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Community College Students with Psychological Disorders and Their Perceptions of Online Learning

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COMMUNITY COLLEGE STUDENTS WITH PSYCHOLOGICAL DISORDERS AND THEIR PERCEPTIONS OF ONLINE LEARNING

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ABSTRACT

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Research focusing on students with learning disabilities is abundant for secondary and higher education. Studies utilizing data on students with psychological disorders cover secondary and 4-year university education. However, community college students with psychological disorders and their perception of online classes is an area of educational research which lacks data. Students across a wide spectrum of psychological disorders tend to find learning challenging. The community college's learning environment may best fit their learning styles. With modern educational innovations, the online learning methods must take into consideration the unique psychosocial, cognitive, and academic needs of the community college student population.

Keywords: community college, online learning, psychological disorders, Universal Design for Learning

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Community Colleges reflect our society's diversity. I am a product of the community college system, a state-funded university, and an Ivy League institution. With that, my proudest career moments have occurred in the community college classroom. From my community college teaching experiences, my interest in the present research was sparked. I continue to be awed by the commitment and tenacity community college students have and I am honored to be a part of their academic journey. I dedicate this research to community college students who, with all life's challenges, persevere.

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CHAPTER 1:

INTRODUCTION

Students with a wide spectrum of psychological disorders tend to find learning challenging, and many of these students are drawn to the community college learning environment because it better fits their learning style (Francis, & Abbassi, 2010). With modern educational innovations, the online learning trends must take into consideration the unique psychosocial, cognitive, and academic needs of this community college student population. To better understand online learning for community college students with psychological disorders, this study asked community college students with psychological disorders to share their online experiences.

The attempt to understand the experiences of students with psychological disorders and their perception of online courses was ultimately an effort to better advocate for community college students' online success. Whether the community college student dealt solely with psychological disorders, a combination of this with personal challenges, or no other challenges at all, the desire for online student success within this particular population motivated this researcher. Hence, it is through the participants' rich and dense personal experiences that community college educators may gain a deeper understanding of beneficial online teaching techniques for community college students with psychological disorders.

Background

On August 23, 2011, Virginia felt firsthand the importance of online learning. When the earthquake happened, one VCCS community college lost an entire building. For this college, the public data released included: (a) 321 courses were originally scheduled to be in the damaged

building, (b) 51 courses were changed to online courses, (c) 155 courses were changed to hybrid courses, and (d) 7 courses were cancelled. In order to serve VCCS's student population, online and hybrid courses were utilized and the drive for more online classes is still significant. Online courses, in fact, are attractive to a wide population of students, and in hard economic times, offer a substantial and sustainable funding avenue for institutions (Carr, 2013). Yet, community colleges are tasked with serving their immediate community (Mellow & Heelan, 2008). Not only does the community college mission expressively connect the college to community needs, but it also dictates open access. Online, traditional, and/ or hybrid courses represent a synthetic sense of open access (Bailey & Morest, 2006). Consequently, the ability to adapt online learning to a wide spectrum of learning styles and needs may help steer each community colleges' success or failure in preserving open access and strengthening student success.

The reasons students enroll at community colleges vary. Provasnik and Planty (2008) found six particular reasons student choose a community college path: (a) following their personal interests, (b) transferring to a four-year institution, (c) attaining an associate's degree, (d) learning new job skills, (e) transferring to another two-year college, and (f) obtaining an occupational certificate. Tied to these reasons, though not explicitly studied, is the fact that college student's cognitive challenges significantly influence their learning (Dillon, & Osborne, 2006; Lane, Carter, Pierson, & Glaeser, 2006; Sabornie, Evans, & Cullinan, 2006). The research done offers glimpses into the learning struggles of students with learning challenges. Yet, the research available that covers psychological disorders and higher education learning challenges deals primarily with four year higher education institutions (Jalfs & Richardson, 2010; Grabinger, 2010; Mier, Boone, & Shropshire, 2009). In only one study found does the research address community college students and psychological disorders (Francis & Abbassi, 2010).

Francis & Abbassi (2010) include community college students in an article dealing with college students with severe and persistent mental disorders. The research does not address online learning.

Furthermore, this study attempted to fill a research gap by seeking to understand the community college students' with psychological disorders experiences and their perception of online courses. Past research examines learning and psychological disorders in primary, secondary, and higher education. The majority of the past research focuses on psychiatric disorders and learning through the lens of secondary education (Klassen, 2010; Lane, Carter, Pierson, & Glaeser, 2006; Sabornie, Evans, & Cullinan, 2006). The research available exploring psychological disorders and learning challenges focuses on higher education in general (Grabinger, 2010; Jalfs & Richardson, 2010; Mier, Boone, & Shropshire, 2009) but does not address the community college population's psychological learning challenges specifically (exception: Francis, & Abbassi, 2010). Thus, this research was foundational; it connected the community college learner with psychological disorders to the learner's perceived experience with online learning and hopefully opened a door to future research for this population.

Purpose Statement

The purpose of this phenomenological study was to understand the online teaching techniques which enhanced and hindered learning for community college students with psychological disorders. The study was conducted at a mid-sized Virginia community college. It explored the online learning experiences of seven adult volunteers. The participants were community college students who have been clinically diagnosed with a psychological disorder and who had taken or were taking an online course.

Research Questions

This study was guided by the following research questions:

1. What are the experiences of community college students with diagnosable psychological disorders in online classes?
2. How do community college students with diagnosable psychological disorders perceive teaching techniques in online courses?
3. Does the Universal Design for Learning (UDL) framework offer a model to develop flexible teaching practices for community college students with diagnosable psychological disorders?

The research questions focused on online learning techniques and the participant's individual experiences and views.

Significance of Study

According to the National Alliance for the Mentally Ill (2004), up to 27% of young adults (18-24 years old) struggle with some degree of mental illness. For this age, the disorders most reported include depression, attention deficient disorder (ADD), schizophrenia, post-traumatic stress disorder (PTSD), and bipolar disorder. Surveys from universities around the country echo the increase in psychiatric disorders among young adults: the growth rate of students acknowledging and seeking help for psychiatric disorders has increased from 10% to 50% with bipolar disorder in the lead (Grabinger, 2010). The increasing numbers of students dealing with the learning challenges associated with psychiatric disorders reflect a community college population that is unique and understudied.

This research gave this population a voice and offered applicable clarifications to a variety of community college practitioners. In fact, this study offered empirical evidence not attempted before. It connected community college educators with a distinctive population of

students, a group of community college students with distinguishing cognitive challenges. Furthermore, this research employed documented self-disclosed community college students with psychological disorders and also focused on the participant's self-describing academic online experience. In essence, the research offered practitioners beneficial and hindering online teaching techniques as described by this particular community college student population.

The foundational research may, in fact, prove to be a catalyst for an essential community college inquiry. Grabinger (2010) began an investigation of online learning through case studies and focused solely on four year college students with psychological disorders. Grabinger retired and his research in this area ceased. The research here followed Grabinger's case study model but moved away from Grabinger's work by focusing in on a specific population. Instead of university participants, this study explored the online learning experiences of community college students with psychological disorders. It was an area of community college research never attempted before.

Overview of the Methodology

The phenomenological study focused on better understanding the needs of community college students with psychological disorders through case studies. By the nature of phenomenological research in an educational study, the data collected was based on real-life scenarios where participants, in this case students with psychological disorders, indicated methods that can help community college educators create a learning environment that better serves the unique community college population (Hays & Singh, 2012). As a phenomenologist, the researcher did a qualitative questionnaire and interviewed participants. The phenomenological methodology best fit the research's intention; it was an investigation into the meaning and depth of the community college students' with psychological disorders experiences

with online learning. By hearing directly from the participants, the study sought to unite the participants' experiences with community college practitioners.

The research began in the fall of 2013 and continued through the winter of 2013. Participants were recruited through a mid-sized Virginia community college and were all adults (18 years old and older). The process to recruit volunteers began in October of 2013. The methods used to collect data included at least one one-on-one interview and a reporting of basic demographic information. Data analysis included transcribing interviews and coding interviews. Strategies for trustworthiness included detailed field notes and a reflexive journal, member checking, a research team, simultaneous data collection and analysis, thick descriptions, and an audit trail (Hays & Singh, 2012).

Delimitations

The study occurred from October 2013 to January 2014. The location of the study was a mid-sized Virginia community college. The study's sample consisted of students with psychological disorders who have been recruited through the community college's Special Services Program. The participants were adult learners (18 years old and older) who were clinically diagnosed with a psychological disorder, were students at a community college, and were participants who, at the time of the interview, were taking or had attempted at least one hybrid or online course.

Assumptions

The following research assumptions are made:

1. The participants who volunteered for this study answered questions honestly and openly.

2. The sample included only participants who had a clinical diagnosis for a psychological disorder.
3. The participants took an online or hybrid course.

Definitions

Clinical diagnosis: In order to differentiate between those students who self-diagnosis and those who are clinically diagnosed, the researcher asked for confirmation from the Special Services Coordinator and the participants reflecting that the student has seen a medical professional and had been professionally diagnosed with a psychological disorder. The documentation reflected a written clinical diagnosis (American Psychiatric Association [*DSM-IV-TR*], 2000). Enclosed in this chapter are the definitions connected to learning models. Specific psychological disorders are defined in Chapter 2.

Hybrid instruction: Hybrid is a mode of instruction combining traditional face-to-face classroom instruction and an online learning component. It takes into account the importance of face-to-face interactions and also employs technology options for an expanding group of higher education customers (Schwitzer, Ancis, & Brown, 2001).

Learning disability (LD): Learning disabilities is a general term that refers to an assorted group of disorders which are exhibited by substantial challenges in the execution and use of listening, speaking, reading, writing, reasoning or mathematical abilities (Hammill, Leigh, McNutt, & Larsen, 1988).

Online instruction: A mode of instruction focusing primarily on courses created to deliver instruction through an electronic classroom setting. Online learning is inclusive of college computerized courses labeled as distance learning, electronic classrooms, televised education, and e-learning (Carr, 2013; Schwitzer, Ancis, & Brown, 2001).

Psychological disorders: These disorders manifest themselves through cognitive impairments. The impairments include but are not limited to a lack of attention, memory issues, time management, organizing thoughts logically, problem solving, and social functioning. The disorders are on a multi-axis scale with some disorders being more cognitively challenging than others (American Psychiatric Association [*DSM-IV-TR*], 2000). In order to understand the primary psychological disorders reported, each will be listed individually and defined in terms of learning challenges in Chapter 2.

Traditional instruction or conventional instruction: Is defined here as a solely face-to-face instructional mode; a conventional model of a teacher and a classic classroom setting. Some communication may be offered through electronic means (e.g. Email and Blackboard). However, the base of instruction is given face-to-face in a traditional classroom (Schwitzer, Ancis, & Brown, 2001).

Conclusion

The importance of the research rested in its population and its approach. Community college students with psychological disorders have not been researched in the area of their online learning. Perhaps this lack of empirical data was a result of the difficulty of finding willing participates; after finishing this research, the concern was better understood and, I believe, warranted. Perhaps the lack was simply because combining the disciplines of psychology and community college education offered a small number of interested researchers; another area with valid research challenges. Whatever the reason, the statistics show an increase in college students with psychological disorders. Specifically, Grabinger (2010) suggested an increase in college students disclosing psychological disorders to be from 10% to 50% over the last ten years. Likewise, the National Alliance for the Mentally Ill (2004) reflected a percentage worth

considering with an indication that up to 27% of young adults (18-24 years old) contend with some degree of psychological challenges. With both sets of data, it is important to realize not all college-aged students are disclosing their mental illness. This research reinforced negative experiences with instructors impacted these participants' decision to self-disclosure. Combining this data with the VCCS's data on online learning and the numbers are formidable. The VCCS's website shares data for 2011-2012 and presents the percentage of students enrolled in at least one online class at 49.54% of total enrollment (VCCS, 2013). Hence the potential for students with some degree of psychological disorder taking an online course beckons data driven research. In fact, these numbers demand a voice: What better voice than from the students themselves.

Chapter 1 has attempted to show the need and direction for the research. This dissertation is divided into five chapters and includes tables and appendixes. In an effort to continue to show this research's relevance, Chapter 2 describes past research related to the topic. Chapter 2 also reviews the past research in relation to its importance to the research presented here. It also offers a model to understand the participants' responses and a framework to test whether the model is applicable to the research's particular population. Chapter 3 defines this study's specific research design and methodology. Likewise, Chapter 3 encompasses data collection, procedures, and sampling. Chapter 4 offers the steps to coding data and also conveys the data collected. Chapter 5 attempts to draw conclusions from the data in Chapter 4. Chapter 5 also offers implications for practice. Finally, appendices are included.

CHAPTER 2:

LITERATURE REVIEW

As college students are increasingly opting for online classes, it seems reasonable that community college staff and administrators could find value in predicting levels of potential academic success for all groups of students (Carr, 2012). One quandary is how to measure success not only for the students but also for the college itself. If online classes produce student success, then one layer of the puzzle presents itself. However, for ultimate success, it is whether the community college is adequately serving its community (Mellow & Heelan, 2008). A further consideration is whether the community college's efforts to democratize online learning are meshing with an essential attempt for open access. The lone existence of a broad spectrum of available courses (online, traditional, or hybrid) represents a synthetic sense of open access (Bailey & Morest, 2006). Ultimately, the ability to adapt e-learning to a wide spectrum of learning styles and needs will lead to individual community colleges' success or failure in all these areas. Moreover, it will be the community colleges' malleable approach to online learning and programs that will contribute to furthering and then preserving open access and student success.

This foundational study examined the perceived factors associated with academic success and failure by students with psychological disorders when participating in online courses. In particular, I used documented psychological disorders and student's personal responses to their online learning in order to better understand the phenomenon. The purpose of this study was to gain a deeper understanding of beneficial and detrimental online teaching techniques for community college students with psychological disorders. While the purpose was to explore the factors associated with academic success and failure in connection with online learning, this

research sought to build a foundation to better understand how a particular population (community college students with psychological disorders) can be better served by community college faculty and administrators (Hays & Singh, 2012). The research questions for this qualitative study sought to explore the experiences of community college students with psychological disorders as they attempted online courses. The questions also sought to explore the experiences of these students through their rich and descriptive responses (Hays & Singh, 2012). These qualitatively oriented questions, by their very design, sought a balance between refining the questions enough to delimit the research piece and, at the same time, keeping them open enough to evolve as data was collected and analyzed (Hays & Singh, 2012).

This chapter offers a conceptual framework for the study. Then the chapter includes an overview of related research. Specifically, it includes research in the areas of developmental theories, psychological disorders, and online learning. Contained also in this chapter are narratives and tables comparing research. The first part of the chapter is organized by defining and offering insight into the five most prevalent psychological disorders reported by college students. It also includes definitions related to this research's participants. This first section also includes ego development, locus of control, Universal Learning Design, and research done concerning online learning in general and online learning considering students with learning disabilities (LD) and students with psychological disorders. The second part of the chapter compares this research's questions to relevant research already done, discusses the justification for inclusion of past research, reviews the methods of past research, and gives a summary of major results. The third section connects the results from this research to the UDL framework and then offers a model used in this study to test this application. Finally, a conclusion is offered which leads to Chapter 3.

Conceptual Framework

For the following study, Grabinger's (2010) work was the most closely related. His work recognizes cognitive impairments related to students' psychological challenges and how the challenges affect higher education online learning. Grabinger offered a Universal Design for Learning (UDL) framework that postsecondary educators can use when they design an online class. He reiterates that a specific design could be helpful to all students, not just those with psychological disorders. He uses case studies, as does this study. The important connection with Grabinger's work is that he was the only researcher found to combine psychiatric disabilities, online learning, and postsecondary education. However, Grabinger excluded the community college population. The community college population is where this study expanded Grabinger's work.

The study used a phenomenological methodology. The focus was to better understand the needs of community college students with psychological disorders through case studies. By the nature of phenomenological research in an educational study, the data collected was based on real-life scenarios where participants, in this case students with psychological disorders, indicate methods that can help community college educators create a learning environment that better serves the unique community college population (Hays & Singh, 2012). As a phenomenologist, the researcher did a qualitative questionnaire and interviewed participants. The phenomenological methodology best fit the research's intention; it was an investigation into the meaning and depth of the community college students' with psychological disorders experiences with online learning. By hearing directly from the participants, the study sought to unite the participants' experiences and their interpretations with community college practitioners (expanded upon in Chapter 5).

This chapter ends by connecting the study's participants' experiences with the UDL. In so doing, the researcher hoped to offer practitioners applicable teaching techniques to enhance online learning for students with psychological disorders. The phenomenological data analysis explored in this chapter presents a systematic process to filter participants' responses. In fact, by the end of this chapter, the UDL framework is offered as a tool to relate the students' experiences (the filtered data) with specific and helpful online teaching strategies outlined in the UDL. Then, the researcher offers the possibility of having the research's results tested by asking three critically inclusive questions (Schwitzer, 2009). Hence, this phenomenological study had many layers, each having a separate set of steps; data collection, coding, data analysis, and then testing the results for this particular population's usefulness.

Chapter 2 is divided into two sections. The first describes past research related to the research. The second describes the UDL framework, data collection and data analysis, and then a description is offered reflecting the layering of UDL and testing.

Section One: Psychological Disorders Defined, Ego Development, Locus of Control, Universal Learning Design and Online Learning

This section reviews a wide span of research from a variety of different angles dealing with college students. In particular, the five prevalent psychological disorders reported by college students are defined. Next, ego development is discussed. Then internal locus of control and external locus of control are considered. The Universal Learning Design is considered (Grabinger, 2010). At the end of this section, research connecting online learning and students with learning disabilities and psychological disorders is reviewed.

Psychological Disorders Defined

The number of students dealing with the learning challenges associated with psychiatric disorders is growing. According to the National Alliance for the Mentally Ill (2004), up to 27% of young adults (18-24 years old) struggle with some degree of mental illness. This age is inclusive of Erikson's Stage 6 which focuses on intimacy verses isolation (Erikson, 1963). For this age, the disorders most reported include depression, attention deficient disorder (ADD), schizophrenia, post-traumatic stress disorder (PTSD), and bipolar disorder (Grabinger, 2010). Surveys from several universities around the country echo the increase in psychiatric disorders among young adults: the growth rate of students acknowledging and seeking help for psychiatric disorders has increased from 10% to 50% with bipolar disorder in the lead (Grabinger, 2010). Students with psychiatric disorders tend to have cognitive impairments; these impairments consist of a lack of attention, memory issues, time management, organizing thoughts logically, problem solving, and social functioning (Grabinger, 2010).

The disorders are on a multi-axis scale with some disorders being more cognitively challenging than others (American Psychiatric Association [*DSM-IV-TR*], 2000). In order to understand the primary psychological disorders reported, each will be listed and defined in terms of learning challenges. Using DSM-IV as the reference, each of the five disorders are described. Attention Deficit/Hyperactivity Disorder: ADHD is explained as a condition which causes a person to be inattentive and to display at least 6 of the following inattention and 6 or more of hyperactivity-impulsivity.

The criteria for inattention include:

a. Often fails to give close attention to details or makes careless mistakes in schoolwork, work or other activities

b. Often has difficulty sustaining attention in tasks or play activities

c. Often does not seem to listen when spoken to directly

d. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace

e. Often has difficulty organizing tasks and activities

f. Often avoids, dislikes, or is reluctant to engage in tasks or activities that require sustained mental effort (such as schoolwork or homework)

g. Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools)

h. Often easily distracted by extraneous stimuli

i. Often forgetful in daily activities.

The criteria for hyperactivity include:

a. Often fidgets with hands or feet or squirms in seat

b. Often leaves seat in classroom or in other situations in which remaining seated is expected

c. Often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness

d. Often has difficulty playing or engaging in leisure activities quietly

e. Often "on the go" or often acts as if "driven by a motor"

f. Often talks excessively.

The criteria for impulsivity include:

a. Often blurts out answers before questions have been completed

b. Often has difficulty awaiting turns

a. Often interrupts or intrudes on others (e.g., butts into conversations or games).

Bipolar Disorder (previously referred to as Manic Depression): Bipolar Disorder is the last and most common psychological disorder amongst young adults. Bipolar disorder is defined as an episode of major depression and an episode of hypomania. The episodes between depression and mania are cyclic; without medication the cycles can be in months, days, or even, in severe cases, hour. Symptoms for the depression piece include:

a. depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad or empty) or observation made by others (e.g. appears tearful). Note: In children and adolescents, can be irritable mood.

b. markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation made by others)

c. significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. Note: In children, consider failure to make expected weight gains.

d. insomnia or hypersomnia nearly every day

e. psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down)

f. fatigue or loss of energy nearly every day

g. feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).

The criteria for the Mania episode include:

a. inflated self-esteem or grandiosity

b. decreased need for sleep (e.g., feels rested after only 3 hours of sleep)

c. more talkative than usual or pressure to keep talking

d. flight of ideas or subjective experience that thoughts are racing

e. distractibility (e.g., attention too easily drawn to unimportant or irrelevant external stimuli)

f. increase in goal-directed activity (either socially, at work or school, or sexually) or psychomotor agitation

g. excessive involvement in pleasurable activities that have a high potential for painful consequences (e.g., engaging in unrestrained buying sprees, sexual indiscretions, or foolish business investments).

An international investigation centrally located in Germany focuses on the connection between post-traumatic stress disorder and bipolar disorder (Assion, et al., 2009). The research conclusions include but are not limited to the idea that bipolar patients are more likely than the general population to experience intense and traumatic events. The manic state seems to be the root of this exposure to high risk situations. Hence, PTSD may be an important comorbid disorder associated directly with bipolar patients (Assion, et al., 2009).

Borderline Personality Disorder: BPD is manifested as a pervasive pattern of instability of interpersonal relationships, self-image, and affects. Symptoms include five or more of the following:

a. Frantic efforts to avoid real or imagined abandonment
b. A pattern of unstable and intense interpersonal relationships characterized by alternating between extremes of idealization and devaluation. This is called "splitting"
c. Identity disturbance: markedly and persistently unstable self-image or sense of self
d. Impulsivity in at least two areas that are potentially self-damaging (e.g., spending, sex, substance abuse, reckless driving, binge eating)
e. Recurrent suicidal behavior, gestures, or threats, or self-mutilating behavior
f. Affective instability due to a marked reactivity of mood (e.g., intense episodic dysphonia, irritability, or anxiety usually lasting a few hours and only rarely more than a few days)
g. Chronic feelings of emptiness
h. Inappropriate, intense anger or difficulty controlling anger (e.g., frequent displays of temper, constant anger, recurrent physical fights)
i. Transient, stress-related paranoid ideation or severe dissociative symptoms.

Depression: Depression is defined as a clinical course that is characterized by one or more major depressive episodes. Depression is a debilitating disorder. For a patient to be clinically depressed they will have had an episode of depression lasting at least two weeks with at least five of the following symptoms,

a. A feeling of depression, or feeling sad, blue, and/or tearful

b. a lost interest or pleasure in things that were previously enjoyable

c. an appetite change either much less or much greater than usual

d. trouble sleeping or sleep too much

e. agitation, restlessness, or a slowing down that others have begun to notice.

f. feeling tired and having no energy

g. a sense of worthlessness or feelings of excessively guiltiness

h. trouble concentrating, thinking clearly, or making decisions

i. feelings of suicide.

Dissociative Identity Disorder (previously referred to as Multiple Identity Disorder): DID patients find it difficult to integrate different aspects of their identity, memory, and consciousness. Each of the personality states, or alternate identities, has its own distinct personal history, self-image and identity. This may include different ages, genders, and names. The alternate identities (alters) emerge and take over the individual's consciousness. The following are the criteria for DID:

a. Two or more distinct identities or personality states are present in the individual
b. These distinct identities take control over the behavior recurrently
c. The individual is unable to recall important personal information, and this inability is too severe to be attributed to mere ordinary forgetfulness
d. The disturbance is not an outcome of substance abuse or general medical condition.

Obsessive Compulsive Disorder: OCD is an anxiety disorder characterized by intrusive thoughts that produce repetitive behaviors. The disorder manifests itself through obsessions and/or compulsions.

Obsessions may include the following:

a. The individual has recurrent and persistent thoughts, impulses, or images that are experienced, at some time during the disturbance, as intrusive and inappropriate and cause marked anxiety and/ or distress
b. The thoughts, impulses, or images are not simply excessive worries about real-life problems
c. The person attempts to ignore or suppress such thoughts, impulses, or images or to neutralize them with some other thought or action
d. The person recognizes that the obsessional thoughts, impulses, or images are a product of his or her own mind (not imposed from without as in thought insertion)

Compulsions may include the following:

a. The individual has repetitive behaviors (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the person feels driven to perform in response to an obsession
b. The behaviors or mental acts are aimed at preventing some dreaded event or situation.

Post-Traumatic Stress Disorder: PTSD criteria include a history of exposure to a traumatic event meeting two criteria and symptoms from each of three symptom clusters: intrusive recollections, avoidant/numbing symptoms, and hyper-arousal symptoms. The fifth criterion concerns duration of symptoms and a sixth assesses functioning. Diagnosis includes persistent symptoms of anxiety or increased arousal that were not present before the trauma. These symptoms may include:

a. Difficulty falling or staying asleep that may be due to recurrent nightmares during which the traumatic event is relived

b. Hypervigilance.

c. Exaggerated startle response

d. Irritability or outbursts of anger

e. Difficulty concentrating or completing tasks.

The symptoms for these psychological disorders cause clinically significant distress and impairment in social, occupational, or other important areas of functioning. As a group, depression, ADD, schizophrenia, PTSD, and bipolar disorder are on a spectrum; no two patients have exactly the same or reoccurring episodes or symptoms. As each disorder presents itself differently, individuals have their own ways to adapt. An intricate part of that adaptation takes the form of ego development and locus of control.

Schizophrenia: Schizophrenia is a chronic, at times, incapacitating, illness characterized by distress in cognition, affect and behavior, all of which have a bizarre aspect. Delusions, also generally strange, and hallucinations, generally auditory, also typically occur. Diagnosis includes two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated):

a. Delusions

b. Hallucinations

c. Disorganized speech (e.g., frequent derailment or incoherence)

d. Grossly disorganized or catatonic behavior

e. Negative symptoms, i.e., affective flattening.

Ego Development

An adolescent's sense of identity depends greatly on how other people see him. Late in the teenage years and into early adulthood, an individual will begin experiencing a gradual but vital psychological transformation. In adult ego development, according to Erikson (1963), as elaborated by Vaillant (1993), the ego goes through three significant stages of task-mastery, in the following order: intimacy, career consolidation, and generativity. Longitudinal research suggests that individuals usually master these tasks in order (Vaillant, 1995). For adult ego development the order must be first mastering the task of intimacy, next the task of career consolidation, and finally the task of generativity (Vaillant, 1995).The foundation of a satisfactory resolution of these tasks is a consolidated sense of identity in late adolescence. Because of the low self-esteem, immature defenses, cognitive maturation, and the narcissistic needs manifested in maintaining the façade of an idealized self-image, some young adults find this identity integration a difficult task to master (Vaillant, 1995). Without mastery of this basic task, successful mastery of subsequent tasks becomes compromised. Hence, the young adult's unintegrated sense of self, combined with the reinforcing factors of his image, may actually impede the adult ego developmental process. The young adult's identity diffusion and narcissistic self-absorption can actually inhibit the ego's ability to progress. The adolescent may "become permanently mired in Erikson's slough of stagnation, a swamp" that is created from "excessive self-love based on a too strenuously self-made personality" (Vaillant, 1993). This self-absorption limits young adults' ability to see beyond themselves. As a result of identity foreclosure (Erikson, 1963) and narcissistic self-absorption, the individual may be incapable of developing a sense of intimacy with another person, which involves "coming to terms with dependency, aggression, and autonomy as well as sexuality." In regard to

"the tension between selfishness and selflessness, intimacy allows the mutual sharing of self with another in a way that both can enjoy" (Vaillant, 1993, p. 153).

When these theories are applied to those adolescents and young adults who contend with psychological disorders, the waters are further muddled. Psychological disorders tend to reduce emotional maturity (Grabinger, 2010) and reduce defense maturity (Vaillant, 1993). Like LD learners, ED students struggle similarly with social adjustment; yet as a group, ED learners display considerably different cognitive and behavioral profiles (Sabornie, Evans, & Cullinan, 2006).

Unconscious Coping Strategies Stopped here for Dr. Williams remarks [MW9]

George Vaillant's model of how an individual attains a balanced mental state focused on the importance of the individual's acknowledging all aspects of his psychological inventory. Vaillant explained the intricate relationship between the ego and mental health. Specifically, he emphasized that the ego orients mental stability according to the balance of four sources of demands made on the "I" or executive ego, which Vaillant called lodestars: (a) *desire*, also known as *id*, ("it") or *affect*, (b) *conscience*, also called *superego* ("over-I"), (c) *people*, whom one cannot live with or without, and (d) *reality* (Vaillant, 1993, p. 29). The ego serves as a mediator between the four lodestars; the ego is constantly attempting a manageable coexistence amongst all four lodestars. Vaillant offered a vivid description and explanation of the lodestars in his book, *The Wisdom of the Ego* (Vaillant, 1993). The theory explained an ego as being at the center and the four lodestars surrounding. It is analogous to Freud's structural model of the mind: a model of the ego attempting to serve it three 'masters': superego, external reality, and id (Freud, 1923). Vaillant added other people, (i.e., both loved and hated, both needed and feared). Vaillant's theory offered a *total* package incorporation of internal and external forces acting on the ego. His theory also recognized that everyone use defenses, at one level or another (Vaillant, 1993).

The lodestars, graphically, surround the ego, and the ego manipulates the psychological needs of the individual to accommodate the demands of the lodestars. The psyche depends on conscious coping strategies (i.e., conscious planning, learning, rational thinking, etc.), as well as social supports, to maintain stable mental health in times of crisis. At times, these conscious strategies become undependable. For example, a death in the family may cause sudden life-changing circumstances that may eliminate both a significant social support and overwhelm conscious coping strategy. When these conscious strategies become untrustworthy or unreliable, then unconscious strategies, in the form of defenses, take on the balancing task. In fact, unconsciously, "the task of the ego mechanisms of defense is to restore psychic homeostasis by ignoring or distorting one or more of the four lodestars" (Vaillant, 1993, p.32). The ego's defenses can accomplish the task in two distinct ways. First, defenses can alter the conflict by denying or distorting desire, people, reality, conscience, or any combination of the four. Another way is that "defenses can alter the *expression* of conflict, by distorting recognition of subject, object, idea, affect, or any combination thereof" (Vaillant, 1993, p.32).

The defenses are categorized as either adaptive or maladaptive. The defenses are considered adaptive if they are flexible and specific, oriented toward present and future distress, focus on long-term adaptation, preserving of experience of affect and relationships with other people, and effective in controlling anxiety (Vaillant, 1993, pp.103-104). The defenses are considered maladaptive if they did not meet these criteria, or if their use leads to signs of psychopathology.

The person's opinions concerning punishment and accountability can be used to evaluate specific defenses used. Perception and deception are tightly bound; our ego nurtures the dual image for mental health. As we adapt to stressful situations, we "unconsciously distort inner and outer

reality" (Vaillant, 1993, p.11). In fact, as our physical wellbeing is guaranteed by our immune system, our mental health relies on defenses (Vaillant, 1993). The ego's defenses generally protect our mental health in the same general way as our immune system (our defense against infection) generally protects physical health. The defenses used for mental wellness are adaptive and necessitate self-deception. In the introduction of *Wisdom of the Ego* (Vaillant, 1993), Vaillant discussed into detail the intricate way our ego tricks us to make life bearable. This deception is usually a means to a healthy and productive life. Vaillant referred to the process as 'psychic alchemy' (Vaillant, 1993).The question of the adaptive effect of defensive self-deception is whether it preserves feeling and reality; is oriented toward the long-term and toward present and future relief of pain; and is specific and flexible (Vaillant, 1993). Behaviorists (Thompson, 1994), neurologists (Koshland, 1992; Meier, 1992), and psychologists (Dilnot, 1992; Hassanyeh, Murray & Rodgers 1991; Kenardy, Evans & Tian, 1992; Vaillant, 1994) tended to agree that a negative behavior can be altered when the individual chooses to respond differently to his or her surroundings. Hence, understanding unconscious defenses may open the door to altering reactions.

Locus of Control: External Locus of Control and Internal Locus of Control

Individuals interpret events in their lives, specifically the cause of the events, through a psychological scheme; we might think of this as a lens we wear that reflects back on us the causations for our actions and reactions. One such lens is called an external locus of control, and a second is referred to as an internal locus of control (Rotter, 1966). Locus of control refers to the place where the person places control of their lives. Individuals with an external locus of control, also called externals, believe that control of their lives is purely external. In contrast, individuals with an internal locus of control, generally referred to as internals, feel that they are at the center

of what happens and influences their lives. Interestingly, externals see their lives as driven by fate, luck, or even other people. Internals think their own skill and ability can alter their situation and these personal factors can, in fact, turn a negative situation into a positive one.

Rotter (1966) successfully created a scale that measures the locus of control. From this scale, educational research has been advanced to include standardized test measuring achievement (Findley & Cooper, 1983). Likewise in the psychological field, the locus of control has found critical venues to address adjustment issues (Lefcourt & Davidson-Katz, 1991). Locus of control is generally considered to be a relatively stable dispositional characteristic. However, locus of control is understood to be malleable with experience (Bursik & Martin, 2006). Also, internals tend to be higher academic achievers than externals and the association is stronger for males than it is for females (Findley & Cooper, 1983).

Extending the theory of locus of control between disciplines, from psychology to education, presents a more specified designation- academic locus of control. Like the psychological theory, academic locus of control describes a person's attitude towards the forces at play in the student's life. In general, contrasting academic external with academic internals results in the idea that academic internals feel added control in their personal academic outcomes, and thus seem to exert more effort to improve their odds of success. Whereas internals typically show gratification in their success and feel shame and guilt over academic letdowns, externals experience a reduced amount of emotional variation with either result (Phares, 1976).

Over the last thirty years, a variety of domain-specific loci of control scales have been developed. Specifically, the Academic Locus of Control Scale for College Students (Trice, 1985) gauges student's beliefs in external versus internal control when dealing with academically

pertinent behaviors and actions. Of the empirical studies done, there seems to be validity in the scale's ability to predict a few academic outcomes; the outcomes include grades, attendance, class participation, homework completion, and study time (Ogden & Trice, 1986; Trice, 1985; Trice, Ogden, Stevens, & Booth, 1987). In the case studies done, internals have more positive academic outcomes than their contrasting externals.

Rotter's social learning theory is one venue where the student's beliefs, their cognition, and their achievements are explored in an effort to show a relationship between the three (Rotter, 1954, 1966, 1975). The idea that LD students tend to be less internal locus of control and more external locus of control is widely accepted (Bender, 1998; Hallahan, Kauffman, & Lloyd, 1999; Harris, Graham, & Pressley, 1992). For students with challenging mental disorders (ED), like those who contend with learning disabilities (LD), the individual's locus of control is another well documented research tool that reiterates that individual college students learn differently.

Universal Design for Learning (UDL)

The Universal Design for Learning (UDL) is a framework postsecondary educators can use when designing online classes. In Grabinger (2010), students with psychological disorders were grouped into specific areas of cognitive challenges. The areas include attention and memory, language, executive function, problem solving and reasoning, and social function. Executive function includes planning, problem solving encompasses critical thinking, and social function is inclusive of online community and connection between teacher-student and student-student interactions. Executive function is a group of cognitive functions that include but may not be limited to the ability to plan ahead, to ask questions, and to seek methods to improve

learning. Problem solving refers to giving and receiving feedback, following sequence steps, and critical thinking. Social function includes the interactions with others.

The UDL framework focuses on three brain networks: recognition, strategy, and affective. Within each area, instructional techniques are suggested to help students succeed with online classes. Grabinger (2010) described recognition as the "what" of learning; for example, What do I need to succeed? What are we learning about? In essence, learners connect "what" they learn to "what" they already know. The strategic network, Grabinger (2010) explained, is the mechanism to determine "how" we learn. This network is the mode to reflect on "how" we learn and "how" we progress academically. The affective network, according to Grabinger (2010), is the degree to which a student engages in learning. This network includes the emotional deposits and reactions to the learning mode. The affective network also includes a learner's preferences to certain instructional deliveries. Along with the three brain networks, Grabinger's work (2010) offered practitioners meaning ways to organize assignments. These include applicable communication modes (e.g. emails and collaborative chats), multiple ways to present the same material (e.g. YouTube and web sites), modes that scaffold information (e.g. timelines), and methods for students to express themselves (e.g. blogs and chat).

For this research, Grabinger's (2010) work was the most closely related. His work recognized cognitive impairments related to students' psychological challenges and how the challenges affect higher education online learning. Grabinger (2010) use of the Universal Design for Learning gave a framework for online course design.

Online Learning

College students have an array of educational choices that enhance learning and, at times, confound it (Carr, 2013). Combine the challenges with learning choices, traditional, hybrid or online, and the need to be "educationally adaptive" is clear. Added to this term is an array of verbiage like "faculty-learner interactivity," "learner-learner interactivity," "interactive audio-video classrooms," and "community at a distance" (Schwitzer, Ancis, & Brown, 2001). Research agrees online learning courses need to create a community within online learning (Carr, 2013; Fiege, 2012; Schwitzer et al., 2001). The idea seems simple enough. Yet, researcher's struggle with the definition and term "sense of distance community" (Carr, 2013; Fiege, 2012; Palloff & Pratt, 2007; Schwitzer, Ancis, & Brown, 2001). Schwitzer et al. (2001) defined the phrase as building community through virtual social supports. Yet, the definition varies to include the development of social presence (Palloff & Pratt, 2007) and the technical options needed in the formation of a community within the online course (Carr, 2013).

Research regarding online learning is multifaceted. Personal disorganization and cognitive overload are two areas that seem to repeatedly affect online success for students with learning disabilities (LD) (Blanchard, Cohen, & Curry, 2001; Brown, 2002; Souza & Dia, 1996). In longitudinal and comparative studies (Jaggars, Xu, & Columbia University, 2010; Xu, Jaggars, & Columbia University, 2011), community college's online learning in Washington State and Virginia were reviewed. From these two specific studies, LD students and general students were separated with the results being the same for both groups. The community college students, both groups, showed higher withdrawal rates in online courses than with hybrid and traditional courses. Controlling for student characteristics and using multilevel regression analysis, hybrid and traditional courses reflected similar student success rates (Xu, Jaggars, &

Columbia University, 2011). According to these studies, even with a strategic conducive online learning environment, the general population of community college students is at risk of withdrawing from or failing online courses.

Research addressing online instructional modification for students with psychological disorders is limited. One method that seems to reduce the effects of learning challenges is a rubric. Generally, rubrics are accepted as a reasonable teaching strategy to enhance LD student success (Barry, & Moore, 2004; Elder-Hinshaw, Manset-Williamson, Nelson, & Dunn, 2006). Online learning is likewise considered a reasonable venue to use rubrics (Kleinman, 2005; Landis, Swain, Friehe, & Coufal, 2007; Russell, Elton, Swinglehurst, & Greenhalgh, 2006). Yet, instead of unraveling and examining disorders separately, the research tends to weave all disorders into a general labeling of learning disabilities (LD). In the present research tendency, several problems have been encountered while studying the broad umbrella of learning disabilities in higher education include student inaccessibility (Burgstahler, & Olswang, 1996; Cooper, 2006; Simoncelli & Hinson, 2008), student perceived negative labeling (Norton, 1997; Trammell, 2009), and lack of understanding from faculty (Cawthon, & Cole, 2010; Norton, 1997). Further community college data specifically regarding this area is needed (Quick, Lehmann, & Deniston, 2003). In order to focus on possible community college curriculum improvements for ED students, an understanding of general online instructional modifications may prove helpful. Three questions present themselves and are addressed in this qualitative research project:

1. What are the online experiences of community college students who have been clinically diagnosed with psychological disorders?

2. How do community college students who have been clinically diagnosed with psychological disorders perceive teaching techniques in online courses?

3. To what degree does the Universal Design for Learning (UDL) framework offer a useful model to develop flexible teaching practices for community college students who have been clinically diagnosed with psychological disorders and who have enrolled in online courses?

Section Two: Comparative Review of Research Questions, Methods, and Results

Past research into the success of on-line learning and postsecondary education includes faculty reflections (Tighe, 2006), critical thinking (Arend, 2009), and emotional intelligence as a predictor for student success (Berebson, Boyles, & Weaver, 2008). Recently, two areas being investigated are student's perception of their sense of community (Fiege, 2011), and an investigation into supporting learners with psychiatric disabilities (Grabinger, 2010). This section of Chapter 2 narrows down the research and reviews ten relevant research pieces; Appendixes A, B, and C compare each in terms of the research's question(s), reviews the justification for using the research pieces, and then gives a summary of major research's results.

Research Question(s) Compared

Appendix A represents this research's questions and the questions posed by ten related researchers. My research questions reflect the missing links in the literature review; specifically, the lack of qualitative data gathered from community college students with psychological disorders.

Dillon and Osborne (2006) sought to understand how teachers can better improve curriculum design for students with ADD. Their question focused on ADD but did not expand to

other psychological disorders. Lane et al. (2006) expanded from ADD to include other ED and LD learners. However, Lane et al. (2006) focused on secondary students and did not include higher education students. Grabinger (2010) sought to understand the challenges students with psychological disorders have with online learning. Grabinger (2010) also attempted to understand teaching methodologies that might help these students in higher education. Yet, Grabinger's (2010) research focused on four year institutions and did not include community college students.

Justification for Inclusion of Particular Studies

The reasons college students enroll at community colleges varies. The reasons include six particular areas: (a) following their personal interests at 46%, (b) transferring to a four-year institution at 36%, (c) attaining an associate's degree at 35%, (d) learning new job skills at 21%), (e) transferring to another two-year college at15%, and (f) obtaining an occupational certificate at 13% (Provasnik & Planty, 2008). Tied to these reasons, though not explicitly studied for community college students, is the fact that college student's cognitive challenges significantly influence their learning (Dillon, & Osborne, 2006; Lane, Carter, Pierson, & Glaeser, 2006; Sabornie, Evans, & Cullinan, 2006). Students with psychiatric disorders tend to have a lower emotional maturity than that of their peers (Grabinger, 2010). Whatever the reason, the results are clear: students with a wide spectrum of psychological disorders tend to find learning challenging, and many of these students are drawn to community college learning because it better fits their learning style (Francis, & Abbassi, 2010). With modern educational innovations, the online learning trends must take into consideration the psychosocial, cognitional, and academic needs of the community college's student population.

Higher education students dealing with the learning challenges associated with psychiatric disorders is increasing. With the National Alliance for the Mentally Ill (2004) asserting that at least 27% of 18-24 year olds contend with some degree of mental illness. For this age, the disorders most reported include depression, attention deficient hyperactivity disorder (ADHD), schizophrenia, post-traumatic stress disorder (PTSD), and bipolar disorder. Surveys from several universities around the country echo the increase in psychiatric disorders among young adults: the growth rate of students acknowledging and seeking help for psychiatric disorders has increased from 10% to 50% with bipolar disorder in the lead (Grabinger, 2010). Psychiatric disorders manifest themselves through cognitive impairments. The impairments include but are not limited to a lack of attention, memory issues, time management, organizing thoughts logically, problem solving, and social functioning.

In an endeavor to offer open access and articulation, community colleges are unique in the postsecondary spectrum. This uniqueness drives the need for research investigating how to improve community colleges' online learning. The current research examined the core factors associated with academic success and failure by students with psychological disorders which lead to learning challenges when participating in online programs.

Review of Methods Used to Address Related Research Question(s)

The following ten research articles, shown in Appendix B, are reviewed and explained in terms of method design, population, measures, procedure, and method limitations. The ten were chosen from all the research reviewed in hopes to better understand the broad methods used and trends found in in secondary, in university, and in community college research. The studies include literature reviews, methodological analysis, along with general quantitative and

qualitative models. Of the limitations with these chosen studies and other studies reviewed, the dominate limitations seem to be low sample size and lack of community college data.

For the current research, Grabinger was the closest research. His work recognized cognitive impairments related to college students' psychiatric challenges and how the challenges affect learning. Grabinger offered a Universal Design for Learning (UDL) framework that postsecondary educators can use when they design an online class. He reiterated that a specific design could be helpful to all students, not just those with ED. He used case studies. The important piece with Grabinger's work is that he was the only researcher that combined psychiatric disabilities, online learning, and postsecondary education. However, Grabinger excluded the community college population. Included in Appendix B is a breakdown of methods.

Summary of Major Results Related to Question(s)

Appendix C is divided by patterns, gaps, and contributions. Of the ten research pieces chosen in Appendix C, most reinforced a pattern that connects successful learning with individual learning challenges and needs (exception: Mamlin, Harris, & Case, 2001). From these ten pieces, there does seem to be a gap in population, though. Secondary education was explored, and there were some connections made with higher education in general (exception: Francis, & Abbassi, 2010). None of the research, those in Appendixes A, B, C or those research pieces referenced within the narrative, combined online learning, psychological disorders, and community college populations.

Section Three: Process to Connect Community College Students with Psychological Disorders to the UDL Framework and a Model to Test the Framework's Application to the Research's Results

This section examines the use of the UDL as a reference to better understand community college students' responses to their online learning experiences. In particular, the section defines UDL using Grabinger's (2010) work as a base. Next, Schwitzer's (2009) five-step framework for building inclusive models is discussed; emphasis is on three critically inclusive questions to test whether the UDL and this research's participants' responses are connected. Finally, the two are overlapped. This offered a process in which the qualitative research could best benefit community college students with psychological disorders taking online classes.

Universal Design for Learning (UDL)

The UDL is a framework postsecondary educators can use when designing online classes. UDL is described as a tool to better understand my research's participants' experiences with online learning. According to Grabinger (2010), the UDL originates as an architectural term; the problem of designing buildings assessable by all, those with disabilities and those without, prompted the UDL framework. For educational purposes, the "UDL promotes the use of digital tools within instruction to improve differentiation" (Grabinger, 2010, p. 104).

In Grabinger (2010), students with psychological disorders were grouped into specific areas of cognitive challenges. The areas include attention and memory, language, executive function, problem solving and reasoning, and social function. Executive function includes planning, problem solving encompasses critical thinking, and social function is inclusive of online community and connection between teacher-student and student-student interactions.

Executive function is a group of cognitive functions that include but may not be limited to the ability to plan ahead, to ask questions, and to seek methods to improve learning. Problem solving refers to giving and receiving feedback, following sequence steps, and critical thinking. Social function includes the interactions with others.

The UDL framework focuses on three brain networks: recognition, strategy, and affective. Within each area, instructional techniques are suggested to help students succeed with online classes. Grabinger (2010) described recognition as the "what" of learning; for example, What do I need to succeed? What are we learning about? In essence, learners connect "what" they learn to "what" they already know. The strategic network, Grabinger (2010) explained, is the mechanism to determine "how" we learn. This network is the mode to reflect on "how" we learn and "how" we progress academically. The affective network, according to Grabinger (2010), was the degree to which a student engages in learning. This network includes the emotional deposits and reactions to the learning mode. The affective network also includes a learner's preferences to certain instructional deliveries. Along with the three brain networks, Grabinger's work (2010) offered practitioners meaning ways to organize assignments. These include applicable communication modes (e.g. emails and collaborative chats), multiple ways to present the same material (e.g. YouTube and web sites), modes that scaffold information (e.g. timelines), and methods for students to express themselves (e.g. blogs and chat).

Model to Test the UDL Framework's Application to the Research's Results

As part of the research's attempt to understand the community college students' with psychological disorders online learning, the UDL served as a model with which to test whether Grabinger's (2010) assertions fit the community college population. Next, from the data and its

connection to the UDL, a framework was used to offer understanding into the research's findings.

Schwitzer's (2009) framework was a five-step process for building inclusive models for diverse populations. Within the five-step process is step-three; step-three asks three critically inclusive questions. Schwitzer's (2009) questions included; (a) do the results of the research apply accurately to all the student participants, (b) do the results "apply accurately to all students but seem insufficient for explaining some student needs or outcomes," (c) do the results "apply accurately to some groups but appear inaccurate for others" (Schwitzer, 2009, p. 7).

Hence the research began with the students' responses; then it attempted to apply the UDL, specifically the three brain networks. The research next categorized results into Schwitzer's (2009) framework for useful practices. This layering of the UDL, Schwitzer's (2009) third-step, and the research's results offered a model to test the research. With qualitative research and the phenomenological approach, the aim is to better understand the unique experiences of a specific population; here the population was community college students with psychological disorders and their experience with online learning.

Conclusion

Chapter 2 offers an overview of related research. In section one, it includes research in the areas of developmental theories, psychological disorders, online learning, and a framework to understand the research's results. Contained also in this chapter are narratives and appendixes referenced comparing relevant research. In section two, the UDL is explained and connected to my research. Finally, Schwitzer's (2009) framework for building inclusive models for diverse populations is discussed as a testing tool. By connecting the study's participants' experiences with the UDL, the researcher hoped to offer practitioners applicable teaching techniques to

enhance online learning for students with psychological disorders. The phenomenological data analysis used a systematic process to filter responses; the UDL framework was used to relate the students' experiences (the filtered data) with online learning strategies. Then these results were tested by asking three critically inclusive questions (Schwitzer, 2009).

Chapter 3 examines qualitative methodology and encompasses data collection, procedures, and sampling. In particular, Chapter 3 discusses the study's phenomenological method: As a phenomenologist, the research methods I utilized included a qualitative questionnaire and an interview with participants. Chapter 3 reflects the investigational techniques used in better understanding, through qualitative inquiry, how community college students' with psychological disorders interpret their online instruction. By hearing directly from community college participants, the study sought to unite the participants' experiences, and their interpretations, with community college practitioners.

CHAPTER 3:

METHODOLOGY

The number of students dealing with the learning challenges associated with psychiatric disorders is growing. According to the National Alliance for the Mentally Ill (2004), up to 27% of young adults (18-24 years old) struggle with some degree of mental illness. For this age, the disorders most reported include depression, attention deficient hyperactivity disorder (ADHD), schizophrenia, post-traumatic stress disorder (PTSD), and bipolar disorder. Surveys from several universities around the country echo the increase in psychiatric disorders among young adults: the growth rate of students acknowledging and seeking help for psychiatric disorders has increased from 10% to 50% with bipolar disorder in the lead (Grabinger, 2010). Psychiatric disorders manifest themselves through cognitive impairments. The impairments include, but are not limited to, a lack of attention, memory issues, time management, organizing thoughts logically, problem solving, and social functioning (Grabinger, 2010).

This research examined the perceived factors associated with academic success and failure by students with emotional disabilities when participating in online programs. In particular, the researcher used documented psychological disorders and student's personal responses to their online learning in order to better understand the phenomena. The purpose of this study was to gain a deeper understanding of beneficial and hindering online teaching techniques for community college students with psychological disorders. While the purpose was to explore the factors associated with academic success and failure in connection with online learning, this research sought to build a foundation to better understand how a particular population (community college students with psychological disorders) can be better served by community college educators and administrators (Hays & Singh, 2012). The research questions

for this qualitative study sought to explore the experiences of community college students with psychological disorders as they have attempted online courses. The questions also strived to describe the experiences of these students through the participant's rich and descriptive responses (Hays &Singh, 2012). These qualitatively oriented questions, by their very design, sought a balance between refining the questions enough to delimit the research piece and, at the same time, keeping them open enough to evolve as data were collected and analyzed (Hays & Singh, 2012). This study was guided by the following research questions:

1. What are the online experiences of community college students who have been clinically diagnosed with psychological disorders?

2. How do community college students who have been clinically diagnosed with psychological disorders perceive teaching techniques in online courses?

3. To what degree does the Universal Design for Learning (UDL) framework offer a useful model to develop flexible teaching practices for community college students who have been clinically diagnosed with psychological disorders and who have enrolled in online courses?

The research questions focused on online learning techniques and the participant's individual experience and views. The depth of this qualitative research was in studying a specific topic, online learning, until information saturation was achieved for a specific subpopulation of community college students, students with psychological disorders (Hays & Singh, 2012). Information saturation was accomplished earlier than expected. I thought it would take at least eight interviews; however, it happened within the first four participants' interviews. It was essential to remember that while information saturation is an important part of qualitative

research as a whole, the use of case studies for the research was driven "to understand a phenomenon for which there is no in-depth understanding" before (Hays & Singh, 2012, p. 340); future studies may find value in using information saturation differently. For my foundational study, the participants' reflections about their online learning were central to understanding their unique experiences perhaps more so than the saturation of information. Yet, with qualitative research, information saturation is an aspect of data collection worthy of consideration. Hays and Singh (2012) describe the balance between "laboring over the data, digging deep into the participants' descriptions of the phenomenon" and finding "a rich, complex visual model of the participants' experiences that capture their essence" (Hays & Singh, 2012, p. 356). For this foundational research, the goal was honor the participants' experience by allowing their voices to be heard distinctly for the first time. As it turned out, information saturation was accomplished early in the process.

The interview questions were developed by reflecting on the focus of the research and by including Grabinger's (2010) work with Universal Design for Learning (UDL). In an attempt to better understand the process of online learning, broad questions were chosen; they were unrestrictive enough to allow for individual interruption and to encompass each individual's experience. The research questions focused on online learning techniques and the participant's individual experience and views. The nine interview questions changed as the research team worked on them; the final list of nine interview questions are enclosed. (Appendix F). Likewise, the approach to the coding of data was, by the nature of phenomenological research and a focus on case studies, dependent on the final data collected (Hays & Singh, 2012). As the research unfolded, I did follow the original coding and analysis steps.

Method

To better understand the fundamentals of online learning, students with a clinical diagnosis of a psychological disorder who have attempted at least on online course were interviewed. The interviews and analysis of data were done in the phenomenological tradition; the research was conducted in the hopes to better understand the trials and tribulations of online learning. By the nature of phenomenological research in an educational study, the data was collected based on real-life scenarios where the interviewees shared their perceived ideas about their online learning (Hays & Singh, 2012). As a phenomenologist, I endeavored to better understand the participants' online learning experiences. Appendix H offers a listing of each research question and the corresponding interview questions. Below is a narrative of the research questions and the connecting interview questions which will generate data needed to answer each research question:

1. What are the online experiences of community college students who have been clinically diagnosed with psychological disorders?

2. How do community college students who have been clinically diagnosed with psychological disorders perceive teaching techniques in online courses?

3. To what degree does the Universal Design for Learning (UDL) framework offer a useful model to develop flexible teaching practices for community college students who have been clinically diagnosed with psychological disorders and who have enrolled in online courses?

Question 1: What are the online experiences of community college students who have been clinically diagnosed with psychological disorders? Question 1 was addressed through the interview questions. In particular, interview questions number one, two, three, four, five, six, seven, eight, and nine offered insight into the student's perceived online learning experience. After the data was collected, specifically these questions answered, I used the UDL to code responses.

Question 2: How do community college students with psychological disorders perceive the teaching techniques in online courses? Question 2, like research question one, depended on the answers given during the interviews. Particularly, interview questions four, five, seven, eight and nine furnished data to answer this second research question. Like question number one, the researcher used the UDL to code responses.

Question 3: To what degree does the Universal Design for Learning (UDL) framework offer a useful model to develop flexible teaching practices for community college students who have been clinically diagnosed with psychological disorders and who have enrolled in online courses? Question 3 was addressed through interview questions two, four, seven, eight, and nine. The researcher used the UDL as a beginning point to code responses.

A systematic approach to qualitative research was advantageous; the sheer quantity of data offered required a methodical system to code and to analysis. Ultimately, the research sought to better understand the online teaching techniques which enhance and hinder learning for community college students with psychological disorders. While analyzing data offered a metaphorically speaking sifter to filter the participants' experiences and this worked for my

study, the process described may not fit as well for future research since the data used depended on the essence of the research's participants' experiences.

Participants

For the interview process, seven community college students with a clinically diagnosed psychological disorder were recruited. The participant sample was first screened through the community college's special services department. I then worked with the special services department to recruit volunteers. After speaking with the college's research approving representative, the researcher was encouraged and honored the request to give college related gifts from the college's bookstore. Ali participants were offered college related memorabilia and a full-sized candy bar of their choice for participating. There was one large prize (a collegiate sweatshirt) offered in a random drawing. The drawing was done with the assistance of a faculty member. The process to recruit volunteers began in October of 2013.

Only participants were invited from a pool of students with a documented clinical diagnosis of a psychological disorder and were from the special services coordinator, who also served as the students' academic advisor, and students who have taken or who were in the process of taking an online course, traditional online, or hybrid. Hays and Singh (2012) discussed the ethical issues when working with vulnerable and marginalized populations. While students with psychological disorders could fit in both of these categories, I considered several aspects of interviewing in an effort to minimize these concerns. Specifically, Hays and Singh pinpointed the following considerations; the interviewing researcher should (a) take into consideration the asymmetrical power relation inherent of interviews, (b) consider the idea that interviewing tends not to be bidirectional, (c) realize interviewing is means to the researcher's end, (d) acknowledge that interviewing can be a manipulative dialogue, either by the researcher

or the participant, or perhaps both, (e) the researcher should also be acutely aware of the fact that the participants are courageous and the interview process is a privilege (p. 92). These aspects helped reduce the effects of "otherness," but it was my obligation to understand the immense responsibility connected to recording and reporting about a population different from the researcher. In this research, I had a keen and personal desire to help students with psychological disorders. While I realized my own limitations to empathize with the participants, it was my sincere aspiration to give them an opportunity to share their online experiences. Perhaps I offered a unique talent; as with my research, "researchers of dominate statuses have an important role in taking what is co-constructed with those of nondominant statuses and helping address social issues" (Hays & Singh, 2012, p.94). In essence, my separateness from the participants may have encouraged the co-construction of a tale never told before.

Hays and Singh (2012) asserted the importance of protecting participants' confidentiality. For this research, confidentiality was held for the participating college and for the student participants. It was accomplished by giving a broad description of the college. The students' confidentiality was important to the research and to each participant; I let them each know that their names would only be connected to the research by their signature on the informed consent forms and secondly, by using their pseudo names (e.g. Student A, Student B, etc.) in reports. At the end of the research, the consent forms were destroyed. Another method to help with confidentiality was conducting the interviews in a neutral and secluded area. The research intended to utilize the community college's library; however, a neutral meeting room above the library was used. The meeting room had privacy and supplied a sound damping environment. Likewise, the research team was not privy to the participant's names, only titles were shared.

Participants knew their designated titles. During member checking, participants read the documents with their designated titles.

When the research began, I planned for at least eight participants. However, as potential participants were called, the number of willing participants dwindled. I believe my enthusiasm for the research outmatched the true availability of the student population. The Special Services Coordinator and I worked closely together to pick potential participants. However, it was difficult to get participants who met the study's criteria. I spoke with my dissertation chair; we discussed the issues in depth. I was not sure how many times I should try to contact potential participants. We decided three attempts to communicate would be sufficient; more attempts might be felt, by the potential participants, as intruding. Then, when I found seven instead of eight willing volunteers, my dissertation committee and I discussed options. Because of the rich, thick data already collected and because information saturation had been reached, it was decided that seven interviews would suffice.

Data Collection

The interviews were designed as semistructured interviews (also known as in-depth interview) and used a series of questions to guide the interview (Hays & Singh, 2012).With a semistructured interview, the "sequence and pace of the interview questions can change, and additional interview questions can be included to create a unique interview catered to fully describing the interviewee's experience" (p. 239). The interviews were designed as an exchange between researcher and participant; participants were co-researchers (Hays & Sigh, 2012).

Within forty eight hours, each interview was transcribed. While transcribing, I incorporated noted gestures made during the interviews and then added in my field notes. All

participants were contacted for member checking. In an attempt for clarity, I offered participants the opportunity to check the transcription; member checking is an important component in qualitative research (Hays & Singh, 2012). Participants were given the opportunity to check for reporting accuracy. Member checking also gave participants the opportunity to discuss and expand on their responses. Likewise, member checking gave me the opportunity to thank participants.

After speaking with the college's research supervisor, I was asked to write a letter of introduction for the students. The Special Services Coordinator proofed the letter and then I took it back for the college's research supervisor to approve. The letter was designed to give students an introduction of the research and of me (Appendix I). The Special Services Coordinator then asked potential participants if they would be interested in my research. If they were, he handed them the letter of introduction (Appendix I). After reading it, if they were still interested, they filled out the bottom portion and returned it to the Special Services Coordinator. The coordinator and I then meet to discuss potential participants.

The demographic survey was done at the time of the interview (Appendix G). The primary interviews were done next. At this face-to-face interview (Appendix F), participants were encouraged to review and sign the Informed Consent Letter (Appendix D). It was important for me to pick the initial volunteers carefully with the support of the Special Services Coordinator. The Special Services Coordinator was a key contact. The coordinator advises these seven participants and has, as Chapter 4 will report, a trusting rapport with them. The trust they have for him was the foundation for their willingness to share their experiences with me. The demographic questionnaire was designed to take no longer than fifteen minutes to fill out and was offered to the participants' at the interview appointment. The demographic questions

included basic information like psychological diagnosis, date of psychological diagnosis, their age, ethnicity, gender, state of residency, the specific online class they were attempting and the one(s) they had completed, and the grade(s) they thought they would receive or had received for the online course(s). Additionally, participants were asked to sign release forms. The data gave me a sense of the students' general online experience and their general information. It also gave an opportunity for attainment of signed release forms.

Interviewing drove this foundational research's exploration. Hays and Singh (2012) described interviewing as having "guided much of early theory in education and mental health settings and continues to be a preferred option for unexplored and underexplored social phenomena" (p. 237). The interviews took place in a neutral location, a private meeting room above the college library. Each interview began with a script (Appendix E). Each interview was recorded and lasted no longer than one hour. From the interviews, measures, coding, and revised coding followed. Collection times of data depended on participant availability. Interviews were completed by December, 2013.

Measures and Coding

This section includes the measures, coding, and the revised coding process. The researcher conducted the interviews, recorded them, transcribed each and then coded each individually. Specifically, the research followed Hays and Singh's (2012) stepped approach to data collection (pp. 295-306). Also, the research developed using Moustakas's (1994) description of phenomenological data analysis as described in Hays and Singh (2012) on pages 352-356.

Interviews

From the participants' perception of online learning, a better understanding of online learning was sought. The interviews were designed as semistructured interviews (also known as in-depth interview) and used a series of questions to guide the interview (Hays & Singh, 2012).With a semistructured interview, the "sequence and pace of the interview questions can change, and additional interview questions can be included to create a unique interview catered to fully describing the interviewee's experience" (p. 239). The interviews were designed as an exchange between researcher and participant; participants were co-researchers (Hays & Sigh, 2012). I served as a facilitator between the participant's first-hand experience and the essence and variations of all the participants' experience. According to Hays and Singh (2012), the phenomenological approach allows for the interview exchange to "discover and describe the meaning or essence of the participant's lived experiences, or knowledge as it appears to the consciousness" (p. 50). The interviews seemed to produce large amounts of data. A systematic approach to data collection and data analysis was essential.

Data Collection

The first step Hays and Singh (2012) described was the initial process the research takes to reduce data; this means that before the research took the shape of these chapters, the researcher had already considered details like research bias and personal connection to the topic, trustworthiness, access to the participants, limitations and basic qualitative design issues. The second step is data collection; this includes the process of collecting data and, for this study, the use of individual interviews. Coding steps one and two were done with the help of the research team. According to Hays and Singh (2012), the second step was data collection; for this study, this included the process of collecting data and the use of individual interviews. During the

consensus process, the research team discussed and revised the interview questions. Then the team worked to create a process for introducing the research to each participant. Ultimately, nine interview questions were agreed upon. The introduction letter was also agreed upon and participant selection began.

The third step was field notes. Here, the researcher kept systematic and detailed field notes before and immediately following the interviews. Hence, the notes offered impressions and direction for potential findings directly following the interviews. Field notes may be a descriptive summary that includes " more detailed information about the interviewee and the participant, the clinical decision-making process, cultural factors, treatment recommendations noted, perceived prognosis, and so forth" (Hays & Singh 2012, p. 297). For my research, this step offered a beginning narrative that was used as base for the entire data analysis. Step four encompasses organizing the text. At this step, the interview was transcribed, the field notes were expanded upon, and the data was organized in summary entries via Microsoft Word.

Step four took the form of organizing the text, the data gathered. At this step, the interview was transcribed and data were organized in summary entries via Microsoft Word. I made comments throughout the transcribed text and made remarks to myself concerning the responses. Later, I used these remarks to help weave together the narratives. This process was not difficult but it was time consuming. I found this step to be particularly helpful as a reference when I started step five. Also this step helped me become better acquainted with the data, so the coding in step five seemed smoother.

Step five was coding. According to Hays and Singh (2012), a "code is a label or tag that 'chunks' various amounts of data based on the defined case or unit of analysis" (p. 299). For this

research the codes were etic; etic means the codes were labeled by the researcher. I began coding by connecting the transcribed words and phrases to UDL; this was used as a beginning framework. The coding was also connected back to the research's questions. The codes were a combination of words, phrases, sentences and paragraphs (Hays & Singh, 2012). The researcher began coding by connecting the transcribed words and phrases to UDL; this was used as a beginning framework (Appendix K). Each participant's transcribed interview was color coded; Affective was pink, Recognition was yellow, and Strategy was blue. Visual displays for each participant and their responses were created (Hays & Singh, 2012). These displays were used through the coding and analysis process.

Connected to coding is the sixth step, identifying themes and patterns. Themes and patterns are in essence codes that are chunked together (Hays & Singh, 2012). The chunks, according to Hays and Singh (2012) "appear as themes, causes, or explanations; relationships among people; more theoretical constructs; and so forth" (p. 300). Likewise, comparative pattern analysis was part of the final data reflection. This particular method of identifying themes and patterns was a bit more complex than initial chunking. For me, comparative data analysis looked not only at the individual transcripts but at the cumulative data collection. Then the collection was coded; this coding reflected unique attributes of the total collection. This step was particularly important because it helped me begin thinking about and formulating the codebook (step seven). In fact, as I was finishing step six, I began a crude codebook. This codebook turned out to be a valuable starting point for the final codebook. It also helped me formulate connections within the data that I may not have otherwise noticed. For instance, at this step I began to understand that several students' perception of time, though not identical to other participants, was an expression of how they struggled with online courses. While the UDL was

used as the primary source of coding, it along with this step began to form interesting connections between participants.

The seventh step was to create a codebook. For my research, the codebook was a conglomeration of codes, subcodes, and patterns with a section connecting the codes with the data collected. According to Hays and Singh (2012) creating a code book is a process and utilizes constant comparison. Constant comparison does a variety of things: (a) it "codes from your evolving codebook to label new data sources," (b) it offers a place to "add new codes to your codebook when existing codes do not readily fit," (c) it helps "reach consensus about all codebook edits," and (d) it may lead decisions concerning "collapsing codes in the codebook after all data are analyzed" (p. 303). The first coding set was a bit awkward; it took me time to understand how the coding process, from start to finish, would fit together. However, after wrestling with the first time, the others followed smoothly. For me, the codebook acted as a constant that I referred back to throughout the research process in order to reaffirm consistency.

The eighth step was to develop a narrative or a theory. As described by Hays and Singh (2012), this step reflected on steps two through seven and connected the steps to the original research questions. Developing of a narrative included a combination of vignettes (depiction of the phenomenon), summary of interview results, and descriptions of the interconnectedness or relationships between those interviewed. Like an organized method to data collection, an important part of qualitative research was a systematic approach to data analysis.

Data Analysis

My research utilized Moustakas's (1994) description of phenomenological data analysis as described in Hays and Singh (2012) on pages 352-356. With qualitative research, and the

phenomenological approach in particular, the manner of analysis may vary after data are collected. However for this research, this approach worked well. In addition to the following steps, I began the analysis by utilizing bracketing; bracketing is a tool the researcher will use to acknowledge personal bias and assumptions throughout the research's process. The complete transcription of each interview was then analyzed using the following seven steps offered on page 354 of Hays and Singh (2012). The process used included; (a) listing and preliminary grouping, b. reduction and elimination, (c) clustering and thematizing the invariant constituents, (d) final identification of the invariant constituents and themes, (e) construct an individual textual description, (f) from the individual textual description, construct an individual structural description, (g) from the individual textual description and individual structural description, construct a textural-structural description.

The next step was to list and do preliminary grouping. The term horizontalization is the term used to describe the process of grouping within the transcript. Horizontalization includes identifying "nonrepetitive, nonoverlapping statements in the participant's transcripts" (Hays & Singh, p. 354). Horizontalization was the first step I used in analyzing the data, and it was also an important part of managing the quantity of data given by each transcript. Within horizontalization, textual descriptions were used in an attempt to better "understand the meaning and depth of the essence of the experience" (Hays & Singh, 2012, p. 355).

Reduction and elimination comprised the next step. Here each expression was tested for two requirements. As described by Hays and Singh (2012), the first requirement asks, does the statement "contain a moment of the experience that is a necessary and sufficient constitute for understanding it" (p. 354). The second requirement according to Hays and Singh (2012) asks, if it is "possible to abstract and label it? If so, it is horizon of the experience. Expressions not

meeting the above requirements are eliminated. Overlapping, repetitive, and vague expressions are also eliminated or presented in more exact descriptive terms. The horizons that remain are the invariant constituents of the experience" (p. 354). Hence, the remaining invariant constituents were ready to be placed in clusters and themes.

Clustering and thematizing the invariant constituents was the next step. At this point clusters were created and core themes were labeled. Connected to this step, but considered a separate step, was the checking of the invariant constituents and themes against the whole transcript of each participant. Here, I asked several questions: (a) Are the invariant constituents and themes expressed explicitly in the complete transcription? (b) Are the invariant constituents and themes "compatible if not explicitly expressed?" (c) If the invariant constituents and themes not explicit or compatible, then "they are not relevant to the co-researcher's experience and should be deleted" (Hays & Singh, 2012, p. 354).

The fifth step built from the previous steps to create an individual's textual description. This description for this research was based on the verbatim examples used by each participant and founded within the individual transcripts. The individual textual description used "relevant, validated invariant constituents and themes" to construct the individual textual description (Hay & Singh, 2012, p. 354). For me, this was a pivotal step in the process. The coding steps combined with the steps to this point offered me a solid point to identify relevant textual descriptions.

The last two steps are tightly connected. In step six, I constructed an individual structural description of the experience which was based from the individual textual description. Then building from step six, step seven created "for each research participant a textual-structural

description of the meaning and essences of the experiences, incorporating the invariant constituents and themes" (Hays & Singh, 2012, p. 354). After all individual textual-structural descriptions were done, each was compared across the entire group of participants.

Universal Design for Learning (UDL)

Grabinger (2010) discussed the Universal Design for Learning (UDL) framework that postsecondary educators can use when they design an online class. He reiterated throughout his work that this specific design can be helpful to all students, not just those with psychological disorders. The UDL framework focuses on three brain networks: recognition, strategy, and affective. Within each area, techniques are described that can help students succeed with online classes. These techniques were used as part of the coding to understand the study's student participants' experiences. Grabinger's work (2010) offered practitioners meaning ways to organize assignments. These include applicable communication modes (e.g. emails and collaborative chats), multiple ways to present the same material (e.g. YouTube and web sites), modes that scaffold information (e.g. timelines), and methods for students to express themselves (e.g. blogs and chat). Grabinger (2010) use of the Universal Design for Learning gave a framework for online course design. For my research, the UDL offered a model to code the data collected. Next, from the data and its connection to the UDL, a framework was used to investigative findings. This framework was based off work done by Schwitzer (2009) and helped to "build inclusive models of practice that better meet the needs" of this particular population (Schwitzer, 2009, p. 5).

Schwitzer's (2009) framework was a five-step process for building inclusive models. Within the five-step process was step-three; step-three asked three critically inclusive questions. Schwitzer's (2009) questions were adapted for the research and included; a. do the results of the

research apply accurately to all the student participants, b. do the results "apply accurately to all students but seem insufficient for explaining some student needs or outcomes," c. do the results "apply accurately to some groups but appear inaccurate for others" (Schwitzer, 2009, p. 7).

Strategies for Trustworthiness

Strategies for trustworthiness include detailed field notes and a reflexive journal, member checking, a research team, simultaneous data collection, thick descriptions, and an audit trail. Each area is described using Hays and Singh's (2012) definitions.

Field Notes and Reflexive Journal

The students' experiences were captured through the interviews; however, field notes were also helpful in understanding the students' perceived experiences. Field notes were typed and then I used Microsoft Word Review to capture important statements made and body language shown throughout the interview. The field notes included feelings and events before and after each interview. The field notes offered me an understanding and a reflection as I coded and analyzed data.

My background in psychology may have offered a unique window into online learning, but, at the same time, my background may possibly have tilted analysis. The reflexive journal helped me document reactions to the research's progression, thoughts about data collection, hunches connected to the research process, and reflections about the method and design (Hays & Singh, 2012). While the reflexive journal was overall helpful, it was particularly useful with keeping notes on the data collection process. I found it also useful when organizing questions for my dissertation committee. Specifically, the reflexive journal helped me sort through concerns regarding participants' individual voices.

Member Checking

In an attempt for clarity, the researcher offered participants the opportunity to check data. Member checking is an essential component in qualitative research (Hays & Singh, 2012). It is a vital method in securing trustworthiness. Member checking was done by having the participants review interviews. They had the opportunity to check for accuracy. They also had the opportunity to expand their responses.

Along with member checking, follow-up interviews were also done at the same time. After talking with the research team, it was decided to keep the question simple. Perhaps this happened because of the open-ended question: "After reflecting on our interview, do you have anything else you would like to add?" This piece of the total process was valuable; it gave participants the opportunity to truly be co-researchers (Hays & Singh, 2012). However, the follow-up interviews did not produce significant data. Even so, the time with the participants gave me the chance to thank them for their time and support.

Research Team

A research team comprised of community college faculty members and administrative staff was created. The collaboration helped limit potential bias and focused on data collection (Hays & Singh, 2012). For this research, the research team was committed to having a smooth and respectful interaction between the research and the participants. Meetings with the research team began in the spring of 2013. The first discussions focused on the actual research questions and their impact on the community college's participants. In the fall of 2013, other individual meetings were held between each individual research team member and me to discuss the process of recruiting, the interview process itself, and the interview questions. This piece was time consuming but absolutely imperative. The foundation of the entire interaction between

researcher and the participants was built through these collaborations with the research team. The research team helped me not only solidify the questions, but they asked me pointed and thought provoking questions about each question; the questions' purpose was discussed and also the impact each question might have on the student. Each research team member had a personal connection to the research questions; two had children with psychological disorders, both children were adults and were considering online courses, and the third was a special education faculty member. The team's insights were pivotal in the success of the ultimate data collection.

Simultaneous Data Collection and Analysis

As the data was collected, the analysis began. Interviews were transcribed within forty-eight hours. This offered me the opportunity to transcribe, begin coding, and seek clarity through member checking, if needed. This method helped ensure trustworthiness in the collection and analysis of data (Hays & Singh, 2012).

Thick Descriptions

Thick description included reporting thorough details. It also included rich descriptive language in data interpretation. It was through the methodical detailed language that I offered inferences beyond the basic facts or feelings of the interviewee and/or the interviewer (Hays & Singh, 2012).

Audit Trail

An audit trail is vital in a qualitative study. An audit trail "provides physical evidence of systematic data collection and analysis procedures" (Hays & Singh, 2012, p. 214). My audit trail included a timeline for the research activities, inform consent forms, demographic information,

interview protocol, field notes, reflexive journal entries, drafts of the codebooks, research team meeting notes, transcriptions, and interview recordings.

Limitations

Credibility was perhaps the greatest barrier; this research was, by the nature of sample size and approach, somewhat subjective. In an attempt to be factual and objective, I have revealed both my own personal bias and the research's limitations. My academic background is education and psychology. In an attempt understand the topic and the particular phenomenon found, I have triangulated resources: This included examining a thorough literature review, conducting one-on-one interviews, and doing sessions for member checking. Strategies for trustworthiness included detailed field notes and a reflexive journal, member checking, a research team, simultaneous data collection and analysis, thick descriptions, and an audit trail.

I attempted to read each sentence as it could stand alone, then attempted to interrupt, chunk, and code. In the analysis, I endeavored to let the participants' voices not only be heard but allowed their stories to reflect their perception of online learning. My own bias, as a psychology teacher, may also have tilted the direction of the grouping. I tend to see through a behaviorist lens, so the grouping of themes may have been a reflection of my own personal experiences and educational background. By having the participants check their responses, the bias was regulated. Hopefully, my experiences and background offered a unique perspective and, perhaps, gave insights into the participants' individual experiences.

The research had participation limitations. Foremost was the sample itself. It was more difficult than expected to convince student's with psychological disorders to speak about their experiences. Hence the participation pool was small. Finally, if the volunteers had a particularly strong personal stance for or against online classes, they could have used the forum as a "soap

box" and may not have necessarily been able to be unbiased in their reporting. The Special Services Coordinator's input in participation selection and the research team's ability to help design focused interview questions helped deter "soap box" responses.

There were also design issues. The Virginia Community College System constitutes a group of 23 community colleges. Including one college out of the state's 23 community colleges limited participation. Likewise, a sample size of seven does not represent the opinions of all community college students with psychological disorders. If this project was funded, longitudinal, and an incentive-based project, perhaps the length and depth could have been expanded. Even with these limitations, the vivid descriptions and candidness offered in this research provided a foundational study and ultimately offered a deeper understanding of beneficial and hindering online teaching techniques for community college students with psychological disorders.

Conclusion

Chapter 3 discusses the research's design and methodology. In particular, the study uses phenomenological data analysis. As a phenomenologist, the researcher's methods included a basic demographic questionnaire and an interview with participants. The study was an investigation into the meaning and depth of online learning for community college students with psychological disorders. By hearing directly from the participants, the study sought to unite the participants' experiences and their interpretations with community college practitioners. The next chapter, Chapter 4, discusses the research's findings.

CHAPTER 4:

RESULTS

The purpose of this phenomenological study was to understand the online teaching techniques which enhanced and hindered learning for community college students with psychological disorders. The study was conducted at a mid-sized Virginia community college. It explored the online learning experiences of seven adult volunteers. The participants were community college students who have been clinically diagnosed with a psychological disorder and who had taken or were taking an online course.

Chapter 4 presents the results of the research. The results of the interview questions, the demographic information, the coding steps utilized, and the connecting of individual interviews with the research questions are included. Also included are common threads shared by participants. Finally, the results are applied to Schwitzer's (2009) framework for useful practices.

Individual Demographics

Seven participants were involved in this qualitative research (Table 1). Four of the participants were males and three were females. One participant with DID wrote on the demographic survey that a male and a female would be participating. For the purposes of this research, the student was identified by his primary gender. All participants gave responses that fit into the UDL framework. All participants also gave responses that helped to answer the three research questions. As indicated in Table 1, the participants' ages ranged from nineteen years old to forty three years old. The psychological disorders included ADHD (Student A), OCD (Student B), Major Depressive Disorder (Student C), Borderline Personality Disorder (Student D), PTSD and Bipolar (Student E), PTSD and TBI (Student F), ADHD, PTSD, DID, & OCPD (Student G).

Student A was the only participant in the process of taking an online class; all other participants had completed at least one online course.

Table 1 Participants' Demographic Data

Table 1 offers a visual of the participants' basic demographic information. Also included in the table are the psychological disorders of each participant. Finally included in Table 1 are the online courses attempted for each participant. Student H (DID) wrote on the demographic survey that a male and a female would be participating. For the purposes of this research, the student was identified by his primary or host gender, male.

Table 1 Participants' Demographic Data

	Age	Gender	Ethnicity	Psychological Disability	Online Class
Student A	35	Male	Black	ADHD	Math, & Child Development
Student B	24	Male	Black	OCD	English 112, & Intro. Auto Mechanics
Student C	32	Female	White	Major Depressive Disorder	History, Accounting, & Medical Terminology
Student D	29	Female	White	Borderline Personality Disorder	Medical Billing & Coding, & Drug Dose Calculations
Student E	19	Female	White	PTSD & Bipolar	Abnormal Psychology
Student F	33	Male	White	PTSD & TBI	Psychology 200, & Sociology 201
Student G	43	Male	Hispanic	ADHD, PTSD, DID, & OCPD	Abnormal Psychology, & Psychology of Personal Development

Interviewing Participants

Interviews were done face-to-face over the course of a month. Interviewing guided this foundational research's exploration. Hays and Singh (2012) described interviewing as having "guided much of early theory in education and mental health settings and continues to be a preferred option for unexplored and underexplored social phenomena" (p. 237). The interviews took place in a neutral location, a private meeting room above the college library. Each interview began with a script (Appendix E). Each interview was recorded and lasted no longer than one hour. From the interviews, measures, coding, and revised coding followed. Collection of data depended on participant availability. Interviews were completed in December 2013.

By November 1, 2013, all volunteers were chosen. Entrée was achieved first with an introduction letter then by meeting with each potential volunteer individually and with a script (Appendix E). The first meeting, the interview, began with brief introductions. I offered each member time, before the recording, to interact with me and ask questions. For five of the seven, this brief period was less than 3 minutes. For two participants, Student A and Student G, the introduction time lasted for roughly 11 and 8 minutes respectfully. Student A simply wanted to converse. For Student G, this neutral time proved particularly valuable: Student G used the time to discuss his disorder, Dissociative Identity Disorder (DID), and to prepare me for the identity switch.

An interesting conundrum came with member checking. This study crossed disciplines, education and psychology. With member checking, I found myself concerned with the pronouns presented specifically with Student G. His contends with DID, and with that particular disorder comes the separation of identities. In efforts to give Student G proper voice and to also give the reader clarity, I spoke with my committee member who is a licensed counselor. DID is a unique

disorder and rare; Student G has over a hundred alters and for our interview, I met the host and one alter. After the discussion with my committee member, we decided to use the separate identities (Student G and Student H) for member checking. (Acknowledging the separate identities was discussed in reference to the student's past experiences. The student appreciated having each identity stand as individual.) Likewise, after reading research pieces focused on DID (limited data was available and none was found for DID and community college learning), it was decided to use separate identities for this written report.

According to Hays and Singh (2012), the phenomenological approach allows for the interview exchange to "discover and describe the meaning or essence of the participant's lived experiences, or knowledge as it appears to the consciousness" (p. 50). The interviews seemed to produce large amounts of data. A systematic approach to data collection and data analysis was essential. Coding followed an eight-step approach (Hays and Singh, 2012). Likewise, data analysis followed a multi-stepped approach (Hays and Singh, 2012).

Results for Each Participant Connected to Research Questions

In this section, each student's responses were coded following Hays and Singh, 2012. Then each was connected back to the research questions. Next a narrative for each student developed. At the end of this section, Table 2 gives a visual display of the research questions with a sampling of the participants' responses.

Student A and RQ1

Student A is taking his first online classes. He has a bit of a grimace as he says, "This is my first semester for taking online classes. Only because I didn't believe I could do it. In my ignorance I believed what people were telling me." His hesitation stems from outside influences:

"It was like someone, someone said I couldn't do it. It was not the best path for me and they didn't think I could do it." He is doing well in his online class, with all A's. He beams, "I decided to take the challenge and push myself. And here's where I am, and I take a lot of credit for doing that." His initial hesitation for online learning came from others' view of where he could and could not succeed academically. Student A is a thirty five year old black male who resides in Virginia. He is a community college student with ADHD.

Even though Student A is doing well in his classes, he adds a side note on his demographic survey: "I thought online classes would be easy. But they are not." As the interview progresses, I find Student A to be a passionate learner and open about his disability (at least with me). He explains, "My attention span is short sometimes. And I get nervous when things are due and so there's a lot of other things that are in play that activate my anxiety, with dealing with the online. But again, okay so my peers are not very helpful because they haven't read the book or something else where the students are not very well prepared (pauses) I haven't found the right students to partner up with. So it makes it okay but rough. But again but again my passion for success is untouchable, unsurpassable." Talking with me seems to flow well. When I ask about sharing his disability with his online teachers, he picks up his verbal pace and becomes even animated: "No! No, ma'am, I have not [shared his disability with his online instructor]". He continues, "And she didn't ask. (He emphasizes.) I apologize, but she didn't ask." Then we dive in: "You gotta understand (animated and passionately says) when you're dealing with some new certain issues, in my past experience, people like will hold stuff against you and will pass judgment and they...and things like that and so you definitely don't want to, especially someone that you are getting to know does not see you, you don't want to divulge that information. It is hard to explain." And then kindly but emphatically he says, "You're [speaking to me] on the

inside, (pauses briefly) trying to understand. And I'm from the outside looking in and it's hard."

The description of his learning challenges is forthright. He explains, "It's tougher. It's (pauses) I have to read, read twice as much. I have to read things more than once. The book or whatever information I need, I have to have an online dialogue with the professor, but it's nothing like the personal interaction for me because I'm a hands-on learning learner and I process things with verbally seeing and hearing what the professor is saying. So it (communicating with the online professor) took some time to get used to." He goes on to find something positive about the experience, "So saying something positive that came out of it. I needed to take online classes to stay on my schedule for me to finish here and then transfer. Pause. It [the online class] saves time. It keeps me from going to class and those kinds of things."

An area Student A found particularly challenging happened before the online class began. For him, the beginning hurdle was "finding a course to get into, then waiting for the counselor and then there's a money issue and all these other entities fall in to place and then you have to work out the times and then you deal with a whole lot of others and that's another thing that may be getting in contact with professors that could help us. (Talking quickly.) If the professors knew the direction that we were going and then maybe they can help and they would know that little Susie is taking a biology course along with the math... that along with the English and she's also taking my other whatever course. And, as you well know Biology is a BEAST! It takes extra time and math can be tedious and part of the process in online classes is to follow these steps. And so many things can go wrong in English. Well you got to write papers and there is a lot going on and then you're like a lot that online you do and, and I'm hoping that and I'm hoping that, in conversation that they would take to consideration" all the different issues students are dealing with.

Student A's conviction is present through the interview. By the last interview question he reiterates his thoughts: "but when Susie writes an e-mail and asked for an extra hour on a test maybe we could work something out. And maybe a little bit more leniency since we are online class." Then he relaxes a bit and says, "I don't know maybe, I'm thinking too far out-of-the-box. But it's been told to me many times that we're not in high school but we all have lives. We are all people. We should care where people are at. But we're all people, we always should be at the same level. It's hard to find that balance. It's very hard thing to find balance with adult learners. (He laughs)." The interview ends with a hope for acceptance.

Student A and RQ2

Student A would like more feedback from his online instructors; feedback about his grades but also more social interaction. Speaking of grades, he states, "I like to know where you stand and not beating around the bush. So I would definitely appreciate more, you know, feedback grade wise. Maybe find out, find out exactly what I'm trying to accomplish, see what I'm doing, what brings me to this class would help at the beginning." I ask if he means an introduction. He continues with "Yeah, and then you [the online student] might get to know other students." He goes on to say that it is also important to him that "the teacher gets back to me that she gets back to me no matter when it is. She gets back to me whenever I send her an e-mail. (Brief pause.) She does tend to respond at least within 48 hours."

As the interview continues he confides, "But in my style, I would, I guess, I would appreciate an e-mail. I know we're not in high school anymore but I would just like for them to ask how I'm doing and check in on me." His carries the line of though a bit further: "And I think that was it and I know I said it was online classes but, but I don't think it's too much to send a person an e-mail. Really, really, I don't if you guys are allowed to (pauses) but there may be a

session where we could have. Well, we could have some treats or getting a little time together at the library to just make sure we're all on the same page. So we see each other's face and, I don't know, maybe that would be against all the rules of online. I don't know if there are any rules for online. But I don't know, but only the teacher getting to know this dude and spend time." The desire for social interaction when online classes by their very nature physically separate academic peers and their instructor. Student A explains the phenomena by saying, "making it [the online learning experience] more personable to really affect that person. So again you're taking away a lot when you're talking about there is no class physically that you have to go to. The students can log online and new students sit for these two hours on the site and, and then it's up to you I mean it is, a lot (pauses) especially whether you're first coming in as a 17-year-old or if you're on your own coming into a freshman as an older person. You know what I mean, as an adult learner that's what I'm learning."

As we are finishing the interview, he comes back to his social interaction point: "I think it's important for teachers to be open and evaluate the students and see where we are in our lot in life. And if they're teaching someone who's 35 might be different from teaching someone who's 18 or so. Okay? I just think it's a lost art for teachers to know (pauses) I'm from the old school where always a hand-shake and knowing where people stand meeting people face-to-face and, and the pen is mightier than the sword... and/or the pen is mightier than the computer. (We both laugh.)"

Student A and RQ3

Considering the UDL's framework and Grabinger's (2010) work, when overlapping the Student A's responses with the UDL framework an interesting pattern arises. In the area of Affective, Student A reiterates the importance of online instructors wanting to know their

students: "Maybe find out, find out exactly what I'm trying to accomplish, see what I'm doing, what brings me to this class would help at the beginning." He even goes as far as to offer online teachers a suggestion: "I would send abroad e-mail about saying 'Hey. How you doing? How are things going? Any questions you have?'" He feels the need to connect on a personal level and says, "I want reassuring about the grade, especially at this stage of the game in college and where I'm trying to achieve something. And it would be nice to know something about our progress to know our progress is being noted."

In the area of Recognition, Student A points out the importance of online testing. Specifically, he talks about how online testing has been a positive piece for him and his challenges with ADHD: "The tests online are not timed all the things that are all the entities are involved in ADHD." For Student A, untimed tests are a positive attribute to his online experience. However, in the same paragraph, he goes back to the lack of relationship he feels he has with his online teacher: "She [his online teacher] didn't seem to have much involvement with them [the testing process]."

In the area of Strategy, Student A says plainly, "I like it when it is all laid out and I'm able to communicate with the teacher and have a good experience." He also acknowledges the tutoring center and the importance of peer study groups: "the instructor would find a student that would be a good buddy that would have good rapport that would work well. Or even go get a tutor." We end the interview session with him sharing a personal reflection of online learning: "For me I think it would be easier to have class but I had to go online because I ran out of hours, you with me. That's what brought me, to force my hand, to do online classes. But I'm not, but I'm not, I'm not complaining, alright, and I just mean it's only because, believe me, I'm thinking the average student would be willing to put the 40-45 hours just on school alone, you with me, is not

even counting that that our time in class is another job. If I'm going to make this work, for me especially with ADHD, and other stuff and I have to fight twice as hard."

Student B and RQ1

Student B is a twenty-four year old, black male with OCD. He is a man of few words; he listens to each question, thinks for a moment and then answers in a deliberate and direct manner. When discussing his online classes he shares, "whenever I had to take test, if I need additional time then I would ask my teacher 'Can I take the test in the testing center for additional time for tests.' But with the other online I didn't have to worry about the time." One of his accommodations is extra time on tests. English 112 was one of two online classes Student B attempted; he received a B. For this class, Student B reflects, "For English 112, we didn't have tests." For the other class, an Introduction to Automotive Technician, the tests were "timed for two hours, so I didn't have a problem." In summary he says of his online teachers, "All the teachers I had were helpful towards me."

Taking his disability into consideration, Student B explains the positive part to online learning: "The good thing about it [online class] is that if I wasn't sure about an assignment it was mostly on blackboard." He continues to explain how assignments were typed and in a place he could always go back and find the directions: "It was typed but it was always where I could find it." With the online courses, he explains how the teachers would put additional notes on Blackboard for him to reference. Specifically he talks about directions: "The teachers, they would add additional notes to the assignments. That was helpful." He uses essays as an example of when this was particularly helpful for him: "Essays, if I have trouble with the question then they would explain it to me in different ways in the assignment." One of the problems, although minor by his account, happened with his English 112 teacher. He recounts, "Sometimes my

English 112 teacher, well she would leave out details on assignments. But it was a minor problem. She adjusted the problem and fixed it." He remedied his confusion by bringing it to the online teacher's attention: "I asked a lot of questions and so she explained it." He did, however, never talked to either online teacher about his disability. When asked IQ6 about talking with his online instructors about his disability, he simply said, "Oh, I never told her." He did not feel like he needed to tell either of the online instructors simply because his accommodation was extra time and the online courses did not required more for him than was already embedded in the course.

Student B and RQ2

Student B reiterates throughout the interview how helpful Blackboard was for him. Specifically, assignments were typed and were always in the same place where he could find them: In his words, "It was typed but it was always where I could find it." Another area Student B reflects on is his connection with his online teachers: To online teachers he advises, "Always check their e-mail and get back to us." He adds, even though he did not need extra time for the two online classes he took, online teachers should "let students ask questions and ask for extra time on assignments."

Student B and RQ3

With Student B, all three areas within the UDL were touched. With Affective, Student B was emphatic about not telling his online instructors about his disability: "I never told." He did not elaborate on the emotion shown. However, he reiterated several times throughout the interview the importance he feels it is for teachers to keep in touch with students: "Always check your e-mail and get back to us."

In the area of Recognition, Student B points out the importance for him of having the assignments written down and accessible. He says, "The good thing about it is that if I wasn't sure about assignment it was mostly on blackboard." I then ask for clarification and he responds, "It was typed but it was always where I could find it." Considering his disability, he says "It helped to have it on line because I had it written down so I could go back and look at it." He reflects on his experience and offers these suggestions for teachers, "On assignments add additional notes so some students would have a better understanding of the assignments. And, and post notes that you know could help. So yes, post extra notes."

In the area of Strategy, Student B he says directly, "I asked a lot of questions." He suggests students follow his lead and "ask questions if they have trouble with assignments. Pay close attention and, and if you need help there's always the tutoring center." He has a couple of suggestions for online teachers. The first is to keep up with their students through emails. The second is based on the individual teacher's style: he says, "Every teacher is different and I only had two online teachers. So basically, I would tell them to teach the way you're comfortable with." He adds during the member checking session that he would like for the college to invest in more trade program options. He then shares his plans to go into the automotive mechanic trade.

Student C and RQ1

Student C is a thirty-two year old, Caucasian, female. She has memory issues associated with a benign mass in her ear. Also associated with memory issues is a diagnosis of major depressive disorder with anxiety and insomnia. Student C has taken several online classes, "passing most and failing one." A positive part of her online experience was having the material in one place to refer. She says, "Having things written down where I can see them every day and look at. I mean that's for everything as long as I can look at it, I do a lot better. If I don't then I'm

horrible at it." She goes on, "That was one good thing, everything was always written down."

For Student C, her online experiences seem to hold more negative than positive reflections. She says of online learning, "I had a hard time trying to pay attention. And it was something I really had to focus on and make sure I, I would, I would start drifting off the start thinking about something else but it was it was hard to concentrate and stay focused." Likewise, she confides, "It is difficult to me to do online without seeing the instructors, doing it straight online is difficult for me." For this student "the biggest thing was concentration and not having direct contact was also a problem." She has resolved not to take any more online course and says it was better for her to "take regular classes in the classroom" where she has contact with the teacher and her peers and where she can concentrate on the course material better.

When asked about her comfort level in telling her online instructor about her disability, she explains, "If I got the feeling they weren't willing to work with me then I didn't tell them anything. I didn't talk to them about personal stuff and I just did not I didn't feel comfortable with that." Later she offers this advice to other students, "if you have a disability then don't let someone else make you feel like you're not smart enough, you're not you're not good enough. This is not true." She continues by emphasizing, "stand up for yourself. Don't let someone else make you feel like you're not good enough." Considering her experiences with group responses, she drives the point home, "There are times when you have to deal with students as well. Group projects and things online and don't let them make you feel like that. Just belief, belief in yourself." Her experience with some online instructors brought out this statement, "I've had instructors that I ask questions and it's like I'm a bother. And then when they when they treat you like that it's hard to say anything. I know that one of have problems with that they, they push so hard and you don't want to go talk to them because it just makes you feel like you're a horrible

person." She ends with a stinging truth, "no matter what you are, student instructor, everyone's an adult. Don't treat them like children. I know for me that I have my issues and I try to take care of them. But don't I guess don't push you down and to the point that that I felt like (pauses) what's the word demeaning? (Thinks for a moment.) Demeaning, yes demeaning."

Concentration is a repeated theme with Student C. She proclaims, "Online classes take more attention." Comparing traditional in classroom courses and online course she explains one of her major challenges, "When you're in a class you could have it written down; you can talk but online at home, it's easy to get distracted if you're easily distracted. I guess that's the best way to put it (pauses) you can be pulled in so many different directions at home." She describes the conundrum, "If you can't concentrate enough or where things are happening that's happened to me. Things would be happening at home and in my classes on campus I know I can go to but when they're at home it's almost like there's something else at home pulling you away."

Student C and RQ2

Connected to the first RQ, Student C feels online instructors should find ways to connect with their students on a personal level: "Be there for your students." She goes on to explain, instructors should make time for "kidding with them [students] and then your students can ask you questions." One teaching technique that seemed to help her was having emailed reminders from her professors: "I know it helps for my professors to e-mail me so I remember." She also explains how the pace of the class was important for her success: "Don't, don't go very fast. Don't go faster and try to fit more information in. Then, then the student can understand." While she says this, she also realize the complexity of the request: "I know that instructors have so much stuff to fit into the semester. But sometimes a student may need extra time and don't, don't let your quota be the reason that the student doesn't pass."

Probably the most positive practice used by Student C's instructors was the electronic means of communicating. For Student C, having emails and Blackboard-like sites helped her reference directions and questions/answers. She says, "Having things written down where I can see them every day and look at, I mean that's for everything as long as I can look at it I do a lot better if I don't then I'm horrible at it. That was one good thing, everything was always written down everything was written down as I had any questions they were always written down."

Student C and RQ3

Student C has taken several online courses. In the area of Affective, Student C points out the importance of positive social interactions. From her online experiences, she realizes that "not being able to physically talk to my professor if I have a question" is a challenge to her learning. In fact, she says, "not having someone to directly talk to I struggled." Positive interaction between herself and the professor as well as a positive planned interaction between herself and her peers is primary to her successful learning. She explains, "if you have a disability then don't let someone else make you feel like you're not smart enough, you're not you're not good enough. This is not true. And that I've had to work hard." She passionately continues, "There are times when you have to deal with students as well. Group projects and things online and don't let them make you feel like that. Just belief, belief in yourself."

In the area of Recognition, Student C realizes her online learning challenges. It is important to her to have "things written down" so she could "see them every day." She contends, "as long as I can look at it, I do a lot better. If I don't, then I'm horrible at it." In reference to online course work, she says, that "was one good thing, everything was always written down, everything was written down" and "as I had any questions, they were always written down" to reference as needed.

In the area of Strategy, Student C adamantly contends, "Online classes take more attention." She goes on to say that with online courses, students must "know your limits." She goes on to explain, "If you can't concentrate enough or where things are happening that's happened to me. Things would be happening at home and in my classes on campus I know I can go to but when they're at home it's almost like there's something else at home pulling you away." She ends with the idea that online classes are conveniently located in your home and at the same time this convenience can be detrimental to learning: "it's easy to get distracted if you're easily distracted. I guess that's the best way to put it (pauses) you can be pulled in so many different directions at home."

Student D and RQ1

Student D has taken several online courses; one series at a university and one course at a community college. Student D is a twenty-nine year old, white female. Physically, she contends with Pseudotumor Cerebri; a medical condition causing pressure inside skull. Psychologically, she has been diagnosed with Borderline Personality Disorder. She says of her online learning, "I have the characteristics of being able to come back to something after a while and it still, still is like it was yesterday. So to me, no matter how long it takes me, I'll push through it. I will get through it. So the online course was designed for medical billing and it was to take six months. (Long pause.) It took me three years. But, but, I did finish it." She goes on to describe one particular series of classes, "It was supposed to be a six-month thing and I always had to get extensions and that was probably my primary issue. And then there were days when, with the depressive disorder, when I just didn't feel like doing anything. And not having that requirement to get up and go to school. It's like, it's online it's okay. Well self-paced was not very good in that mode."

Reflecting about the online university course taken first, Student D confides, "I had had all the other stuff before and I was aware of what it can be like. If you just walk into an online class course and you don't have any sense of time management or know how to respond, how you respond to it, then you're pretty much are going to struggle. Especially if you have a disability." Her community college online course work has been positive. She relates, "the course here online was awesome. It was easy and awesome."

Student D echoes other students' feeling about telling her online instructor about her disability. Perhaps being a bit more open than others, she is still cautious. She says, "In one aspect I was really comfortable because I knew she was (pauses) she had the doctor title and it was the nursing program. And I thought 'she'll know what I'm talking about' this and that. Most people don't know what I'm talking about." She thought this "would be good but another aspect I was nervous about it." She explains, "because they do know what I'm talking about (she laughs and I laugh with her). And they may see it as a negative. It's better if someone comes with an open mind." In the end, Student D told about her disability "in general" mainly, as she says, "because I'm afraid of being judged." Student D goes on to explain her experience, "Especially than in the nursing program I know I noticed, like you hear something and you have to report the situation. I don't want them to be like 'she's in the RN program' and you know without them actually knowing or giving me a fair shot without knowing me before knowing my diagnosis since... I might get booted or something. But I'm not in RN program anymore. I changed again. The medical aspect of it but not the nursing."

Student D is passionate as she explains her online experiences: "From my experiences (pauses) I think it's important to have some aspects of respect given as a professor and as a student; to receive respect on both ends. But in the same regard I think that if the, if you're

personable, you know don't let your title take hold of you, you know when you get your Ph.D. you will earn it and you like for people to call you Dr. and that's respect. But in the same respect that working, skimming along, in the same regard this could deny that that person is more than a title; that they have emotions and feelings like any human. Like you are as well so I would say to make sure if you're teaching a course that you are, that you don't let your title take you away from who you are." The idea of mutual respect also, in her experience, can lead to more openness and understanding.

Student D and RQ2

Student D is open and forthright in the interview. She speaks openly of her experiences and also shares her perceptions of teaching techniques that helped her learning and also those that hindered her learning. She says, "I wish my instructor would have classes or opportunities for me to have one-on-one or face-to-face opportunities. Especially with a disability, to go over things that I am not getting or maybe just the opportunity, even if you don't have a disability." She talks about the importance of open and transparent communication between student and professor: "It's hard because even if it was (pauses) well when texting came out, someone could send you something in that way, someone would read it and like 'oh are they serious are they joking' or 'how do I take that.' But there are a lot of things coming out that can assist you in expressing, in letting people know if you're online. Maybe have a video of yourself so they can see who you are and how your attitude is." Teaching techniques that offer professors and students the opportunity to see each other as regular people is important to Student D. She continues, "instead of just saying or seeing that guy sitting there drinking their cup of tea take, then we see him reach up and chase the cat (we both laughed)." Anything like that, she feels, "makes you [the instructor] human." She suggests videos "So I think video helps show

emotions. Or you can insert a smiley or something (pauses) so you're joking and you don't want to say you're joking, you can just put a smiley at the end of it, so you know, I think it does help."

A teaching technique that hindered her learning and frustrated her as a student revolved around updating links on Blackboard-like sites. She speaks directly to instructors, "make sure the material (pauses) you put a link to something and you are teaching for semesters, I would make sure that the link is still working." She says pointedly, "Don't just think 'Hey, I used this five years ago and so it's still current information and the link works', because it won't. So make sure it's [the link] all up-to-date." Likewise, she talks about formatting issues and online submission: "I know there were like requirements (pauses) to have documents submitted in a certain format. I, at the time, had an Apple. And they required documents to be submitted with a certain file extension. And even if I converted, the Apple had software to do that, and then submitted it they were having a hard time reading it." Instructors should take into consideration formatting issues and the extra time it may take to remedy these issues. Simply put, the format issues "took forever" to resolve.

Teaching techniques that seemed helpful for Student D include videos and groups of work or units that could be done at a student's own pace. She explains, "My Drug Dose Calculation course that I had, she had links to videos that helped and then there were like presentations. The units that were done could be done ahead of time." Contact with her instructor was also helpful. She suggests all online instructors "have frequent contact with your students to make sure they know who you are; what you are expecting and so they know you exist. Because if you put yourself out there, they can't ignore it. And you'll send an e-mail and they'll think 'Oh another e-mail, I need to do this.'"

Student D and RQ3

Considering the UDL's framework, all three seem to find value when evaluating Student D's interview. With Affective, emotions tended to be negative towards the online learning experience. She made solid grades in her online courses (A's and B's) however, as she reflected on the experience, she used words like "negative impact," "awful," and "really just awful." Her responses show a want for personal connection with the instructor, a social piece. In one response, she says, "I wish my instructor would have classes or opportunities for me to have one-on-one or face-to-face opportunities. Especially with a disability, to go over things that I am not getting or maybe just the opportunity, even if you don't have a disability." In another she shares, "It's hard because even if it was (pauses) well when texting came out, someone could send you something in that way, someone would read it and like 'oh are they serious are they joking' or 'how do I take that.' But there are a lot of things coming out that can assist you in expressing, in letting people know if you're online. Maybe have a video of yourself so they can see who you are and how your attitude is. Yes instead of just saying or seeing that guy sitting there drinking their cup of tea take, then we see him reach up and chase it's the cat (we both laugh) or something that makes you human. So I think video helps show emotions. Or you can insert a smiley or something (pauses) so you're joking and you don't want to say you're joking, you can just put a smiley at the end of it, so you know, I think it does help." For Student D, social connection and interaction is important.

In the area of Recognition, Student D talks about online video links, formatting, up-to-date video links, and personal videos. In regards to video links, she says, the instructor "had links to videos that helped and then there were like presentations. The Units that were done could be done ahead of time." For formatting, Student D describes in detail her trials and tribulations: "I

know there were like requirements, requirements to register it here then the requirement to have documents submitted in a certain format. I at the time had an Apple. And they required documents to be submitted with a certain file extension. And even if I converted, the Apple had software to do that, and then submitted it they were having a hard time reading it. And so that took forever and then instructors for the medical coding course they took a long time. Like at the end of the course where they had to check which you had done and they had to approve before you get to continue. Say you're in this mode of sit and wait. Because as an online course they had all the students from everywhere. It took forever." Another annoyance was with up-to-date links. Student D shares, instructors should "make sure that the link is still working. (We laugh.) Don't just think 'Hey, I used this five years ago and so it's still current information' and that the link works, because it won't." She concludes, "So make sure it's all up-to-date."

In the area of Strategy, Student D asserts her ability to "come back to something after a while and it still, still is like it was yesterday." One particular class was designed "to take six months (pauses) it took me three years." She proudly adds, "but I did finish it." She goes on to explain how her disability played a part: "It was supposed to be a six-month thing and I always had to get extensions and that was probably my primary issue. And then there were days when, with the depressive disorder, when I just didn't feel like doing anything. And not having that requirement to get up and go to school. It's like, it's online, it's okay. Well self-paced was not very good in that mode."

From her online classes, she has learned some strategies she offered to share with other students. She emphasizes, "Read everything like if you're assigned to read certain pages, read everything. Don't think you can get by with just skimming. It costs without having the professor in front of you saying or giving a lecture in saying 'these are the important aspects of the

chapter.' It's on you to know what the important parts are. So you really need to read everything." She adds, that if you are a student that gets distracted easy "make sure you have a designated area for your course like to have a quiet space where you're not to be distracted. And you are not to be distracted by people going by. Like, go to the library or go to the corner of your room or something else in the middle the hall hallway where people can be coming by." Then she suggests students should consider their efficacy with time management before taking an online course: "Like if you know you're not good at managing your time, don't even try it. Leave this course now! (We both laugh). Because I mean it's like you're on your own; online is self-paced. No one is telling you be here from this time to this time." For instructors, she resolutely insists, on creating a personal and frequent connection: she says to instructors, "have frequent contact with your students to make sure they know who you are; what you are expecting and so they know you exist. Because if you put yourself out there they can't ignore it. And you'll send an e-mail and they'll think 'Oh, another e-mail, I need to do this.'"

Student E and RQ1

Student E is a nineteen-year-old, White female. She has taken one online course at the community college and made an A. She was diagnosed at the age of eighteen-years-old with PTSD and Bipolar Disorder. Student E was friendly and open in her sharing of online courses. In the interview, she explains how having an online course mixed with the depression made the class challenging for her: "At home I would sometimes get depressed and so it was a challenge to find time to do the class online because I actually had to push myself versus having to go to school and be at school and focus." She confides, "At home was my escape place and it didn't help. So I would be depressed at home so I would have to push myself really hard to complete the classes. At home versus going to school where I had to go to class." Traditional in class

instruction is what she prefers mainly because she "had to be there for attendance."

Student E says telling her instructor about her disability was only done when she felt she had no other choice. She explains, "I didn't tell him and only did when I absolutely needed to." Going into more detail, she offers, "I don't like to be labeled or thought of differently because I have a disability. I like to be able to be treated like a general student and I don't like using my disability (pauses) I want to be treated equally even with a disability." She elaborates, "So it's hard for me to tell people about it, because I don't want to be labeled (pauses) to be put in this box or be treated differently. I want to be treated like everybody else." She confides, "I didn't tell him. I didn't tell him and only did when I absolutely needed to. And I absolutely needed to because I was taking medicine at a certain time at night and he would lecture online at night. And I would end up not hearing a lecture until later because as soon as I took my medicine, it would knock me out." Only when her grade was in jeopardy did she speak to the professor: "So I didn't tell him until it started affecting my grade and I had to tell. Otherwise I would've told him."

Student E and RQ2

Student E describes the online course's flexibility of due dates as a learning hindrance: "I think the openness of when the assignments were due was a hindrance." She explains, "If I don't have a deadline, I pushed it off to the end and deadlines were very important to me because if I had a deadline I would know that I need to do about this time and I do it early." However, with her online course everything was due by the end of the semester. This caused her problems: "But if I didn't have a deadline, I would just procrastinate."

Student E offers teachers some suggestions for teaching online course. The first one is to have annotated notes to go along with the PowerPoint presentations: "Make sure you have

annotated notes so that students can follow along with you because the just recorded stuff doesn't help necessary. And adding the words, help along with that like a transcript or something like that that they can follow along that helps." She goes on to add, based on her experience it would be advantageous for instructors to give deadlines for assignments. She suggests, teachers should "put deadlines. Once again back to deadlines. (We both laughed) So that students can complete work on time." Her next suggestion involves teacher generated resources. She says, teachers should "make sure you have extra resources on there that you don't necessarily have normally because extra resources (pauses). Like, I know that my teacher put up different things up on different disorders and put up slides that were extra slides and put notes that were with our notes and that helped a lot." Her last suggestion is for teachers to share the "Control F trick." This option allows students to search through documents for specific words or phrases. Student E used the function to help with online, open book tests. She explains, "And there's a really cool function that I learned that help me with all my online classes if you have notes you can do Control F and you can find certain words that are keywords in the questions and then you can refer back to it. Control F will put a search bar up and if you put keywords and press enter and it will find the keywords in your notes and in your reading. And I got most of my books online so I could use this. And when I had online questions with open book tests and I could if I could if the question was like one question was to do with bipolar. I could put 'bipolar' in the search bar and I could find all the 'bipolar' in the book and I could limit it to what I was looking at." She emphasized the importance of the "Control F" function at the end of our interview.

Student E and RQ3

Considering the UDL's framework, and focusing on Affective, Student E offers insight into online learning challenges: "At home I would sometimes get depressed and so it was a

challenge to find time to do the class online because I actually had to push myself versus having to go to school and be at school and focus." She did not share her disability with her instructor because as she says, "I don't like to be labeled or thought of differently because I have a disability. I like to be able to be treated like a general student and I don't like using my disability (pauses) I want to be treated equally even with a disability. So it's hard for me to tell people about it, because I don't want to be labeled (pauses) to be put in this box or be treated differently. I want to be treated like everybody else." Along with this, Student E reflects on how her personality may have also influenced her learning: "I was having issues with school as far as online classes and online assignments because I'm, I'm nitpicky and I like to have every single word memorized." She reached out to her fiancée's mother. His mother helped her by teaching Student E the "Control F" function. Social supports are important to this student.

Considering Recognition, Student E shares her thoughts: "What helped me the most was the book. And my teacher helped, he made help links with notes and that was very, very helpful. I was able to refer back to them when I took quizzes and when I would take quizzes online could refer back to those notes. I could remember what slide it was on and so I could say this slide was for this question and I was able to sort through the information better. The tests were open book." To other student's considering online courses she offers, "use your notes take notes when you're listening to online lectures or you are looking at videos and power points. Notes can really come in handy." She goes on to add, "Your book is can be your best friend you need to highlight and put notes in margin so they can refer back to your book on what the teacher has not covered. A teacher can't cover everything in the lecture." And of course, she recommends all students to use "Control F."

Also in the area of Recognition, Student E focuses in on what teaching techniques

teachers might find useful. Student E suggests, "Make sure you have annotated notes so that students can follow along with you because the just recorded stuff doesn't help necessary. And adding the words, help along with that like a transcript or something like that that they can follow along that helps." Her last recommendation for teachers is to "make sure you have extra resources on there that you don't necessarily have normally because extra resources (pauses) Like, I know that my teacher put up different things up on different disorders and put up slides that were extra slides and put notes that were with our notes and that helped a lot."

In the area of Strategy, Student E says she struggled with the online classes' loose deadlines, the lack of a formal attendance policy, and the time of day the lecture was broadcasted. She says of the loose deadlines for students to "make sure that even if you don't have deadlines make sure you have set guidelines for yourself." With regards to the lack of a formal attendance policy, she takes responsibility: "At home was my escape place and it didn't help. So I would be depressed at home so I would have to push myself really hard to complete the classes. At home versus going to school where I had to go to class." With traditional in-class courses, attendance is mandatory so she has had to attend classes: "I had to be there for attendance" which was part of her grade. The last area is the time of day she took the online course. For her, taking a night class online was particularly difficult: "I was taking medicine at a certain time at night and he would lecture online at night. And I would end up not hearing a lecture until later because as soon as I took my medicine, it would knock me out."

Student F and RQ1

Student F is a thirty three year old, community college student. He is a Caucasian male. The nature of his disability includes Dyslexia, Dysgraphia, PTSD, and Traumatic Brain Injury. He has taken two online classes at the community college; one he received an F and the other he

withdrew from. He is retaking both now in a traditional in-class setting and doing well in both. As the interview progresses, I find Student F to be passionate about his learning and open about his learning triumphs and challenges. He begins by explaining his frustration with the online instructors: "I have a need for understanding when I would e-mail the professor and take them a long time to get back to me and by the time they did get back to me the project was late while the date it was a day later and I lost a day to do what they were actually saying this is hard for me to figure out and focus." He shares, "I was thinking it had to be the professor or something like that. But hindsight right now is that I couldn't understand what was going on and this is an ongoing problem and all my classes." He declares, "I've ceased taking online classes because I can't get my head around it."

Student F speaks clearly and rapidly as he shares his online learning experience: "Everything is done to the guidelines to the left and the right that there's no criteria for, for someone who needs extra help because that makes it more strenuous on a teacher who always has a way of doing things online." For him the online class, in particular Blackboard, "was very, very challenging." He says for him, it "didn't matter how long I spent with that I couldn't understand it. When things were due, when and how things were due, the formatting." And when he did figure out the system he was behind: he explains, "by the time I figured out I was behind and I was always behind." He reiterates his struggle with time: "I spent a lot of time working on it and not a lot of time getting results."

Today, Student F is retaking both classes as traditional in-class courses and finding he is successful in both. He attributes his success to a change in strategy: "I'm actually doing things differently I'm actually progressing with the professor and figuring out things and when I have a problem it's not send an e-mail and wait for somebody get back with me." In the online course,

Student F would send an email, not speak directly to the instructor and then wait for a reply. This caused him much frustration and added to the confusion. He explains these feelings: With the online class, he would "send an e-mail and wait for somebody get back." Then he explains, "by the time I figure out what I'm supposed to do, the assignment date is over." He adds, with "the traumatic brain injury I might forget about when I'm supposed to do it or I'll check my e-mail and I'll read it and I would've forgot what I read and not have an immediate response and then all of a sudden it's like maybe three days later and I think 'My God, I forgot about that. I can't believe I forgot about that.'" He describes the feelings: "It's encapsulating. It's like being told to, to swim with no arms and no legs (pauses). Everyone else can swim so you should be able to. But without arms and legs I can't. That's what it felt like to me."

He is assertive about his learning. He says, "Everyone learns differently. But with a disability and everything else I found it's harder for me to learn." Yet he asserts, "if you have to come up with it on your own than I'm teaching myself. If I'm teaching myself, then why am I paying for somebody to teach it." When speaking about his disability, he slows his pace and pronounces, "I've never hid behind my disabilities. I try to be as upfront as I can because I found it's a it's a big problem to bring it up later wards."

Student F and RQ2

Student F believes in two-way communication between online instructors and their students. He has several suggestions for bettering teaching: "I guess one of the things I can think of is to have private blogger; a private blog where students could tell the teacher that they're struggling with something." Specifically he found "that if somebody else is struggling with that and someone else with a disability is really struggling with it. So maybe there's a place where they [students] could invisibly, they could say 'Hey I'm having a lot of problems with this and

with this question and this place.'" And it would give them [teachers] an understanding of what, what people are doing wrong." Likewise a blog could be "instant feedback, so they [teachers] could quickly change the problem." He continues with another idea for improvement: "And another thing would be (pauses) would be to the ability to actually (pauses) have and I know this might sound different but to have office hours where students could actually come in. And not just the hundred or 2000 miles away but maybe a visual conference time or, or maybe, just maybe a conference area." Ultimately, Student F believes it takes an open-minded and flexible instructor to teach online classes well. He says, "the final thing is the teacher themselves, they [need to] be the ones that are willing to work with people."

Student F also sees the present online testing procedure as challenging. He shares his experience, "we are trying to figure out how the test would work. How would I get someone to read the test for me that would be would available at a certain time and not and they wouldn't give me the answers and the professor would feel safe about. And then finding out all that information then actual applying it all." The testing procedure for Student F was frustrating and rather debilitating. It is an area he would like to see improved.

Teaching techniques that worked well for Student F included visual aids. He offers, "At any time with the class that the class has a video, a visual aide or something like than it is a little bit more helpful." He says with conviction, "I think I got romanced into the idea that I could work at my own pace." In fact, he found that online learning "was not my own pace, it was so very high, higher than my own pace." He looks for teachers who help students connect with the information "and not just say what this is, what I'm teaching and this is how I'm teaching and if you don't get it then then you don't get it." He feels "like some professors can be just like that if you don't understand law then tenant law is cut and dry. This is how has to be." He would rather

his professors do things differently: "But then there could be a professor that talks about law and you have, and they explain understanding adverse effects or how different laws affect different laws. They might break it down." It is important to Student F to find teachers "willing to do that, then teachers just, well wanting to teach to a criteria."

Student F and RQ3

Considering the UDL's framework, Student F's responses fit in each area. For Affective, Student F shares his online learning struggles. He says, "it was very, very challenging and didn't matter how long I spent with that I couldn't understand it." He was open and direct, "I think I got romanced into the idea that I could work at my own pace" when in fact, "it was not my own pace." Overall upon reflection of his online courses, he says, "I failed the other two online after I get shell-shocked and gun shy from actually taking anything online." He continues, "even as a hybrid I was very skeptical because I didn't know if I could do half in class and so I stayed as far away from online as I could."

In the area of Recognition, Student F believes visual aids with online classes can be helpful. He explains a class that "has a video, a visual aide or something like that, it is a little bit more helpful." He also believes testing for online classes should be reviewed. When he was taking the online class, he shares, "we are trying to figure out how the test would work. How would I get someone to read the test for me that would be would available at a certain time, and not, and they wouldn't give me the answers and the professor would feel safe about." It was challenging "finding out all that information than actually applying it."

For Strategy, Student F's responses were extensive. He shares, "The dyslexic portion was more, was more frustrating. I have a need for understanding when I would e-mail the professor and [it would] take them a long time to get back to me and by the time they did get back to me,

the project was late." He takes responsibility for his learning: "I was thinking it had to be the professor or something like that. But hindsight right now is that I couldn't understand what was going on and this is an ongoing problem." To date he has changed his view on online learning: "I've ceased taking online classes because I can't get my head around it."

Student F elaborates on his online learning, "There are 15 things do in the first week and then if you are just catching up and you get another 10 things due the next week and you go to your teacher and asked for an extension." The teacher says, "Well okay, I'll work with you." However, for Student F it then "becomes a matter of time when you're being so focused on and everything else I need to do and there's no way you can get ahead because while everybody else is doing their timeline." He found it hard to catchup and, for him it was "a problem for me to get ahead." This idea is elaborated on again later in the interview: "But, but still at the same time how classes have been taught or for me with the online curriculum--week one I'm behind. Week two, I'm behind. Week three, I'm behind and then by week four, it's been two weeks past when I can withdraw from the class and then I'm just at a loss." He changed his approach to retaking the courses: "I've taken some of these classes and am doing right now that I took online and I'm getting A's in. And its and it's a lot of the same stuff." He elaborates, "So I try to take everything in-class and now my sociology I got an A and psychology right now I'm getting an A. It's a lot of the same thing but at the same time, I'm actually doing things differently." He explains, "I'm actually progressing with the professor and figuring out things and when I have a problem it's not send an e-mail and wait for somebody get back with me. And by the time I figure out what I'm supposed to do, the assignment date is over." His pace increases as he describes, how "this is the traumatic brain injury. I might forget about when I'm supposed to do it or I'll check my e-mail and I'll read it and I would've forgot what I read and not have an immediate response and then all

of a sudden it's like maybe three days later and I think 'My God, I forgot about that. I can't believe I forgot about that.'" Eloquently he concludes, "It's encapsulating. It's like being told to, to swim with no arms and no legs (pauses). Everyone else can swim so you should be able to. But without arms and legs I can't. That's what it felt like to me."

In an attempt to express his ideas, he explains, "Everyone learns differently. But with a disability and everything else I found it's harder for me to learn just as you figure out the answer, somebody's helping me and says 'Hey this is a lecture portion, portion, this is what we're going over and you can build off that' and I can understand that." Yet with online, when one step is missed, Student F feels like the student has "to come up with it on your own." For him it is like he is teaching himself: "If I'm teaching myself, then why am I paying for somebody to teach it."

Student F generously offers ideas to help other students succeed with online classes: "One would be, know your limits. And when you get outside them, tell you professor about it." He talks about struggling with online learning: "If you are the one that knows that you are struggling and if you don't tell anybody and he gets away from you then it's harder to figure out what to do about it." Then the "third and final thing would be, I guess would be (pauses and thinks) having an open dialogue." He adds that "setting yourself a plan of action" so that the course does not "get away from you."

He believes communication between teacher and students is important: "I guess one of the things I can think of is to have private blogger; a private blog where students could tell the teacher that they're struggling with something or maybe the whole class is struggling with an assignment because I found that if somebody else is struggling with that and someone else with a disability is really struggling with it." He goes on to talk about a virtual place to communicate.

For students, it would offer "a place where they could invisibly, they could say 'Hey I'm having a lot of problems with this and with this question and this place.'" For teachers, it would "give them an understanding of what, what people are doing wrong and its instant feedback so they could quickly change the problem." On the same line, he adds, "I know this might sound different but to have office hours where students could actually come in." He expands the idea, "maybe a visual conference time or, or maybe, just maybe a conference area." He concludes with "I think that the third and final thing is the teacher themselves." The teachers, in his opinion, should "be the ones that are willing to work with people."

Student G and RQ1

Student G responded on the demographic survey that he has been diagnosed with ADHD (2001), PTSD (2008), DID (2012) and OCPD (2013). Before the interview began, Student G explained how he would answer some of the questions but Student H (an alter) would come forward and answer some of the other questions. For gender, male (Student G) and female (Student H) were answered. For age, forty-three years old (Student G) and thirty-five years old (Student H) were listed. Student G and Student H are Hispanic. Student G responded to the first four questions, Student H responded to the last five questions. Student G prepared me for the change in speakers. Student H took the online courses for Student G, so she discussed the online learning particulars, hence the pronoun change within the following text. Two online classes were taken. The first online course, a psychology course, was attempted but not passed. The second online class was another psychology class and for that class a C was earned. He reflects, "I failed one, due to my disabilities and I got a C in another one. And it was all due to complications of my disability."

In the interview questions one through four, Student G describes some of the positives

and the negatives of his online experiences. He reflects on the second psychology class: the online class "had a lot of well talked about a lot of emotions and the positive thing was that I was at home. That's the positive." He continues, "We felt more comfortable at home." Expanding on the positive, he offers, "Well I have the freedom to take breaks at my leisure." He adds, "I had the freedom to, if I wasn't particularly comfortable with a particular subject at that time, I could move ahead." Furthermore, he explains, "all the quizzes were available so I could take quizzes that were online even if they were a few chapters ahead of me. So that was flexible. But I think the best part was the freedom to take the time I needed although it was an accelerated course."

The negative side of online is vast. He begins, "acceleration was a challenge. It was a lot to do in a short amount of time. Taking two classes with two chapters really meant four chapters a week. And the nature of some of the topics were, were triggering." Student G offers clarification: "I would switch. There was information that triggered other alters that were not interested in taking the class." The switching also caused physical ailments. He says, "constantly switching causes a lot of stress to the body including severe headaches and, and then the, the trigger when one is triggered if Student G was out and another one was triggered and then Student H would need to come out. But it was harder for her to come out. She then bounced outside, so Student H [an alter] would have a hard time focusing." A sense of time and reality are also challenging. Student G reflects, "and then another problem was that with my condition is that, me the host, we come in to help but very common problem with people with the ideas that sometimes they confuse reality with being inside. That's what we call this. We call it the person goes inside." He offers an example, "a perfect example would be I thought I had done all my course work and I thought I had answered in the online discussions and I remembered participating, answering commenting, finishing quizzes. And my wife who, who always checks

up on me, she would ask me how much I had done. And I would say I had finished the quiz today and I finished this and that. And then it dawned on her that she should check and see. And then she realized I had not." He explains further, "I daydream a lot and sometimes I cannot, I can't distinguish between my daydreams and my reality and that was happening more so because of the stress that was going on and so I fell behind." He thought his disability accommodations would allow for more time. It did not work as he expected: "I thought I was going to be given more time because of my disability. I understood I had accommodations. So when I e-mailed my professor that, that I had not that I wasn't done that I needed more time then I needed more time" he was surprised by the professors' response. The professor said "he understood but what happened was the online access to our course was gone." Student G relays the situation with emotion, "Two days, I had it estimated that I needed two more days to finish my work. Including my final." He goes on to share, "So what happened was that access to the Blackboard was shut, was shut down because class ended but now I didn't have access and, and I was very upset." He reached out for clarity: "I tried for someone to understand me and that's when I got the response that I was given extra time. But I ended up failing one class with the work that I did, the quizzes and the tests I did, I got all A's." He describes his participation, "in the discussions that I did have very thorough and very challenging and I and I participated in almost every person's comments. Not just like a comment but sometimes it was opposing comments and challenges. But because of my disability because what I missed was both finals. And I also missed some quizzes because I really just thought I had done them." He tried to challenge the grade: he challenged "them and told them to look at the grades I gotten so far and I gotten this far with much of these grades and the discussions I participated in. I participated very well but they said they could do nothing about it. So what they did was withdraw me from the one so that the failed

[grade] wouldn't count against me." He had to show a doctor's note to get that action: "I had to get a letter from a therapist stating what it was, what I go through." Student G takes a long pause and says, "I don't have the same amount of time as everybody else."

By interview question number four, Student H comes out to expand on the online experience. She smiles and says, "I really liked the discussion board." She continues, "I like the discussion board because you could really get to know some of the students that you only had a name to connect." Connected to the social interaction is the appreciation of how the discussion boards could ignite an intellectual exchange of ideas: "And when they had discussions you could tell who was just agreeing and you could tell who was really having an opinion. And we are and who really put some thought into it and who did a little extra research which is what I like to do. I not only quoted the book a lot but I went outside the book. And I love to search scholarly documents that I quoted." She offers, "I love a challenge so I would challenge some of the students that were so sure about what they were saying and I knew they were just trying to be assertive. And so I would challenge them with questions that they couldn't respond to." She enjoyed the academic banter: "I was really challenging them [peers] with different ideas and that was fun."

A challenge found with online learning was with medications. Student H explains in terms of a traditional class, "I have a medicine that contradicts my day medicine. I get pills that tell me go to sleep because I suffer from insomnia and from the PTSD and tries to reduce the amount I get. So that knocks me out. But I have an eight o'clock class. So now what I have to do is struggle getting up. I get up, I take my Adderall, Adderall for ADHD to pump me up but I'm always kind of running late for class." For a traditional classroom based course, she thinks that "one of the accommodations should be you [the teacher] should be understanding that that this

gentleman this is under sometimes under medication that will cause them to be late." Then applicable to both traditional and online courses, the professor should realize that the student's medicine may make them "moody or depressed." For them it is complicated because she may not be able to come forward to do the class: "I'm not able to be in the class." Instead she explains, "Student G [host] is in the class but Student G [host] doesn't know what's going on because he has never been to class." With online and traditional classes this can be challenging. She continues, because she was not in class "I don't know what's going on. He's just, they are doing the best he can by taking notes. Everyone notices why hasn't Student H [alter] been participating? Because I'm the complete opposite. I am I'm like 'Hi!' kissing everybody; even the guys are comfortable with me. One day Student G [host] went to class and everybody was like staring at him and he told me this later and he said that when she called on him the teacher said 'Are you Student H [an alter]?' And he said 'No, I'm Student G [host].'" Student G continues, "a girl then said, 'I knew it wasn't Student H [an alter]! Student H [an alter] always says sorry, I'm late.'" Student G concludes, "It [the identity difference] is just obvious sometimes."

Connected to medication implications is the overall idea of complications that come with psychological diagnosis and then comes the challenge of finding applicable disability accommodations: "I printed out all the documents for people with disabilities and all that they do is list the accommodations." Then it is "up to the discretion" of the specialist if a person qualifies. With DID, she explains, there is not a "psychiatrist in the world that would diagnose someone with DID" quickly, it takes time. From Student G's experience it is a long process: "It takes a long time for someone professional to give someone that diagnosis. So someone suffering from that and doesn't have a diagnosis, he can't prove that he's going through that. But fortunately PTSD does have some accommodations." So in this student's experience, the

diagnosis of PTSD seemed to offer accommodations quicker than having to wait for the DID accommodations.

When Student H is asked about her interactions with the professor and whether she let the professor know about the disability, she says, "Well I was comfortable, as Student H [an alter]. Student G[host] was not the one who communicated that because he's had bad experiences before." Student G does not share the disability. However, Student H is comfortable talking with her professors. Student H clarifies, "I let Dr. E [not his real name] know. He [Student G, the host] didn't but I did. And he was an instructor for both classes. And now I have him for an on-campus class so he knew me." In the case of online courses, Student H explains that Student G "was planning on taking the class himself but for one reason or another I was put out in front of the class." She goes on to exclaim, "And I loved it."

Student G and RQ2

Student H would like online professors to offer more information to their students. She enjoyed having the course "assignments in the syllabus" and "all within Blackboard" to reference throughout the online course. However, she feels not enough resources were offered. She emphasizes the importance of sharing resources: "Letting people know, letting anybody know that, that anyone with a disability that there is the E-book and the online access. Because to be honest with you, the tutoring that we have online does not even have psychology support." After trying to find resources herself, she learned later that the book and EBook could be downloaded and students could have "access to publisher and the publisher's website." She goes on to explain, "I understand they also have practice quizzes and I think because I was creating my own flashcards and that takes time, so time is the biggest factor for us." If she had known about the resources, she would not have had to create her own flashcards and that would have

saved time: she shares, "we're not all, we're not out all the time. So the fact that I had to create my own flashcards" took a lot of extra time. She speaks quickly, "now I know to insist on getting the entire package like with that Abnormal Psychology class. It has My Psych Lab. And if you go there, they have cue cards and quizzes and they'll tell you how, how, your rating on knowledge of Chapter 1 and you take a quiz and so far you know 50% of the content of Chapter 1 and I would bench mark 100% of [what] Chapter 1 has to say." So from now on, she plans on "taking advantage" of those resources. In fact, Student H says, "I'm already looking into that for the next two classes so that I can make sure I have it all."

Student H is empathetic to all students considering online courses: "The people that choose to do online courses are not all, they don't all have disabilities." She goes on to offer professors some ideas to consider: she says, "I think that Dr. E [name omitted] was a great instructor. I would rate him very high." However, she does have some suggestions: "The only thing I need to add is that if he [the professor] knows that there are students with disabilities" then the professor should "think specifically about the disorder that they may need more accommodations." Student H continues, "In my situation, he was willing to give me more time" but because the IT department close access to the discussion board extra time was not given. Student H feels, "I didn't have more time." She did not have access to the work so in her words, "That's what caused me to fail. I wasn't able to submit my work because I had to submit it online." Ultimately, the combination of a lack of access and a lack of an extended due date added to the student's frustration and both played a part in the final grade.

Adding to this student's technical difficulties was the online professor's perceived lack of technological understanding: "I think that if you're going to be an online instructor you should know how to use the Blackboard." From this student's experience, the online professor used

class discussions via e-mail. Student H contends, "he [the professor] absolutely 100% admitted that he didn't know how to use Blackboard and he preferred e-mail. But then when he figured out how to use Blackboard, then he was raving about it." She reflects on the scenario, "So if he [the professor] had known about it at the beginning, then we would've all been in the loop. And I believe that there were students protesting 'Why don't we use discussion board because its better.'" As a tool, she believes discussion boards via Blackboard are important to track usage: "The discussion board shows how many responses each student has, how many times they interact with, how many words they used in the interactions and that's what I was telling you when you are able to see my participation I had a lot of participation."

Connected to Student H's perception of teaching techniques, she veers away from the online instruction and speaks in about social interactions. In regards to online learning, Student H focuses on the interaction between herself and the Special Services Coordinator. She explains, "I have a tremendous amount of respect and appreciation to the disability coordinator [name omitted]. Because he's very open and he's very understanding." The connection is deep, because as she explains, the coordinator has "been there when I've had issues." Student G offers an example, "when I was having issues on the way I was dressing (pauses) I wanted to dress more like I felt so Student G's wife [name removed/significant other] was like 'The fact that you're wearing girl jeans and a girl shirt and jewelry and necklaces and all that stuff is enough.'" Student H smiles, "You know that I was not happy." Then she continues, "I went to talk to the special services coordinator [name removed] about it and he said that I don't have to, but it is something personal that you have to discuss." Student H explains that the coordinator "said if you were to dress that way it doesn't matter; there are a lot of guys that dress feminine. And even if you came with the most stunning clothes, it doesn't matter: People won't say nothing. They

won't judge you. It is not that big of a deal, he said." Smiling she explains that the coordinator said "if you really look around you see there are people around that act flamboyant and it, it's okay." Then she shares, "it made Student G [host] feel better. And he made me feel better. And I appreciated that he made me feel better." She goes deeper: "He respects that Student G [host] is Student G [host]. And he respects that another alter [name omitted] is another alter [name omitted], a completely different personality. And he respects me [Student H, an alter] as me and he treats each one of us with respect and I want to acknowledge that."

Student G and RQ3

Considering the UDL framework, all the areas are represented within Student G's interview. Student G's responses reflect the personal struggle of online learning along with the emotional ups and downs connected to the learning. Connected to DID, the student explains that "because of my disability, I was (pauses) I would switch. There was information that triggered other alters that were not interested in taking the class and constantly switching causes a lot of stress to the body including severe headaches." Then the physical pain could cause a trigger which would lead to alters coming out: "If Student H [an alter] was out and another one was triggered and then Student G [host] would need to come out. But it was harder for her to come out." When she did come out, she "would have a hard time focusing."

Also under Affective, Student H shares her view on the how the professor should be understanding of the switching as part of the disability. She says, "be understanding that, that this gentleman is under, sometimes under, medication that will cause them to be late or moody or depressed." And then other times, because of the disability, she emphasizes, "Student G [host] is in the class but Student G [host] doesn't know what's going on because he has never been to class."

Social interaction is an important piece in this interview. Student H suggests the importance of having a significant other to check up on academic progress. She offers, "make sure that a significant other is checking up on you; making sure that the projects that someone else is doing the projects and making a commitment to make a contract with someone that they will check up." She connects it back to her situation, "that's the kind of commitment that I have with my significant other." Her significant other is important to academic success; she says her significant other "makes sure that I'm up-to-date. Because sometimes you might think you're okay but you're not."

Likewise, Student H's description of the Special Services Coordinator accentuates the importance of positive social interactions: "I have a tremendous amount of respect and appreciation to the disability coordinator [name omitted]. Because he's very open and he's very understanding." Student H explains that the coordinator "said if you were to dress that way it doesn't matter; there are a lot of guys that dress feminine. And even if you came with the most stunning clothes, it doesn't matter: People won't say nothing. They won't judge you. It is not that big of a deal, he said." Smiling she explains that the coordinator said "if you really look around you see there are people around that act flamboyant and it, it's okay." Then she shares, "it made Student G [host] feel better. And he made me feel better. And I appreciated that he made me feel better." She goes deeper: "He [coordinator] respects that Student G [host] is the Student G [host]. And he respects that another alter [name omitted] is another alter [name omitted], a completely different personality. And he respects me as me and he treats each one of us with respect and I want to acknowledge that."

In the area of Recognition, Student G answers IQ3. In his answer, he talks about how the online course access was taken down before he could complete the course work. Reflecting, he

says, "the online access to our course was gone. Two days, I had it estimated that I needed two more days to finish my work, including my final. So what happened was that access to the blackboard was shut, was shut down because class ended, but now I didn't have access."

Also in the area of Recognition, Student H discusses the importance of online resources. Student H insists how important it is to get the resources out to students: "Letting people know, letting anybody know that, that anyone with a disability that they that there is the E-book and the online access because to be honest with you the tutoring that we have online does not even have psychology support." Also important to this student is the use of Project Timeline: "I use an app called Project Timeline and the very first time you get your syllabus with your work schedule, schedule your entire syllabus assignments onto the project timeline which gives you the beginning dates and due dates." And finally, Student G feels it is essential for the online professor to understand the online student's disability. Specifically, if the professor "knows that there are students with disabilities" then the professor should "think specifically about the disorder that they [students] may need more accommodations" than what other students may need. In this student's case, the professor "was willing to give me more time but the discussion board for the Blackboard" was closed when the class ended. The accommodation was, in this student's opinion, not met: "So I didn't have more time."

In the area of Strategy, this student explains, "all the quizzes were available so I could take quizzes that were online even if they were a few chapters ahead of me. So that was flexible. But I think the best part was the freedom to take the time I needed although it was an accelerated course." In his opinion, the negative side of online is vast. He begins, "acceleration was a challenge. It was a lot to do in a short amount of time. Taking two classes with two chapters really meant four chapters a week. And the nature of some of the topics were, were triggering."

A sense of time and reality are also challenging. Student G reflects, "And then another problem was that with my condition is that, me the host, we come in to help but very common problem with people with the ideas that sometimes they confuse reality with being inside. That's what we call this. We call it the person goes inside." He offers an example, "I thought I had done all my course work and I thought I had answered in the online discussions and I remembered participating, answering commenting, finishing quizzes. And my wife who, who always checks up on me, she would ask me how much I had done. And I would say I had finished the quiz today and I finished this and that. And then it dawned on her that she should check and see. And then she realized I had not." He explains further, "I daydream a lot and sometimes I cannot, I can't distinguish between my daydreams and my reality and that was happening more so because of the stress that was going on and so I fell behind."

Table 2 Research Questions and Exemplar Responses

This section offers Table 2, a visual representation connecting the research questions with a sampling of the participants' responses. This study was guided by the following research questions:

1. What are the experiences of community college students with diagnosable psychological disorders in online classes?
2. How do community college students with diagnosable psychological disorders perceive teaching techniques in online courses?
3. Does the Universal Design for Learning (UDL) framework offer a model to develop flexible teaching practices for community college students with diagnosable psychological disorders?

Table 2 Research Questions and Exemplar Responses

Research Question	Key Quality	Exemplar Responses
What are the experiences of community college students with diagnosable psychological disorders in online classes?	Online Learning Experiences	Student A (ADHA): "I thought online classes would be easy. But they are not." Online learning for him is harder than traditional course: "It's tougher." He has "to read, read twice as much." Student B (OCD) & Student C (Depression) feel having "things written down" in one place and being able to go back and check when they were not "sure about an assignment" or "directions" in one place were all helpful. Student D (Borderline Personality Disorder) concurs but believes her psychological disabilities make online learning "difficult" and she "struggles" with motivation. Students E (Bipolar Disorder), F (PTSD), & G (DID) share Student D's reflection. They describe online learning as a real "challenge," "encapsulating," and "frustrating."

How do community college students with diagnosable psychological disorders perceive teaching techniques in online courses?	Teaching Techniques	Student A (ADHD) would like "more feedback" about his grades and wants "to get to know" his instructor and his peers. Student B (OCD) would like the online instructors to "get back" with him quickly. Students C (Depression) & D (Borderline Personality Disorder) would like online instructors to "be there" for their students and would like "one-on-one or face-to face opportunities" with instructors. Student D (Borderline Personality) & Student H (DID) find up-to-date "links to videos" helpful. However when online instructors do not keep the "links" current or if the instructor does not "use" the technology correctly, they are "frustrated." Student E (Bipolar Disorder) finds the "openness" of online course work's due dates hindering. She, like other participants, struggles with an inclination to "procrastinate" and an inability to "mange time" effectively.

Does the Universal Design for Learning (UD^{T}) framework offer a model to develop flexible teaching practices for community college students with diagnosable psychological disorders?	UDL Affective (emotional deposits and reactions), Recognition (what helps and what does not), & Strategy (how we learn and how we progress academically)	Affective: Positive emotion towards instructor/ students interactions includes getting to "know" the instructor and opportunities to "see" them. Negative emotion towards self-disclosure includes being concerned about being "judged" and being afraid of being made to "feel like you're not smart enough." Also repeated is the feeling of lacking but desiring mutual "respect." Recognition: Having "things written down" seems helpful to participants. Having "up-to-date video links and personal videos" and "a visual aid" also seems important. Open-book tests are mentioned as well as untimed tests and the ability to retake tests are said to be helpful. Strategy: A sense of "time" and a sense of "reality" are challenging and are connected to symptoms of their psychological disorders. Running "out of hours" to get assignments done is a concern and a feeling of needing to "fight twice as hard" to learn via online instruction is repeated.

Interconnectedness between Interviewees

Within the seven participants' interviews, several interesting common themes surfaced. These themes are represented in Table 3. Also, while these themes were not expanded upon in every participant's interview, each was referenced, at least briefly, in all. The three major themes were:

1. Personal connections,
2. Issues with time, and
3. Apprehension about self-disclosing their disability to online instructors.

The interview questions laid the foundation for these reflections. Specifically, IQ6, IQ7, IQ8, and IQ9 offered these results. This section ends with a summary (Table 3) connecting the three themes with exemplar responses.

Personal Connection

The common theme of personal connection between the online student and their online professor is reflected throughout the interviews. Student A suggests, "I think it's important for teachers to be open and evaluate the students and see where we are in our lot in life. And if they're teaching someone who's 35 might be different from teaching someone who's 18 or so." He goes on to say, "I'm from the old school where always a hand-shake and knowing where people stand, meeting people face-to-face and, and the pen is mightier than the sword (pauses) and/or the pen is mightier than computer. (We both laugh.)" For Student A having the instructor respond to him is important: "It's important to me that the teacher gets back to me that she gets back to me no matter when it is. She gets back to me whenever I send her an e-mail." He feels like he has to work twice as hard as his peers because of his disability and the connection with his instructor is helpful to his learning. He says, "I have to read, read twice as much. I have to

read things more than once. The book or whatever information I need, I have to have an online dialogue with the professor, but it's nothing like the personal interaction for me because I'm a hands-on learning learner and I process things with verbally seeing and hearing what the professor is saying. So it [communicating with the online professor] took some time to get used to." He would like online instructors to reach out to their students. A process that could work both ways: "I like to know where you stand and not beating around the bush. So I would definitely appreciate more, you know, feedback grade wise. Maybe find out, find out exactly what I'm trying to accomplish, see what I'm doing, what brings me to this class would help at the beginning." Passionately he continues, "I would send abroad e-mail about saying 'Hey. How you doing? How are things going? Any questions you have?'" He emphasizes, "I want reassuring about the grade, especially at this stage of the game in college and where I'm trying to achieve something. And it would be nice to know something about our progress to know our progress is being noted." He would like for online instructors to consider having some sort of face-to-face interaction with their students: "I don't if you guys are allowed to (pauses) but there may be a session where we could have. Well, we could have some treats or getting a little time together at the library to just make sure we're all on the same page. [A time] so we see each other's face." He would personal and perhaps face-to-face "interaction at the beginning of the semester" and "throughout the semester."

Student B speaks directly and concisely. He suggests online instructors like traditional instructors should, "Always check your e-mail and get back to us." In his experience with online learning, his teachers were always helpful: "All the teachers [online instructors] I had were helpful towards me." He adds, online teachers should be flexible with their interactions and should "let students ask questions and ask for extra time on assignments."

Personal contact with her instructors is important to Student C. She explains, "not being able to physically talk to someone like with my accounting class was really difficult." Even with her medical working experience "the medical terminology class" was difficult because, for her, "not having direct contact" with the online instructor was "a problem."

Like Student A, Student D would like online instructors to give their students the opportunity for face-to-face interactions. She says, "I wish my instructor would have classes or opportunities for me to have one-on-one or face-to-face opportunities. Especially with a disability, to go over things that I am not getting or maybe just the opportunity, even if you don't have a disability." Beyond face-to-face interactions, Student D would like to get to know her online instructors. She explains "that person is more than a title." It is important to here that instructors "have emotions and feelings like any human." She suggests, "Maybe have a video of yourself so they can see who you are and how your attitude is. Yes instead of just saying or seeing that guy sitting there drinking their cup of tea take, then we see him reach up and chase it's the cat (we both laughed) or something that makes you human. So I think video helps show emotions. Or you can insert a smiley or something (pauses) so you're joking and you don't want to say you're joking, you can just put a smiley at the end of it, so you know, I think it (a personal connection) does help." She also suggests for online instructors to "have frequent contact with your students to make sure they know who you are; what you are expecting and so they know you exist. Because if you put yourself out there they can't ignore it. And you'll send an e-mail and they'll think 'oh another e-mail, I need to do this.'"

Student E did not directly speak about personal connections. She did talk about her struggles with her disability and the idea of not wanting to be labeled. When asked about the nature of her disability (IQ1) she says directly, "I have PTSD and Bipolar II, the worst one."

Throughout the interview, she veered away from peer and teacher interactions. Instead, she spoke about specific technical techniques of online learning. In her discussion about IQ6, she does share her desire to not stand out in a class and her desire "to be treated like everybody else."

Student F suggests for teachers to seek ways to connect with their online students. He thinks teachers using a private blog to talk with students might help: he says, "a private blog where students could tell the teacher that they're struggling with something or maybe the whole class is struggling with an assignment because I found that if somebody else is struggling with that and someone else with a disability is really struggling with it. So maybe there's a place where they [students] could invisibly, they could say 'hey I'm having a lot of problems with this and with this question and this plac[illegible]d it will give them an understanding of what people are doing wrong." He thinks this would give teachers "instant feedback so they could quickly change the problem." He continues along the same thought, "another thing would be (pauses) would be to have the ability to actually (pauses) and I know this might sound different but to have office hours where students could actually come in." If not office face-to-face time like a traditional course, then "maybe a visual conference time or maybe, just maybe a conference area." He speaks directly to the idea that online learning needs to have an interpersonal connection piece between student and professor. He says with conviction, "if you have to come up with it on your own, than I'm teaching myself. If I'm teaching myself, then why am I paying for somebody to teach it."

Student G talks about the importance of connecting with online peers and the importance of his significant other in helping him kept track of due dates. As we started into IQ4, Student G switched to Student H. The process went as follows: I ask IQ4 and he responds, "I really liked the discussion board. (Alter comes forward.) I've kind of been listening in. (We laugh. She

changes positions and smiles more.) My name is Student H [an alter]." I say, "Hi, Student H. Thank you for coming and interviewing with me." Student H continues, "I like the discussion board because you could really get to know some of the students that you only had a name to connect." She goes on to explain how much she enjoyed the discussion boards: "And when they had discussions you could tell who was just agreeing and you could tell who was really having an opinion. And we are and who really put some thought into it and he did a little extra research which is what I like to do." The social connection seems to be also an intellectual opportunity for Student G to shine: "I love a challenge so I would challenge some of the students that were so sure about what they were saying and I knew they were just trying to be assertive. And so I would challenge them with questions that they couldn't respond to. Or when they were to respond because they would think it was... it just makes perfect sense but in reality I was really challenging them with different ideas and that was fun." Student H stays for the remainder of the interview.

While Student H does not talk about her online instructors' connection to herself or her peers, she does talk about the importance of personal respect with the Special Services Coordinator. She says "he's very open and he's very understanding." With passion she relays her feelings: the Special Services Coordinator "said if you [Student H] were to dress that way it doesn't matter; there are a lot of guys that dress feminine. And even if you came with the most stunning clothes, it doesn't matter. People won't say nothing. They won't judge you. It is not that big of a deal, he said. He said if you really look around you see their people around that act flamboyant and it, it's okay. And it made Student G [host] feel better. And he made me feel better. And I appreciated that he made me feel better." She smiles and continues, the Special Services Coordinator "respects that Student G [host] is the Student G [host]." Then she adds, the

Special Services Coordinator "respects me as me and he treats each one of us with respect and I want to acknowledge that.

Issues with Time

Student A reflects time management concerns: "For me I think it would be easier to have class [traditional face-to-face] but I had to go online because I ran out of hours; you with me. That's what brought me, to force my hand, to do online classes. But I'm not, but I'm not, I'm not complaining, alright, and I just mean it's only because, believe me, I'm thinking the average student would be willing to put the 40-45 hours just on school alone, you with me, is not even counting that that our time in class is another job. If I'm going to make this work, for me especially with ADHD, and other stuff and I have to fight twice as hard." The problem revolves around his disability. He explains, "My attention span is short sometimes. And I get nervous when things are due and so there's a lot of other things that are in play that activate my anxiety, with dealing with the online."

Having enough time for assignments is a concern for Student B. He suggests that teachers "add additional time so some students would have a better understanding of the assignments. And, and post notes that you know could help." With his disability, Student B feels having time to go back and review assignment directions multiple times was helpful. He explains, "The good thing about it is that if I wasn't sure about assignment, it was mostly on Blackboard."

Online classes were good for Student C because, like Student B, Blackboard offered a central place with written directions. She explains, "Having things written down where I can see them every day and look at I mean that's for everything as long as I can look at it I do a lot better if I don't then I'm horrible at it. That was one good thing, everything was always written down everything was written down as I had any questions they were always written down in the

responses written down." She continues, "Having to write out what needed to be what went in the right place without having someone to show me, I had a hard time with that with an accounting class. Yes, I remember that was one I had a hard time with. If I could watch him do the problem, then I could follow what they said but online I wasn't able to do that and it made it difficult." Student C expands this idea of time to include her own time management skills: "Things would be happening at home (pauses) and in my classes on campus, I know I can go to, but when they're at home it's almost like there's something else at home pulling you away." This is problematic for her because, as she explains, "Online classes take more attention."

Distractions were problematic for Student D as she took online courses. She suggests that online learners should "make sure you have a designated area for your course like to have a quiet space where you're not to be distracted. And you are not to be distracted by people going by. Like, go to the library or go to the corner of your room or something else in the middle the hall hallway where people can be coming by." With her psychological disability and online learning, she offers, "I always had to get extensions and that was probably my primary issue. And then there were days when, with the depressive disorder, when I just didn't feel like doing anything." Time management played a further role, "not having that requirement to get up and go to school" made it difficult for her to self-motivate. She admits, "self-paced was not very good in that mode [depressive state]." She ends with a suggestion for students like her, "If you just walk into an online class course and you don't have any sense of time management or know how to respond, how you respond to it, then you're pretty much are going to struggle, especially if you have a disability."

Student E mentions time and time management several times in her interview. She shares, "At home I would sometimes get depressed and so it was a challenge to find time to do

the class online because I actually had to push myself versus having to go to school and be at school and focus." She does not like the openness of deadlines offered in some online classes: "I think the openness of when the assignments were due was a hindrance. If I don't have a deadline, I pushed it off to the end and deadlines were very important to me because if I had a deadline I would know that I need to do about this time and I do it early. But if I didn't have a deadline, I would just procrastinate." She directs a suggestion to students, "make sure that even if you don't have deadlines make sure you have set guidelines for yourself. That way you're always doing work not is not last-minute." Likewise, she suggests for teachers to "if you can, put deadlines. Once again back to deadlines. (We both laughed) So that students can complete work on time."

Time is a challenge for Student F in online and traditional course. He talks about time management and he speaks about time having a different dimension than for other students. Specifically with online classes, he explains his frustration, "The dyslexic portion was more, was more frustrating." When he would have questions, he would email the online professor, but he explains it would "take them a long time to get back to me and by the time they did get back to me the project was late." So in essence, he feels he "lost a day to do what they were actually saying" and made it hard on him "to figure out and focus." He continues, "I was thinking it had to be the professor or something like that. But hindsight right now is that I couldn't understand what was going on and this is an ongoing problem and all my classes. But I'm in so, I've ceased taking online classes because I can't get my head around it." He speaks rapidly as he explains, online learning "was very, very challenging, it didn't matter how long I spent... I couldn't understand it. When things were due, when and how things were due, the formatting but I needed some other sources and by the time I figured out I was behind and I was always behind." He gets more specific: "There are15 things do in the first week and then, if you are just catching up, you

get another 10 things due the next week and you go to your teacher and asked for an extension" She may say, "' Well okay, I'll work with you." But for Student F, it then "becomes a matter of time when you're being so focused on and everything else I need to do and there's no way you can get ahead because while everybody else is doing their timeline it's been a problem for me to get ahead." He talks quickly and says, "by the time I figure out what I'm supposed to do, the assignment date is over. And this is the traumatic brain injury (pauses) I might forget about when I'm supposed to do it or I'll check my e-mail and I'll read it and I would've forgot what I read and not have an immediate response and then all of a sudden it's like maybe three days later and I think 'My God, I forgot about that. I can't believe I forgot about that.'" He says calmly, "It's [online learning] encapsulating. It's like being told to, to swim with no arms and no legs (pauses). Everyone else can swim so you should be able to. But without arms and legs I can't."

Like other participants, Student G deals with medication for the PTSD that inhibits him. Student H explains, "I have a medicine that contradicts my day medicine. I get to pills that tell me go to sleep because I suffer from insomnia and from the PTSD and tries to reduce the amount I get. So that knocks me out." The medication can cause the student to be "moody or depressed" but more regularly, causes the student to be late for class. With DID, the student explains how the stress from the online class could cause him to "switch." He explains, "There was information that triggered other alters that were not interested in taking the class and constantly switching causes a lot of stress to the body including severe headaches" and "then another one was triggered and then Student H [an alter] would need to come out. But it was harder for her to come out. She then bounced outside, so Student H [an alter] would have a hard time focusing."

Also connected with DID is the separation of learning between alters. He explains, "another problem was that with my condition is that, me the host, we come in to help but a very

common problem with people with the ideas that sometimes they confuse reality with being inside. That's what we call this. We call it the person goes inside." He continues, "a perfect example would be I thought I had done all my course work and I thought I had answered in the online discussions and I remembered participating, answering commenting, finishing quizzes. And my wife who, who always checks up on me, she would ask me how much I had done. And I would say I had finished the quiz today and I finished this and that. And then it dawned on her that she should check and see. And then she realized I had not." He expands, "I daydream a lot and sometimes I cannot, I can't distinguish between my daydreams and my reality and that was happening more so because of the stress that was going on and so I fell behind." The problem expands, "I thought I was going to be given more time because of my disability. I understood I had accommodations." However, when he emailed his professor that he needed more time, the professor said IT had already taken down the availability. He said plainly, "I don't have the same amount of time as everybody else." He has adapted: "I use an app called Project Timeline and the very first time you get your syllabus with your work schedule, schedule your entire syllabus assignments onto the project timeline which gives you the beginning dates and due dates." Likewise, Student G depends on his significant other. Student H suggests to other students to, "make sure that a significant other is checking up on you making sure that the projects that someone else is doing the projects and making a commitment to make a contract with someone that they will check up." She says, "that's the kind of commitment that I have with my significant other ...to make sure that I'm up-to-date. Because sometimes you might think you're okay but you're not."

Apprehension about Self-disclosing Disability

Student A explains his reasons for resisting online classes, "This is my first semester for

taking online classes. Only because I didn't believe I could do it. In my ignorance I believed what people were telling me." When asked IQ6 about whether he disclosed his psychological disability to his online instructor, Student A leaned forward and spoke with intensity, "No! No ma'am, I have not." He pauses, smiles, and adds, "And she didn't ask." He continues, "I apologize, but she didn't ask. You got understand (animated and passionately says) when you're dealing with some new certain issues, in my past experience, people like will hold stuff against you and will pass judgment and they (pauses) and things like that and so you definitely don't want to, especially someone that you are getting to know does not see you, you don't want to divulge that information. It is hard to explain. You're (speaking to me) on the inside, (pauses briefly) trying to understand. And I'm from the outside looking in and it's hard."

Student B told his online English instructor about his disability only when he had to. He explains, "if I need additional time then I would tell the teacher about my short-term memory and I could take additional time for tests." For his automotive course, he did not need extra time so he did not disclose his disability.

Like Student A, Student C, shares that telling her online instructor about her disability was based on her past experience with instructors and peers: "I've had people make me feel like I am not very smart and that when I move on to other classes I realize it's not, it is not them. Don't let them make you feel like you're a bad person or a stupid person. Not able to do (pauses) it is not true." She explains her stance on telling her online instructors, "I have a hard time I guess talking to people." She goes on, "some professors are willing to work with me for some things but I just usually, I just usually stop talking." In her online experience, she says, "I didn't talk to him about anything." She was just not comfortable sharing her disability: "I didn't talk to him about personal stuff and I just did not I didn't feel comfortable with that." Later she returns to the

idea of how her past experiences play into her decisions to self-disclose, "I've had instructors that I ask questions and it's like I'm a bother. And then when they, when they treat you like that, it's hard to say anything. I know that one of have problems with that they, they push so hard and you don't want to go talk to them because it just makes you feel like you're a horrible person."

When asked if she disclosed her disability to her online instructor, Student D explains, "I think I just told her in general that it was a disability, because I'm afraid of being judged." She then speaks of specific program concerns: "Especially in the nursing program I know I noticed, like you hear something and you have to report the situation. I don't want them to be like 'she's in the RN program' and you know without them actually knowing or giving me a fair shot without knowing me." She continues, "before knowing my diagnosis since (pauses) I might get booted or something." She continues, "I was nervous" about sharing her disability because in the nursing program "they do know what I'm talking about" and the program instructors "may see it as a negative." She finishes with "It's better if someone comes with an open mind."

Student E seemed hesitant to discuss her openness towards telling her online instructor about her psychological disability. Bluntly she says, "I didn't tell him." She takes a long pause and goes on, "I didn't tell him and only did when I absolutely needed to. And I absolutely needed to because I was taking medicine at a certain time at night and he would lecture online at night. And I would end up not hearing a lecture until later because as soon as I took my medicine, it would knock me out." She talks quickly, "So I didn't tell him until it started affecting my grade and I had to tell. Otherwise I would've told him." As if to attempt to explain, she shares, "I don't like to be labeled or thought of differently because I have a disability. I like to be able to be treated like a general student and I don't like using my disability (pauses) I want to be treated equally even with a disability. So it's hard for me to tell people about it, because I don't want to

be labeled (pauses) to be put in this box or be treated differently. I want to be treated like everybody else."

Student F has learned, from past bad experiences, to be upfront about his psychological disabilities. His experiences reflect negative results when he has not been forthright. He says of his online learning, "I've never hid behind my disabilities. I try to be as upfront as I can because I found it's a, it's a big problem to bring it up later wards." He has found that "even with their knowledge of my disability and their willingness to work with me it's still (pauses) we were trying to figure it out things and ...it was like reinventing the wheel."

For Student G, discussing the disabilities with instructors can be challenging. Student H tries to explain, "Well I was comfortable, as Student H [an alter]. Student G [host] was not the one who communicated that because he's had bad experiences before." She goes on to detail, "he [Student G, the host] doesn't, he was planning on taking the class himself but for one reason or another I was put out in front of the class. And I loved it! And I took the class and kind of out of his control." She offers, "I took his 10th and 11th grade (pauses) I did 10th and 11th grade for him." She goes on to describe the first online class: "I let Dr. E [not the professor's real name] know. He [Student G, the host] didn't but I did." From this exchange, it seems Student H, an alter, is comfortable talking about the psychological disorder; however, Student G, the host, is not.

Table 3 Three Major Themes Representing Interconnectedness

The next section offers a visual representation. In Table 3 the three major themes representing the interconnectedness of data are presented. Also included in Table 3 are exemplar responses.

Table 3 Three Major Themes Representing Interconnectedness

Theme	Key Quality	Exemplar Responses
Personal Connection	Interpersonal Connections	Student A (ADHD): "it's nothing like the personal interaction for me because I'm a hands-on learning learner and I process things with verbally seeing and hearing what the professor is saying." Student D (Borderline Personality Disorder): "I wish my instructor would have...opportunities for me to have one-on-one or face-to-face opportunities. Especially with a disability, to go over things that I am not getting or maybe just the opportunity, even if you don't have a disability." Student F (PTSD): "I found that if somebody else is struggling...someone else with a disability is really struggling...another thing would be (pauses) would be to have the ability to actually (pauses) and I know this might sound different but to have office hours where students could actually come in."

Issues with Time	Time Management & Disability Driven Learning Needs Related to Time	Student E (Bipolar Disorder): "At home I would sometimes get depressed and so it was a challenge to find time to do the class online because I actually had to push myself versus having to go to school and be at school and focus." Student F (PTSD): "I might forget about when I'm supposed to do it or I'll check my e-mail and I'll read it and I would've forgot what I read and not have an immediate response and then all of a sudden it's like maybe three days later and I think 'My God, I forgot about that. I can't believe I forgot about that.'" He says, "It's [online learning] encapsulating. It's like being told to, to swim with no arms and no legs (pauses). Everyone else can swim so you should be able to. But without arms and legs I can't." Student H (DID): "I daydream a lot and sometimes I cannot, I can't distinguish between my daydreams and my reality…I don't have the same amount of time as everybody else."

Apprehension about Self-disclosing Their Disability to Online Instructors	Negative Experiences Derived from Perceived Negativity from Instructors and/or Peers	Student A (ADHD): "in my past experience, people like will hold stuff against you and will pass judgment...and you don't want to divulge that information." Student C (Depression): "I've had people make me feel like I am not very smart ...I've had instructors that I ask questions and it's like I'm a bother. And then when they, when they treat you like that, it's hard to say anything.... you don't want to go talk to them because it just makes you feel like you're a horrible person." Student D (Borderline Personality Disorder): "I don't want them to be like 'she's in the RN program' and you know without them actually knowing or giving me a fair shot without knowing me." She continues, "I was nervous" about sharing her disability because in the nursing program "they do know what I'm talking about" and the program instructors "may see it as a negative." She finishes with "It's better if someone comes with an open mind."

Inclusive Model for Diverse Populations

The research began with the students' responses; then it attempted to apply the UDL. The research next categorized results into Schwitzer's (2009) framework for useful practices. This layering of the UDL, Schwitzer's (2009) five-step process (specifically the third-step) and the research's results offered a model to test the research. With qualitative research and the phenomenological approach, the aim is to better understand the unique experiences of a specific population; here the population was community college students with psychological disorders and their experience with online learning.

Schwitzer's (2009) framework was a five-step process for building inclusive models for diverse populations. Within the five-step process was step-three; step-three asked three critically inclusive questions. Schwitzer's (2009) questions included; (a) do the results of the research apply accurately to all the student participants, (b) do the results "apply accurately to all students but seem insufficient for explaining some student needs or outcomes," (c) do the results "apply accurately to some groups but appear inaccurate for others" (Schwitzer, 2009, p. 7).

Interestingly, this research reflected a close connection between the UDL framework and the participants' responses. Their experiences with online learning and their perception of teaching techniques fit Schwitzer's (2009) model of having the results apply accurately to all the student participants. Specifically, all interviews were coded to UDL's framework of Affective, Recognition, and Strategy.

Conclusion

This chapter has attempted to explain the coding process used in this qualitative study. It has also shared the narratives created from the original three research questions. Likewise, this

chapter has attempted to connect the interviewees' responses. The following chapter, Chapter 5, is organized with implications for practice for student support departments (including counseling and student success), classroom instructors, and online students. Then in Chapter 5, I offer recommendations for community college leaders and limitations of this study. Finally, in Chapter 5, a section on implications for future research is presented and then my concluding remarks are offered.

Chapter 5:

DISCUSSION

According to the National Alliance for the Mentally Ill (2004), up to 27% of young adults (18-24 years old) struggle with some degree of mental illness. For this age, the disorders most reported include depression, attention deficient disorder (ADD), schizophrenia, post-traumatic stress disorder (PTSD), and bipolar disorder. Surveys from universities around the country echo the increase in psychiatric disorders among young adults: the growth rate of students acknowledging and seeking help for psychiatric disorders has increased from 10% to 50% with bipolar disorder in the lead (Grabinger, 2010). The increasing numbers of students dealing with the learning challenges associated with psychiatric disorders reflect a community college population that is unique and under studied.

For this study, the psychological disorders include the disorders most often reported; depression, attention deficit hyperactivity disorder (ADHD), post-traumatic stress disorder (PTSD), and bipolar disorder. Other disorders included in this research, but less reported by college students, were borderline personality disorder, dissociative identity disorder (DID), traumatic brain injury (TBI), and obsessive compulsive disorders (OCD and OCPD).

Purpose Statement and Research Questions

The purpose of this phenomenological study was to understand the online teaching techniques which enhanced and hindered learning for community college students with psychological disorders. The study was conducted at a mid-sized Virginia community college. It explored the online learning experiences of seven adult volunteers. The participants were community college students who have been clinically diagnosed with a psychological disorder

and who had taken or were taking an online course. Grabinger (2010) began an investigation of online learning through case studies and focused solely on four year college students with psychological disorders. Grabinger retired and his research in this area ceased. The research here followed Grabinger's case study model but moved away from Grabinger's work by focusing in on a specific population. Instead of university participants, this study explored the online learning experiences of community college students with psychological disorders. It was foundational research, an area of community college research never attempted before.

This study was guided by the following research questions:

1. What are the experiences of community college students with diagnosable psychological disorders in online classes?
2. How do community college students with diagnosable psychological disorders perceive teaching techniques in online courses?
3. Does the Universal Design for Learning (UDL) framework offer a model to develop flexible teaching practices for community college students with diagnosable psychological disorders?

The research questions focused on online learning techniques and the participant's individual experience and views.

The research gave this population a voice and offered applicable clarifications to a variety of community college practitioners. In fact, this study offered empirical evidence not attempted before. It connected community college educators with a distinctive population of students, a group of community college students with distinguishing cognitive challenges. Furthermore, this research employed documented self-disclosed community college students

with psychological disorders and also focused on the participant's self-describing academic online experience. In essence, the research offered practitioners beneficial and hindering online teaching techniques as described by this particular community college student population.

Summary of Methodology

The phenomenological study focused on better understanding the needs of community college students with psychological disorders through case studies. By the nature of phenomenological research in an educational study, the data collected was based on real-life scenarios where participants, in this case students with psychological disorders, indicated methods that can help community college educators create a learning environment that better serves the unique community college population (Hays & Singh, 2012). As a phenomenologist, the researcher used a demographic questionnaire and then interviewed participants. The phenomenological methodology best fit the research's intention; it was an investigation into the meaning and depth of the community college students' with psychological disorders experiences with online learning. By hearing directly from the participants, the study sought to unite the participants' experiences with community college practitioners.

Participants

For the interview process, seven community college students with a clinically diagnosed psychological disorder were recruited. The participant sample was first screened through the community college's special services department. I then worked with the special services department to recruit volunteers. Participants in this study were invited from a pool of students with a documented clinical diagnosis of a psychological disorder and were suggested for the study by the special services coordinator. The special services coordinator served as the students' academic advisor.

Seven participants were involved in this qualitative research. Four of the participants were males and three were females. One participant with DID wrote on the demographic survey that a male and a female would be participating. For the purposes of this research, the student was identified by his primary gender, male. All participants gave responses that fit into the UDL framework. All participants also gave responses that helped to answer the three research questions. The participants' ages ranged from nineteen years old to forty three years old. The psychological disorders included ADHD (Student A), OCD (Student B), Majc Depressive Disorder (Student C), Borderline Personality Disorder (Student D), PTSD and Bipolar (Student E), PTSD and TBI (Student F), ADHD, PTSD, DID, & OCPD (Student G). Student A was the only participant in the process of taking an online class; all other participants had completed at least one online course. (Please refer to the previous chapter and Table 1 for a visual display of participants' demographics.)

Data Collection

The research began in the fall of 2013 and continued through winter of 2013. Participants were recruited through a mid-sized Virginia community college and were all adults (19 years old to 43 years old). The process to recruit volunteers began in October of 2013. The methods used to collect data included a one one-on-one interview and a reporting of basic demographic information. A follow-up interview was initiated with all seven participants; four of the seven participated. Data analysis included transcribing interviews and coding interviews. Strategies for trustworthiness included detailed field notes and a reflexive journal, member checking, a research team, simultaneous data collection and analysis, thick descriptions, and an audit trail (Hays & Singh, 2012).

Coding and Data Analysis

A systematic approach to this qualitative research was advantageous; the sheer quantity of data offered required a methodical system to code and to analysis. Specifically, an eight-step approach to coding was used. Hays and Singh (2012) coding process offered a strategic path to synthesize the large quantity of data. Likewise, I followed a systematic approach to data analysis; I followed Moustakas's (1994) description of phenomenological data analysis as described in Hays and Singh (2012) on pages 352-356. The research sought to better understand the online teaching techniques which enhance and hinder learning for community college students with psychological disorders.

Summary of Major Findings

The results of this study reveaedl individual experiences and perceptions of online learning for these seven individuals with psychological disorders. During coding, I found the UDL framework immensely valuable in sorting through the large data sets. The UDL framework focuses on three brain networks: recognition, strategy, and affective. The research supported the UDL framework as a tool for practitioners; all three brain networks were reflected in the interviews. Strategy, recognition, and affective appear to be a reliable foundation to construct online courses. From this framework, Grabinger's work (2010) suggested ways for practitioners to organize assignments. These include applicable communication modes (e.g. emails and collaborative chats), multiple ways to present the same material (e.g. YouTube and web sites), modes that scaffold information (e.g. timelines), and methods for students to express themselves (e.g. blogs and chat). My research supported Grabinger's (2010) assertions. Within my research, participants talked about the importance of communication between the students and their online instructor. They also shared experiences reflecting their need as online learners to have the

material presented in a variety of different ways. Likewise, in my research, the participants shared their desire to have opportunities to express their ideas. Hence by combining Grabinger's (2010) assertions with what my participants offered, educators are given confirmation that these areas of instruction should be implemented in their online instruction.

Furthermore, during data analysis patterns emerged. Connecting the participants' experiences and perceptions with the UDL framework three specific patterns surfaced. With online learning, all participants showed some degree of interest in personal connections, all had issues with time, and all had some degree of apprehension about self-disclosing their disability. (Please refer to the previous chapter and Table 3 for a visual display.) While all three of these caused hardships for this study's participants, all three issues can be improved upon by online instructors in order to better serve students.

Three Patterns: Personal Connections, Issues with Time, and Apprehension about Self-disclosing

The first pattern was an interest in personal connections. Student A suggested, "I think it's important for teachers to be open and evaluate the students and see where we are in our lot in life." The feeling of wanting instructors to respond virtually through emails was common. Student B suggested that instructors "always check" their email and get back with their students quickly. All participants agreed with the idea of instructors making an effort to "connect" with their online students in a "direct" and "personal" way. Also connected to this was a general feeling that their online learning was hinder by their psychological disability. For this group personal connection was important to help all students but was particularly important for those students, like themselves, with disabilities. Intriguingly, the desire for personal interactions with online instructors and peers may be part of the solution to the apprehension to self-disclose.

Through well-orchestrated efforts by the online instructor, personal connections can be established. This personal connection may in turn foster trust. If trust is built, then students with psychological disorders may not only self-disclose, they might reach out and ask for the academic help they need. This process could actually break the negative cycle of apprehension and academic frustration. In fact, by considering the importance of personal connection, online instructors could nurture a positive cycle of trust, acceptance, and, ultimately, student success.

The second pattern reflected in this research was time issues. This pattern was inclusive of "time management," time being lost by "distractibility," and a broad-reaching theme of time not having the same meaning for students with psychological disorders as those without. For this group of students, online courses offered them the ability to go at their "own pace"; however, the fundamental learning challenges that come with their psychological disorders compounded these learning obstacles. Specifically for this group of participants, their grades and academic success were ultimately compromised. If educational institutions continue their upward and expanding trend of online learning, then this research supports the need for educators to better understand the learning challenges connected to psychological disabilities. Even more narrowly, as online instructors we need to acknowledge the impediments and hurdles our students endure with basic and profoundly perplexing issues like time.

The third pattern was apprehension with self-disclosure. When this research began, self-disclosure was an area I had not considered. The research team helped create this particular path through interview question number six. The discussion with participants about their self-disclosure was generated from interview question number six: "How comfortable are you talking with your online instructor about your disability?" As data collection commenced, I began to realize this particular question's importance. Even with the cognitive challenges faced by this

student population, their fear of negative stigma if they self-disclose may, in fact, outweigh their motivation to seek the academic help they need. For these participants, the resistance to self-disclosure was deeply rooted in negative past experiences. Student A described the humiliation for being "judged" and the exasperation felt when an "instructor does not see you." The frustration was echoed in others students' descriptions of being made to feel like they "are not very smart" or are a "bad person" because they disclosed their disorders. As educators we cannot change our students past experiences. We can, however, work diligently to build a solid academic support system for our students; a social support system grounded in acceptance and one that encourages resilient, adaptive, and successful academic development for students.

Using the UDL framework as a base for online instruction, my research clarifies the importance of considering the brain networks and potential challenges students may have. Past research supports the fact that students with psychological disorders are taking online classes at community colleges. My research takes that one step forward; students with psychological disorders are taking online courses at community colleges and the chance is great that these students are struggling with personal connections, issues with time, and are not self-disclosing about their disability. These three patterns emerged through this research. In an endeavor to understand the importance of this research, the next section of this chapter connects my research with research done in the past.

This study offered empirical evidence not attempted before. It connected community college educators with a distinctive population of students, a group of community college students with distinguishing cognitive challenges. Furthermore, this research employed documented self-disclosed community college students with psychological disorders and also focused on the participant's self-describing academic online experience. In essence, the research

offered practitioners beneficial and hindering online teaching techniques as described by this particular community college student population.

Grabinger (2010) began an investigation of online learning through case studies and focused solely on four year college students with psychological disorders. Grabinger retired and his research in this area ceased. My research followed Grabinger's case study model but moved away from Grabinger's work by focusing on a specific population. Instead of university participants, this study explored the online learning experiences of community college students with psychological disorders. It was an area of community college research never attempted before. While my research was foundational, this section describes relationships between my findings and prior research.

Findings Related to the Literature

Research addressing online instructional modification for students with psychological disorders is limited. Surveys from several universities around the country echo the increase in psychiatric disorders among young adults: the growth rate of students acknowledging and seeking help for psychiatric disorders has increased from 10% to 50% with bipolar disorder in the lead (Grabinger, 2010). This research supports the idea that college students with psychological disorders are taking online classes. From the seven participants, the psychological disorders students deal with include ADHD, Bipolar Disorder, Borderline Personality Disorder, DID, PTSD, and OCD. It also supports the notion that students with psychological disorders may not be disclosing their disability and hence, the need for adaptive online teaching tools is evident.

The UDL framework focuses on three brain networks: recognition, strategy, and affective. Within each area, instructional techniques are suggested to help students succeed with online classes. Grabinger (2010) described recognition as the "what" of learning; for example, What do

I need to succeed? What are we learning about? In essence, learners connect "what" they learn to "what" they already know. The strategic network, Grabinger (2010) explained, is the mechanism to determine "how" we learn. This network is the mode to reflect on "how" we learn and "how" we progress academically. The affective network, according to Grabinger (2010), is the degree to which a student engages in learning. This network includes the emotional deposits and reactions to the learning mode. The affective network also includes a learner's preferences to certain instructional deliveries.

The participants' responses confirmed Grabinger's (2010) assertions. As a group, the interviews reflected student concerns with their attention spans and working on online classes in their homes where they were "easily distracted." The feeling of distractibility at home was repeated with feelings of being "pulled in so many different directions at home." Combined with that was the feeling of how the symptoms associated with their psychological disorders complicate being at home. Several shared that "home" was for them a place to "escape". Yet, with online classes, their home housed their online classroom but separated them from the social connections they need to ward off the depressive symptoms of their psychological disorders: they revealed that being at home actually seemed to contribute to their depression.

This study offered interesting descriptions of online learning from community college students with psychological disorders. Participants in the study described their online learning by relating their experiences to their personal connections to their instructor, by describing their issues with time, and by sharing their apprehension about self-disclosing their disability to their online instructors. The general feeling was that they would like to have the opportunity to "see each other's face" and "not having direct contact" with the online instructor was "a problem." Considering their psychological disabilities and as a group, the students seemed to believe, like

Student A, that there was "nothing like the personal interaction" because as "hands-on learner(s)" they "process things" by physically "seeing and hearing what the professor is saying." Being familiar with the online instructor was also part of this personal connection. These students would like to "know" their online instructor on a personal level. They would like to see that their instructors "have emotions and feelings like any human." The general feeling showed a desire to have the online instructor reach out to their students and "have frequent contact" so that the students "make sure they know who" their instructor was as a person; they sought an association beyond the instructor's title. Likewise, issues with time were repeated. For this group of students, "online classes take more attention" and "take more time" than they expected. With their psychological disorder and their online learning, the general consensus was that their disabilities affected their ability to learn and time was a primary concern. For them, online learning was "encapsulating." While dealing with the challenges of their disorders, these students "don't have the same amount of time as everybody else." Apprehension about self-disclosing their psychological disorders to online instructors seemed to drive these students away from an open dialogue about their learning challenges. Past experiences seemed to make these students hesitant because they feel instructors "will hold stuff against" them and "will pass judgment." Their apprehension was deeply rooted in past interactions and they were genuinely "afraid of being judged."

In general, the students were passionate about their learning yet apprehensive about taking online courses. Reoccurring reasons centered on the fact that their "attention span is short sometimes" and they have feelings of "anxiety" and nervousness concerning due dates. Memory issues may play a part here and were also prevalent within this study. As a group, the challenges with remembering assignments varied from simply "forgetting" to more complicated aspects

their psychological disorder. Contending with their course load and attempting to manage the challenges of their psychological disabilities combined caused significant concern and distress. As Student F reflected, "I just couldn't wrap my brain around it [online learning]." Another participant explained how his psychological disorder impeded his memory. Student H (DID) explained, "another problem was that with my condition is that, me the host, we come in to help but a very common problem with people with the ideas that sometimes they confuse reality with being inside. That's what we call this. We call it the person goes inside." For Student H, the memory challenges are confounded by different identities "coming forward" at different times but the host not having access to the different identities' memories. So an alter may begin a class but then "go in" and the host would not have the same knowledge base as the alter taking the class. For this particular group of students, remembering assignment due dates was particularly difficult. However, each participant attempted to adapt to their disability; tools like the app Project Timeline seemed to be a positive aid and also strong social supports seemed to help.

Grabinger's work (2010) offered educators meaningful ways to organize assignments. These included applicable communication modes (e.g. emails and collaborative chats), multiple ways to present the same material (e.g. YouTube and web sites), modes that scaffold information (e.g. timelines), and methods for students to express themselves (e.g. blogs and chat). This research supported Grabinger's (2010) assertions that theses teaching techniques could help students with psychological disorders. For these students, interactions including "seeing" their professors were important. Face-to-face meetings were a common suggestion. Also suggested was personal "video" to show the instructor as "more than a title" and to reflect "who" they are and what their "attitude is." Likewise, a video or some form of personal connection to show that their instructors "have emotions and feelings" was important. Private Blogs were mentioned as a

positive way to connect. Specifically, "a private blog where students could tell the teacher that they're struggling with something" could open communication pathways and improve relationships. Blackboard was named as also being a positive tool for these students. Blackboard Collaborate was mentioned as a way for students and the instructor to communicate and "see" each other. Blackboard seemed to offer the students a "central place for written directions," a place where students could review directions, grades, and due dates; Blackboard offered them a place for "typed" directions and a central location where they always could "find" course information. Also mentioned was Blackboard's Discussion Board. Students seemed to enjoy the "scholarly" challenges of online discussions and the opportunity to interact with peers. They also liked the ability to post then re-read and post again to their peers' intellectual exchanges.

Personal disorganization and cognitive overload are two areas that seem to repeatedly affect online success for students with learning disabilities (LD) (Blanchard, Cohen, & Curry, 2001; Brown, 2002; Souza & Dia, 1996). My research supported these two ideas in relation to student with psychological disorders. The consensus among the participants was that they thought "online classes would be easy." After getting into the online course, they realized online course were not easy, in fact, the course took more "attention" and "takes more time" than traditional courses. At least some of the difficulty came from having a short "attention span" and from having more "anxiety" with online courses than with traditional courses. Doing well in an online course or not passing the course did not seem to make a significant difference in their opinions of online courses. In general, this group preferred traditional courses and only took online because of schedule demands or because they were "romanced" to do so by an academic counselor. They all felt online courses had some extra level of "struggle" connected to them; struggles with "software," struggles with "distractions," with "medications," and struggles with "time

management." As one student reflected, online learning for students with psychological disorders is "really just awful." One participant even went as far as to advise other students, "if you know you're not good at managing your time, don't even try it [online courses]. Leave this [online] course now!" While the participants generally felt online learning did not fit their learning style, they all showed a sense of humor connected to their online academic endeavors.

In longitudinal and comparative studies (Jaggars, Xu, & Columbia University, 2010; Xu, Jaggars, & Columbia University, 2011), community college's online learning in Washington State and Virginia were reviewed. From these two specific studies, LD students and general students were separated with the results being the same for both groups. The community college students, both groups, showed higher withdrawal rates in online courses than with hybrid and traditional courses. Controlling for student characteristics and using multilevel regression analysis, hybrid and traditional courses reflected similar student success rates (Xu, Jaggars, & Columbia University, 2011). According to these studies, even with a strategic conducive online learning environment, the general population of community college students was at risk of withdrawing from or failing online courses. My research clarifies these findings in relation to students with psychological disorders. Like LD students, student participants with psychological disorders felt less successful in the online courses taken. Even when their grades reflected passing grades, the participants felt they had not gained the same amount of knowledge in their online courses then they could have gained in a traditional class. The consensus was that while everyone "learns differently," students with psychological disorders find it "harder" to learn via online. For these students, online learning was more about them teaching themselves and having to "come up with it" on their own. Overall, they felt their online instructors were not an active part of their learning. One student pronounced, "if you have to come up with it on your own than

I'm teaching myself. If I'm teaching myself, then why am I paying for somebody to teach it." After taking online classes, the students were "shell-shocked" and "gun shy" about taking even hybrid classes. Some felt this way because of the grade received, others, though, connected their negative feeling about online learning to not being prepared for the amount of "extra" time online learning demanded. Also, students shared the feeling that they decreased performance was directly related to "complications" connected to their disorder; these complications included medicine contradictions and issues with time. As a student with comorbid disabilities, one student described online learning as "encapsulating. It's like being told to, to swim with no arms and no legs (pauses). Everyone else can swim so you should be able to. But without arms and legs I can't."

Research Questions and Literature

This next section connects my research questions with past literature. All three questions explore this foundational research; the connections between online learning and community college students with psychological disorders have not been studied before. The three research questions connect the population's unique psychosocial, cognitive, and academic needs with their online learning experiences.

Research Question Number One and Literature Related

The first research question asked, "What are the experiences of community college students with diagnosable psychological disorders in online classes?" Grabinger (2010) asserted that students with psychiatric disorders tend to have cognitive impairments; these impairments consist of a lack of attention, memory issues, time management, organizing thoughts logically, problem solving, and social functioning. In this research, the participants confirmed Grabinger's (2010) assertions. As a group, the interviews reflected student concerns with their attention spans

and working on online classes in their homes where they were "distracted" easily. Memory issues also were prevalent within this study's participants' reporting. The responses ranged from appreciating the ability to have a specific place, Blackboard, to "review assignment directions multiple times" to being extremely frustrated by the "technical difficulties" connected to Blackboard use and online courses in general. Likewise, for these students, remembering assignment due dates was particularly difficult and frustrating. For this group, the symptoms associated with their psychological disorders inhibited "memory" and, at times, cause a breach between what they "thought" had "completed" for classes and what had "actually" been "completed." Likewise, a lack of solid time management skills was reoccurring. For this study, contending with their course load and attempting to manage the challenges of their psychological disabilities combined to cause significant concern and distress. As Student F reflected, "I just couldn't wrap my brain around it." Social function was also prevalent within this study.

Personal disorganization and cognitive overload are two areas that seem to repeatedly affect online success for students with learning disabilities (LD) (Blanchard, Cohen, & Curry, 2001; Brown, 2002; Souza & Dia, 1996). "Distractibility" at home while doing the online courses stood as a barrier for my research groups' learning. This group of students felt that being at home "pulled" them "away" from the online course work. The consensus also was that while at home, their "depressed" state of mind or their lack of ability to "focus" caused them to do poorly academically. In severe cases, the state of mind associated with their disability actually caused a separation from "reality." For most of these students, online learning was "harder" and "took more time" than they expected. As a group they felt online classes took "more time" and challenged them more cognitively than traditional courses. Even in online courses that they believed themselves "good at," this group found their psychological disorders compounded their

"challenges" for online learning. Like the research with students with LD, students from this study struggle with personal disorganization and cognitive overload when taking online courses.

Research Question Number Two and Literature Related

The second research question asked, "How do community college students with diagnosable psychological disorders perceive teaching techniques in online courses?" In longitudinal and comparative studies (Jaggars, Xu, & Columbia University, 2010; Xu, Jaggars, & Columbia University, 2011), community college's online learning in Washington State and Virginia were reviewed. According to these studies, even with a strategic conducive online learning environment, the general population of community college students was at risk of withdrawing from or failing online courses. My research clarifies these findings in relation to students with psychological disorders. Like LD students, student participants with psychological disorders felt less successful in the online courses taken. Even when their grades reflected passing grades, the participants felt they had not gained the same amount of knowledge in their online courses then they could have gained in a traditional or hybrid course. In general, they felt like they fell "behind" the first weeks of online courses and spent a lot of time "just catching up" but never able to "ahead" in online courses.

Research addressing online instructional modification for students with psychological disorders is limited. One method that seems to reduce the effects of learning challenges is a rubric. Generally, rubrics are accepted as a reasonable teaching strategy to enhance LD student success (Barry, & Moore, 2004; Elder-Hinshaw, Manset-Williamson, Nelson, & Dunn, 2006). Online learning is likewise considered a reasonable venue to use rubrics (Kleinman, 2005; Landis, Swain, Friehe, & Coufal, 2007; Russell, Elton, Swinglehurst, & Greenhalgh, 2006). Yet, instead of unraveling and examining disorders separately, the research tends to weave all

disorders into a general labeling of learning disabilities (LD). While these research participants did not specify rubric as being helpful to their online learning, the participants did share what teaching techniques that were particularly helpful to their online learning experience. One of these suggestions was for instructors to "up-date" web sites and links. The general consensus was the intense frustration several students felt when the online assignments requested homework be done but when they attempted the work, the web sites were no longer working. This group liked the ability to "see" their grades in Blackboard. They also liked being able to access "written directions" from the Blackboard site. Another tool they found helpful was the ability to take "untimed" test via Blackboard sites. The main frustration with Blackboard centered on assignments being "taken down" or "timed out" when they thought their disability accommodations would allow for "more time." Hence this research supported the research studying the broad umbrella of learning disabilities in higher education that targets student inaccessibility as a concern for online learners (Burgstahler, & Olswang, 1996; Cooper, 2006; Simoncelli & Hinson, 2008).

Research Question Number Three and Literature Related

The third research question asked, "Does the Universal Design for Learning (UDL) framework offer a model to develop flexible teaching practices for community college students with diagnosable psychological disorders?" The UDL framework focuses on three brain networks: recognition, strategy, and affective. Within each area, instructional techniques are suggested to help students succeed with online classes. Grabinger (2010) described recognition as the "what" of learning; for example, what do I need to succeed? What are we learning about? In essence, learners connect "what" they learn to "what" they already know. The strategic network, Grabinger (2010) explained, is the mechanism to determine "how" we learn. This

network is the mode to reflect on "how" we learn and "how" we progress academically. The affective network, according to Grabinger (2010), was the degree to which a student engages in learning. This network includes the emotional deposits and reactions to the learning mode. The affective network also includes a learner's preferences to certain instructional deliveries. Along with the three brain networks, Grabinger's work (2010) offered practitioners meaning ways to organize assignments. These included applicable communication modes (e.g. emails and collaborative chats), multiple ways to present the same material (e.g. YouTube and web sites), modes that scaffold information (e.g. timelines), and methods for students to express themselves (e.g. blogs and chat). This research supported Grabinger's work. Specifically, this group of participants felt the emotional deposits or the personal "one-on-one connections" between themselves and their online professor was important. They felt more "Blogs" (private and whole-class) would be helpful. And they seemed to concur that "timely" email exchanges were important. These participants wanted instructors to offer "untimed" discussion boards so to have more time to interact with their peers and their instructors. They also wanted more online "resources" and supplemental online materials so to find material presented in a way they could grasp and "better understand."

Unanticipated Findings

Beginning this research, I earnestly believed I understood the disorders and I thought I had a feel for these students' educational plights. Over the last ten years teaching community college psychology, my classroom students have shared some of their challenges with psychological disorders and their particular learning adversities. In fact, these classroom stories fueled this research. However, no student has ever offered me the depth of descriptions and details I experienced during these one-on-one interviews.

The learning challenges revealed through these seven interviews are severe. Medication helped the students interviewed with the symptoms of their disorder. Yet the medication that helps them adapt to their psychological disorders also created daunting academic challenges. Student E shared, "I was taking medicine at a certain time at night and he would lecture online at night. And I would end up not hearing a lecture until later because as soon as I took my medicine, it would knock me out." Student E was not alone. Student G shared, "I have a medicine that contradicts my day medicine. I get the pills that tell me go to sleep because I suffer from insomnia and from the PTSD" and then he takes medication to wake him up and help with the symptoms connected to his other disorders. Student H explained, the professor should realize that the student's medicine may make them "moody or depressed." The competing needs between taking medication to reduce psychological symptoms and taking the medication which reduces their academic ability is perplexing.

For these interviewees, their disorders created a barrier to learning in regard to time; time for them moved at a different pace than for other students and when deadlines were combined with psychological symptoms, the results were missed deadlines and academic frustration. Before this research, I had not connected these particular challenges to online learning. Student G expressed the sentiment that it is essential for the online professor to understand the online student's disability. Specifically, Student G offered, if the professor "knows that there are students with disabilities" then the professor should "think specifically about the disorder that they [students] may need more accommodations" than what other students may need. In this student's case, the professor "was willing" to give the student more time "but the discussion board for the Blackboard" was closed when the class ended. The accommodation was, in this student's opinion, not met: "So I didn't have more time."

Time for Student G was fluid; with DID the identities do not always share the same consciousness. If Student H was taking the class but another alter was prevalent for the week, then Student H really was not present to do the work. For DID this a particular concern, he said, a "problem was that with my condition is that, me the host, we come in to help but a very common problem with people with the ideas that sometimes they confuse reality with being inside. That's what we call this. We call it the person goes inside." He continued, "a perfect example would be I thought I had done all my course work and I thought I had answered in the online discussions and I remembered participating, answering commenting, finishing quizzes." It was not until his wife asked him to show her the work done that he realized he had actually not done any of it. Likewise Student G said what several other interviewees offered concerning their cognitive impairments related to their disorders (ADHD, PTSD, and DID in particular): "I daydream a lot and sometimes I cannot, I can't distinguish between my daydreams and my reality and that was happening more so because of the stress that was going on and so I fell behind." Connected to this Student F said of his online learning, "I've never hid behind my disabilities. I try to be as upfront as I can because I found it's a, it's a big problem to bring it up later wards." He has found that "even with their knowledge of my disability and their willingness to work with me it's still (pauses) we were trying to figure it out things and...it was like reinventing the wheel."

After reflecting on this project, I am reassured that this population has the academic capabilities. However, their sense of time and time management are not the same as other students; it is part of the accommodation their disability requires but we, as educators, are not completely sure how to provide. It is an educational conundrum worthy of further discussion.

The importance of positive social supports was an area I had considered. However, I did not realize the all-embracing influence for students with psychological disorders until the final steps of data analysis. Each of the students interviewed shared how their personal social supports made a significant positive impact, not only with online learning but also when dealing with their psychological disorders. Connected to positive social supports was the students' locus of control. From my reading, I expected the students interviewed to be externals. Yet, all seven showed signs of internal locus of control or tendencies connected to internal locus of control. Perhaps the strong personal social supports nurtured this. Since I did not have a formal tool to rate internal or external locus of control, I have no quantifiable way to support these assumptions. However, the pattern of researcher perceived external locus of control was interesting and noteworthy.

While the students interviewed had debilitating disorders, they also shared tenacity, true grit even, towards their academic success. The magnitude and complexity of one interviewee's disorder led to suicide attempts. Two offered that they have been hospitalized. Yet even with these trials and tribulations, the group was academically functional (as represented by their grades). It was impressive and inspiring. With each interview I found myself drawn to the students' stories, and with each interview I felt obligated to share their histories accurately. I thought with my training and teaching experience, I was going into this research well prepared. I was not. The intensity of these stories and the students' openness was moving and inspiring; all of them really wanted to improve online learning for all students and for all online instructors.

Educators must be committed to not only understanding but to adapting our educational philosophy to propel all learners' academic successes. Student F described his online experience as "encapsulating. It's like being told to, to swim with no arms and no legs (pauses). Everyone else can swim so you should be able to. But without arms and legs I can't. That's what it felt like

to me."

As a researcher and an educator, this process was intense. The personal celebrations and defeats were awe-inspiring. Yet, with each negative story about online learning, I realized that we, community college educators, can do things differently. Fear and negativity beget a caustic cycle; a cycle we can change. Many times unbeknownst to us, we are an intricate part of these students' successes and failures. Not only do educators need to understand the learning challenges associated with each disability, educators also must be open-minded and accepting. Student H probably says this best as she incorporates the nuances of DID with their (the different identities) relationships with the Special Services Coordinator: "I have a tremendous amount of respect and appreciation to the disability coordinator [name omitted]. Because he's very open and he's very understanding." She goes deeper: "He [the coordinator] respects that Student G[name replaced] is Student G [name replace]. And he respects that another alter [name omitted] is another alter [name omitted], a completely different personality. And he respects me as me and he treats each one of us with respect." Other interviewees talked about the idea of mutual respect between student and teacher. Student F said with conviction that it takes an open-minded and flexible instructor to teach online classes well. As we ended the interview, he said "the final thing is the teacher themselves; they [need to] be the ones that are willing to work with people."

Implications for Practice

This research offers suggestions to a variety of practitioners. Specifically, student support services and online instructors are presented ideas to better serve students with psychological disorders as they attempt online course. The data also offer students practical suggestions on how to be more successful in their online learning endeavors.

Student Support Offices

College students have an array of educational choices that enhance learning and, at times, confound it (Carr, 2013). Combine the challenges with learning choices, traditional, hybrid or online, and the need to be "educationally adaptive" is clear. Schwitzer et al. (2001) defined the phrase as building community through virtual social supports. Yet, the definition varies to include the development of social presence (Palloff & Pratt, 2007) and the technical options needed in the formation of a community within the online course (Carr, 2013). From this study, the need for counselors, advisors, and student support staff to properly inform students presented itself as a critical piece to long-term student success.

After talking to academic advisors, four of the seven participants were convinced online learning would fit their learning better because it would be on their own time. Student F said he was "romanced" into online learning for those reasons. If we are honest about online learning, students need to understand both the positives and negatives of online learning in connection to their disability. Student A contends with ADHD and online learning was an option he needed to try. He is an adult learner with a full-time job and a single father. He thought "online classes would be easy" but quickly realized that "they are not." He goes on to explain that his "attention span is short sometimes" and he gets "nervous when things are due." As Student G says, "Online learning takes more time." When talking about online learning and their disabilities, all seven participants agree there was not enough time; not enough time to get their assignments done, not enough time to interact with their instructors, and not enough time to prepare for the online work load.

Each student support staff has an obligation to explain, in detail, the pros and cons of online learning. Online learning, including hybrid, should not be a solution to filling virtual seats

without the student being completely prepared for the online pace and demands. A suggestion is to encourage students to take an online ready course before they can sign up for online courses. This class could be a prerequisite, perhaps across the VCCS, just as a Student Development course is required for freshman. As it is today, the online ready course is set up as a voluntary online, self-paced, instructional tool. Perhaps combining a substantial value to the tool, like a prerequisite, and offering a one-on-one, in-person instructional session to use the tool might encourage students. If more students understood initially the time needed for online learning, we might see increases in online success.

Likewise, student support services might be well served to understand the psychological disabilities and their implications for students, particularly in regards to the students' challenges associated with their disability. Institutions may offer learning options like Mental Health First Aide. Then it is up to the student support services employees to take advantage of the learning opportunities. By doing so, students with psychological disabilities could be better served.

Online Instructors

The UDL is a framework postsecondary educators can use when designing online classes. According to Grabinger (2010), the UDL originated as an architectural term; the problem of designing buildings assessable by all, those with disabilities and those without, prompted the UDL framework. For educational purposes, the "UDL promotes the use of digital tools within instruction to improve differentiation" (Grabinger, 2010, p. 104). Blackboard is one operating tool that implements components of the UDL. For the VCCS, Blackboard offers a variety of teaching options. At New Horizons Conference in 2012, a group of faculty collaborated on how online instructors could better utilize Blackboard's for students with psychological disorders. I

severed as the facilitator. From the discussion, practitioners shared what worked well for them. Included below are some agreed upon online teaching techniques:

1. Give multiple chances to summit
2. Reiterate online tutoring
3. Discussion Board Instructions to include Word, Cut/Paste, Spell Check
4. Unlimited test times and unlimited time for test
5. All or most assignments noted and thoroughly explained in the syllabus
6. Anonymity of the Internet (Disability not obvious to peers)
7. Technology to help edit
8. Transcript lessons with the instructor's voice
9. Video imbedded
10. Use rubrics.

Hence, online instructors have the tools via Blackboard to enhance learning. From New Horizons, I learned that while Blackboard offers the means, not all online instructors have the necessary training to support these techniques. In conjunction, from the interviews three participants mentioned the lack of knowledge on the part of the online instructor as having a negative effect.

Moving away from the needs of the instructors and on to the need of the students, I would like to go back to the original literature review. From the literature review, several student-based problems have arisen. While studying the broad umbrella of learning disabilities in higher education, student inaccessibility (Burgstahler, & Olswang, 1996; Cooper, 2006; Simoncelli & Hinson, 2008), student perceived negative labeling (Norton, 1997; Trammell, 2009), and lack of

understanding from faculty (Cawthon, & Cole, 2010; Norton, 1997) are prominent. From my research, these same areas reflect concerns by student with psychological disorders.

Inaccessibility presented itself within this research; specifically, one student was timed-out of discussion boards, another had technical difficulties with formatting, and yet another could not figure out the online assignments before the due dates had past. The perceived negative labeling was also present in this research group. The fear of negative labeling, mainly occurring from prior experiences, caused distress and fear in all but one of the participants. Likewise, a lack of understanding for their particular disability was part of the participants' negative reflections. Here the theme of time was present. The participants' shared that their accommodations included "more time" yet their online professors gave them the same amount of time as their peers without accommodations.

Suggestions to help alleviate these problems encountered could include more personal, perhaps one-on-one, instructor lead sessions with online students. During a one-on-one session, these concerns might be addressed. Another suggestion offered by this research's participants is for instructors to offer a traditional class meeting maybe once at the beginning of the semester with the option for a Skype or Adobe Connect connection. If possible, and a suggestion given by Student A, several in-person group meetings and individual (one-on-one meetings between student and instructor) might lessen some of these problems.

From the literature review and the New Horizons discussion, one researched teaching tool that seems to reduce the effects of learning challenges is a rubric. Generally, rubrics are accepted as a reasonable teaching strategy to enhance LD student success (Barry, & Moore, 2004; Elder-Hinshaw, Manset-Williamson, Nelson, & Dunn, 2006). Online learning is likewise

considered a reasonable venue to use rubrics (Kleinman, 2005; Landis, Swain, Friehe, & Coufal, 2007; Russell, Elton, Swinglehurst, & Greenhalgh, 2006). While none of the participants mentioned rubrics specifically, two did say that online teachers should keep their students up-to-date with grades. While Blackboard is one venue for reflecting grades and it tallies grades throughout the semester, not all instructors use this tool. From this research's results, it is critical for teachers to learn the technology available and collaborate with students about the grading process in order to enhance student success.

In summary, suggestions made to online instructors by this research's participants include:

1. Offer more feedback about grades
2. Encourage personal connections between peers
3. Offer personal connections
4. Frequently use emails and have quicker email responses
5. Give untimed tests
6. Consider information given in a variety of ways
7. Pick a good text book for the class
8. Have a text book with online supplements
9. Give detailed directions in one place like the syllabus
10. Offer detailed directions for each assignment
11. Have an understanding that your online students have other adult responsibilities
12. Realize students with psychological disorders may be on strong medications that can impede learning

13. Be available for your online students perhaps with online office hours or a video interactive like Blackboard Collaborate
14. Give flexible deadlines throughout the semester, do not make all assignments due at the end
15. Make assignments so online students can work ahead
16. Offer pictures or personal teaching videos, so the students can see you
17. Respect students
18. Understand that online students may have different technical equipment from you and from each other for group work
19. Understand that online students come to class with different technological proficiency
20. Be aware that some of your students have psychological disorders and may or may not self-disclose.

These suggestions are participant generated. It is important to note of the twenty suggestions more than half focus on the importance of interpersonal connections.

Online Students

As part of this research's interview questions, participants were asked what advice they would like to share with students who are considering an online course. I gave no specification about whether the student being advised dealt with psychological disorders or not. In summary, participant suggestions for other online students by this research's participants include:

1. Be prepared to put more time into the online class than a traditional class
2. Take the initiative to stay in contact with the online instructor
3. Take imitative to interact with class peers
4. Get a tutor

5. If you are having trouble, ask questions
6. If you have a disability, don't let others make you feel bad about yourself
7. Respect your professor
8. Take good notes
9. Set deadlines for yourself
10. Use the resources available (book, links, Project Timeline, etc.)
11. Know your limits (procrastinate, distractible, medications, psychological triggers, etc.)
12. Have a significant other or other social supports check-in with your progress.

More so than with the suggestions for online instructors, the suggestions for online learners were similar between participants. The main reoccurring suggestions among the seven participants were for online students keep in contact with their online instructor, know the resources available, and for online learners to know their personal limits.

Recommendations

This section is divided into three subsections. The subsections include recommendations for community college leaders, limitations of this research, and implications for future research. After those subsections, the chapter ends with my concluding remarks.

Recommendations for Community College Leaders

On August 23, 2011, Virginia felt firsthand the importance of online learning. When the earthquake happened, one VCCS community college lost an entire building. For this college, the public data released included: (a) 321 courses were originally scheduled to be in the damaged building, (b) 51 courses were changed to online courses, (c) 155 courses were changed to hybrid courses, and (d) 7 courses were cancelled. In order to serve VCCS's student population, online and hybrid courses were utilized and the drive for more online classes is still significant. Online

courses, in fact, are attractive to a wide population of students, and in hard economic times, offer a substantial and sustainable funding avenue for institutions (Carr, 2013). Yet, community colleges are tasked with serving their immediate community (Mellow & Heelan, 2008). Not only does the community college mission expressively connect the college to community needs, but it also dictates open access. Online, traditional, and/ or hybrid courses represent a synthetic sense of open access (Bailey & Morest, 2006). Consequently, the ability to adapt online learning to a wide spectrum of learning styles and needs may help steer each community colleges' success or failure in preserving open access and strengthening student success.

From this research some facts surface. The first is college student's cognitive challenges significantly influence their learning (Dillon, & Osborne, 2006; Lane, Carter, Pierson, & Glaeser, 2006; Sabornie, Evans, & Cullinan, 2006). The second is students with psychiatric disorders tend to have a lower emotional maturity than that of their peers (Grabinger, 2010). Finally, students with a wide spectrum of psychological disorders tend to find learning challenging, and many of these students are drawn to community college learning because it better fits their learning style (Francis, & Abbassi, 2010). As community college leaders, the facts along with the results of this study make it is crucial to incorporate this information in strategies and planning.

My research joins a legacy of research representing online learning as multifaceted. It also connects the struggles of LD students with the participants in this research who contend with the learning challenges connected to their psychological disorders. From the literature review, personal disorganization and cognitive overload are two areas that seem to repeatedly affect online success for students with LD (Blanchard, Cohen, & Curry, 2001; Brown, 2002; Souza & Dia, 1996). In longitudinal and comparative studies (Jaggars, Xu, & Columbia University, 2010; Xu, Jaggars, & Columbia University, 2011), community college's online

learning in Washington State and Virginia were reviewed. From these two specific studies, LD students and general students were separated with the results being the same for both groups. The community college students, both groups, showed higher withdrawal rates in online courses than with hybrid and traditional courses. Controlling for student characteristics and using multilevel regression analysis, hybrid and traditional courses reflected similar student success rates (Xu, Jaggars, & Columbia University, 2011). According to these studies, even with a strategic conducive online learning environment, the general population of community college students is at risk of withdrawing from or failing online courses. Likewise, my research supports the idea that students with psychological challenges tend to perceive online learning in a negative light. In order to change the negative experience and/or the withdrawal rates, leaders will need to rethink how online learning is presented; presented not only to the students physically but also in college's ever-evolving definition of student success. Specifically, efforts to understand and connect how students with psychological disorders overcome challenges may help others succeed. Student D described how having taken several classes and doing poorly helped her do well in later classes. If curriculum design would include online course taking preparation, perhaps students would have a better chance with online learning. The course could be designed with the option of guided learning and setup as part of a tradition course, conceivably as part of a freshman student development course. If student success is indeed a goal and we are truly "student centered" institutions, then perhaps this added curriculum might help.

After interviewing students with psychological disorders, a prevalent concern for most was the negative stigma they feel. This comes from their past experience with the institution's employees. If colleges could find a way to lessen the stigma or maybe even understand the reasons behind the stigma, then perhaps positive connotations would trickle through the system.

Here, informing staff members of resources and ultimately connecting students with resources (internally or externally) may help. Also, offering training to staff members, like the national program Mental Health First Aide, might diminish negative and replace it with understanding and, conceivably, compassion.

Research Limitations

This study was limited in numerous respects. The research was somewhat, by the nature of sample size and approach, subjective. In an attempt to be factual and objective, I openly admitted both my own personal bias and the research's limitations. My background is education and psychology. In an attempt to understand the topic and the particular phenomenon found, I attempted to triangulate resources; examined a thorough literature review, conducted one-on-one interviews, and had participants check data. Strategies for trustworthiness included detailed field notes and a reflexive journal, member checking, a research team, simultaneous data collection and analysis, thick description, and an audit trail.

Member checking was particularly helpful and challenging. It was helpful in that the students were able to read my interpretation of their perceptions and experiences and, at the same time, we could continue the conversation about what they would like for the research to reflect about their particular perceptions and experiences. Unfortunately, the timing for member checking was difficult. Two participants shared during the interview that they were transferring to another school in the spring. The area had a major ice storm during exam week with one day missed and two delayed starts. This weather made meeting impossible. I gave all participants the opportunity to member check before the semester was over. As it went, two students were too sick to meet. Another student had a family emergency. So, four students met with me.

Hays and Singh (2012) offered a systematic coding process which proved valuable. In the analysis, I attempted to let the participants' voices not only be heard but allowed their stories to reflect their perception of online learning. My own bias as a psychology teacher may have tilted the direction of the grouping. I tend to see through a behaviorist lens, so the grouping of themes may be a reflection of my own personal experiences and educational background. By having some of the participants check their responses, the bias was, to some degree, regulated. Hopefully, the researcher's background enticed the participants to give thick and rich descriptions of their perceptions of online learning and their experiences with online learning during their initial interviews.

The research had participation limitations. Foremost was the sample itself. It was more difficult than expected to recruit participants. I began with twelve interested students. However, as the process unfolded, it was difficult to convince student's with psychological disorders to speak about their experiences. I believe this could have been for a variety of reasons. The first one was past experiences. Though, I have not had any negative interactions with students who contend with the challenges of psychological disorders, the students who interviewed with me offered stories of intimidation and frustration with educators. These past experiences could have influenced the number of willing participants. Also, a contributing factor could have simply been timing. I intended to begin the interview process at the beginning of the semester. Unfortunately, for a variety of reasons, the time it took to get started with the interviews carried us into the middle of the semester. Historically, students find themselves inundated with academic assignments during this time. Finally, it could have been that of the original twelve willing participants, some were simply not able to participate due to their own personal challenges, either directly related to their disorders or indirectly related. These same concerns were also

present during member checking. Perhaps, had I begun the interviews earlier in the semester, some of these concerns would have been avoided.

There were also design issues. The Virginia Community College System constitutes a group of 23 community colleges. Involving only one college out of the state's 23 community colleges limits participation. Likewise, a sample size of seven did not represent the opinions of all community college students with psychological disorders. If this project was funded, longitudinal, and an incentive based project, perhaps the length and depth could be expanded. Even with these limitations, the vivid descriptions and candidness offered in this research provided a foundational study and ultimately offered a deeper understanding of beneficial and hindering online teaching techniques for community college students with psychological disorders.

Implications for Future Research

This study was foundational and I would like to offer several recommendations for future research. The first is to narrow the participants; in essence, redo my study's methodology except focus in on one particular psychological disorder. Due to the number of veterans seeking educational options, I think PTSD would be an interesting and perhaps a timely disorder. Today, the VCCS supports Veterans Services departments. These departments could, perhaps, be a viable resource for future researchers.

In picking one disorder, the idea of veering to more than one college may be advantageous. I think this would be difficult unless the researcher has connections to several different Special Services Coordinators at various colleges. The concern is in confidentiality and in creating a rapport with the student population. As shown with my data, some students with

psychological disorders may have had past experiences that make them less willing and less trusting to interact. Yet, even with a trusting relationship between the researcher and the coordinators, participants may have had past negative experiences limiting their willingness to participant. Perhaps a quantitative approach could eliminate potential participants' fear. If a confidential survey was used, the participants might feel less inhibited and might, with the right wording of questions, be open to rate their experiences. With future qualitative research, a survey might, again with the right questions, offer thick rich descriptions. Another qualitative suggestion is to consider having an open discussion board or blog with anonymous entries. The researcher could facilitate the discussion board or blog and allow participants to interact virtually either solely with the researcher or perhaps with the researcher and other participants. Along the information gathering process, I considered a focus group. However, after discussing this option with the research team and my committee members, it was decided that the population may not feel comfortable sharing details of their experiences. However, for future research, a virtual focus group might be advantageous and give interesting results.

Another interesting approach may come in the form of a quantitative or mix methods study. A college-wide attempt for staff education would include training with a national accredited training like Mental Health First Aide. Focus groups could be included and a wide range of the institutions' contributing shareholders could be involved. It would interesting to see if views on could be altered concerning those with psychological disorders through training sessions.

Of the questions and answers I received, I think another area could be figuring out how to better understand the role social supports play in the participants' lives. I did not pursue this avenue, yet participants in this study reiterated the importance of their family and significant

others in motivating their academic success. With all the personal challenges connected to their psychological disorders, the participants for this study all showed a sincere and tenacious drive to reach their personal academic goals. An interesting path for future research might include an investigation into how community college students with psychological disorders overcome their challenges and succeed. Furthermore, questions (quantitatively and/or qualitatively administered) asking participants to indicate the quality of relationship between themselves and their instructors, both online instructors and traditional instructors, might make for an interesting comparative study.

Grabinger (2010) stopped his work in this area because he did not have the support of his university and before he could pursue the research further, he retired. Perhaps the hardest obstacle to overcome for future researchers will be to find the university and college(s) willing to explore and interested in the topic. I was fortunate. Both ODU and the VCCS have supported my endeavors over the last four years. I believe part of the encouragement is based on the supporters' personal connection with psychological disorders and their realization that college students with psychological disorders deserve deliberated consideration in order to better online learning opportunities and to improve student success.

Conclusion

As college students are increasingly opting for online classes, it seems reasonable that community college staff and administrators could find value in predicting levels of potential academic success for all groups of students (Carr, 2012). The lone existence of a broad spectrum of available courses (online, traditional, or hybrid) represents a synthetic sense of open access (Bailey & Morest, 2006). Ultimately, the ability to adapt e-learning to a wide spectrum of learning styles and needs will lead to individual community colleges' success or failure in all

these areas. Moreover, it will be the community colleges' malleable approach to online learning and programs that will contribute to furthering and then preserving open access and student success.

The attempt to understand the experiences of students with psychological disorders and their perception of online courses was ultimately an effort to better advocate for community college students' online success. Whether the community college student dealt solely with psychological disorders, a combination of this with personal challenges, or no other challenges at all, the desire for online student success within this particular population motivated this research. Hence, it is through the participants' rich and dense personal descriptions that community college enthusiasts have hopefully gained a deeper understanding about online learning experiences from community college students with psychological disorders.

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APPENDICES

Appendix A

Ten Related Studies' Research Questions

Questions	One	Two	Three
Dillon, & Osborne, 2006	How can teachers better improve curriculum design for students with ADD?		
Mamlin, Harris, & Case, 2001.	Do LD students have an external locus of control?		
Lane, Carter, Pierson, & Glaeser, 2006	What are the differences in academic, social and behavioral skills of HS students with ED and LD?		
Bursik & Martin, 2006	What are the differences in adolescent academic orientations and academic achievement?		
Berenson, Boyles, & Weaver, 2008	Can EI predict CC student success taking online classes?		
Grabinger, 2010	What are the problems that students with mental illness have with online learning?	What are some flexible teaching methodologies within the universal design for learning that might help?	How to bring the use of Web 2.0 tools for teaching and learning?

Tighe, 2006	Is the VCCS online college orientation meeting student needs?		
Dollinger, 2000	Are internals or externals more aware of goal-relevant aspects of their environment?		
Sabornie, Evans, & Cullinan, 2006	Do students with ED, LD, and behavioral disabilities differ significantly in the areas of cognitive and behavioral?		
Jalfs, & Richardson, 2010	Is there a difference in students' perception of their classes and their perception of their organizational skills between students with LD and ED and those without?		

Appendix B

Ten Related Research Studies' Method Design, Population, Measures, Procedure, and Method Limitations

Study	Method Design	Population	Measures	Procedure	Method Limitations
Dillon, & Osborne, 2006	Literature Review	Students (primary and secondary) who have been diagnosed with ADD or ADHD	Explanation of ADD and ADHD with special attention to brain functioning	Review of consensus reports on ADD and learning	The review is helpful to better understand ADD's cognitive functioning but is not new research.
Mamlin, Harris, & Case, 2001.	Methodology analysis	Comparative & descriptive studies of LD students and locus of control are examined	Explanations of the nature and use of locus of control theory are explored	22 comparative & descriptive studies of LD students from 1982-1999	Does not include online learning. It does not separate LD and ED. Also the year span is too great for specifics.

Lane, Carter, Pierson, & Glaeser, 2006	2 groups of HS students with ED and LD are compared on nine measures using psychometrically sound assessments	45 HS students with ED and LD receiving special education services	Areas of nine measures in academic, behavioral, and social domains using multivariate procedures.	Randomly selected 4 HS from 2 large, ethnically and culturally diverse suburban southern California school districts.	Not a nationally inclusively sampling.
Bursik & Martin, 2006	Regression analysis	Secondary students	Washington University Sentence Completion Test and self-report measures.	Measures given and then assessed on academic locus of control, learning orientation and grade orientation.	Sample size of 142 seems small. Geographical limitations and not a random population sample.

Berenson, Boyles, & Weaver, 2008	Stepwise multi regression with 113 participants	Community College students (ages 18-57)	Examines the intrinsic factors of emotional intelligence (EI) & personality to determine connection with GPA.	Inter-correlational research design, volunteers, randomly selected, and compensation.	GPA is tough to connect. There are many factors beyond this study that could influence outcomes, especially with this population.
Grabinger, 2010	Develops a conceptual framework to support college students with ED and online learning and case studies.	College students with psychological disorders taking online classes	There is a weighing of what might work.	Review of consensus reports on ED and learning w/ postsecondary education	The review is helpful to infer solutions. It is limited to inferences, not statistical facts.
Tighe, 2006	Survey and literature review	VCCS practices	Explanation s of the nature and use of online CC orientation	Review of the efficiency of web-based version of college orientation and survey	Helps to understand what is being utilized but is not new research. Very small response (n=5).

Dollinger, 2000	College students (n=535) were given extra credit to participate.	College students took 3 different surveys. The results were then compared.	Likert scales and surveys were used to measure locus of control, IE and incidental learning.	3 studies done and then compares them in order to better help college students succeed	Sample is limited to the researchers own students.
Sabornie, Evans, & Cullinan, 2006	Literature review	Secondary education; in particular students who with ED, LD, and behavioral disabilities.	Explanation, comparison, and reviews of 34 studies	Reviews and compares characteristics of high-incidence disability groups.	Reviews and then makes assumptions from past work. No new research is offered.
Jalfs, & Richardso, 2010	A specific university was picked and students were given a questionnaire	Disabled & nondisabled self-reporting higher education student (n=2000)	2 short (21 items) questionnaires	Survey given online and paper version offered. Postage was given for return and the online survey was closed after 4 weeks.	Sample is limited to one university sample. The university used was the developed to offer distance learning and may not represent higher education total population.

Appendix C

Ten Related Research Studies' Patterns, Gaps, and Contributions

Study	Patterns	Gaps	Contributions	Potential use
Dillon, & Osborne, 2006	Cognitive ability is important in curriculum design.	Responsibility is put on teacher not on students.	Interesting ideas to help teachers better improve instruction.	Cognitive definitions are clear and pointed.
Mamlin, Harris, & Case, 2001.	External locus of control may not be a valid measure for LD students.	No new research is offered.	Questions the work of Rotter and the application of past work on present students.	Offered the flip side of understanding Rotter's work.
Lane, Carter, Pierson, & Glaeser, 2006	No difference in LD and ED groups were found on math & reading. A difference was found in teacher reporting with ED doing academically poorer than LD.	School identified labels were used and may not be updated and combined with present student maturation.	Interesting that the biggest differences were in teachers' perceptions.	Offers the idea that success could be subjective; teachers play and important part in their ED students' success.
Bursik & Martin, 2006	Regression Analysis indicates that ego development is a valid predictor of academic achievement.	Social interactions and social ties were not considered.	The work supports past research but does little to advance the area.	Supports the idea of external and internal academic locus of control.

Berenson, Boyles, & Weaver, 2008	EI is a predictor for online success. The combination of EI and personality even stronger connection for success.	Self-reporting could be a problem here. Also the females outweighed number of males.	Interesting connection between EI and online success. Also, using a sampling of CC students with variety of ages interesting.	The sampling is small and incentives to keep participants is important.
Grabinger, 2010	There is a need for research in postsecondary education, psychiatric disorders and online learning.	There are huge gaps in his work. No specific university or college is specified. The base is interesting, though, and opens an area that has not been a research focus.	Grabinger offers an opportunity to invest in an area that he shows as vital in postsecondary education.	Solid beginning for my research to take flight. He does a literature review that is easily understood and that supports the basics of this research.
Tighe, 2006	General themes: a variety of teaching methods are important for online learners, strategy-based approaches were most reported.	The sampling is so small that it is really hard to say any particular teaching method is the most utilized.	Interesting thoughts with the review part but lacking with the survey.	It helps to see where other researchers failed. This one failed with the survey.
Dollinger, 2000	Internal surpass externals in all	The sample was local and known	Interesting support for	Supports the idea of external locus of

	areas.	to the researcher.	external locus of control success.	control.
Sabornie, Evans, & Cullinan, 2006	Social adjustment does not differ in the groups. Cognitive and behavioral profiles do differ.	For a review, the piece was pretty through. The lack of statistical analysis is the biggest negative.	Condensed finding from a wide range (34 studies), results were pretty clear.	Offers practical and educational implications.
Jalfs, & Richardson, 2010	Students with LD and ED showed lower organizational skills and rated their classes lower.	The differences were not statistically significant.	Interesting conclusions and solid stats.	Supports idea that all students could benefit from online learning.

Appendix D

Informed Consent Letter

You are invited to participate in a research study conducted by Gretchen Warren, a student at Old Dominion University (ODU). The study will be in fulfillment of Gretchen Warren's academic requirements at ODU. Through the study, the researcher hopes to better understand students' perceptions of online learning.

You understand that Gretchen Warren will retain the tape of the interview and, if you would like, you will have access to read the verbatim transcript of the interview. You agree that the transcript of your interview may be used in Gretchen Warren's written report for her dissertation and may be used in future papers that she might submit for publication. You will not be personally identified in any publication, presentation, or report.

If you decide to participate, you will agree to participate in an online questionnaire, a one-on-one interview and, possibly, a follow-up interview. Before the interview, a questionnaire is to be completed. The questionnaire will take not more than 15 minutes. For the interview, you and Gretchen Warren will meet one time for about 60 minutes and no more than 120 minutes. The interview will be recorded. This interview is at no cost to you and you will not be compensated. A follow-up interview may be necessary. The researcher cannot guarantee that you personally will receive any benefits from this research. However, if you participate, your name will be entered into a drawing for a gift card.

Your participation is voluntary. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you have any questions, please feel free to contact Gretchen Warren at ***-***-****. Your signature indicates that you have read and understand the information provided above, that you willingly agree to participate, that you may withdraw your consent at any time and discontinue participation without penalty, that you have received a copy of this form, and that you are not waiving any legal claims, rights or remedies.

Print Name_____

Signature _____
Date_____

Appendix E

Interview Script

I sincerely appreciate your support in this research. As you know, I'm a student at Old Dominion University. As part of the requirements for my degree, I am interviewing individuals about their personal experiences with online learning. The interview will take about sixty minutes. In particular, I hope to better understand students' perception of online learning. I am really interested in your feedback and thoughts. Please keep in mind that all feedback is relevant, interesting, and important and there are no correct or incorrect answers, simply different perspectives and experiences.

If you don't mind, I would like to record our time together. I would like to do this so that I can better concentrate on what you are saying while we talk and then I can do the actual notes from the recording. Is that OK? TURN ON RECORDER

INDIVIDUAL CONSENT FORM AND QUESTIONNAIRE WHILE I PROVIDE OVERVIEW

Thank you for filling out the consent form and the questionnaire.

Again, thank you for your willingness to participate in this interview. Will you please sign this consent form? It basically says the following,

- Your information will remain confidential and will not contain any identifying information. (I will be sure to emphasize that it will not be shared with others and that I will not notify others she has been interviewed unless she desires.)
- Your participation is voluntary and you may withdraw your participation at any time.
- You agree to the recording of the interview.

THEN: Please let me know if you have any questions or need clarification about the form. GIVE TIME TO SIGN AND FILL OUT QUESTIONAIRE. BE OPEN FOR QUESTIONS. WHEN FORMS COMPLETED, THEN BEGIN INTERVIEW QUESTIONS.

Appendix F

Interview Questions

The following questions were used to interview participants. I followed the interview script for the most part.

1. What is the nature of your disability (from here on, call the disorder the name the participant offers)?
2. How did having *disability (participant's term)* contribute to your online learning experience in a positive way?
3. How did having *disability (participant's term)* contribute to your online learning challenges?
4. Considering you online learning experience, what teaching tools benefited your learning?
5. From your online learning experience, what teaching tools hindered your learning?
6. How comfortable are you talking with your online instructor about your disability?
7. If you had three pieces of advice to share with a student taking an online course, what would those three pieces of advice be?
8. If you could offer three pieces of advice to help online teachers better serve students, what would those three pieces of advice be?
9. Is there anything else you like to add?

Appendix G

Demographic Survey

The following questions comprised a demographic survey. The survey was designed to take no more than 15 minutes to fill out. It actually took less than 10 minutes to fill out.

1. Age?
2. Gender?
3. Ethnicity?
4. State of residency?
5. Contact information for possible follow-up interviews.
6. What is the nature of your disability?
7. At what age were you diagnosed?
8. Please list the online classes have you attempted and your grade (A, B, C, D, F, or W for Withdrew) for each?

Appendix H

Research Questions and Corresponding Interview Questions

Research Questions (RQ)	Interview Questions (IQ) generating data for RQ
1. What are the online experiences of community college students who have been clinically diagnosed with psychological disorders?	IQs 1, 2, 3, 4, 5, 6, 7, 8 & 9
2. How do community college students who have been clinically diagnosed with psychological disorders perceive teaching techniques in online courses?	IQs 4, 5, 6, 7, 8, & 9
3. To what degree does the Universal Design for Learning (UDL) framework offer a useful model to develop flexible teaching practices for community college students who have been clinically diagnosed with psychological disorders and who have enrolled in online courses?	IQs 2, 4, 7, 8, & 9

Appendix I

Invitation to Participate

Fall 2013

Hello.

You are invited to participate in a research study conducted by Gretchen Warren, a student at Old Dominion University (ODU). The study will be in fulfillment of Gretchen's academic requirements at ODU.

Through the study, Gretchen hopes to better understand community college students' perceptions of online learning. Specifically, the study will seek to understand the online teaching techniques which enhance or hinder learning. You are asked to participate in this study because you have attempted an online course, you have a self-disclosed diagnosed disability, and you attend a community college. You will not be personally identified in any publication, presentation, or report.

Your participation is completely voluntary. If you decide to participate, you are free to withdraw your consent and discontinue participation at any time without penalty.

If you are interested in participating, please fill out the bottom of this form and Gretchen will contact you. If you participate, you will be entered into a drawing for a gift card.

If you have questions, please feel free to call Gretchen by cell (***-***-****) or by email (**********).

Thank you for considering participating.

My best,

- o Yes, I would like to participate
- o No, I am not interested in participating

If yes, please give the best way to contact you:

_____

_____

Appendix J

Codes for Students and 3 UDL Frameworks

	Affective	Recognition	Strategy
Student A	AA	AR	AS
Student B	BA	BR	BS
Student C	CA	CR	CS
Student D	DA	DR	DS
Student E	EA	ER	ES
Student F	FA	FR	FS
Student G	GA	GR	GS
Student H	HA	HR	HS

Appendix K

Examples of UDL Coding Connections to Transcribed Words and Phrases

UDL Framework	Description	Examples
Affective (Highlighted pink in the transcripts)	The degree to which the students engages in learning. The emotional deposits made by the student and student's reactions to learning.	Included are the positive and negative emotions shown by the students and by teachers and social interactions with peers and with teacher.
Recognition (Highlighted yellow)	The "what" of learning; what works and what does not.	Included are video or slide shows, support texts, and Web links
Strategy (Highlighted blue)	Specifically "how" a student learns is important. Also important is "how" a student progresses.	Included are expectations clearly explained, student and teacher periodically asking or checking on learning process, and planning/reminding.