantitative and

qualitative research (Leavy, 2015c). ABR can also be used in holistic research, a process-oriented view where a topic is considered comprehensively, where applicable theories and their development mesh with their use, and where a “synergy between form and content” exists (Leavy, 2015c, p. 23). This interaction highlights how knowledge and understandings are shaped and how researchers and their practices influence that shaping (Leavy, 2015c). The different understandings evoked through ABR nurture compassion and empathy within viewers of the research because the way it is consumed is engaged by necessity and opens the audience up to emotional responses and investments (Leavy, 2015c). Leavy uses the example of how we at times feel have emotional responses to things like “reading a novel, seeing a photography exhibit, listening to music, or watching a film” and in particular how we may even feel “bad for” or empathetic toward a fictional character (2015c, p. 24).

ABR also leads to lasting change and deepened learning, not just within the viewers, but also participants and even the researcher (Leavy, 2015c). This deep learning comes from the ability of the arts to spur many potentially contradicting emotions, this experience in turn causes deep memories to form (Kandel, 2012; Leavy, 2015c). This aspect of ABR makes it particularly applicable to research that aims to teach diverse subject matter like the experiences of anxiety explored here (Leavy, 2015c). Leavy says that the experiences of being in the research or exposed to its final representations have the potential to shift one’s thinking, causing them to build empathetic connections to the experiences and stories that the research portrays (Leavy, 2015c, p. 21).

Since ABR elicits lasting change and deep learning, it is a good fit for problem-centered or issue-centered projects, particularly those that require communicating emotional aspects of social life (Leavy, 2015c). The ability of ABR to describe complex experiences lends itself well to the exploration of anxiety within my research. The emotional response evoked by ABR also leads to engaged dialogue, a critical aspect of cultivating understanding within a problem-centered approach (Leavy, 2015c). Dialogue is natural to ABR because the multiple meanings of art lead to multiple ways of making meaning instead of authoritative claims being made as sometimes occurs in research (Leavy, 2015c). This illuminates another strength of ABR, its ability to resist dominant narratives. A strength that is key to this research since many of the co-creators are speaking of their experiences at the margins of higher education.

ABR resists single narratives and dominant discourses by creating critical awareness and increased consciousness (Leavy, 2015c). One way this is done in the process of ABR is by decentralizing the perception of “researcher” as an expert, rather ABR requires that all participants are viewed equitably (Leavy, 2015c). This is particularly important in work that seeks to reveal power relations, build coalitions cross identity groups, and challenge dominant ideologies (Leavy, 2015c). My research aims to be a part of such social justice work which makes ABR a beneficial choice because it will allow me to re-center the self-told and illustrated experiences of the co-creators who have been systemically moved to the periphery. One of the most effective ways to resist and reverse subtle bias is showing counterimages and sharing counterstories, this is a strength of ABR which focuses on storytelling and creating images (Lai et al., 2014;

Leavy, 2015c). The creation within ABR of these stories and images is possible because of the value ABR puts on exploration through inductive research designs and the organic emergence of meaning (Leavy, 2015c). Arts Based Research is also beneficial because it is able to elicit an increased understanding of experiences and to aide in the distribution and integration of the findings into the higher education community.

The aforementioned benefits are the results of the epistemological underpinnings of ABR. First it is assumed that “the arts can create and convey meaning” (Barone & Eisner, 2011; Leavy, 2015c, p. 20). Furthermore, art has always raised awareness and conveyed truth(s) (Gerber, 2012; Leavy, 2015c). For these reasons art is critical to understanding oneself and other beings (Gerber, 2012; Leavy, 2015b). It is critical that the audience also understands the role of the researcher and the perspective from which they are conducting the study.

Role of the researcher and positionality

It is important to note that I do not outright identify myself as a “co-creator” but rather that it is a facet of my experience and overall participation in the study. I recognize that my positionality and the way I come to the research is fundamentally different from that of the co-creators in the study. For instance, I have reviewed a significant amount of literature and though it is beneficial to my understanding of the issues, it is always at least subconsciously in my mind. There is also a definition of the role of the researcher within ABR, my role, which is as an “instrument” of composition (Leavy, 2015c, p. 17). If I am acting as an instrument of composition, then my experiences and energy put toward creation are a part of my overall role, not my only

one. This is where I feel the most distinction between my role and the roles of the “co-creators”.

In *Method Meets Art* Leavy (2015c) describes attributes that an arts-based researcher needs to have. First the researcher must be open to spontaneity and value their own intuition which can be exhibited by regular “gut checks” (Leavy, 2015c, p. 27). An arts-based researcher also needs to be able to think critically by synthesizing data symbolically, metaphorically, and thematically because research is made sense of through this analysis and interpretation (Leavy, 2015c). After analysis and interpretation, the researcher must use critical thinking to mold the presentation of the research into a shape that is emblematic of the essence of the research (Leavy, 2015c).

It is also expected that ABR researchers fully bring themselves to their work, including their values that lead them to the research to begin with (Leavy, 2015c). I identify as a disabled person (see the note on language for an explanation) and value work that aims to actualize social justice. So my need to do research that was fundamentally rooted in justice and connection along with my experiences with marginalization lead my to ABR. Morally an arts-based researcher views ABR as collaboration with equal contributors, respects all views, focus’ on diversity and inclusion, considers the audience, remains open to all art forms, and situates ABR in relation to art (Finley, 2007). I held these to be my truths throughout the process. These views came out in my intentional use of “co-creators” to represent and value their contributions, in my practice of the dialogic skill of trying to hold someone else’s truth

as my own during my meetings with the co-creators, and constant awareness of how the research would be shared.

Leavy (2015c) also states that an arts-based researcher must be able to think like an artist, meaning that they view the work as a verb, as in “*making art*”. I have a background as an artist, primarily in ceramics, ink and pencil drawing, and watercolor/gauche painting. This background is engrained in my perceptions of the world. During my work on the research, I kept a visual journal for myself that I used to help process “the work” through the literal making of art. A part of thinking like an artist is attention to craft and aesthetics, which are also linked to content delivery (Leavy, 2015c). To illustrate this thinking Leavy (2015c) says a researcher should ask not “is this a good piece of art” rather, “what is this piece of art good for”. This paradigm was key for me as I made aesthetic choices in the summary pieces. Lastly, an arts-based researcher must be able to think like a public intellectual (Leavy, 2015c). This requires that a researcher makes their research relevant and accessible to the public and key stakeholders, or more broadly, attention is paid to the audience (Leavy, 2015c). ABR also encourages researcher to share their relationship to the research with the audiences who consume the work (Leavy, 2015b, p. 3). As I mentioned above, I identify as a disabled person. Some of my impairments are anxiety “disorders” and I find community with other people who have similar experience. For me, this research is an act of love for that community, the people in it, and for myself and my identities.

Recruitment

After obtaining approval for the study from the Institutional Review Board (IRB) it was vital that I recruit people to participate in the role of the co-creator. I was seeking people who were 18 years of age or older, currently enrolled Oregon State University undergraduate students, and self-identified as experiencing anxiety that interfered with their ability to perform functions necessary to daily life including learning, concentrating, and communicating with others. The phrasing in the last criteria about “self-identifying” was critical as I thought about how to advertise and recruit. To self-identify as having anxiety means that a person must have an awareness of their own anxiety and the influences it has on their lives. Thus, my strategy was to distribute widely and with additional attention given to key places such people may go or interact.

Flyers were posted in key locations across Oregon State University’s main campus including in the student union, the cultural resource centers, and in the buildings that are home to the counseling center and disability services. I also circulated an email briefly explaining the study, the criteria for exclusion, and how to get started. I asked contacts at the disability services office to send that email to people they thought might be interested. Posts and a research account were made on social media and the recruitment advertisement was strategically shared to the pages of student organizations or groups that have a connection or membership that relates to anxiety.

Data collection

Data was collected using visual journals that the co-creators updated at least twice in response to prompts that I provided to help them get started. Two semi-structured interviews (Jones, Torres, & Arminio, 2013a, p. 134; Merriam, 2014, p. 89)

were held after the co-creators responded to the journal prompts where the co-creators were able to share their journal, what it meant, and any other information they felt pertinent. Five co-creators completed both journals and met twice with me, the sixth co-creator completed one journal and meeting. Co-creators were not restricted to a specific medium for their journals but encouraged to explore multiple methods, to trust their intuition, and experiment until they find something that felt right. Basic concepts of collage were discussed after the consent meeting if the individual consented to be a co-creator.

The first set of journal prompts was given at the end of our consent meeting and the second set was given at the end of our first meeting to review the journal. The same set of prompts were given to every co-creator. Before each of the prompts I included a brief description that clarified that formal learning environments (as defined by the study) not only constitute the physical environment in which learning is scheduled or otherwise designated to take place, but also the psychological and social aspects of these spaces (see Appendix E and F). This includes the interactions and relationships with other students and instructors, the social expectations of behavior, and the way a formal learning environment makes one feel. The questions for the meetings address the same ideas as those in the journal prompts given before that meeting (ex: the first journal prompts correspond to meeting one).

Broadly, the first journal prompts and first meetings addressed broad feelings associated with formal learning environments, what the co-creators notice most about the environments, and what types of interactions they have in and with the

environments. The second journal prompts and meeting focused on what situations or aspects, if any, make the co-creators more aware of their anxiety and how the formal learning environment influences their ability to perform activities needed to be successful, if at all. In both of these meetings and journals the co-creators were given space to tell stories and include any information that they found meaningful even if it did not directly relate to the interview prompts. During the meetings, follow up questions were asked, often for clarification or illumination of a specific part of the journal. Co-creators also engaged in acts of imagination to envision alternative pedagogies and environments that would allow them to thrive.

Ethical considerations and protections. “The participatory nature of ABR, as well as the visceral, emotional way the arts can be consumed, raises particular ethical issues to consider” (Leavy, 2015c, p. 26). To protect the co-creators from psychological harm, a list of resources for people with mental health problems was provided consistently and openly encouraged. These resources were given at the onset of the study when first seeking and accepting co-creators, during all interactions with the participants, and also in closing with the participants. Issues of ownership and copyright were addressed early on in the research process and it was agreed upon that I would get a photocopy of each journal which I was able to use at will so long as credit was given under the pseudonym of the co-creators choosing. Co-creators were able to keep their original pieces.

Similarly, I kept the pieces that I created, though co-creators were able to get a copy if they wanted it and would give credit if it was reproduced. Another ethical issue was with editing. Concern around photography and images of people being used without

their consent was mitigated by all work that included identifiable images (a face, distinguishable tattoo, etc), was blurred, covered, marked over, or otherwise de-identified in a manner that the participant choose. The Institutional Review Board of Oregon State University approved the study and required thorough evaluation of ethical risks and benefits. See Appendices D and E for the IRB Approval and IRB Protocol.

Data Synthesis and Analysis

Data was processed in two main ways. I coded the visual journals and the interview transcriptions for subject matter, importance given to ideas, and anxiety as a disability. The data was also coded for information on the structure, psychological and physical, of the learning environment that influenced the co-creators experience. The coding was consistent with the strategy outlined by Creswell (2015) and combined with the processes described in *Method Meets Art* by Leavy (2015b). First, I read through all of the transcripts multiple times and reviewed the journals to gain a general sense of the interviews and ideas. Next the text and images were divided into segments and labeled with preliminary codes that included a combination of visual and verbal signifiers (Creswell, 2015). These codes were then analyzed to reduce redundancy and overlap within them (Creswell, 2015). Lastly, the codes were further reduced into overall themes through a further combination that was greatly aided by visually depicting the relationships between codes (Creswell, 2015). The results of this process are shared in more detail in Chapter 4.

Arts Based Research methodology lends itself to inductive research designs and organic emergence of meanings (Leavy, 2015b) such as what is shown in this coding

process. Though I understood in theory what this process would entail and how I could find harmony in qualitative coding (Creswell, 2015) and Arts-Based data processing (Leavy, 2015b), this was my first time using such methodology so the translation from theory to practice was slow at first. In the beginning I attempted to rely only on spreadsheets to track and organize my data. I soon found this too limiting both when trying to input visual data and when trying to depict connections across, between, and within themes. I found myself keeping a notepad next to me and trying to mind map the connections. This too became quickly convoluted. During what was intended to be a mental break I switched from my notepad to my personal visual journal and began sketching the ideas and combining pieces of the visual data in a visual way. It was in this process that I found my bridge from theory to practice. From there on in the data analysis process I sketched along side organizing and referencing visuals in the spreadsheets.

The process of keeping a journal was beneficial for more than just data processing; it was also key in helping me engage with and keep track of my own emotions as I was emerged in the data. Tenni et al. (2003, p. 4) suggest that quality analysis cannot happen unless the researcher is aware of what is going on within themselves and thus they need to develop an “internal dialogue” which for some may require utilizing a journal as I did. Internal dialogue, particularly through journaling, is especially useful when working on projects that may make the researcher feel disconcerting feelings such as pain, sadness, or discomfort (Tenni et al., 2003). Additionally, it was beneficial for me to keep the visual journal during the analysis

process so that I was more aware of how I, as Kristen the student, would visually depict something. Referencing my personal visual journal while I was making the summary pieces made it so I was able to mitigate using “my” images of anxiety, which resulted in depictions that were consistent with the data from the co-creators’ journals.

Trustworthiness and Authenticity. For research to be meaningful, it must meet a high standard. In Arts-Based Research this standard is described in terms of trustworthiness and Authenticity (Leavy, 2015a). Broadly, this criteria requires the researcher to ask themselves if the research resonates with what it is trying to represent, is it authentic, and is it believable (Leavy, 2015a). Throughout the coding process I ensured the emerging codes were resonating by regularly revisiting the journals and transcripts. I also got feedback from the co-creators on if the images and sketches resonated with them personally through talking through images, asking for clarification, and sketching with them in the journal meetings. I also got feedback from the co-creators during the exhibit. I utilized this feedback as additional data as recommended during member checking by Jones, Torres, and Arminio (2013b).

Chapter 4: Findings and Discussion

As discussed in the review of literature in Chapter 2, much of the current scholarship looks at the experience of students with anxiety in higher education broadly and not much consideration is given to the formal learning environments. This study aims to better the understanding in that area by exploring how undergraduate students with anxiety experience formal learning environments and specifically how the students' anxiety impairment develops into, is sustained, or decreases as a disability in those spaces. This is consistent with the theoretical model being applied, the capabilities approach (Riddle, 2014b). Briefly, this model posits that individuals are different and these differences correlate with varying abilities to convert goods into freedom to choose how one functions (Riddle, 2014b; Sen, 1980). To explore these issues in a way consistent with the model, the following research questions guided the study:

1. How do students with anxiety perceive and interact with formal learning environments?
2. What aspects, if any, of the formal learning environments are particularly salient and influential to the experience of students with anxiety?
3. How does the environment influence their anxiety and ability to perform activities needed for their academic success?

As described in Chapter 3, data were collected using Arts Based Research methodologies (Leavy, 2015b) in the creation of a visual journal by all of the co-creators and through two semi-structured interviews (Jones et al., 2013a, p. 134; Merriam, 2014, p. 89) with

five of the co-creators and the 6th co-creator completing one. Two sets of prompts were given to the co-creators for the visual journal to give them a place to start. The first set was given at the end of our consent meeting and the second set was given at the end of our first meeting to review the journal. The same set of prompts were given to every co-creator. Before each of the prompts I included a brief description that clarified that formal learning environments (as defined by the study) not only constitute the physical environment in which learning is scheduled or otherwise designated to take place, but also the psychological and social aspects of these spaces (see Appendix E and F). This includes the interactions and relationships with other students and instructors, the social expectations of behavior, and the way a formal learning environment makes one feel. The questions for the meetings address the same ideas as those in the journal prompts given before that meeting (ex: the first journal prompts correspond to meeting one).

Broadly, the first journal prompts and first meetings addressed broad feelings associated with formal learning environments, what the co-creators notice most about the environments, and what types of interactions they have in and with the environments. The second journal prompts and meeting focused on what situations or aspects, if any, make the co-creators more aware of their anxiety and how the formal learning environment influences their ability to perform activities needed to be successful, if at all. In both of these meetings and journals the co-creators were given space to tell stories and include any information that they found meaningful even if it did not directly relate to the interview prompts. During the meetings, follow up

questions were asked, often for clarification or illumination of a specific part of the journal. Co-creators also engaged in acts of imagination to envision alternative pedagogies and environments that would allow them to thrive.

As noted previously, Arts Based Research methodology lends itself to inductive research designs and organic emergence of meanings (Leavy, 2015b). This was shown most clearly in this study during the coding process. After each meeting the audio recording was transcribed and the transcriptions and visual journals were coded for subject matter and significance the co-creators gave to ideas, all of the data was coded consistent with the strategy outlined by Creswell (2015). First, all transcripts were read multiple times to gain a general sense of the interviews and ideas then the text was divided into segments and labeled with preliminary codes (Creswell, 2015). These codes were then analyzed to reduce redundancy and overlap within them. Lastly, the codes were further reduced into overall themes (Creswell, 2015). Throughout this process I revisited the transcripts and journals to ensure that the codes were still relevant and fitting to the raw data. When assigning titles to the main themes, I attempted when possible to use language consistent with that used by the co-creators. The following themes emerged as representative of the data:

1. Self-fulfilling cycle
2. Painful, social, silence
3. Exhaustingly vital survival strategies
4. Frustration with a system not built for your success
5. Hope of a different reality

In reference to the research questions, the first two address both how students perceive and interact with the environments and what is most salient and influential to their experience. The fourth theme, futility, responds to both what is influential to their experience and how the environment influences their ability to perform. The third and the last themes address all three questions. In general the first theme, self-fulfilling cycle, deals with the broad process that students go through in dealing with anxiety in higher education. The second theme, “painful, social, silence”, can be considered as being a part of the cycle because it references the most salient things in formal learning environments. Many of these most salient things lead to negative outcomes in some way and require students to develop and use “survival strategies” such as those covered in the third theme. These first three themes all produced frustration in some way, both directly and indirectly, which is summarized in theme four, frustration with a system not built for your success. Lastly, all of the co-creators discussed hope for the future, either directly with strategies to help issues that arose, or a more broad sense of hope.

In this chapter these themes are explained and analyzed using images and quotes from the journals and quotes from the meeting transcripts in an effort to more accurately portray the experiences and understandings of the co-creators with their own images and voice. The themes will also be analyzed in relationship to the Capabilities theoretical framework (Nussbaum, 2006b; Riddle, 2014b; Sen, 1980) and other themes from the literature discussed in Chapter 2. Using the lens of the capabilities approach, the data is read as representative of how formal learning environments are places where the ability of the co-creators to convert their “goods”

(their constellation of human variation) into “capabilities” is significantly decreased to the point where they are “disabled” by those environments (Nussbaum, 2006b). Before discussing the data, it is important to understand the experiences and lives that produced it.

Co-Creator Profiles

Similar to how I described my positionality in Chapter 3 and the importance of understanding the identities and formative experiences in the lives of a researcher, it is also important to do the same with the co-creators. Here I provide brief narrative descriptions of the individual co-creator’s composite identity based off of the information that they chose to disclose in our meetings. This is intended to provide depth of understanding for the reader, beyond just the knowledge that the co-creators met the criteria for the study (18 or older, current undergraduate, and experiences anxiety that interferes with daily life). However, there are some areas in these descriptions that are intentionally left vague to protect the co-creators from being identified if they did not wish to be. It is worth repeating that the co-creators are referred to throughout this thesis by alias’ that they chose for themselves. The descriptions that follow are in alphabetical order by chosen alias.

Ak. Unique in being the only co-creator to transform their visual journal into type of graphic novel, Ak filled all of the pages with interwoven images and verses that spoke to her experiences. Ak remarked throughout the process that the visual journal was helpful in processing through her experiences. She regularly keeps a text journal but found the added visuals to be validating and able to capture things that just words could

not. Ak discussed a recursive process in the journal of drawing without a filter and then looking back and upon second look, more fully understanding the emotion and thoughts she had. A common theme for Ak is a hyper awareness of space and her relation to others. She is constantly monitoring and trying to predict what will happen. This showed up in her journal through depictions of hands that can signal what someone is thinking or about to do, and through “maps” of how the classroom feels as a whole. These depictions also showed that Ak is aware of her own thinking and emotional responses to things around her. Through classes and other experiences Ak has dialogued about things like power structures, systems of oppression, and stigma.

Alice. Being a woman in a STEM field is a prevalent identity for Alice that influences her experiences and leads to a constant awareness of body and how people see it. Alice feels that when she walks into class the only thing people notice about her is her chest. In our first journal meeting she says of one class “there were like 10 of us, and I was the only one with boobs”. This awareness of being physically noticed first lead Alice to feel that she would have to prove her mental capabilities because assumptions were already made about who she is and what she can do. Alice has some support people in her life but few with whom she talks about her anxiety and struggles with though she did say she had one professor who noticed what was happening and worked to meet with her regularly and check in. Alice recalls this as being the best term for her attendance “ever”. Alice chose this pseudonym because one of her first thoughts when reviewing the prompts and thinking about stressors in the formal learning environment was of going “down the rabbit hole.” The first image that came to her mind was of Alice

in wonderland falling down seemingly forever with all of the stressors stacked up on the sides. Piled up and threatening to cave in.

Candis. Candis is involved in a campus ministry as a student leader and there finds support and friendship. Candis is open about her anxiety and mental health struggles. She talks freely of what is going on and what action she is taking in hoped that it would help other people perhaps struggling with similar things. She also hopes that being open and honest will help decrease stigma and might encourage others to get help they might benefit from. One example is how open she is about working with a therapist and how that has helped her mitigate some symptoms by learning and practicing strategies. Candis was consistently thoughtful and caring in her responses and during our conversations. She talked about how she had little interaction with formal learning environments and often felt very isolated in those spaces because they were not built or structured in a way conducive to her engaging. Similar with the other co-creators, Candis describes and draws the feeling of formal learning environments as an “overall sensation that I don’t belong and that I’m gonna fail.”

Cecil. Similar to Alice, Cecil takes many courses in the STEM fields. Along with mental illnesses, Cecil has other health complications that interact with their anxiety and overall health. To help with this, Cecil works with the disability office on campus to arrange accommodations though they are not always able to predict or foresee everything they would need prior to the start of the term and accommodations cannot often be amended once the term has started. Cecil goes to most places with a trusted friend that attends the university as well, especially if it is Cecil’s first time navigating

that place. This helps to help mitigate the anxiety that Cecil experiences in public places. Being in public is not generally an issue since Cecil and their friend share many classes. However, they are not pursuing the same degree and in classes where they are not together due to difference in their degrees or when their schedules conflict with one another, Cecil is left to navigate alone. This presents a challenge to Cecil, which sometimes leads to difficulty actually attending class or even going to campus at all. In addition to the above obstacles, Cecil is particularly cognizant of the physical set-up of the formal learning environment as well as any disasters that could arise including fires, chemical explosions, and earthquakes that would require a timely evacuation. Along with frustrations about the physical set-up, Cecil expressed that there are many problems in formal learning environments but no way for students to share these concerns if they cannot bring it up to college leadership.

Helen. Helen attended grade school in Portland and from a young age learned how to work within the system of education to get informal accommodations and survive with anxiety. Though most recently she has primarily smaller classes and often sits in a circle, she recalls large lecture halls in previous courses. Regardless of the room set up, Helen often chooses to sit far removed from the instructor and other students which tend to be seats in the back rows and near exits or corners. Similar to the experiences of the other co-creators, Helen runs into problems with actually going to class and finds rhetoric around attendance to often be ableist in nature and assumes that attendance does not have negative health implications, which for some people (Helen included) it does. As she recalls growing up and her current attitude toward

education she said “I really love to learn but I hate going to class.” One of the biggest frustrations for Helen is the inherent power dynamic of the instructor and how it seems like sometimes they use the power to try and manipulate students.

Kelly. Before coming to her current university Kelly attended a smaller community college close to her family and where she grew up. Where she is from, going to college at all is a big deal let alone the “big” university. Though she is still connected to her family and friends from home, she is trying to navigate a new social structure and build a local support network. She expressed visually and verbally that people at her current university are very friendly and kind in comparison to the clique feel of her past educational experiences. Kelly has previously worked with the disability office and found it to be incredibly helpful for her. Through cognitive testing and working with disability services Kelly gained a better understanding of how she learns and what she needs to thrive. Kelly is dedicated to doing well academically and because of her mental health issues and other cognitive disabilities she has to work very hard over long hours resulting in very little contact with friends and limited time for fun.

Expressions of Anxiety. There is no singular lived experience of anxiety. It is often so deeply imbedded into who someone is that it is difficult to express in isolation what anxiety is like or the interactions between anxiety and environment. As the themes show, anxiety is something that is ever present and often interjects when unexpected and perhaps unwanted. It is for this reason that the themes refer to large notions of experiences and seek to tell the story of an interaction not of the content or

specific instances. Examples are used to illustrate and should not be read or understood as the only representation of the theme.

Results

Theme 1: Self-fulfilling cycle. This theme represents the structure of how on a fundamental level how anxiety interacts with requirements of education and specifically formal learning environments. This structure will help provide a basis from which to begin building an understanding of the complexities of the lived experiences in formal learning environments that come from subsequent themes. The cycle itself can be broken up into different parts: the point of re/entry (or lack thereof) as represented by “The Door”, negative reinforcement in the class (judgment, “poor” performance, and panic attacks), isolation from others, and downward spirals. Making the cycle manageable, or trying to, is a key part of the co-creators experiences. Though all co-creators expressed a cyclical or repetitive nature to their anxiety at some point in our meeting or their journals, Alice is the only co-creator who directly referred to and drew these experiences as a cycle (figure 1). Other co-creators illustrated or discussed how they experienced individual parts as relating to each other on various scales and often depicted this through repetition of certain motifs (figure 2). The synthesis of the cycle as a whole came in the analysis of the data.

Three of the co-creators: Ak, Alice, and Helen, directly discussed the beginning of the term and how that is the most prominent point of entry into the cycle. Alice described this by saying “the first couple of classes set the stage for the term, where you sit and who you talk to, all of that”... “you don’t get to have a bad first day.” For Ak this

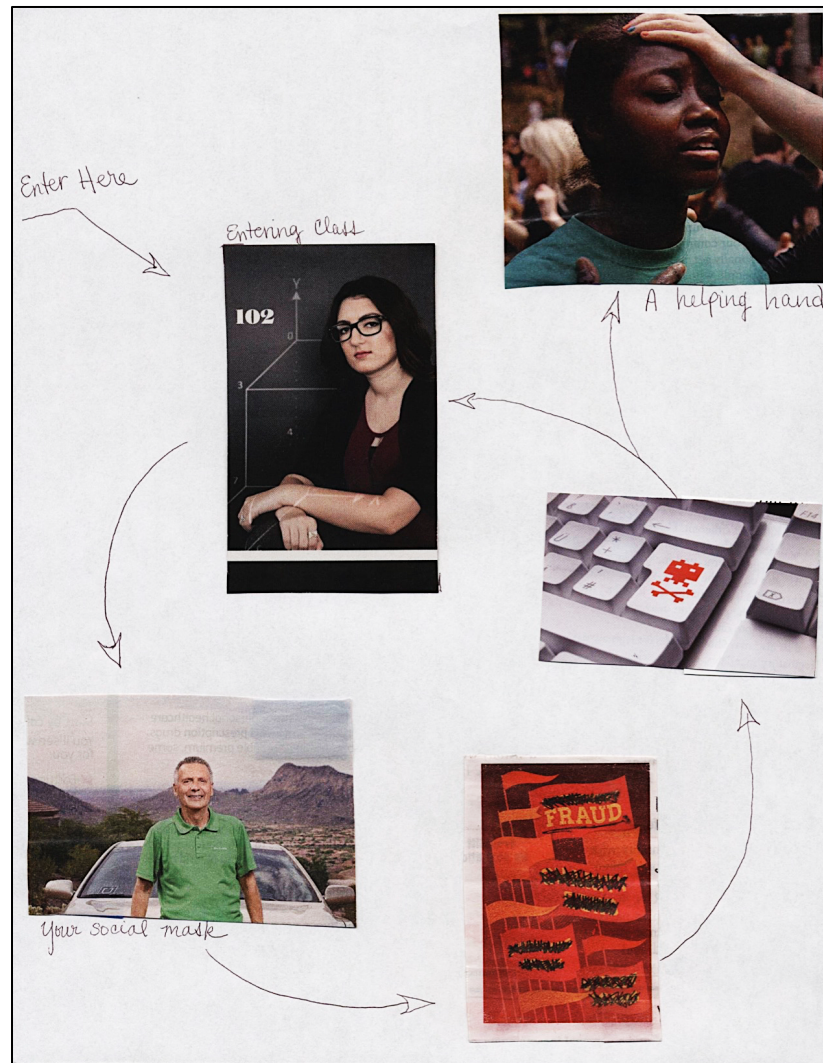


Figure 1. Alice's collage of the cycle. She gets pushed into the cycle by seeing judgment; she then puts on a fake "social face" leading to feelings of being a fraud that compound into not being able to work. Temporary relief is experienced through "a helping hand."

was symbolized in part by the door to the classroom (figure 2), and echoed by other co-creators who also talked about the door being a threshold that was not easily crossed.

As I was coding and creating summary pieces, "The Door" came to symbolize both the beginning and the end of the cycle (figure 2). The concept came primarily from Ak's journal where the very first and the very last images are of the door into the classroom (figure 2). After I recognized this and saw the trend in other journals, I began to understand that we go through the cycle at different temporal scales from the daily

cycle of going through doors to term and even yearlong scales. The term scale was talked about by the co-creators and given parameters by the door because we go through a door into a class for the first time on the first day of class, and we go through it for the last time on the last day we attend the class (usually at the end of the term). It is important to note that there may be multiple cycles going at any one point in time. This is shown through “The Door” because there are multiple thresholds that you must pass through in any given chunk of time (for example: multiple classroom doors, the door to an office space, door to a building).

The importance of “The Door” can also be explained through the theoretical perspective of the capabilities approach (Riddle, 2014b). The co-creators discuss, though in different terms, how the formal learning environments exist in a way that disables them by limiting their ability to convert their “goods” (a constellation of attributes and materials at one’s disposal including impairments, identities, and access) into “capabilities” (Nussbaum, 2006b; Riddle, 2014b). It is important to recall that “goods” are not just possessions but requires a broader definition that includes previous knowledge, understanding, and social connections (Nussbaum, 2006b). Capabilities as defined by this model are the freedoms to choose a set of functioning without being limited by ones “goods” (Nussbaum, 2006b; Riddle, 2014b). Thus, the Door represents the “threshold” (Ak) that the co-creators cross into an environment that actively and passively disables them. This environment is fraught with danger, “sharpness” (Ak), and “hostility” (Alice). The co-creators sometimes are unable to enter for their well-being, potentially launching a spiral of absences leading to “failure” or withdrawing from the

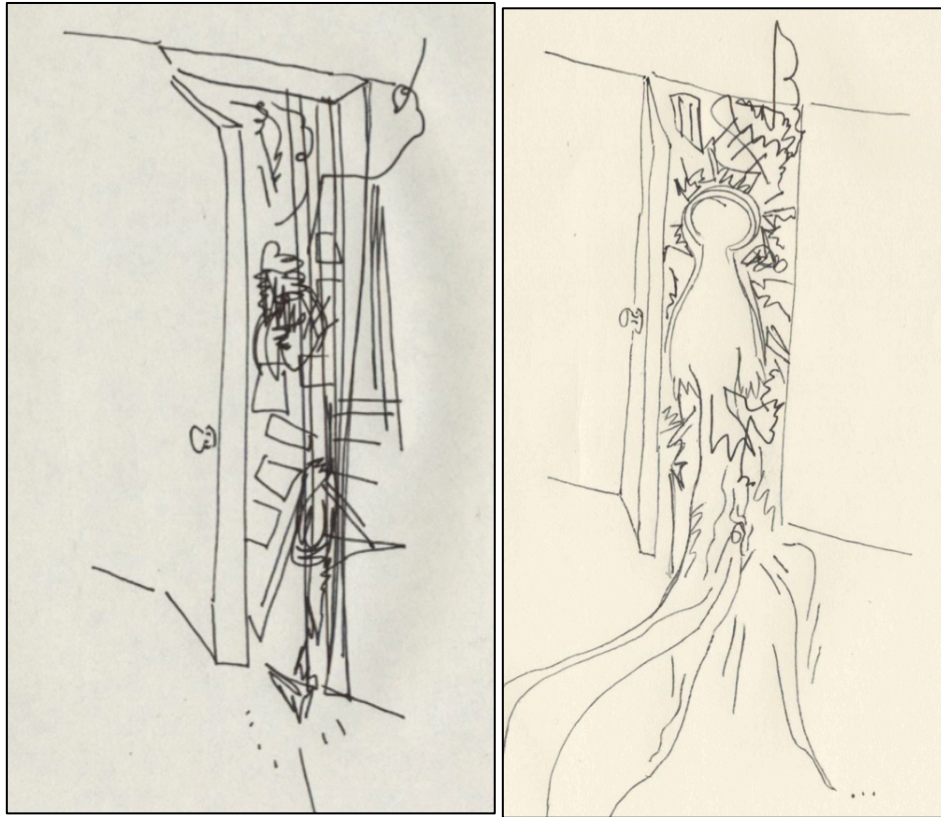


Figure 2. Ak's first and last journal images depicting "The Door"

courses. Ak speaks to this saying "seeing the door, and so much is going on inside"... I "had to withdraw from most of my classes because I was having panic attacks and I couldn't get through the door".

The overall idea from the cycle theme is that formal learning environments disable students who experience anxiety. All of the co-creators but one (Kelly) explicitly expressed that the memory of painful learning spaces, no matter how distant, results in anxiety around entering the spaces again. This anxiety (separate from the anxiety produced in the environments, though caused and reinforced by it) influences if and how the co-creators show up in the environments and can cause a spiral of not being able to attend classes. The "outside" anxiety caused by memories is brought into the

new environments and simultaneously bolsters and is bolstered by the anxiety produced in the environments leading this cycle to be self-perpetuating in some ways. This “outside” anxiety was expressed in some way by all of the co-creators. Helen depicts this through the use of “roles” or personas in her journal (figure 3). In response to the first prompts she sketched Hermione Granger, a character from the series Harry Potter who is a “know-it-all” and tries to answer every question (Rowling, 1998). Helen uses Hermione to represent her fear of being cast in a similar role if she raised her hand too much. In reference to sitting in class the first day of the term she said “who’s going to be the Hermione?”... “I know the answer or have a valuable contribution but I don’t want to speak first.” There is a fear that if you act a certain way that becomes the thing you must do every class time. If someone raises their hand and answers all of the questions, as depicted in Helen’s drawing (figure 3), they are expected to answer questions the rest of the term. This increases the “outside” anxiety because of the added pressure of feeling the need to fulfill a specific role. Alice verbalized “outside” anxiety in a more pronounced way, saying “I will likely miss an entire day or an entire week of classes because I was gonna be a minute late to my first class on one day”. The “shame”, “guilt”, and “feeling bad” for missing/potentially being late to that first class leads to “missing more class. And failing classes, and doing that all over again... term after term, year after year” (Alice). For Alice, her role became that of the student who always misses or is late to class and she felt she could not change that role.

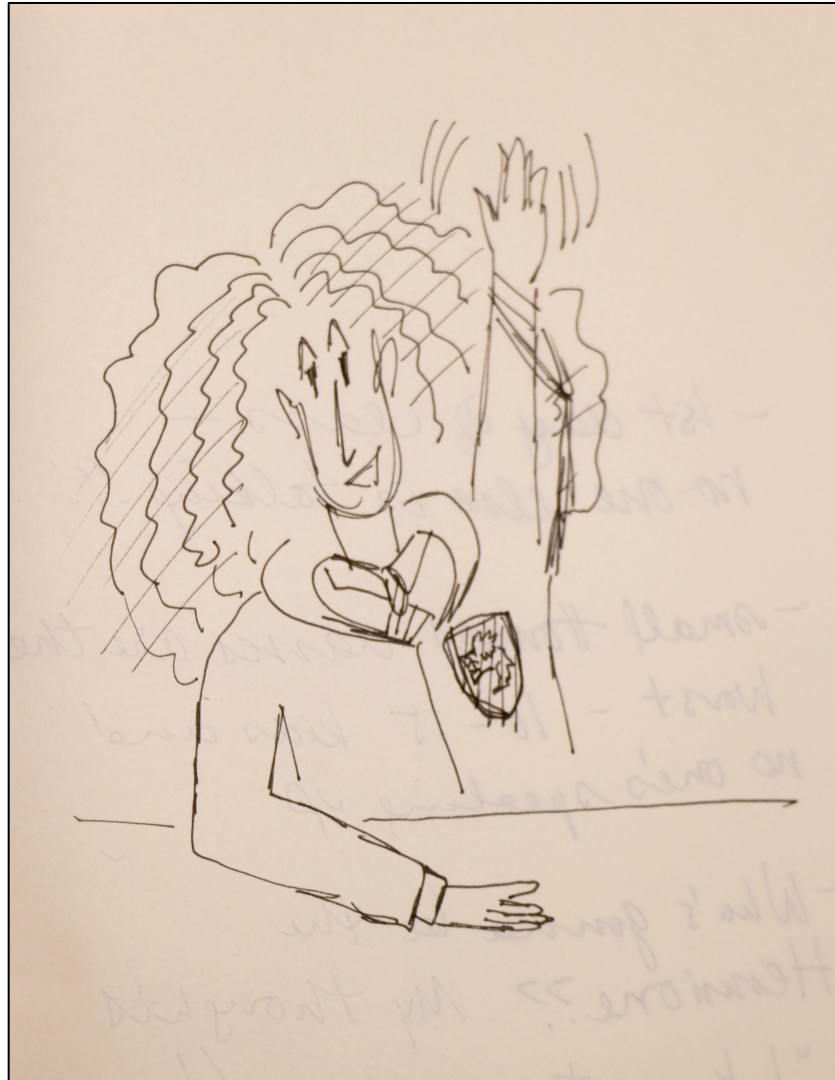


Figure 3: Helen's sketch of Hermione representing the roles that different people fill in a classroom such as the stereotypical teachers pet who always answers questions.

Candis described this "outside" anxiety as more of a self-fulfilling "poor" performance caused by the memories that lead to not getting the support needed. She states "if I do badly in a class, then the next term"..."I will feel bad about doing poorly in the class [last term] and I won't be willing to talk to my teacher if I miss a day or something due to being sick or if I can't concentrate and I just don't get all the lecture, it doesn't actually come through to me".

Half of the co-creators talked about some aspect of “breaking” the cycle or how that was “impossible”. Kelly discussed when she was tested and found out she had a learning disability as well as anxiety that influenced her ability to learn saying “it’s an overwhelming feeling for someone to tell you that you’re working this hard because of [the disabilities]. You’re not stupid”. The theme of being overwhelmed and the strangeness of being validated and having someone be understanding was echoed by many of the co-creators. It was also clear that nothing could ever truly break the cycle, the validation, understanding, and care only serve to provide some relief or ease access to support structures. It was also clear from the data that the dominant perception held by the co-creators is that instructors would not be supportive, understanding, or even care. The salient and specific events that occur in the formal learning environments that cause anxiety and lead to the memories and “outside” anxiety are discussed in depth in the next theme of Painful, Social, Silence.

Theme 2: Painful, Social, Silence: This theme covers what the co-creators identified as the prominent features of formal learning environments: the emotions (often those associated with pain and struggle), the social interactions, and silence. The co-creators said things like “hostile”, “worried”, “negative”, “I feel like I’ll die”, “a war”, and “inadequacy” to describe their feelings associated with formal learning environments. When prompted to visually express what aspects of the environment are the most salient and have the greatest influence on their ability to be successful, all of the co-creators represented and talked about different aspects of relating to other people. The idea of silence was the most commonly discussed feature, particularly a

silence that follows after an instructor poses a question to a class. The idea of “silence” also captures the metaphorical silence caused by distance between self and peers.

Social interactions, though discussed as just one part of the formal learning environment, is the part that the co-creators said was most influential in their ability to perform tasks necessary to be successful. Many of the co-creators brought up conflict and the fear of not knowing how to handle it if it did arise. Cecil drew a scene that looked at not knowing what to do when overhearing a micro aggression and the uncertainty felt while thinking, “is it gonna get nasty? Is it gonna be a confrontation? Do I confront [the other student]?” Candis elaborated on this fear by including fear of being wrong and arguing with other people as a part of the conceptualization of conflict. For Candis, a smaller class was more comfortable because if a conflict did come up it was easier to deal with and overcome than in a larger lecture. Ak brought up a sense of urgency and anger when other people were taking up too much “space”, particularly by talking too much and not being sure what to do with those emotions and the anger.

The social interactions make up a part of the social structure of the classroom that Helen describes as having an “innate power dynamic” which makes formal learning environments uncomfortable. The co-creators depicted this power dynamic both in reference to peers and to the instructor. The questioning of power structures by the co-creators and in the subsequent textual analysis is consistent with study’s post-structural epistemology. Alice addresses this directly with the images of “stink face” and “judgment” “when you walk into classes and it feel like that’s what everyone looks like... they’re looking at you like what the fuck are you doing here” (figure 1). These “stiff” and



Figure 4. Cecil's scene overhearing microaggression involving fat shaming. This experience leads to Cecil feeling inhuman and like the world is raining down.

"fake" (Alice) interactions with peers define and enforce the power structures that hold up the social environment that in turn disables the individuals. Kelly experiences this differently and reflected it in her journal sketch where she showed that people are generally friendly at her institution but verbally described that it is difficult to make connections, let alone build friendships, and that leads to feeling distanced from peers.

Some of the most anxiety-inducing social interactions brought up by the co-creators were "forced group work". In these situations the co-creators showed feelings that they were not able to be themselves for fear of "inadequacy" ("fraud" in figure 1) and because of how much stimuli was present during group work (figure 5). These feelings were present no matter the size of the groups/interactions but one on one or small group work (3 - 4 people) lessened the fear of inadequacy. Increased stimuli during group work were correlated more with overall class size than with group size. For



Figure 5: Candis' ear being surrounded and encroached upon during group work. The sections of circle represent sound and the sense that all of the stimuli are closing in.

example, in a class of 200 students it doesn't matter how small the group is, the overall noise and movement in the room is increased during group work and for some co-creators it was to the point where they were unable to participate. Candis drew this as an ear with sound waves closing in and surrounding on all sides (figure 5).

A power dynamic was present in interactions with peers through a vague pressure to compete and be the "best" in the group or to perform up to the "standard" of the class. The co-creators who depicted this power dynamic also verbally expressed that it was likely "not real" (is in, it's not a "real" competition) but seemed to be embedded in subtle ways into the culture of higher education. Though it is addressed in

more depth in the next theme, many co-creators feel it is necessary to distance themselves from other people and actively avoid doing group work.

Forced group work, though it is a mode through which social power is enacted, is often done at the discretion of the instructor and thus it is a way the instructor exerts or exhibits their power in the environment. The power held by the instructor (or professor) is, like many sources of power, both explicitly built and implicitly defined. Similar to the “outside” anxiety from above, the co-creators bring with them their past experiences and understandings of instructors and educators broadly when they are in formal learning environments. Ak speaks to this in her journal by using statements that use “them” and “they” to talk about instructors such as “I cannot disappoint them. My assignments can only be my best”. Helen directly brought up the power the instructor has in her journal drawing with “laser eyes” where there is a “visual power dynamic when the teacher is at the front of the room standing and the rest of the class is sitting in front of them”... “the professor is preaching AT a class of students” (figure 6). Helen also gave an example of instructors using their power when they “pay more attention to per capita participation”... “rather than, like, reading the dynamic of a room”. She said this comes up most often when instructors require students to verbally participate, usually by asking a question, a certain number of times in a given class period rather than valuing thoughtful and meaningful responses or other methods of participation.

Most of the co-creators made indirect references to the power the instructor inherently holds when they brought up when they feel they are missing information as a source of their anxiety. Cecil talked about how an instructor would use three sources of

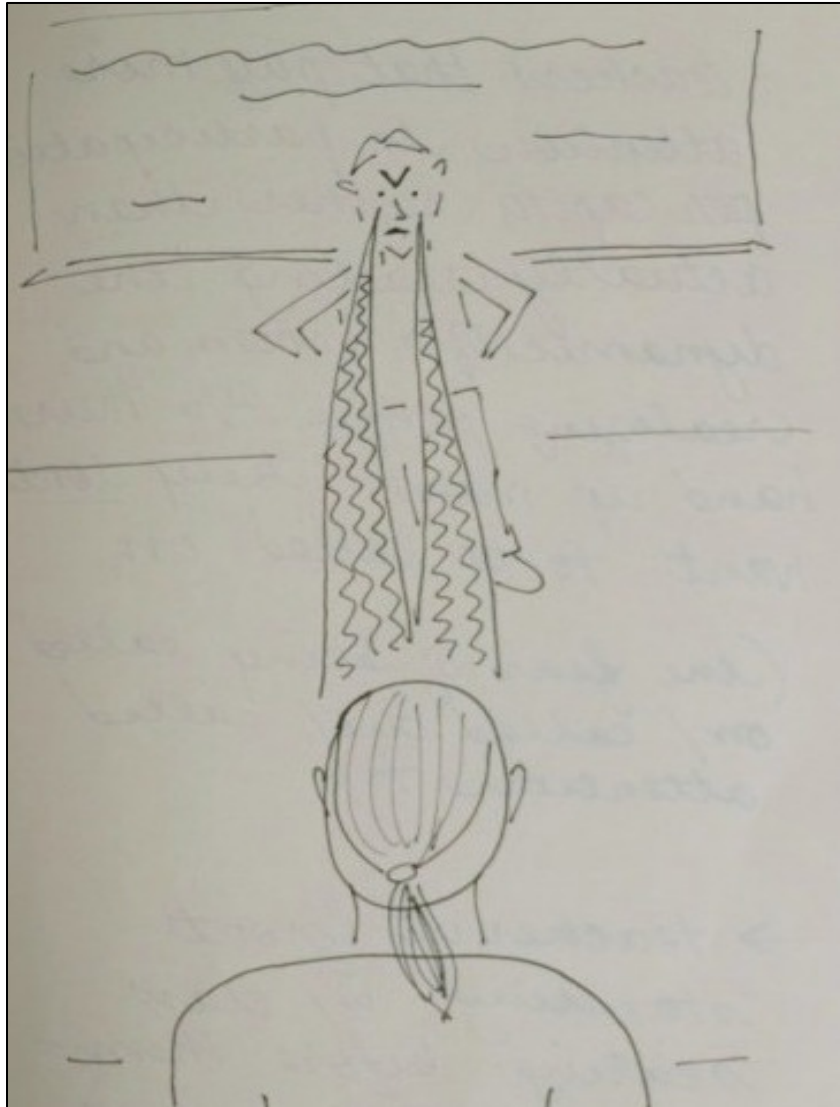


Figure 6. Helen's sketch of a professor utilizing the inherent power differential. Standing at the front, up, and above students combined with body language and facial expression Helen communicates a feeling of being lesser.

information simultaneously in a classroom (slides with content, talking about the material, and writing on a board) and how that felt like "I'm losing information and the more information I'm losing it's going to affect me down the road". The language here suggests an inevitability and lack of control, or power, to change their future in that class. Cecil used the image in figure 7 to depict this feeling. There is a wall of water that builds and builds which represents all of the learning that is not happening. Though at



Figure 7. Cecil drawing the feeling of increasing doom as shown by a wave of water coming up and over a comparatively small student. The wave has crested and is about to crash down on the little person who is ignoring that it is there.

the moment they are safe, the person in the picture will eventually have the wave crash down on them. The lack of power that Cecil depicts is possessed and enacted by the instructor who chooses to present that material simultaneously and not provide alternative ways to access it. By providing multiple ways to access information (in class, through instructor notes, posted slides, etc) an instructor not only helps to redistribute their inherent power across the class, but does so in a way that specifically empowers students with disabilities who are unable to access material presented in a specific way.

Alice shared a similar experience “if you’re not sitting there in the class, at the time, writing down the things”...“that is the ONLY time you will get that material... and you have NO opportunity in that setting to overcome these feelings that you have... because if you’re not there, you don’t get it”. Then saying “it’s not online, nothing is online, EVER *laughs* and you’re just screwed, you will NOT be able to succeed.” Again

we see the perception of inevitable failure in the situations where the co-creator does not hold power and where the instructor, intentionally or not, controls that inevitability by choosing what they present, when, and how.

In contrast, when the co-creators depict “the silence” it seems to be what happens when social structures are in flux and the intense anxiety created in those times. This topic is the bulk of what Ak grapples with in journals one and two. The most common situation in which the co-creators made reference to silence was the time directly after an instructor asked a question. This time was described as “tangible with expectations”, filled with “negative energy”, and “weighted silence”. The co-creators reported feeling responsibility, pain, and shame in these times. Ak said of this time “I feel like I’ll die. There is some fight or flight response to that challenge.” In the midst of all of these thoughts and emotions the co-creators described trying to formulate a cohesive answer and how it was incredibly daunting if not impossible. The co-creators were acutely aware of how much “air space” they were taking up and social pressures around conceptions of being perceived as “annoying” (referencing the “Hermione” role from figure 3 in particular) weighed heavily on the decision to speak or not. Though this came up in all of the journals in indirect ways, the co-creators said that they struggled with how to visually represent this aspect. In my journal summary for the first journal I depicted this as a speech bubble with a large weight in it and a little person in a chair beneath it holding a sword and shield trying to protect from the weight (Appendix A). Many of these situations, if not all, lead the co-creators to develop survival strategies.

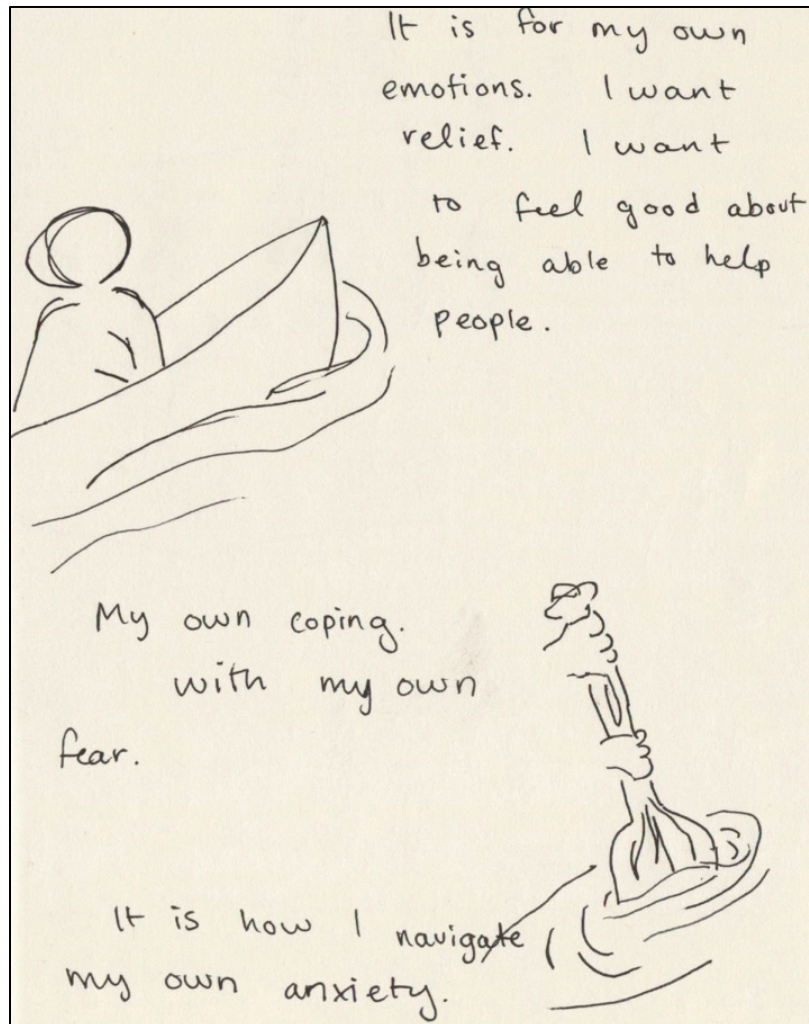


Figure 8. Ak's visual representation of survival strategies as paddling.

Theme 3: Exhaustingly vital survival strategies. The situations that arise in formal learning environments that provoke anxiety require students with anxiety to develop a way to get through them, which I refer to as “survival strategies” or “survival tactics”. Ak used the metaphor of paddling (figure 8) to represent these strategies and writes: “whenever I think of navigating my anxiety I think of it like rafting through a river and the things I do are like paddling” where the river is “like honey or going through molasses”. From the perspective of the co-creators, the purposes of these

strategies is to increase the co-creator's likelihood of success by changing the environment, prepare for/anticipate problems, or protect themselves.

In terms of trying to adjust the environment, Alice said the goal of her strategies is "to make the Formal Learning Environment (FLE) feel less hostile". Alice also talked about how her strategies helped make her more likely to succeed by building accountability measures. Helen talked of anticipatory work with the purpose of understanding the power dynamics more fully so that she knew how to act in the environment. Ak drew in her journals and talked of anticipatory work though it was in the form of trying to figure out what is going on in the environment in an attempt to anticipate all that could and would happen. Ak reflected in the second meeting "I'm realizing this is my tool for navigating, like, I've done a really good job of taking care of myself" in reference to the visual journal entry caption saying the strategies are "a way to protect myself... from when my head wants to explode from so much friction". Ak also drew this process as if her consciousness is a blob that is slowly exploring the space. From the theoretical perspective, these strategies serve to mitigate the disabling effects of the environment primarily by finding alternative ways to convert "goods" into "capabilities" since the variation of having/experiencing anxiety makes it so they are not as able to do that as well as other students.

The strategies themselves can be categorized into monitoring other people, avoiding, positioning self, working harder, and resilience. Many of the co-creators at some point described a want for connection with other people in their courses and for allies. They want people who will help them "combat the negative" (Cecil), be more

accepting, and for a community “so it’s not necessarily like you’re sitting right next to a total stranger”... “you know how they think and behave. You’re a little more comfortable” (Candis). Both Alice and Ak used the language “targeting” and depicted such a process to describe how they seek out people who seem to be more likely to be kind and form a connection with them, though both stated they did not like that they did this. Alice said it was “like hunting them or something”... “that’s kinda horrible” and Ak said “I also feel kinda weird about that...” From the capabilities perspective (Nussbaum, 2006b; Riddle, 2014b), the co-creators know they need connection in some way and they are strategically seeking out and managing their connections to other people, choosing those relationships that are most likely to help them convert their “goods” into capabilities.

One of the strategies that all of the co-creators either depicted or mentioned was that of avoidance. Candis and Helen both talked about pretending to be busy to avoid being called on or having to join in group-work. Most of the co-creators talked about not going to class as an extreme version of avoidance, especially in cases where they would already be late. Cecil said it allowed them to “pretend it’s not happening, but it’s building, it’s like doom” so even though it serves a purpose, it did not make the problems go away. This doom is the same one from theme two depicted in figure 7 with the water building behind. In that figure the person has their head down on the table depicting the survival strategy of ignoring the imminent wave. These different versions of avoidance are all protective measures in a way. Though not directly a way to aid in

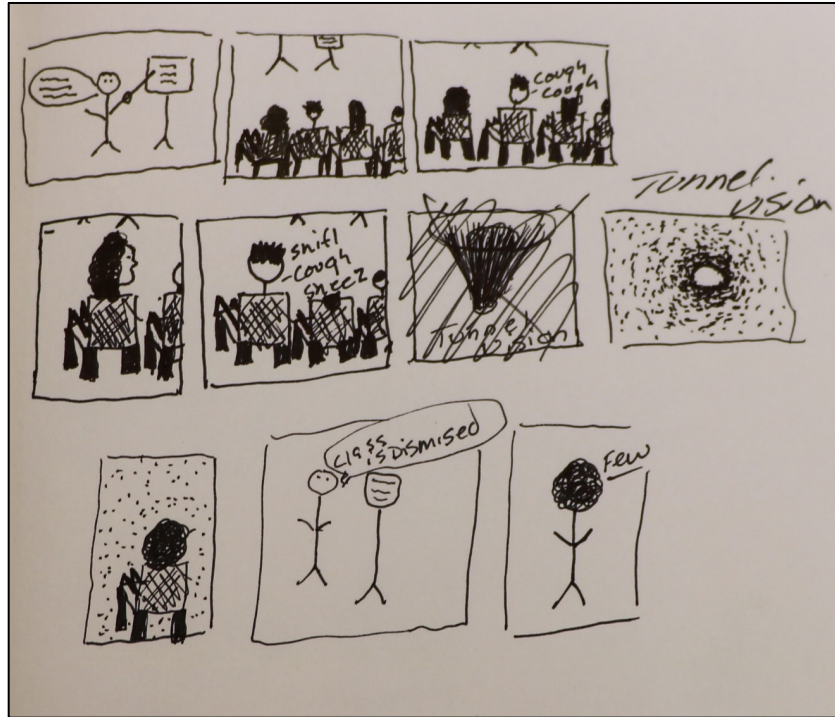


Figure 9. Kelly's depiction of an involuntary survival strategy where she gets tunnel vision. In the situation depicted here the tunnel vision comes from someone coughing near her and she must ignore it to survive in the class.

the conversion of goods into capabilities, they prevent the loss of more capabilities due to an anxiety attack or engaging with anxiety triggering situations.

Kelly drew a comic in her journal, shown in figure 9, that illustrated how sometimes these survival strategies are involuntary, particularly when they are a result of a triggering situation. For Kelly, the risk or potential for getting sick was overwhelming and having someone cough near her gave her immediate tunnel vision. During the tunnel vision things don't get through to her, they are all blurred out. In the bottom left panel the image of someone else in the classroom obscured with static depicts how no stimuli can cut through the cloud created by the tunnel vision. The inability to access stimuli remains until the class is dismissed and Kelly is able to escape.

In the last panel the cloud is lifted and we see the stick figure Kelly exhale a sigh of relief, “few.”

The most common strategy overall that the co-creators depicted was positioning themselves in the room. For many of them it was vital to stay in the same spot all term or at least in the same area of the room. All of the co-creators drew or said they sit in the back most often but many believe that the front is better when it comes to actually learning. Overall co-creators chose the back so that they could hide, mitigate “shame about being late” (Ak), and so that they can have a “quick escape” (Helen). Alice said that “sitting in the front you can’t see anybody else, and you are more focused on the lecture because it’s right in front of you” which is echoed by Ak saying “I get so sucked in”... “I just completely forget about the rest of the class.” Everyone who said the front was beneficial followed up with remarks that it was generally not worth it unless they had a very strong relationship with the professor.

One of the ways the co-creators worked to directly increase their “capabilities” is by working incredibly hard. Alice said that “if you’re the kid that”...“has anxiety and isn’t ever there to speak to anyone and get invited to study groups, you’re out of luck! You better be smart enough to do it on your own”. Alice said later in the meeting that she is often “stuck” working alone and if she was not capable of figuring the material out independently then she would need divine intervention (“god help me”). For Helen it was a much better option for her mental health to do more work outside of class than to sit in a lecture. For Ak this extra work came in the form of the time it takes to “craft” answers and responses to assignments. Kelly found this to be very draining and gets met

with disbelief when people find out how well she does in classes. She said “the doctors that tested me, the professors, they looked me straight in the face and they said, ok, you have almost a 4.0, why are you even here”... “I literally have to study sooo hard to maintain that GPA”.

The last category of strategy is resilience. Under the capabilities model (Nussbaum, 2006b; Riddle, 2014b), this is a strategy because it helps the co-creators come back to the formal learning environments over and over, allowing them to navigate the exhausting cycle they are in. Candis displayed this resilience when she said, “I put a lot of work into doing well and learning and trying to improve myself but there are things that get in the way that I work towards fixing but I’m not there yet.” The key part being the word “yet” which signifies the potential for growth and the potential for success, just not “yet”. Cecil also talked about this in the first meeting: “I try to be optimistic that one day it will [get better], that one day this will pay off and we’ll make it ok. But it’s like there’s a war in my head. And I have to find strength to make sure that I continue doing what I know I can do even if it’s a difficult and I struggle.” This stresses the importance of internal strength, optimism, and dedication. In addition to having resilience and developing strategies to survive, the co-creators spoke often how they were frustrated with the cycle and the system as a whole.

Theme 4: Frustration with a system not made for you. An overwhelming theme from the co-creators is that of frustration, futility, and exhaustion. They feel stuck in a repetitive cycle comprised of painful things that necessitates survival strategies. This whole process leads to the co-creators feeling frustrated, saddened, defeated, and for

some, grief. These are also in response to the system as a whole, their isolation, futility overall, a lowered self-perception due in part to comparing themselves against the mythical “ideal student”, and the recognition that the survival tactics take away from their learning.

One of the biggest sources of outright frustration comes from “the system” of higher education and culture overall including frustrations in getting support, feeling like they don’t belong, and helplessness. When talking about the system as a whole Ak said

School sucks my soul.... Like, I would give all of myself to this empty thing that doesn’t care. It’s this conveyor belt of efficiency and I’m like, but I made this beautiful, beautiful flower, and it’s like VWOOP! and then it’s like crushed and processed and comes out as like a little jar of flower smell or something.

In her journal Ak ties this frustration to problems with the “competitive culture of capitalism” that she refers to as pervasive in U.S. society. Ak explains that this culture leads us to only value productivity and the end product, not creation and beauty.

From the capabilities perspective, this emphasis on the end product could also be an emphasis and value placed on capabilities (Nussbaum, 2006b; Riddle, 2014b). The frustration Ak is depicting is then not only because of invalidation of the creation and beauty she produced but also frustration because the system is simultaneously valuing the capabilities it makes inaccessible while also devaluing efforts to create and exist in a genuine way (Riddle, 2014b). Multiple co-creators reflected that they were very capable, smart, and loved to learn, but hated going to class because it was “torturous”. Cecil reflected that fixing the issues with the system would not make the anxiety go away, but it would make it more manageable. Under the capabilities model, this is saying that the personal variation of anxiety (or the “impairment” in medical and social

model terms) would not go away, but that it would not affect the ability to perform as it does now.

Cecil also talked about how frustrating it was to try and get help or even recognition when you're in the cycle and dealing with the system. For Cecil it was a waiting game, constantly being passed on to another person and another, all the while the problems in the classrooms continued. This invalidation is not only felt with individuals and departments, but is present in the whole system that in its very nature made the co-creators feel as if they do not belong.

The strict one-size-fits-all nature of assignments and learning modes (such as group work and lengthy bouts of note taking) were the most commonly cited reasons for feeling as though the system was not built for them. Alice summarized this by saying "how do you succeed when everything is structured like that" and "makes you want to throw up. What do you do? How do you get by when that's your only option because that's how it's set up to be..." She goes on to say that many people struggle "with even just the fundamentals of the way that school is set up" and "there's no leniency for people who have this invisible disease." These frustrations also lead to inescapable feelings of hopelessness for Alice, which she drew in her journal (figure 11). Alice illustrated her experiences with an image of a house being carried away by balloons that are labeled things like "hope" and "future". Meanwhile there is an old man standing in the crumbling foundation of his previous home (currently floating away) uttering the word "fuck" while scratching his head. Alice said she felt like the man was her and she

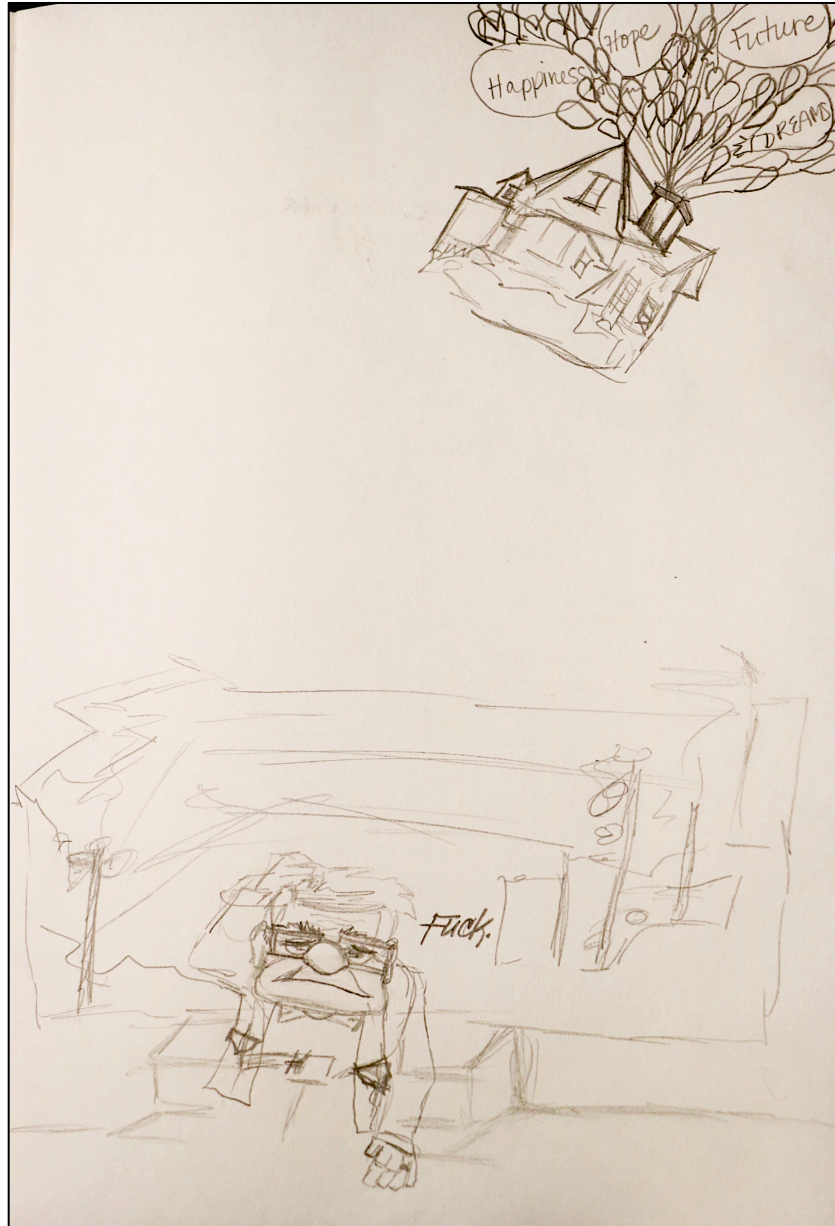


Figure 10. Alice's expression of hopelessness and defeat. The image is of a person whose future, represented by a house attached to balloons, is being carried away while they are stranded in the crumbling foundation where their dreams used to be.

was watching all of her dreams float away while she was stranded in the ruins of what they once were.

For Kelly these feelings of not fitting into the system lead to being “angry at myself for letting myself be distracted” ... “because everyone else around me could finish, so why can’t I?” Cecil felt a sense of inability to create change and talked about

how it would require “something horrible to happen” before people started to really recognize and make changes. This frustration with the systemic issues is furthered when trying to get help. Many of the co-creators believe that the professor has a lot of control over how the environment is shaped and if it is problematic, but they don’t feel safe or comfortable talking with them about how it could be improved. Helen described how it was very clear that some professors did not want you to talk to them going so far as to say “I’m not here to answer questions” to which she was left speechless and felt helpless in her learning. Alice also felt helpless in her classes because the department puts an emphasis on research for the professors that she feels it is clear they are not here for the educational benefit of the students. Alice expressed this helplessness and feeling of futility through this passage:

How much can you really tell your professor, like, you really can’t. I mean, they’re not even there to teach you know, they’re there to do fucking RESEARCH. They don’t CARE what your emotional state is, it doesn’t matter. You just have to do it, and if you can’t do it, then you don’t get to graduate, have a nice life.

The emphasis in the quote on the research and lack of care is indicative of how it is communicated to students that professors are not invested in them or their learning. There is an overall feeling from the co-creators that they are alone in their learning, not just in relationship to the professor, but from other students as well.

Overall, the co-creators often felt alone because other people (teachers and students alike) did not seem to understand what the co-creators were going through. The feeling of being alone was exacerbated by what the co-creators described as difficulty making friends because of the anxiety. The co-creators also felt that some of the survival strategies made them isolated. The issue of other people not understanding



Figure 11. Candis feeling sadness and loss of connection due to distance (physical, social, and psychological) from peers.

what the co-creators were going through in regards to anxiety came up often in reference to doing group work. In her journal Candis drew a typical scene from her classes during group work (figure 11). There are two other students next to her who are able to discuss together while she is physically distanced from them, head down, and reading on a tablet. The physical distance, the body language, and the darker shading over Candis' character are all indicative of the isolation and loss of connection Candis felt.

The isolation from peers due to anxiety also arose when making plans to study. Alice said she would sit in class and watch other people making plans to study later and asking each other clarification questions and then "there's you all alone." After describing a time overhearing a micro-aggression that made Cecil feel particularly isolated, it was made clear to them that since the other students were talking negatively

about an identity, anyone with that identity was not welcome in the classroom. Other co-creators had similar experiences and talked about how that in concert with anxiety made it very difficult to find and build connection to other people.

As mentioned previously in the aspects of the formal learning environments that lead to anxiety, social interactions were very commonly cited. The most common way for the co-creators to survive social interactions was by avoiding them or by putting on a fake front (figure 1, the fake smile). Often these interactions were described as painful and uncomfortable leading to the co-creators trying to rush out of the space as soon as they could, not leaving time for making connections with the people around them. I want to clarify that staying and engaging with other people is not a viable solution for many of the co-creators since it is not in their realm of possibilities. The process is illustrative of how in formal learning environments the co-creators are not able to access some capabilities, specifically “affiliation” (Nussbaum, 2006b). As discussed in Chapter Two, the capability of “affiliation” as defined by Nussbaum (2006b) is the ability to engage in various types of social interactions. In formal learning environments, the co-creators are not able to engage in social interactions because of their anxiety meaning that they are not able to convert their “goods” into the affiliation capability (Nussbaum, 2006b; Riddle, 2014b). The survival tactic of avoidance is not the only one that led the co-creators to feeling isolated.

Both Kelly and Alice described in detail how they had to work incredibly hard to be successful in their classes. Often they felt alone because they either could not initiate a connection with other people (likely due to avoidance) or because they were too busy

working long hours to be able to devote time to building relationships with others. For Kelly this was an emotional truth. When she was talking about these processes she began to tear up while saying:

I'm so focused on my goals and trying to get them accomplished that... I sacrifice a lot of other things... it feels really lonely, I mean, I I know what I want and I know I want to get there. But, the process of getting there, to me is really sad. Because it's really lonely, I don't have any friends, my family they've kinda distanced themselves.

For Kelly, the pain came not only from an inability to make connection with other students but also losing the connection to her family. Though this is a source of sadness for Kelly, she was quick to add that if she had more time to reach out, she was certain she could make connections with others since "a lot of people are really friendly" on campus. Kelly also depicted multiple ways that she recognizes people on campus as being friendly including that they smile often and have inviting body language. Helen echoed what the other co-creators said, since she was able to "take care of business on my own" that she didn't try to build many additional connections that would just aggravate anxiety.

Candis talked about how avoidance lead to not only not being able to make connections, but decreased her ability to learn. While in a formal learning environment Candis said the material "doesn't actually come through to me," even if she has her notebook out and is taking notes, none of it would actually register in her mind. She said "I just kinda completely space out and leave the room" especially when the room was loud. For Candis, it was difficult to feel comfortable and bring her mind back to being present and registering the material, particularly in larger classes.

For Kelly, Ak, and Cecil, being “transported” mentally out of the room because of one of their survival strategies was also a common occurrence. Ak drew this and talked about it in both of the journals and meetings. For Ak this experience was very common when trying to formulate a response to a question and more broadly whenever trying to stifle a panic attack. In regards to crafting the perfect response Ak said “I feel myself transported back and I’m like where the eff am I!?” For Kelly this experience was more like “tunnel vision.” When she was starting to get a panic attack all she could focus on was very specific things, the ticking of the clock, the person next to her spreading sick germs, until class was over. It wouldn’t be until later when she was somewhere “safe” that she would realize that the whole class time went by and nothing got through the blacked out “tunnel vision” perception (figure 9). Cecil described the same experience as “overloading” and that it makes it impossible to even recognize the lesson going on.

These examples all show that not only do the scenarios make the co-creators minds “leave” in some way, but it also makes the learning environment become completely unfamiliar and inaccessible. This can also be understood as a description of how the conversion into the capability of “senses, imagination, and thought” is limited or made impossible in the formal learning environment (Nussbaum, 2006b). This capability is the ability for one to use their senses to imagine, reason, and use critical thinking in the creation and production of one’s work (Nussbaum, 2006b). Since the co-creators were not even able to be present, they were unable in some situations to even access their senses to build off of them such as Ak and Candis not being “present” in the room at all. When they were able to engage with the environment, they weren’t

able to reason or use critical thinking to create “work,” learn, or make meaning out of the stimuli. It is important to note that this does not mean that the co-creators aren’t capable of these things, just that the formal learning environment and situations that occur in it make it so they are unable to convert their skills, knowledge, stimuli, material and overall “goods” as Nussbaum (2006b) says into the capability of “senses, imagination, and thought.”

Overall the experiences the co-creators described as having with the system and with formal learning environments lead them to have a lowered self-perception/self-worth in most cases. This showed up through feeling like they were being untrue to who they are, feeling as if they’re being treated like a child with no freedom or control, feeling like a burden to others, and in general questioning their worth, their humanity, and their thoughts.

In Ak’s second journal she wrote along side her drawings “it feels so bad to put myself on hold all the time. Like I forget who I am. But I know I have to if I want to function in this world.” This illustrates the formal learning environments making students feel like they are not able to be their genuine selves out of necessity. For Ak this is compounded with the way the system is structured so that it requires students to sometimes “bullshit” assignments to get them done, leading to a feeling of not being “whole.” This is similar to when Alice illustrated and talked about having to put on a fake smile to do group work that lead to feelings of being a fraud and like her true self was not welcome in the group (figure 1).

For some of the co-creators their sense of self was diminished because they were treated like children by the university's educators and administrators. This patronizing behavior was particularly salient to Helen in a lecture where the instructor would have people discuss in small groups and when Helen wasn't able to work with others (because of anxiety and/or needing to distance) the TA would come over and either place her in a group or talk with her one on one. Helen said that she would think "NO, I'm a big girl, I don't want you to come talk to me, please leave me alone" and was always "irked" how prescriptive and enforced the activities were. Cecil also found this very frustrating stating that it felt like "kindergarten" in the formal learning environments.

For Cecil this was reinforced when trying to ask for an informal accommodation or the option of doing an assignment a way that would facilitate learning when they current way would not. When in these situations Cecil said "the general sense is, 'that's just not how we do things' and I'm like, THAT'S THE PROBLEM!" This shows that not only is the environment at times problematic and not conducive to learning, but when someone tries to change it to better suit their needs, they get told it's not an option or more subtly that they don't know what's best for themselves. For the co-creators this constant need to push for what they need to be successful is very frustrating. This process lead Cecil to feeling like they were causing problems for other people "where there doesn't need to be," this feeling of being a burden shared by Ak. In Ak's second journal she depicted herself/her presence as a wet blanket on others. She feels that she makes others uncomfortable and smothers them.

These messages that the co-creator's worth and validity as an adult human was in question lead some of the co-creators to question their humanity, thoughts, and worth more broadly. Kelly said of this that she has spent many years upset with herself because she "couldn't do what everyone else could do" and she was trying to figure out why she was "so stupid." This directly illustrates the inability to access the "affiliation" capability, which includes being treated as a being whose worth is equivalent to that of others. Not only does the environment directly and indirectly communicate that students with anxiety do not belong and are in a lesser standing than other beings, it also gets to a point where sometimes students question their own worth. Cecil would often depict their likeness in the journal as a blob to signify their standing as inhuman and "lesser" (figure 4). In Cecil's words "it's a war, when you go home you're still in it, it takes awhile to de-stress and in the time you've calmed down, that question is still there" ... "it's a question that never leaves you" ... "is it worth it?" For the co-creators, so far (at the point of our last conversations) they've been able to say that at the very minimum they're not sure, and at best "it might be" (Cecil).

Theme 5: Hope of a different reality. The co-creators recognize the cycle(s) they have been in and that to cope with the triggering aspects of their environment they need to create survival strategies. This whole process and the necessity of it all leads not only to frustration as discussed above, but to hope. In some ways this hope also serves as a survival strategy, by serving as a source of strength and resiliency. The visual representation of this was subtle and showed up in my second journal summary piece (Appendix B) and in the full summary piece (Appendix C). Not only did the co-creators

depict hope in their journals but in our meetings the co-creators also talked extensively about what educators could do differently, and about what a different reality could look like campus-wide.

Prior to our meetings none of the co-creators knew much about Universal Design for Learning (UDL) (discussed in detail in chapter two). Briefly, the three main principles are to provide multiple means of representation, action and expression, and engagement. When the co-creators were talking about what educators could do, they all brought up tenants or suggestions that directly align with UDL, specifically the idea of providing alternative or multiple ways to access the information/learning and multiples modes through which to demonstrate their understanding. The co-creators also expressed that ideally an educator would foster relationships, express care and validate struggle, and normalize failure and conflict. Recommendations for seeing these ideal states actualized are elaborated upon in Chapter 5, the information from this theme is solely what and how the co-creators described an ideal environment as.

When co-creators were talking about educators providing alternative ways to access information it became evident through our conversations and the coding process that it was incredibly rare in their experience for an educator to do this. Often the co-creators were talking in reference to a “dream” or “ideal” state when describing the ability to access information in multiple ways. Since Candis was not always able to stay present and focused in class, particularly on “really rough days” where her anxiety would get so bad she had to leave, “having the resources available to me to get the information” became vital to her success. This was also true for Cecil and Alice who

spoke directly about not being able to attend some classes, needing to access the material, and being unable to do so. Cecil explained the frustration of knowing what was needed to be able to learn but not being able to have a say in getting it because instructors would not listen and would direct to other places.

Overall the co-creators suggested and/or asked to have access to the materials in a different format so they could reference it later. Helen suggested providing breaks in the flow of class and/or discussion to summarize what was being said (both class-wide and individually), give space for students to collect their thoughts, and see if anything requires clarification. This practice is recognized as an effective teaching practice in higher education (McKeachie & Svinicki, 2013) though again, the co-creators were not seeing it happen often.

The co-creators also expressed how they wished they could utilize a different mode to demonstrate their understanding. Providing the opportunity to demonstrate learning in multiple modes is directly in line with what UDL advocates educators do in the second principle: “provide multiple means of action and expression” (Wakefield, 2011, p. 5). The main places that the co-creators asked for multiple options to demonstrate their understanding were in class discussions and group work. When Helen talked about ways that instructors could help make discussions less anxiety provoking was by spreading “the responsibility of carrying the burden of the conversation,” potentially by assigning people different weeks and having them create around 3 prompts or questions for the discussion. This would allow for her not to have the added anxiety of needing to fill the “Hermione” role and answer every question. Ak specifically

states in the second journal along with representative images that it is beneficial if the stakes are not as high and if the pressure is distributed, which is what this strategy would do. Candis believed that group work was very meaningful and at the same time found it very difficult to engage in (evidenced in figure 11). To address this she suggested allowing students to self-select into a “group for those who are having difficulties in group-work” so that the pressure to perform at an unachievable standard was decreased.

For all of the co-creators the ideal educator expresses care and validates the struggle of their students. Some of the co-creators had experiences where this happened and those were some of the most influential things for them. Alice really cared and wanted to learn in her classes but dealt with a lot of isolation and invalidation from instructors. For her it is clear that you cannot in general go to an instructor, tell them about what you’re experiencing, express that you want to learn, and ask that you work together to actualize success. There was one instructor that she had who expressed care when she missed classes and asked to meet with her one on one. Alice reported that this was the most she had attended classes “EVER.” This interaction is what inspired her to choose the image of “relief” for her journal where there is a hand that reaches out and asks if you’re ok (figure 1). That small gesture is enough to make the whole cycle seem less daunting and allowed Alice to continue and be successful. For other co-creators the validation came or was wanted in other ways. For Ak it was important that instructors acknowledged emotions and were willing to be vulnerable

with their students too, since this helped normalize the learning process and struggles that occur.

Helen and Kelly sought validation in the form of trust. Helen explained that a pivotal time when instructors can do this is when students come to them and are explaining why they're "not meeting expectations." Over the course of our meetings Helen elucidated a stark contrast between an educator who understood that she was trying to complete the work to the best of her ability and that she wanted to learn and do well and an instructor who doubts motivations behind why the student is talking with them. Kelly said of the second type of instructor "they think I'm using [anxiety] as an excuse to get out of the assignment, and they tell me to talk with the disability office." This approach of shuffling people on to someone else or another office was not helpful for the co-creators, especially considering that they are seeking connection and relationships. The co-creators on multiple occasions expressed that they wished they had more connection with the other people in the class and with the instructors. They imagined environments where they could thrive in which instructors made the time to foster relationships between the students and with the students.

An important part of building relationships is figuring out how the community will handle struggle and "failure." Ak depicted this in her journal what it feels like to be in a healthy formal learning environment and how when someone fails/falls it is like the floor is metaphorically flexible and helps you flow back up to a better spot. Ak draws this as a floor that looks like a large, soft wave that one could simply flow in and out of. Ak writes in the second journal that this happens "when the instructor has made it clear

that failure is forgivable.” Much of the envisioning above is focused on the small(er) scale communities that are built and maintained in the formal learning environment but the co-creators also discussed things that can happen at a larger scale.

In regards to the campus wide community envisioning the co-creators did, the dreams for instructors described above also came up in reference to the work that many people do on an institution’s campus, particularly validating experiences, offering multiple modes of engagement, and fostering connection and relationships. Throughout the journals and the meetings the co-creators discussed fighting against stigma on the institutional level and internalized mental ableism. Ableism, the “devaluation of disability” that leads to cultural assumptions that it is better to not be disabled (Hehir, 2002), becomes internalized when a person with a disability begins to tell themselves those same messages, that they are not worth it, that they are not trying harder, and that they are “lesser” because of their disability (F. A. K. Campbell, 2008; F. K. Campbell, 2009).

Alice, Candis, and Helen all brought up the importance of having people around them who, at the bare minimum, are accepting of their experiences and hopefully understanding of them. Awareness building can and should happen at the university scale, as well as understanding how different people have different experiences and those experiences are valid. Alice hoped that people would start understanding that

Struggling with anxiety IS like having a physical disability. And as hard as that is to swallow, like, I have a disability, it doesn’t feel like it most of the time, sometimes it’s so good, good days and bad or something. But having there be an awareness... some people just CAN’T even do the fundamentals... surely some of the most capable people struggle in this way.

This hope again brings up the cultural lack of understanding of how mental and emotional disabilities are experienced, particularly in comparison to physical disabilities.

This in no way is meant to diminish the struggles that anyone with a disability experiences, but it could potentially help people understand and build acceptance of mental illnesses like anxiety if the limitations of the comparison were clear. The last suggestion that came up was the need to have a central place to communicate issues with classes and classrooms. Cecil suggested that this is because there is currently not a single stream of information of what is acceptable and what isn't in regards to the campus community and that being pushed to multiple places is not productive or helpful.

Chapter 5: Conclusion and Recommendations

This chapter builds on the understanding formed in the prior chapters of how students who experience anxiety perceive and interact with their formal learning environments. I start with a brief summary of the study and the findings including additional discussion from those in Chapter 4. I will then discuss what the implications this research has for higher education, pedagogy, and disability studies. I will close with recommendations for higher education educators and administration as well as suggestions for future research.

Discussion

This study utilized Arts Based Research Methodologies (Leavy, 2015b) to explore how students who experience anxiety that interferes with their daily functioning, perceive and interact with formal learning environments (i.e. classrooms, labs). Arts Based Research was chosen to elicit an increased understanding of these experiences and to aide in the distribution and integration of the findings into the higher education community. To provide direction to the study, the following research questions guided the work:

1. How do students with anxiety perceive and interact with formal learning environments?
2. What aspects of the classroom are particularly salient and influential to the experience of students with anxiety disorders?

3. How does the environment influence their anxiety and ability to perform activities needed for their success?

Six undergraduate students participated in the study as co-creators: Alice, Ak, Candis, Cecil, Helen, and Kelly. The co-creators participated in the creation of a visual journal in response prompts that were provided for them. There were two sets of prompts provided and I had semi-structured follow up meetings with the co-creators to discuss the journals. These meetings lasted anywhere from 40 minutes to an hour and a half depending on the amount of material to cover and how much the co-creators wanted to discuss.

The theoretical perspective from which the data was interpreted was the capabilities approach introduced by Sen (1980) and expounded by Nussbaum (2006a) and Riddle (2014b). Briefly, this theory states that individual differences between humans result in varying abilities to convert “goods” into “capabilities”. Here goods are not only possessions (wealth, capital, etc) but a broader definition that includes previous knowledge/understanding and social connections. Capabilities as defined by this model are the freedoms to choose a set of functioning. Nussbaum outlines a set of ten capabilities central to human life that are explored in depth in Chapter 2. For the purposes of this discussion only the most salient capabilities will be discussed as they arise.

The co-creators described experiencing a cyclical nature to their classroom experience where they enter into a formal learning environment. Situations occur in the space that either make them more aware of their anxiety or aggravate it. Then they

leave the space and may get temporary relief but inevitably and continuously re-entering the environments/cycle every time they go to class. In the environments the co-creators talked about silence (particularly the weighted silence after a question), forced work with strangers, “ugly” conflict, and missing information as the biggest sources of anxiety. The cycle and the in-environment situations require the co-creators to develop survival strategies.

From the capabilities approach, the environments and/or things within the space are making it so that the co-creators are not able to convert their “goods” into capabilities, such as creating and keeping connection to other people, using imagination and critical thinking, and being treated as/believing one is a being whose worth is equivalent to others. In this sense, the common survival skills served to help the co-creators to endure the formal learning environments or in some cases gain access to capabilities. Alice and Ak noted in their journals and in the meetings about the strategy of seeking out people to build a connection with in the class. In times when this was successful they both had a degree of the “affiliation” capability (engaging in social interactions) and it helped them more easily access the other capabilities and strengthen their social interactions with a broader range of people.

The co-creators talked about both a sense of frustration and a sense of hope in reference to the cycle, the painful and anxiety provoking aspects of the learning environments, and the necessity of developing survival strategies. Much of the frustration arose from feelings of trying to work within a system that is not meant for them or their success. Perceptions of futility were prominent, as Cecil said “it’s a

question that never leaves you” ... “is it worth it?” For many the combination of feeling neglected by the problematic system and the ubiquitous futility cultivates a lowered perception of self which is further reinforced by the necessity of being untrue to themselves and by patronizing acts from instructors. These themes are consistent with the literature and common understanding of a correlation between anxiety and depression.

The last theme from the data is hope of a different reality. The co-creators exhibited hope less often than frustration and in some ways the hope was a survival strategy for the frustration. Many of the suggestions and imaginings of the co-creators were directly aligned with principles of Universal Design for Learning (Wakefield, 2011). Both the co-creators and Universal Design for Learning recommend providing multiple ways to access and engage with material as well as multiple modes to demonstrate the student’s understanding. In a slight departure from the literature, the co-creators all wanted educators who expressed care, fostered relationships, and validated emotions/struggle. The co-creators also asked for more normalizing of failure and conflict. The first has been the subject of movements around “resiliency” (ex: Davydov, Stewart, Ritchie, & Chaudieu, 2010) but normalizing and discussing conflict in a healthy and productive way is not as common or prevalent in literature or on campuses.

Implications

I believe that when the experiences of the co-creators are looked at in concert with the surrounding literature and from the Capabilities theoretical perspective that there are implications for higher education educators, student affairs practitioners

(whether or not they work in a counseling center or a disability office), administrators at all levels across the institution who influence policy and practice with regards to learning environments and/or anxiety, and people who are in the field of disability studies. Changes need to be made, as Cecil said “the institution is failing [students with anxiety] and I don’t see how they can do that. I don’t see why it would have to get to a disaster.” The co-creators all described ways in which the institution was failing them and how it made them feel isolated. If it is the role of the institution to foster learning and community, then I would agree with the co-creators, we are failing. It is important to note that best practices in active learning pedagogy and Universal Design for Learning are in alignment with what the co-creators want and need. In the co-creators experiences is that it is very rare for an instructor to actually follow these practices. According to their perceptions and understandings, the co-creators averaged only one instructor who used these practices effectively over the course of the co-creator’s whole time in higher education.

Not only should we be motivated to not let our students down, we can also find strength in their hope and readiness to envision a different and more just future. The campus the co-creators envision is more than just an anti-stigma campaign away. It is as Alice said “having there be an awareness”... “some people just can’t even do the fundamentals”... “surely some of the most capable people struggle in this way.” Understanding and accepting different experiences takes more than just being able to list them off but a shift in how we interact with other people. The final section,

Recommendations, is a coalescence of the ideas and understandings put forth in all of the previous chapters and the implications just discussed.

Recommendations

In this section I make a distinction between research, long-term practice, and short-term practice. Mindful that research and practice ultimately inform each other, the research recommendations are focused on areas to be considered so we may continue to improve our practice. This study was limited by the time constraints of my graduate program and the resource costs associated with larger scale studies. I believe there is more that could be elucidated by Arts Based Research (Leavy, 2015b) in this area. A similar study that followed co-creators across the span of their time at an institution would allow for a better understanding of how perceptions changed across time, if at all. It would also be informative and meaningful to have the co-creators involved in more aspects of the project, specifically having them attend the exhibit anonymously and having a short meeting afterward to discuss what it was like. I chose not to have more interactions in this study for a myriad of reasons including not wanting to increase the burden on the co-creators if I did not have more to give in return and I would have wanted a more engaged support structure. Additions to the support structure from this study could include having a registered therapist as a consultant and/or on the study team, and having more intentional time dedicated to creating a plan and a network for the co-creators to help them be successful in the future.

This study is also limited in that it focuses on the student's experience. A future study that worked with educators and/or administrators and staff to explore their

conceptual understandings of anxiety and how that compares to their actual practice would be vital to understanding more fully what is occurring in the formal learning environments, the institutional culture and norms. Data and more complex understandings from such a study, when used in concert with those from this one could help an institution better understand where to focus their efforts in actualizing a more just future for their community. This potential future can be achieved and one of the most important things to seeing it actualized is adjusting in the norms and practices of an institution.

The recommendations for practice are informed by both my understandings of the literature and my understanding built through interactions with the co-creators as well as from the recommendations the co-creators had themselves. The first, and I would argue most straightforward, short-term recommendation for practice is beginning to integrate Universal Design for Learning (UDL) into your work. Focus on the question: how can you start providing access to materials and experiences in multiple ways, including those that are “low” stakes but still add up to being rigorous? What must someone be able to do in order to engage with the environment, you, or your work? Are those abilities necessary (ex: speaking in front of a group)? The co-creators all discussed an ideal formal learning environment that included UDL principles in some way (Wakefield, 2011). The most common thing they asked for was to have multiple ways to access information and multiple modes through which to demonstrate their understanding.

Having access to information in multiple ways often came up in reference to the co-creators wanting to reference materials at a later time. Multiple modes could include having slides posted online, utilizing a handout that gave the structure and brief notes on the class, or structuring note-taking in a way that is collaborative and allowed students to work together in a low-stakes environment to have complete sets of notes. In addition to having multiple ways to access material, it is also important to structure meeting times to allow for multiple means for engagement. As Helen suggested, having breaks to summarize (group-wide and individually), give space for students to collect their thoughts, and see if anything requires clarification. This practice is both in keeping with UDL guidelines (Wakefield, 2011) and effective teaching practice in higher education (McKeachie & Svinicki, 2013) though again, the co-creators were not seeing it happen often.

The last guideline from UDL is providing multiple means of action and expression (Wakefield, 2011). This guideline was discussed in Chapter 4 when referencing the co-creators wishing they could utilize a different mode to demonstrate their understanding. This was particularly salient for them in reference to group work and discussions. Helen specifically advocated for spreading “the responsibility of carrying the burden of the conversation”. Helen said this could possibly be done by assigning people different weeks and having them create around 3 prompts or questions for the discussion that week. This would increase buy in and relieve some stress on “off” weeks.

The second short-term recommendation for practice is to reflect honestly on your own practices and identify places that you can grow in references to UDL

guidelines and pedagogical best practices. Ask yourself: What can you do to lessen or remove barriers to you actualizing the best practices? What is a feasible place to start with when considering your own wellbeing and how much capacity you have?

Intentional introspection like this is not only vital to personal growth, but also models the behavior and importance for other people.

A particular strategy that was brought up by a few of the co-creators is allowing people to self select into a group that for those who are having difficulties or who want to go through material more in depth. This idea was brought up explicitly by Candis because she believed that group work was very meaningful and at the same time found it very difficult to engage in. The option of an opt-in group that would process in depth would help make it so that the pressure to perform at an unachievable standard was decreased. I believe that the key here is the self-selection part. As with many things, it is problematic to prescribe students and “assign” them to a certain identity or experience because your assumptions may be off base, built on incorrect understandings, and inevitably limiting to the people you are ascribing these traits to. By allowing self-selection and for that to be a fluid process, it focuses on the events/experiences and not the people. It is a group for people who are having difficulties, not a group of difficult people (a nuanced but essential difference).

A final short-term practice recommendation is to work on improving your ability to listen with positive intention to students who are expressing struggle. What are they trying to communicate? How can you work together to improve the learning environment for everyone? For the co-creators this behavior was an expression of care

that was, and is, entirely too hard to come by in academia. For them, the ideal educator is one who expresses care and validates struggles. Multiple co-creators expressed that it was particularly influential if an instructor validated struggles and emotions and were also willing to be vulnerable with their students at the same time. This behavior normalizes the learning process and struggles that are inherent and necessary for growth. Listening to students is also a form of validation. Helen and Kelly both described seeking out validation in the form of trust. For some co-creators, the way an instructor responded to the co-creator going to them and explaining what is going on was a pivotal point in the course.

In regards to long-term practice changes, many of them are focused on institutional and cultural changes. As Connor and Gabel (2013, p. 107) put it “by focusing on the overall system rather than on the [student] as the site of responsibility, teachers and scholars in the field of [disability studies] engage in combating structural ableism that is embedded in the everyday arrangements of schooling.” The primary focus that I would suggest and that the co-creators asked for was a culture shift to implement better teaching strategies, specifically normalizing failure and fostering healthy conflict, and having Universal Design for Learning be enmeshed into the fabric of the university’s operations along with active learning strategies. As mentioned in chapter 3, such a change takes more than just a few awareness campaigns but requires a shift in how we understand and interact with others in our community.

One of the main issues that such cultural change brings forth is our lack of care toward relationships broadly. Many co-creators exist in a constant fear of conflict. I

believe that conflict, if done in a meaningful way, is a vital part of education. My understanding is built on the idea that conflict is an essential part of dialogue which is vital for community growth and understandings (Nagda, Gurin, Rodriguez, & Maxwell, 2008). As community members we can work to improve our capacity to have healthy conflict by engaging in dialogues around what this could look like and how conflict can (and should) be handled. With this approach, it is also important to revisit these expectations periodically and particularly when conflict does arise.

Conclusion

With this study and communication of the findings, I hope to build the readers' understandings of how students with anxiety experience formal learning environments so we may serve our student population with more care and consideration. These understandings also serve to inform efforts to improve pedagogical practices aimed at increasing student success and retention since the data paints a picture of what strategies are and are not effective. For the co-creators, the environments make up and consist of cycles that are at times self-fulfilling. The cycles are often perpetuated through re-occurring negative interactions with the environments, usually social in nature and dealing with silence and/or distance from others. To survive in the pain of the cycle, the co-creators developed strategies that demand a majority of their energy.

Overall, the cyclical nature of their experiences, the pain that goes along with them, and the exhaustingly vital survival strategies led the co-creators to feel frustration with a system that was not built for their success and a sense of futility for trying. Characteristic to their resilience, the co-creators also expressed hope for a different and

better future. This future is one where students with anxiety are validated and treated with respect and care. As higher education sees an increase in students who are self-reporting “psychiatric conditions” and nearly a quarter of students are citing anxiety as a factor affecting their individual academic performance (American College Health Association, 2015) it is vital that policy, practice, and resources reflect a more nuanced perception of the student experience that includes mental health as a facet.

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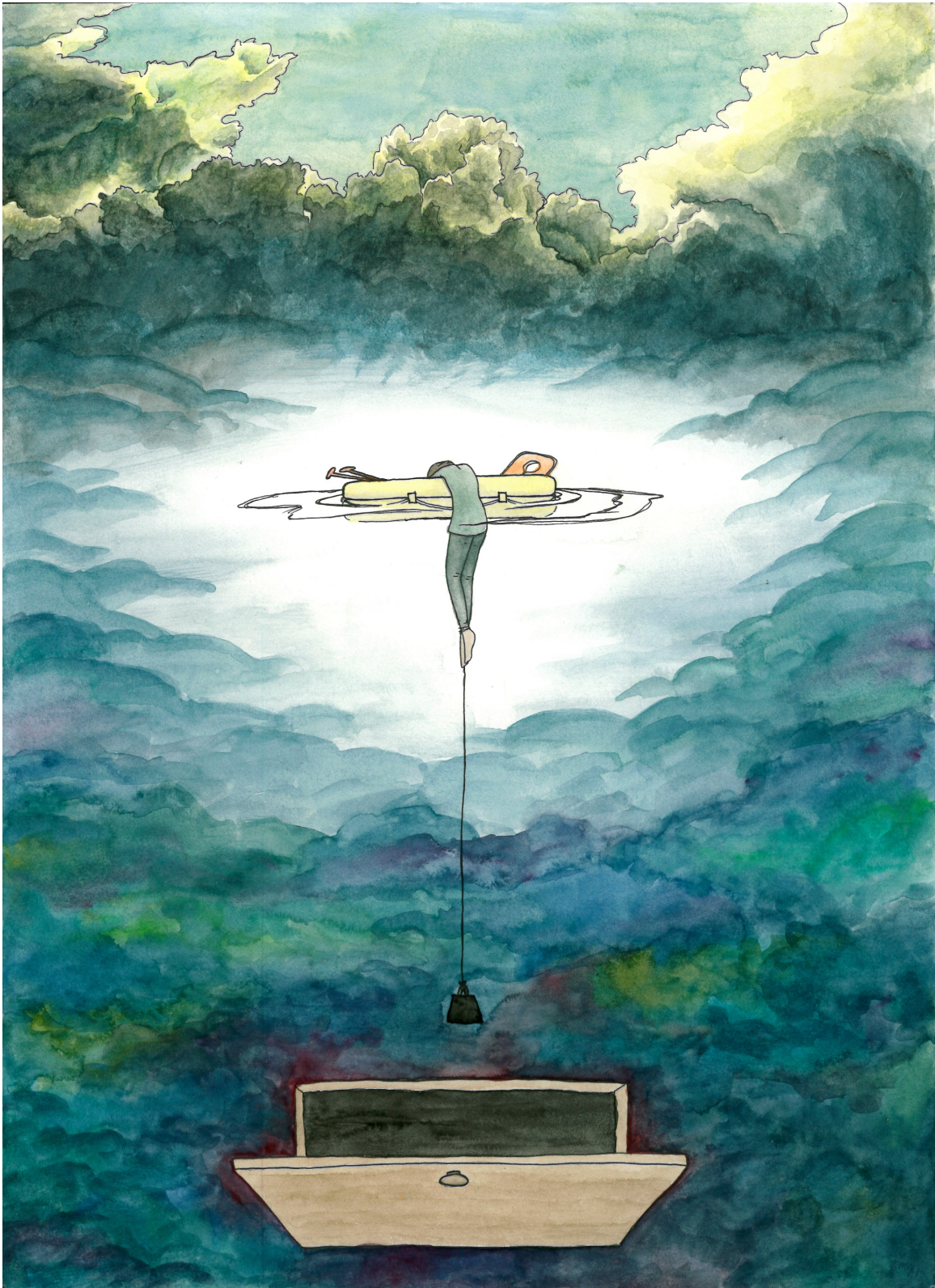
Appendix A: Journal 1 Summary Piece



Appendix B: Journal 2 Summary Piece



Appendix C: Full Data Summary Piece



Appendix D: IRB Protocol

RESEARCH PROTOCOL

December 01, 2015

1. Visually Exploring Learning Spaces of Students with Anxiety

PERSONNEL

2. Principal Investigator
 - a. Daniel W. Newhart
3. Student Researcher
 - a. Kristen S. Andersen
4. Co-investigator(s)
5. Study Staff
6. Investigator Qualifications

Daniel Newhart has a PhD in educational research methodology and is currently the Director of Research, Evaluation, and Planning at Oregon State University. He has previously completed multiple IRB-approved research projects involving students on a variety of topics using a variety of quantitative and qualitative methods, including those methods using Photovoice, which is a visual and narrative based research methodology.

The student researcher has been trained through CITI to obtain informed consent. Student researcher creating artwork has minor in art and is qualified to create art. Student researcher has taken AHE 513, Research and Assessment and is qualified to perform interviews.

7. Training and Oversight

The student researcher has confidentiality, ethics, and consent training from taking a research methods course in her master's program. The Student Researcher will send updates to the Principal Investigator after each round of interviews and at least once a month. The student researcher's thesis proposal has been approved by her committee.

8. Conflict of Interest

There are no conflicts of interest from anyone on the study team.

FUNDING

9. Sources of Support for this project (unfunded, pending, or awarded)

This project is currently unfunded

DESCRIPTION OF RESEARCH

10. Description of Research

The purpose of this research study is to better understand how students with anxiety that may interfere with their daily functioning experience formal learning environments like classrooms and lab spaces. Specific attention will be paid to the ways in which disabilities related to the student's anxiety develop, are sustained, and decrease..

This study uses visual art as an additional communication tool to gather and express information that may not be as easily expressed through written and/or verbal communication alone. This study is significant because it looks at the intersection of student life and learning, formal learning spaces, and anxiety as a disability. The study uses Arts Based Research (ABR) methods to help create a more complex understanding by exploring the student experience in a different way that will hopefully provide new insights.

Incorporation of art in the data collection, synthesis, and dispersal of information will also open the research to a broader audience. ABR emphasizes the importance of the research audience. In keeping with the ABR tradition, this study will include an exhibit of the research to the broader community and will invite key stakeholders at OSU. These key stakeholders include students who use formal learning spaces on campus, the people who teach in them, the directors that oversee departments, people who schedule and decide the use of classrooms, and upper administration who influence the creation and renovation of formal learning environments and the types of pedagogy used in them.

The objective of this study is to help improve instruction in formal learning spaces by providing more information on the student population, what their needs are, and how they experience their formal learning environments. This improvement could occur by informing curriculum decisions, class scheduling and space considerations, and pedagogical practices. The student researcher, Kristen Andersen, is conducting this study for the completion of her thesis, which will be published in scholar archives in the Oregon State University library. This research may also be used for publication purposes.

Up to 150 participants may be invited to take part in this study.

11. Background Justification

There are three main areas in the literature that are pertinent to this study. The first area is about theoretical perspectives of disability and how they shape perceptions and legislation. The second area looks at the broad U.S. higher education landscape, what typical classrooms are like, and what the student population is. The last area of literature covers mental wellbeing in higher education, how it is viewed, and what current support systems exist.

The main theoretical perspectives on disability that influence how it is seen today are the medical model and the social model. The Medical Model had the intent to define disability with a rigid set of parameters based on the medical definitions of ability and decrease the number of people with disabilities through preventative and restorative treatments (Riddle, 2014a; Silvers, 1998a, pp. 59 – 74). The Social Model arose as a response to the Medical Model and provides a lens through which to look closely and with detail at how the socially constructed environment impacts individuals with disabilities and argues that all disabilities are the result of a culture disadvantaging certain impairments that are natural to human evolution (Oliver & Barnes, 2012; Riddle, 2014a; Scotch, 2000; Silvers, 1998a, pp. 74 – 76). There is disagreement as to what the most effective perspective is, which has resulted in a form of "stalemate" among researchers (Riddle, 2014a, p. 13). Though there is general consensus that the Medical Model is inadequate and perpetuates the very thinking that

leads to the disadvantaging aspects of disability, the use and limitations of the Social Model as an alternative are contested (Oliver & Barnes, 2012; Shakespeare, 2014a).

Literature on the broad U.S. Higher Education structure and classroom landscape focuses on the types of classrooms and broad student retention and academic achievement. This literature is pertinent to this study because to understand how formal learning environments are experienced, it is important to understand what they typically consist of. Typically an undergraduate student will experience large lecture style classes, lab and recitation sections that are smaller, and potentially a more flexible space that allows for more pedagogical strategies and a broader use of space (Cimasko et al., 2013; Smithee et al., 2004). The literature also discusses the psychological classroom as being learner-centered or teacher-centered though it may exist along a spectrum between the two (Smithee et al., 2004). Though there is literature on the role that education plays in the creation and perpetuation of power structures, it often does not address disabilities and anxiety directly. The literature on Universal Design addresses disability and anxiety, but often does not talk directly about dynamics of power and privilege. This study aims to blend both sides and look at anxiety as a disability within formal learning environments and how they are influenced by systems of power and privilege.

Lastly, research that addresses mental wellness in Higher Education provides significant data on barriers to engagement for students with mental illnesses and/or psychiatric disabilities. These barriers can be familial pressures to focus on academics (Brown & Broido, 2014), fear of stigma that would come from disclosure (Brown & Broido, 2014), feeling unwelcome by their college, and being penalized for their mental health problem(s) like by losing financial aid (Gruttadaro & Crudo, 2012). Another attitudinal barrier is ableism which leads to the belief that accommodations only benefit “the disabled” and are costly to implement, that people who are disabled are held to a lower standard, and that an accommodation is less desirable (Griffin et al., 2007). This leads to social constructions of stigma that students with disabilities are not capable, and thus need to be saved from their limitations by the able (Brown & Broido, 2014). This mentality shifts the onus of access onto individuals with disabilities, who thus must ask to participate instead of the institution proactively creating access (Brown & Broido, 2014). Another barrier for engagement is students identifying as disabled, and their perceptions of self-reporting as such. A student must identify as having a disability and understand how this identity impacts their learning for them to be successful in higher education (Getzel & Thoma, 2008). Identifying themselves may be difficult for students who don’t identify as disabled because they are anxious about it, or would rather wait to disclose until an issue arises (Getzel & Thoma, 2008). Research on mental wellness also thoroughly goes over issues surrounding help-seeking behaviors for students, support services, and the relationship between mental illness and academics. Students’ understanding of their disabled identity not only helps them understand their lived experience, but is also crucial for them to seek help. Recent research says that 43% of students with mental illnesses did seek help, and 57% did not (Gruttadaro & Crudo, 2012, p. 12). Of those who did not seek help, many reasons were given as to why. Students said they would rather try and figure it out themselves (Eisenberg et al., 2012, p. 712), they were unaware that they qualified or had the right to receive accommodations saying that their stress and anxiety were normal parts of the college experience (Eisenberg et al., 2012; Gruttadaro & Crudo, 2012), and they did not know services were provided for mental health conditions (Collins & Mowbray, 2005; Gruttadaro & Crudo, 2012). Students also reported that the process for acquiring accommodations was too burdensome and required too much

expensive documentation (Gruttadaro & Crudo, 2012). Students' daily lives also impacted their help-seeking behaviors, as they cited things such as a busy schedule (Eisenberg et al., 2012; Gruttadaro & Crudo, 2012) and incompatible office hours (Gruttadaro & Crudo, 2012) as why they didn't seek help.

Stigma is another large reason for a lack of help seeking (Gruttadaro & Crudo, 2012). It is important to note that this is a fear that others will stigmatize them, because research shows that recently students have lower internalized stigma levels (Eisenberg et al., 2012). One study showed that 65% of students with mental illnesses who were not receiving treatment reported having low feelings of stigma, and positive beliefs about treatment (Eisenberg et al., 2012). This combined with students not perceiving their need as serious or worthy of attention lead to a new conceptual hypothesis (Eisenberg et al., 2012). It is likely that students perceive help-seeking behaviors similar to how exercise and a balanced diet is viewed, though it is healthy, many people don't engage in the healthy behaviors (Eisenberg et al., 2012). Most of this research has been done in the last ten years and is still growing. Generally, the issues are addressed as a whole student experience which has the advantage of allowing students to express where they are facing the biggest barriers and could use the greatest support. This study will further this area of research by adding to the understanding of the student experience. It has been identified that students often feel unsupported by their instructors and they fear their classmates will judge them. Though this has been identified, the multiple aspects of the experience of a formal learning environment has yet to be explored.

12. Multi-center Study

OSU is the only institution conducting this study.

13. External Research or Recruitment Site(s)

Recruitment will occur in part off of the OSU Corvallis campus.

Facebook is one recruitment site that will be used. The ad to be used is attached.

14. Subject Population

The approach to this study implies that the people who participate create aspects of the research, hence the phrase "co-creator". Co-creators are the people who take part in this study through the creation of visual journals and participation in interviews. This is an intentional change from the word "participant".

Co-creator characteristics & justification: The co-creator population is restricted to undergraduate students who are at least 18 years old and are currently attending Oregon State University. The participant population is restricted to undergraduate students because the research is exploring the undergraduate student's experience of formal learning spaces from the student's perspective. ABR has traditionally been done with adults outside of a university setting. This study is using ABR in a university setting, which differs from the previous research. For this reason, the precedent of working with adults remains and thus this study excludes individuals under the age of 18. Additionally, most students under the age of 18 have likely only had one quarter or less of course work at OSU and this study needs students who have had more experience with formal learning environments at OSU.

This study will also allow for people who attend the research exhibit to submit reflections. This population will be unidentified.

Total target enrollment number: 150

Description of any vulnerable population(s):

This study targets the vulnerable population of undergraduate students. The IRB considers this population to be more vulnerable to coercion (real or perceived) and to issues related to confidentiality (<http://research.oregonstate.edu/irb/policies-and-guidance-investigators/guidance/recruitment-students-and-employees-research>). This study does not exclude tribal populations or people who are pregnant.

Inclusion and exclusion criteria:.

- To be considered for the co-creator role of this study, one must be over 18 and a currently enrolled undergraduate student at Oregon State University that experiences anxiety that interferes with their daily life.
- To submit a reflection on the research, one must attend the research exhibit and submit their reflection before the close of the exhibit.

Recruitment of co-creators:

- Flyers will be posted in key locations across OSU's main campus including in the MU, Kerr, the Student Experience Center, the Craft Center, the coffee shops, the cultural resource centers, Snell Hall, the LInC building, and Milam Hall.
- Posts will be made on social media sites Facebook and Twitter using the student researcher's account and an account made specifically for the research. The posts, descriptions, and images for the accounts are attached. In accordance with the OSU policy on the recruitment of research participants using ads that are size limited, all ads link to a page that contains all required recruitment elements and/or contain all required recruitment elements between the ad and post content.
- Departments on campus will be asked to send out a recruitment email. Departments that will be asked to send the email are Disability Access Services, Counseling and Psychological Services, Student Leadership and Involvement, Student Events and Activities Center, Diversity and Cultural Engagement, and Rec Sports.
- Emails will be sent to individuals who reach out to the research team from the flyers, emails from departments, and/or social media posts. All email contact will be done through OSU emails. If a member of the research team is contacted from a non-OSU email, they will ask for the OSU email and direct all further communication through that route.

Recruitment of attendees who may leave reflections:

- Flyers will be posted in key locations across OSU's main campus so as to attract attention of key stakeholders. This includes the MU, Kerr, the Student Experience Center, the coffee shops, Snell Hall, and the LInC building.
- Posts will be made on social media sites Facebook and Twitter using the student researcher's account and an account made specifically for the research. The posts, descriptions, and images for the accounts are attached.

- Emails will be sent to departments on campus inviting anyone to attend including administration, staff, and students. Departments that will be contacted include Disability Access Services, Counseling and Psychological Services, Student Leadership and Involvement, Student Events and Activities Center, Diversity and Cultural Engagement, the Center for Teaching and Learning, the Office of the Board of Trustees, the Office of the Registrar, Office of the President, the Difference Power and Discrimination Program, and Writing Intensive Curriculum.

15. Consent Process

This study will include two informed consent processes, one for the potential co-creators, one for the participants of the exhibit.

For the co-creators:

- This study will obtain written consent from all co-creators. Informed consent will be obtained prior to involving co-creators in any study activities. To determine comprehension, potential co-creators will be asked to answer the following questions. If a main point is omitted, the student researcher will go over that section again.
 - So that I am sure that you understand what the study involves, would you please tell me what you think we are asking you to do?
 - In your own words, can you tell me what the biggest risk to you might be if you enroll in this study?
- After an individual makes contact with the researchers and expresses interest in the study, the student researcher will set up a meeting within the following week with the individual to answer questions about the study and get consent if the individual wants to be a part of the study. The meetings will take place in the student researchers private office.
- **Signatures on a consent form.**
 - Subject (required): Subject signatures indicate that the study has been explained to them, all of their questions have been answered, and they agree to be in the study.
 - Researcher (required): Researcher signatures indicate that the study was explained to the subject, comprehension was assessed and found to be sufficient, and the subject provided consent to participate in the study.
- **Significant new findings:** If at any point during the course of the research new findings arise which may result in the co-creators willingness to continue participation, the information will be provided to the co-creator as soon as possible.

For those who choose to leave reflections on the exhibit:

- This study will not obtain written consent from people who leave reflections at the exhibit. Directly next to the cards for reflections and the box to put them in will be the explanation of research study document (attached). This is because having signed consent forms would identify the people leaving reflections by name. Thus the largest risk would be a breach in confidentiality that would directly identify the people who

submitted reflections. By not requiring signed consent forms the risks are only those directly related to the reflection activity.

16. Eligibility Screening

This study involves a screening process that will take place after informed consent has been received. This process will gather data on the potential co-creator's age, enrollment status, and if they have anxiety that interferes with their daily life.

17. Methods and Procedures

- This research will use visual Arts Based Research (ABR) methodology. Broadly defined, ABR as a methodology is a form of artistic inquiry that blends the creative art-making process with the act of research by embracing the similarities between the two and deepened understanding that art can bring (Gerber, 2012; Leavy, 2015c). ABR practices are a set of methodological tools that researchers from any discipline may use at any point in their research (Leavy, 2015c).
- Data will be collected in two ways, the visual journals created by the co-creators twice during the term, and the 50 minute informal interviews that will follow the creation of the journal. Photographs of the visual journals will be taken and stored on secure servers. Photographs of the journals are necessary for participation in the research. The interviews will be audio recorded, the audio will be saved on a secure server until it has been transcribed, at which point it will be deleted and the transcription saved. Audio recording of the interviews is necessary for participation in this research. It is estimated that co-creators will spend one hour and 40 minutes in the interview process and approximately one hour on the creation of their visual journals. This totals two hours and 40 minutes of estimated participation time.
- Data will be processed in two main ways. The visual journals will be coded by the student researcher for subject matter and importance given to ideas. The interviews will be transcribed and coded for anxiety as a disability. The transcribed interviews will also be coded for information on the structure, psychological and physical, of the learning environment that influenced their experience. The coding will be consistent with the strategy outlined by Creswell (2015). First all transcripts are read multiple times to gain a general sense of the interviews and ideas. Next the text is divided into segments, then labeled with preliminary codes (Creswell, 2015). These codes are then analyzed to reduce redundancy and overlap within them (Creswell, 2015). Lastly, the codes are further reduced into overall themes (Creswell, 2015). Through out this process the student researcher will revisit the transcripts to ensure that the codes are still relevant and fitting to the raw data.
From the themes and coding experience, the student researcher will create a summary piece for the first visual journals and interviews, and a second summary piece for the second visual journals and interviews. Once all of the data are collected and the summary pieces created, a single summary piece will be created by the student researcher to capture the essence of the data in visual form.
- A critical part of ABR is engaging the audience in multiple ways as a part of the research process. One way this will be done is through the hosting of an exhibit for the research focusing on the visual journals and summary pieces. All summary pieces will be shown.

All visual journals, with the exception of those the co-creators explicitly state they do not want shared, will be shown and quotes from the interviews may be included. Key stakeholders in the university will be invited to come. All attendees will be invited to leave comments, both visual and written.

References:

- Creswell, J.W. (2015). Analyzing and interpreting qualitative data. In *Educational Research: Planning, Conducting, and Evaluating Quantitative and Qualitative Data* (fifth edition, pp. 235 – 264). Pearson.

18. Compensation

Co-creators will receive as a part of the study a small sketchbook in which to do their visual journals and a drawing pen. The sketchbook and pen will be given to the co-creator after they sign the consent form. The sketchbook and pen are then the co-creators to keep regardless of if or when they drop out of the study.

19. Costs

Co-creators may incur costs related to parking, travel, and the creation of their visual journals. If participants choose to use other media to create their journals, they must supply it themselves.

20. Drugs or Biologics

No drugs or biologics will be used in this study.

21. Dietary Supplements or Food

No dietary supplements or food will be given in this study.

22. Medical Devices

No medical devices will be used in this study.

23. Radiation

Increased radiation exposure is not a part of this study.

24. Biological Samples

No biological samples will be taken as a part of this study

25. Anonymity or Confidentiality

The student researcher knows names and contact information and will keep this information in a file on a secure server. It is necessary to record these identifiers so that the student researcher may get clarification with the co-creators. Co-creators will decide their own alias to be used throughout the study. Visual journals and transcribed interviews will be organized by alias. This identification is necessary so that the student researcher can compare data gathered from the same co-creator in the different journal and interviews. The use of an alias will also allow credit to be given to the co-creators for their work and quotes from their interviews. A document containing the link between the alias and the direct identifiers will be created as co-creators sign consent forms and will be kept until the student researcher has successfully defended her thesis. This is so that any follow up

questions and clarification may occur and the co-creators may be invited to the data exhibit. The linked list of aliases and direct identifiers (names and contact information) will be stored separately from the data. In the dissemination of the research findings only the aliases that the co-creators chose for themselves will be used. This is so that the audience can create connections between the multiple pieces of data from one co-creator and so that the co-creator will receive credit for their words and work. Data will be reported in publications in aggregate and using direct quotes. Any association to co-creators in publication will be to their alias.

Interviews take place in person and email addresses are used. To minimize the chances of a breach of confidentiality, communication will occur through school emails.

As a part of the meeting to obtain informed consent, the role of the research team as mandatory reporters will be described. If the student researcher learns of any situation requiring her to report, she will do so once she is able to the PI.

The thesis of the student researcher will be stored in the ScholarsArchive.

- Data will be securely stored on the student researchers computer, which is up to date on antivirus, and is password protected. The student researcher is the only person who knows the password to this computer and uses the computer. A second copy of the data will be securely stored on the student researcher's google drive associated with her ONID account from OSU. The student researcher will share this drive with the PI. The student researcher and the PI are the only two individuals with access to this drive.
- Data collected from this study will remain on the PI's computer for a minimum of three years after the termination of the study. This means the data will be stored as digital media and photographs. The PI is the only person who will have access to this data.

26. Risks

The possible risks and/or discomforts associated with the being a co-creator with the study include:

- Approximately two hours and 40 minutes of the co-creators time being spent on the research.
- Psychological discomfort and pain produced by engaging with potentially difficult emotions for the co-creator
- Discomfort produced by discussing and engaging with a mental health issue (anxiety)
- Having one's identity as a co-creator being known in the case of a breach of confidentiality

The possible risks and/or discomforts associated with attending the exhibit include:

- Psychological discomfort produced by mentally engaging with unpleasant memories of being in a formal learning environment.
- Discomfort produced by discussing and engaging with a mental health issue (anxiety)
- Having one's identity as a person who submitted a reflection being known if they are seen submitting a reflection.

We will take the following steps to minimize the identified risks:

- Use time spent together efficiently and with purpose.
- Have co-creators choose an alias by which they will be referred to in any use of the data

- Provide contacts for community resources that are well suited and trained to help people process and work through memories, emotions, and mental health issues.
- Storing identifying information in secure ways.
- If any adverse events or unanticipated problems occur, the student researcher and the principal investigator will report them to the IRB as soon as possible.

27. Benefits

We do not know if co-creators will benefit from their experience with this study. However, co-creators may

- gain a better understanding of themselves and their experiences
- feel that their experiences are validated through the recognition of those experiences at the exhibit

We do not know if exhibit participants will benefit from being a part of this study. However

- art evokes emotion which can inspire engaged dialogue through which dominant ideologies and stereotypes may be challenged.

We do not know if the university community, specifically students who experience anxiety, will benefit from this study. However

- Visual images hold an elevated place in memory. Since key stakeholders are invited to the exhibit and will be exposed to these images and ideas, they may remember them longer and be mindful of the implications of space when making decisions on it.

28. Assessment of the risks and benefits.

Students with anxiety do not always report to their institution (American College Health Association, 2014; Gruttadaro & Crudo, 2012), do not always receive services and accommodations (Arria et al., 2011; Hunt & Eisenberg, 2010), and have lower rates of academic success (Eisenberg, Goldberstein, & Hunt, 2009). Students who have anxiety also experience stigma, stereotyping, and bias on campuses (Corrigan, Druss, & Perlick, 2014; Eisenberg, Downs, Golberstein, & Zivin, 2009; Pattyn, Verhaeghe, Sercu, & Bracke, 2014). Counter-storytelling & counter-imagery are some of the most effective ways to combat subtle and unconscious bias, like that displayed on campuses (Lai et al., 2014). By using ABR, this study will produce data that will convey the emotion and feeling aspects of being in a formal learning environment as a person who experiences anxiety. These data will further the understanding of the experience of undergraduate students with anxiety as a whole, particularly if and how disabilities related to the anxiety develop, are sustained, and dissolve. This research may also unearth if students perceive anything as privileging neuro-typical individuals, knowledge that would help inform anti-stigma and instructor education efforts.

These data will also be used in counter-storytelling during the exhibit and in any literature published from them. There is potential for this to decrease stigma and bias on the campus as a whole, particularly because key stakeholders at the university will be invited to participate and they may be able to influence decisions. There is also a potential to improve the formal learning environments for students with anxiety. This improvement may directly effect instruction by informing curriculum decisions, class scheduling and space considerations, and pedagogical practices.

The risks of participation in the study are outweighed by the potential benefits from it. The co-creators may experience discomfort and psychological pain, and risk having their

experiences with anxiety identified through a break of confidentiality. The participation that leads to these potential risks also produces an increased knowledge of the experience of formal learning spaces for students with anxiety. This knowledge has potential to directly effect change in formal learning environments for future students with anxiety and further illuminate issues that need to be addressed. The potential to learn about ways in which the formal learning environments at OSU are perceived by and influence our students with anxiety outweighs the potential discomfort, pain, and breach in confidentiality.

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Appendix E: Journal Prompts One

Journal One Prompts

Project Title: Visually Exploring Learning Spaces of Students with Anxiety
Principal Investigator: Daniel W. Newhart
Version Date: 10.13.2015

Formal learning spaces are places like classrooms and labs. They constitute the physical environment in which learning is scheduled or otherwise designated to take place. Formal learning environments add in the psychological and social aspects of formal learning spaces. This includes the interactions and relationships with other students and the instructors, the social expectations of behavior, and the way a formal learning environment makes one feel (welcome, uncomfortable, excited, nervous, etc).

When you are creating your visual journals, you are free to use any medium you feel drawn toward. The sketch-book and pen were provided for you to use if you choose though you are not limited by them. Your journal can be drawn, painted, collaged from mixed media, photographed, etc. You are also not limited to how many pieces you can create for one journal entry.

You will be given multiple prompts for each journal, you may choose to create pieces that respond to them individually or you may choose to answer them all with one piece.

For journal one, please reflect and respond to the following prompts:

- Think about some of the formal learning environments you have been in, what are the broad feelings that come up?
- What do you tend to notice about formal learning environments (physical, psychological, and/or social)?
- What types of interactions do you have in and with the formal learning environments and how do they make you feel?

For each of the journals, please include at least a paragraph explaining the meaning behind the pieces.

Appendix F: Journal Prompts Two

Journal Two Prompts

Project Title: Visually Exploring Learning Spaces of Students with Anxiety
Principal Investigator: Daniel W. Newhart
Version Date: 10.13.2015

Formal learning spaces are places like classrooms and labs. They constitute the physical environment in which learning is scheduled or otherwise designated to take place. Formal learning environments add in the psychological and social aspects of formal learning spaces. This includes the interactions and relationships with other students and the instructors, the social expectations of behavior, and the way a formal learning environment makes one feel (welcome, uncomfortable, excited, nervous, etc).

When you are creating your visual journals, you are free to use any medium you feel drawn toward. The sketch-book and pen were provided for you to use if you choose though you are not limited by them. Your journal can be drawn, painted, collaged from mixed media, photographed, etc. You are also not limited to how many pieces you can create for one journal entry.

You will be given multiple prompts for each journal, you may choose to create pieces that respond to them individually or you may choose to answer them all with one piece.

For journal two, please reflect and respond to the following prompts

- Are there situations in or aspects of a formal learning environment that make you more or less aware of your anxiety? If so, what situations or aspects?
- In regards to your anxiety, how does the formal learning environment influence your ability to perform activities needed to be successful (interact with others, take notes, pay attention, complete assignments, etc)?

For each of the journals, please include at least a paragraph explaining the meaning behind the pieces.