

Rowan University

Rowan Digital Works

Theses and Dissertations

4-17-2023

ROWAN UNIVERSITY FULL-TIME INSTRUCTORS' KNOWLEDGE AND ATTITUDES REGARDING NEURODIVERSITY AND NEURODIVERGENT UNDERGRADUATE STUDENTS

Serena Powell
Rowan University

Follow this and additional works at: <https://rdw.rowan.edu/etd>



Part of the [Higher Education Commons](#)

Recommended Citation

Powell, Serena, "ROWAN UNIVERSITY FULL-TIME INSTRUCTORS' KNOWLEDGE AND ATTITUDES REGARDING NEURODIVERSITY AND NEURODIVERGENT UNDERGRADUATE STUDENTS" (2023). *Theses and Dissertations*. 3092.

<https://rdw.rowan.edu/etd/3092>

This Thesis is brought to you for free and open access by Rowan Digital Works. It has been accepted for inclusion in Theses and Dissertations by an authorized administrator of Rowan Digital Works. For more information, please contact graduateresearch@rowan.edu.

**ROWAN UNIVERSITY FULL-TIME INSTRUCTORS' KNOWLEDGE AND
ATTITUDES REGARDING NEURODIVERSITY AND NEURODIVERGENT
UNDERGRADUATE STUDENTS**

by

Serena J. Powell

A Thesis

Submitted to the
Educational Services and Leadership
College of Education
In partial fulfillment of the requirement
For the degree of
Master of Arts in Higher Education
at
Rowan University
March 28, 2023

Thesis Chair: Stephanie Lezotte, Ph.D., Assistant Dean, School of Graduate Studies

Committee Members:

Andrew Tinnin, Ed.D., Associate Vice President for Student Life
Tyrone McCombs, Ph.D., Associate Professor, Educational Services and Leadership

© 2023 Serena J. Powell

Dedication

I am dedicating this thesis to anyone who has ever felt weird, unworthy, isolated, or broken. You belong in this world. You are important. Your voice deserves to be heard.

Acknowledgments

I would like to acknowledge my parents for always supporting me no matter which path I choose. Thank you for letting me find my way and cheering me on at every moment. I will never be able to express how grateful I am for the work you have done and the sacrifices you have made to support my success. Thank you to my amazing friends, Sam Poole and Desiree Colangelo, for listening to me and providing me with constant joy and laughter. Thank you to my mentors, Lara Roberts LeBeau and Nancy Demaris, for sharing your wisdom with me, endlessly encouraging me to reach my potential, and letting me cry in your offices. Thank you to my program cohort for being my team throughout this process and inspiring me to keep going. Your support means the entire world to me.

Abstract

Serena J. Powell

ROWAN UNIVERSITY FULL-TIME INSTRUCTORS' KNOWLEDGE AND ATTITUDES REGARDING NEURODIVERSITY AND NEURODIVERGENT UNDERGRADUATE STUDENTS

2022-2023

Stephanie Lezotte, Ph.D.

Master of Arts in Higher Education

The purpose of this study was to use quantitative research methods to better understand the knowledge and attitudes that full-time instructors of undergraduate students at Rowan University have regarding the concept of neurodiversity and neurodivergent students. The sample consisted of 97 full-time instructors of undergraduate students at Rowan University. Participants completed an online survey about their knowledge and feelings regarding the concept of neurodiversity, participation in neurodiversity-related professional development, knowledge and attitudes regarding neurodivergent students and accommodations, and knowledge of support resources on campus. Overall, the findings showed that full-time instructors of undergraduate students at Rowan University have high levels of knowledge and positive attitudes regarding the concept of neurodiversity and neurodivergent students. However, instructors are somewhat less certain about how to locate campus resources for neurodivergent students. Additionally, less than half of instructors reported receiving adequate support from their department, program, or unit in working with or supporting neurodivergent students. Further recommendations for research include conducting a similar study of instructors using qualitative research methods; studying the knowledge and attitudes of adjunct, graduate, and/or medical school instructors regarding neurodiversity and neurodivergent students; and studying the experiences of neurodivergent students, faculty, and staff.

Table of Contents

Abstract	v
List of Tables	viii
Chapter I: Introduction.....	1
Statement of the Problem.....	1
Significance of the Problem.....	2
Purpose of the Study	3
Assumptions and Limitations	3
Operational Definitions.....	5
Research Questions.....	7
Organization of Remaining Chapters of Study	7
Chapter II: Literature Review	8
Neurodiversity: An Introduction.....	8
A Brief History of Disability Treatment and Legislation	12
Experiences of Neurodivergent Students.....	14
The Role of Instructional Faculty Members	17
Faculty Training.....	20
The Neurodiversity Paradigm in the Context of Higher Education.....	21
Conclusion	23
Chapter III: Methodology	24
Context of the Study	24
The Office of Accessibility Services	24
The Center for Neurodiversity	25

Table of Contents (Continued)

The PATH Program26

Population and Sample27

Instrumentation28

Procedures of Gathering Data.....29

Data Analysis29

Chapter IV: Findings.....31

 Context of the Study31

 Profile of the Sample31

 Research Question 133

 Research Question 237

 Open-Ended Responses45

Chapter V: Discussion, Conclusions, and Recommendations48

 Summary of the Study48

 Discussion of the Findings.....48

 Conclusions.....49

 Recommendations for Practice51

 Recommendations for Further Research.....52

References.....54

Appendix A: IRB Approval60

Appendix B: Permission to Use Survey.....61

Appendix C: Survey.....62

Appendix D: Recruitment Email70

List of Tables

Table	Page
Table 1. Instructors' Colleges	32
Table 2. Instructors' Familiarity with the Concept of Neurodiversity.....	35
Table 3. Instructors' Knowledge Regarding Neurodiversity	35
Table 4. Instructors' Feelings Regarding Neurodiversity.....	36
Table 5. Instructors' Approaches to Inclusive Teaching	37
Table 6. Instructors' Knowledge and Attitudes Regarding Neurodivergent Students.....	41
Table 7. Instructors' Familiarity with the Office of Accessibility Services	45

Chapter I

Introduction

‘Neurodiversity’ may sound like a compelling buzzword, but it refers to a concept of growing importance in higher education. Simply put, neurodiversity is the diversity of human thinking, cognition, and behavior. With the introduction of departments dedicated to diversity, equity, and inclusion (DEI) at higher education institutions across the United States, neurodiversity has become a greater consideration for practitioners as they focus on supporting an evolving student population. However, because neurodiversity is relatively newer and less familiar to many people than other DEI concepts, there is much progress that needs to be made regarding practitioners’ knowledge about this topic.

Statement of the Problem

There is a gap in research studying higher education practitioners’ knowledge and attitudes regarding neurodiversity and neurodivergent students. Because instructional faculty members interact with students on a daily basis, it is especially important to have some insight into their knowledge and attitudes regarding this topic and student population.

Although not all neurodivergent people identify as disabled, neurodivergence is frequently examined through the lens of disability. Research on this subject demonstrates that instructional faculty members play an essential role in the educational outcomes of disabled students (Becker & Palladino, 2016; Chickering & Reisser, 1993; Markle et al., 2017). Unfortunately, studies have shown that there is a lack of willingness, preparedness, awareness, and/or knowledge about the needs of disabled students among instructors (Becker & Palladino, 2016; Stevens et al. 2018). Research suggests that

professional development centering disability-inclusive education successfully increases teaching efficacy, but the amount of research overall is limited (Becker & Palladino, 2016; Moraña & Carballo, 2017; Stevens et al., 2018).

Significance of the Problem

It is estimated that at least 15-20% of the population as a whole is neurodivergent (Doyle, 2020). It is difficult to know exact figures, but estimates put unemployment rates for neurodivergent adults between 30 and 40% (University of Connecticut, n.d.). This is troubling because a major role of higher education is to prepare college students for meaningful careers post-graduation, but neurodivergent students may have unique challenges that may not be addressed if practitioners are not mindful of factors that impact them.

This study is also significant because of the changing student population over time. At Rowan University, where this study took place, more students than ever are registered with the Office of Accessibility Services. Students with neurocognitive differences such as autism spectrum disorder (ASD) or attention-deficit/hyperactivity disorder (ADHD) may consider themselves to be disabled and/or neurodivergent and choose to receive support from the Office of Accessibility Services. As a result, practitioners should be aware of evolving student demographics to be able to promote student success. For example, data from the Center for Disease Control's Autism and Developmental Disabilities Monitoring (ADDM) Network shows that one in 35 (or 2.8%) of 8-year-old children in New Jersey have an autism spectrum disorder diagnosis, which is higher than estimates from previous years (Center for Disease Control, 2022). New Jersey has the second-highest prevalence of autism spectrum disorder diagnoses

compared to other ADDM Network sites (Center for Disease Control, 2022).

Additionally, nearly 96% of Rowan University students are New Jersey residents (Rowan University Office of the President, n.d.). Based on the increasing number of autism spectrum diagnoses in New Jersey and the United States as a whole and the number of New Jersey residents who attend Rowan, it is likely that the number of Rowan students with autism spectrum disorder will also increase over time. Although autism spectrum disorder is just one facet of neurodivergence, this example demonstrates the importance of being well-prepared to support neurodivergent students.

Purpose of the Study

The purpose of this study is to use quantitative research methods to better understand the knowledge and attitudes that full-time instructors at Rowan University have regarding the concept of neurodiversity and neurodivergent students. Full-time instructors of undergraduate students at Rowan University's Main Glassboro Campus were surveyed. The first part of the survey asked participants to assess their knowledge and attitudes regarding neurodiversity as a broad concept. The second part of the survey asked participants to assess their knowledge and attitudes regarding neurodivergent students and accommodations. The third part of the survey allowed participants to submit open-ended comments.

Assumptions and Limitations

I am conducting this study with prior experience working with instructors and disabled students as a member of the Rowan University staff. From 2018 until 2019, I was a Testing Assistant and Proctor of accommodated tests in the Testing Center. I interacted frequently with instructors of disabled students who needed testing

accommodations. In 2020 and 2021, I participated in and completed the Rowan University DEI Certificate and Inclusive Pedagogy and Practices Certificate program. I am currently the chairperson for the Neurodivergent Employee Resource Group and an intern for the Center for Neurodiversity. I also openly identify as neurodivergent. These experiences inspired my curiosity and the purpose of this study, but they can also drive my assumptions during data analysis.

This study also received 97 responses, but the target sample size was 233 responses. This target sample size was determined using an online survey sample size calculator based on a total population of 586 full-time instructional faculty members and a 95% confidence level and 5% margin of error. A list of email addresses for full-time Rowan University instructors was requested from the Division of Information Resources & Technology (IRT) at Rowan upon receiving approval from the Institutional Review Board (IRB). However, although the list included instructors of both undergraduate and graduate students, only instructors of undergraduate students were eligible to respond to the survey. Because the list was not granular enough to define instructors' student populations, it is likely that the target sample size based on actual full-time instructors of undergraduate students would be smaller than 233. Additionally, the list of instructors did not include faculty members with primary appointments at the Camden Campus/Cooper Medical School of Rowan University (CMSRU) or the School of Osteopathic Medicine (SOM), so the results of this survey only include instructors with primary appointments at the Main Glassboro Campus.

Operational Definitions

1. *Neurocognitive functioning* refers to memory, processing speed, reasoning, planning, coordination, attention/concentration, and motor skills. Neurocognitive functioning can impact an individual's behavior, learning, communication, and emotional regulation (Kumar et al., 2020).
2. *Neurodiversity* refers to the diversity and variation within human neurocognitive functioning (Walker, 2021).
3. Being *neurodivergent* refers to having a mind that is considered to operate outside of the "dominant societal standards of 'normal'" neurocognitive functioning (Walker, 2021, p. 38). For example, someone who is neurodivergent may have a clinical diagnosis of autism spectrum disorder, ADHD, dyscalculia, dyslexia, dyspraxia, Tourette syndrome, and many other psychological, cognitive, and neurological differences (McGee, 2012). Neurodivergent people may or may not consider themselves to be disabled.
4. *Neurodivergence* is "the state of being neurodivergent" (Walker, 2021, p. 38).
5. Being *neurotypical* refers to having a mind that is considered to operate within "dominant societal standards of 'normal'" neurocognitive functioning (Walker, 2021, p. 40).
6. The *medical model of disability* is a historically dominant framework for understanding disability, which frames disability as an individual problem that must be treated or cured through medical intervention (den Houting, 2019; Radulski, 2022).

7. The *social model of disability* frames disability as a social construct caused by systemic barriers to access, rather than a deficit within an individual (Kuder et al., 2021). Environmental, social, and/or legal changes must be made to accommodate the needs of disabled or neurodivergent people (den Houting, 2019; Hill & Goldstein, 2015).
8. The *neurodiversity paradigm* refers to a theoretical shift from the medical model of disability to the outright rejection that there are definitive ‘normal’ or ‘abnormal’ forms of neurocognitive functioning (Walker, 2021). This concept is part of a larger argument that retrofitting systems with accommodations for disabled people is not enough to create equity; systems and assumptions must be reevaluated and restructured at the root (Dolmage, 2017).
9. *Identity-first language* and *person-first language* refer to the ways in which people can be described through language based on disability status or neurodivergence (Kuder et al., 2021). Person-first language places the person before their descriptor so as not to incorporate these factors into their identity (e.g., “person with autism”) (Kuder et al., 2021, p. 3). Identity-first language places the descriptor before the person and acknowledges that this descriptor may impact their identity (e.g., “autistic person”) (Kuder et al., 2021, p. 3). Use of both languages is acceptable, but identity-first language is more frequently preferred among autistic advocates in particular (Kuder et al., 2021; Walker, 2021).

Because I identify as neurodivergent and see it as a factor that impacts who I am as a person and how I exist within the world, I have chosen to use identity-first language in this paper.

Research Questions

This study will investigate the following research questions:

1. What knowledge and attitudes do instructors have regarding the topic of neurodiversity?
2. What knowledge and attitudes do instructors have regarding neurodivergent students?

Organization of Remaining Chapters of Study

Chapter Two reviews literature relevant to the concept of neurodiversity, the history of disability treatment and legislature, the experiences of neurodivergent students in higher education, the role of instructors and faculty training, and how the theoretical framework of the neurodiversity paradigm can apply to higher education.

Chapter Three discusses the methodologies used to conduct this study, including the context of the study, the population and sample, the instrumentation used, procedures of gathering the data, and data analysis.

Chapter Four consists of the findings from the survey distributed for this study.

Chapter Five summarizes the results, interprets their meaning, and provides further recommendations for practice and research.

Chapter II

Literature Review

This chapter reviews both foundational and current research and theory regarding neurodiversity. I will first introduce the concept of neurodiversity, its history, and its evolution over time, and how it is situated within understandings of disability. Next, I will outline the history of the treatment of disabled people and legislature aimed at protecting or serving them. I will then discuss the experiences of neurodivergent students as they transition from K-12 to postsecondary educational institutions. Finally, I will explore the role of instructional faculty members in neurodivergent students' academic success through the lens of the neurodiversity paradigm.

Neurodiversity: An Introduction

Neurodiversity is a concept with roots in the disability and civil rights movements (Singer, 1999). The term 'neurodiversity' is thought to have first been coined in the late 1990s by sociologist Judy Singer, who argues that the traits associated with autism spectrum disorder are labelled as 'deficits' to define and differentiate 'normal' and 'abnormal' behavior (Singer, 1999). Singer (1999) argues that there is neurological diversity, or neurodiversity, across individuals. The idea of neurodiversity emerged alongside the growing accessibility of computers and the Internet, allowing people otherwise cast aside as socially awkward 'geeks' and 'nerds' to connect online over their shared interests in technology (Blume, 1998; Singer, 1999). Neurodiversity allows these individuals to frame their social challenges and special interests as a different kind of 'brain wiring' just as inherent and normal to humanity as biodiversity, rather than a deficit (Blume, 1998).

Over time, neurodiversity scholars have come to define neurodiversity as a biological fact (Walker, 2021). Humans are neurodiverse because of the “infinite variation in neurocognitive functioning within our species” (Walker, 2021, p. 34). There is no inherently superior form of neurocognitive functioning, just as there is no inherently superior race, gender, or culture (Walker, 2021). However, systems of power that create and maintain social inequities such as racism and sexism have also established a standard of ‘normal’ neurocognitive functioning, and individuals who do not meet this standard are often considered to be ‘disordered’ (Walker, 2021).

Cognitive styles considered to be ‘neurodivergent’, or diverging from societal standards of ‘normal’, include but are not limited to autism spectrum disorder, ADHD, dyscalculia, dyslexia, dyspraxia, Tourette syndrome, and many other psychological, cognitive, and neurological differences (McGee, 2012; Walker, 2021). The most recent edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR) classifies neurocognitive differences as “neurodevelopmental disorders,” or “developmental deficits or differences in brain processes that produce impairments of personal, social, academic, or occupational functioning” (American Psychiatric Association, 2022, Neurodevelopmental Disorders section, para. 1). The DSM-5-TR states that neurocognitive differences can limit learning, executive functioning, social skills, and intellectual ability (American Psychiatric Association, 2022). However, according to neurodiversity scholars, these impairments only exist in a context where ‘normal’ (‘neurotypical’) and ‘abnormal’ (‘neurodivergent’) neurocognitive functioning are defined by the larger society, and where ‘normal’ neurocognitive functioning is perpetuated as the ideal standard (Walker, 2021).

Rather than affirming the ‘good-bad’ binary between neurotypical and neurodivergent people, neurodiversity scholars argue that the labels are useful because they describe the ways in which people navigate and are perceived by society (Walker, 2021). Someone who is neurotypical may “live, act, and experience the world in a way that consistently falls within the boundaries of neuronormativity—i.e., within the boundaries of what the prevailing culture *imagines* a person with a ‘normal mind’ to be like” (Walker, 2021, p. 58). Neurotypical people are able to function and perform in a way that maintains dominant standards of behavior, thus allowing them to adopt a label of ‘normal’ that is in opposition to a label of ‘abnormal’ (Walker, 2021).

A neuronormative society, which determines and perpetuates these standards of ‘normal’, punishes those who are neurodivergent (Walker, 2021). Neurodivergent people may struggle to function within systems and structures that have been established to reward neurotypical people (Waltz, 2020). If ‘abnormal’ individuals are identified, diagnosed, treated, and corrected, then institutions such as schools and the workplace are able to advance their goals as efficiently as possible (Waltz, 2020). On a systematic level, it is more efficient to exclude or alienate a few ‘deviant’ individuals perceived to be on the fringes than it is to change the structure of the entire institution (Waltz, 2020). As a result, the medical model of disability, which frames disability as an individual problem that must be treated, cured, or terminated through medical intervention, has become one of the most dominant frameworks for understanding disability throughout history (den Houting, 2019; Radulski, 2022).

The social model of disability, which has risen in opposition to the medical model of disability, frames disability as a social construct caused by systemic barriers to access,

rather than a deficit within an individual (Kuder et al., 2021). The social model suggests that environmental, social, and/or legal changes must be made to accommodate the needs of people with disabilities to allow them opportunities equitable to those of people without disabilities (den Houting, 2019; Hill & Goldstein, 2015). Not all neurodivergent people consider themselves to be disabled, but many do. Neurodivergent people may identify as disabled due to the poor fit between their “physical, cognitive, or emotional” traits and the “characteristics of their social context” (den Houting, 2019, p. 271). Walker (2021) writes:

If we start from the assumption that neurotypicals are “normal,” and autistics are “disordered,” then poor connections between neurotypicals and autistics inevitably get blamed on some “defect” or “deficit” in autistics. If an autistic person can’t understand a neurotypical, it’s because autistics have empathy deficits and impaired communication skills; if a neurotypical person can’t understand an autistic person, it’s because autistics have empathy deficits and poor communication skills. (pp. 27-28)

In other words, the medical model of disability argues that the deficit lies within the neurodivergent person for not understanding socially determined superior or correct ways of thinking and communicating, while the social model of disability argues that deficits only exist when narrow standards of thinking and communicating are perpetuated as the superior or correct ways to navigate society (Walker, 2021).

Understandings of neurodiversity are still in flux more than twenty years after the conception of the phrase itself (den Houting, 2019). The needs and rights of neurodivergent and disabled students in higher education are especially relevant as these

students continue to struggle against ableist policy and structures (Birdwell & Bayley, 2022). In order to understand the current state of neurodiversity and neurodivergent students in higher education, it is important to first know the context surrounding the history of disability treatment and legislation.

A Brief History of Disability Treatment and Legislation

The historical treatment of disabled people has included many instances of exclusion, social isolation, and abuse (Charlton, 1998). During the Holocaust, Adolf Hitler initiated the T4 Euthanasia Program to murder people with severe mental and physical disabilities (Berenbaum, 2018; Temple University, n.d.). These murders were driven by eugenics, which is the belief that the undesirable genetic traits causing ‘feeble-mindedness’, blindness, deafness, mental illness, and other disabilities can be eliminated from the human race through selective breeding and exterminating ‘bad stock’ (Wilson, 2021). These ideologies were not exclusive to Nazi Germany (Berenbaum, 2018; Temple University, n.d.). *Buck v. Bell* (1927), a U.S. Supreme Court case, determined the compulsory sterilization of ‘defective persons’ to be constitutional on the grounds that “heredity plays an important part in the transmission of insanity, imbecility, etc.” (para. 2), and that the sexual sterilization of disabled people would be in the best interest of society. This principle drove at least 30 U.S. states to adopt compulsory sterilization laws, with sterilizations being performed well into the 1970s (Kaelber, 2009).

The medical model of disability was especially prevalent during the 20th century (Waltz, 2020). By the 1930s, eugenicists argued that most social problems could be attributed to deficits in about 10% of the population (Waltz, 2020). The ‘Child Guidance’

movement was established in the US and Europe to identify ‘problem children’ based on perceived intellectual, emotional, and social deficits (Waltz, 2020). Correcting the behaviors of ‘problem children’ early in life was important to ensure that they would become well-adjusted and productive adults (Waltz, 2020).

Today, there is still significant emphasis on identifying neurodivergent or disabled children early in life (Waltz, 2020). Most of these efforts are well-intended to provide these children with supports so that they can thrive and succeed in school and, eventually, as adults (Waltz, 2020). Attempts to treat or ‘cure’ neurodivergent and disabled people include assimilating them into a society with neurotypical and able-bodied standards where they must hide their differences, which can cause poor mental and physical health (Radulski, 2022). Unfortunately, disabled adults, especially those who are not as easily able to blend into the larger society, frequently struggle with poverty, refusal of employment and medical or rehabilitation services, institutionalization, and denial of autonomy (Charlton, 1998).

Laws have been passed to retroactively address inequities that have marginalized and denied the needs of disabled people, including the Americans with Disabilities Act (ADA) of 1990. The ADA has roots in the Rehabilitation Act of 1973, which was the first piece of legislation to designate disability as a legally protected category (Law Offices of Stimmel, Stimmel & Roeser, n.d.). Section 504 within the Rehabilitation Act prohibits discrimination against disabled individuals by or within programs that receive federal funding, including all public and some private postsecondary institutions (Kuder et al., 2021; U.S. Department of Education & Office for Civil Rights, 2021). The ADA expands upon Section 504 as a comprehensive ‘equal opportunity’ law for disabled people (U.S.

Department of Justice Civil Rights Division, n.d.). Under the ADA, a disability is defined as “a physical or mental impairment that substantially limits one or more major life activities” (para. 1), which include “caring for oneself, performing manual tasks, seeing, hearing, eating, sleeping, walking, standing, lifting, bending, speaking, breathing, learning, reading, concentrating, thinking, communicating, and working” (para. 2), as well as other major bodily functions. To ensure a broad scope of protection, the ADA is purposeful not to specify which conditions may be defined as disabilities, but individuals protected under the ADA may include those with chronic illnesses, vision or hearing impairments, learning disabilities, neurological differences, or limited mobility (U.S. Department of Education & Office for Civil Rights, 2020).

Some disability and neurodiversity scholars argue that laws aimed at protecting disabled people often actually perpetuate inequities because they do not address the root causes of these issues (Dolmage, 2017, Waltz, 2020). However, this is the current prevailing legislature that exists in the United States to protect disabled people, and it is important to examine for a full picture of the legal rights and protections of neurodivergent and disabled students.

Experiences of Neurodivergent Students

Title II of the ADA requires entities that receive governmental funding, including all public and some private K-12 and postsecondary schools, to provide equal opportunities for disabled people to enjoy their services (New England ADA Center, n.d.). A provision of Title II requires these educational entities to provide appropriate accommodations to disabled students to mitigate inequities that would, if unchecked, be grounds for discrimination (U.S. Department of Education & Office for Civil Rights,

2021). Common academic accommodations in K-12 schools and postsecondary institutions include extended time on tests, adaptive software, note takers, sign language interpreters, and alternative assignments (U.S. Department of Education & Office for Civil Rights, 2011).

The 1990 reauthorization of the Individuals with Disabilities Education Act (IDEA) also requires school districts to provide disabled high school students with services to ease the transition from high school to independent adulthood as part of their Individualized Educational Programs (IEPs). However, only about half of disabled high school students have actually received these transition services (Mello et al., 2020). Additionally, Landmark & Zhang (2013) found that less than half of transition timelines specified by IEPs were fully compliant with all IDEA regulations. Possible reasons for this could include limitations with the IEP form itself, procedural issues, or a lack of awareness or understanding of the law (Landmark & Zhang, 2013). Many neurodivergent students struggle from the beginning with the transition from high school to college (Elias & White, 2018; Cai & Richdale, 2016; Mello et al., 2020). One possible reason for this is that they may not have the skills or knowledge to self-advocate in college because they did not receive adequate transition services during high school (Francis et al., 2022).

While K-12 school districts are required to identify disabled students and assess their needs, the ADA gives college students the choice to self-disclose and request accommodations through the appropriate channels at their institutions (Kuder et al., 2021; U.S. Department of Education & Office for Civil Rights, 2011). According to the most recent data on this subject, 19.4% of undergraduate students in the United States report having some form of disability (U.S. Department of Education & National Center of

Educational Statistics, 2021). However, approximately two-thirds of disabled college students never actually inform their institution of their disability (U.S. Department of Education & National Center of Educational Statistics, 2022). Disabled or neurodivergent students may choose not to disclose for a variety of reasons aside from receiving inadequate transition services, especially when they have experienced negative consequences or prejudices after previously disclosing in other contexts (Kuder et al., 2021). Additionally, not all neurodivergent students identify as disabled or feel the need to utilize disability services (Kuder et al., 2021).

Regardless of how they identify, neurodivergent students frequently report educational challenges directly related to some aspect of being neurodivergent, including communication difficulties with peers and faculty members, a lack of structure that makes it difficult to complete tasks, executive dysfunction, emotional difficulties that lead to social and academic impairment, poor time management, sensory overload, and stigmatization (Cai & Richdale, 2016; Clouder et al., 2020). Neurodivergent students may also have co-morbid mental health diagnoses such as anxiety, OCD, bipolar disorder, or depression (Clouder et al., 2020; Francis et al., 2022; Kuder et al., 2021). Many institutions provide support services to students that can be particularly beneficial to disabled or neurodivergent students even if they are not registered with the disability services office, including counseling, tutoring, peer mentoring, and transitional programs (Kuder et al., 2021). Academic, social, and emotional support has been shown to have a positive effect on neurodivergent students, but many students report feeling that they do not actually receive adequate or appropriate support for their needs (Cai & Richdale, 2016; Francis et al., 2022).

These factors can contribute to challenges or delays in degree completion for neurodivergent students, but there is only a small selection of recent statistical data describing the postsecondary outcomes of neurodivergent students on a national level. According to this data, only 38.4% of disabled students completed postsecondary programs compared to 51.2% of students without disabilities (U.S. Department of Education & National Center for Educational Statistics, 2011).

The Role of Instructional Faculty Members

Instructional faculty members are important to consider in conversations about neurodivergent student success because they serve as arbiters of knowledge and learning (Becker & Palladino, 2016; Gobbo & Shmulsky, 2014). Instructors can support disabled students by meeting their coursework accommodations, pointing them to campus resources, and connecting them with other faculty members and students (Markle et al., 2017). However, many disabled students report negative interactions with instructors who are unapproachable or unavailable or who downplay their accommodation needs (Becker & Palladino, 2016). Some instructors have unfavorable opinions of educational accommodations because they believe that they provide an unfair advantage to disabled students (Stevens et al., 2018). Even instructors who do show an interest in providing accommodations to disabled students may be unaware of the full scope of accommodations available to students outside of extended time or alternative locations for testing (Becker & Palladino, 2016). Overall, instructors report low rates of both awareness and preparedness with regard to the educational requirements of the ADA and the needs of disabled students (Markle et al., 2017; Stevens et al., 2018). Instructors who lack awareness, preparedness, and/or willingness to work with disabled students present a

problem because although campus disabilities services offices validate the ADA-required needs of disabled students, “actual faculty members are the ones with whom students need to interact the most in order to gain access to knowledge and have fair opportunities to demonstrate their learning” (Becker & Palladino, 2016, p. 65). Unsupportive or ineffectual instructors can lead to a chain reaction of challenges for disabled students, who may hesitate to self-advocate in future courses after having bad experiences with prior instructors (Becker & Palladino, 2016).

On the other hand, supportive instructors can positively impact the academic success of neurodivergent and disabled students (Markle et al., 2017). For example, instructors identified by autistic students as being ‘exceptionally supportive’ show characteristics of confidence in their students’ abilities, high expectations that presume competence of autistic students, an ethic of care, a passion for teaching and student success, and a commitment to social justice (Austin & Peña, 2017). The instructors in Austin & Peña’s (2017) study were intentional about using pedagogical approaches to support a broad array of students, including structured scaffolding (breaking up large projects into small, manageable assignments), differentiated instruction (using multiple methods of teaching to serve different styles of learning), comprehensive accommodations, and working collaboratively with other institutional student support resources.

Mentorships can also help neurodivergent students succeed. Ball State University in Muncie, Indiana provides one example of a successful, long-standing program aimed at improving retention rates of disabled students through faculty involvement and positive student-faculty relationships (Markle et al., 2017; Patrick & Wessel, 2013). The

Faculty Mentorship Program (FMP) was launched in 2006 to provide disabled students with personal faculty mentors to help them navigate many aspects of college life (Markle et al., 2017; Patrick & Wessel, 2013). Students participating in the FMP reported a greater awareness of campus resources, an appreciation of individual support, and an easier transition from high school to college (Patrick & Wessel, 2013). Since its inception, disabled students who participated in the FMP at Ball State University have had a higher four-year cumulative graduation rate (40.40%) than both disabled students who did not participate in the FMP (31.68%) and students without disabilities (39.76%) (Markle et al., 2017).

Supporting students with a variety of needs is also mutually beneficial to instructors, who can improve their pedagogical approaches as a result of working with diverse populations of students (Austin & Peña, 2017). Faculty support of neurodivergent and disabled students can enhance the faculty members' "funds of knowledge" about these populations of students to help them better serve similar populations in the future:

In the educational context of higher education, these funds of knowledge and skills are developed as faculty members interact with and teach students with disabilities. The richer the funds of knowledge, the more experiences and skills a faculty member has to draw from when encountering new situations with students in the classroom. The result is that faculty members become more responsive practitioners when they have richer funds of knowledge to draw from. (Austin & Peña, 2017, p. 25)

Based on this research, knowledgeable, efficient, and effective faculty support of neurodivergent students is beneficial to both students and instructors (Austin & Peña,

2017; Markle et al., 2017; Patrick & Wessel, 2013). However, it is also important for instructors to be well-prepared to support these students in advance, which can be addressed by faculty training.

Faculty Training

Faculty training that centers disability-inclusive education can help to improve faculty members' attitudes and knowledge about neurodivergent students, therefore increasing the quality of student-faculty relationships and student outcomes (Becker & Palladino, 2016; Chickering & Reisser, 1993; Kuder et al., 2021). Productive faculty training may include content about neurodivergent students and the neurodiversity movement, laws and legal requirements that protect disabled students, effective classroom management, and teaching methods for disabled students (Kuder et al., 2021; Moriña & Carballo, 2017). One prominent model that can be applied to university classrooms is universal design for learning (UDL), which emphasizes the practice of “multiple modes of information transmission” (Birdwell & Bayler, 2022, p. 234). UDL methods can be used to design courses that fit the learning needs of all students regardless of learning style or disability status (Kuder et al., 2021; Moriña & Carballo, 2017). UDL concepts can be applied to many aspects of the classroom, including physical and online spaces, course syllabi, and assignments (Kuder et al., 2021).

Faculty members who participate in disability-inclusive education training programs report feeling more aware and sensitive towards the needs of disabled students, more confident designing their courses with the needs of disabled students in mind, and overall both more well-informed and well-trained regarding disability (Moriña & Carballo, 2017). However, there is minimal research devoted to understanding

instructors' knowledge, attitudes, or participation in professional development opportunities related to neurodiversity and neurodivergent students in particular. Neurodiversity studies, and more specifically the neurodiversity paradigm, provide a useful lens through which instructors' involvement in the academic success of neurodivergent students can be studied and improved (Bertilsdotter Rosqvist et al., 2020a; Walker, 2021)

The Neurodiversity Paradigm in the Context of Higher Education

The neurodiversity paradigm builds on ideas established by other critical studies, including feminist studies, queer studies, critical race theory, disability studies, and crip theory (Bertilsdotter Rosqvist et al., 2020b; Dolmage, 2017; Walker, 2021). The neurodiversity paradigm rejects the notion that there is a 'normal', 'default', or 'right' form of neurocognitive function because "neurodiversity...is a natural, healthy, and valuable form of human diversity" (Walker, 2021, p. 19). Similar to other critical studies, the neurodiversity paradigm argues that the hegemonic establishment of 'normal' forms of human behavior and identity perpetuates social inequity, because individuals who do not fit within the standard of 'normal' are thus labeled as 'abnormal' (Walker, 2021).

It is helpful to define why the neurodiversity paradigm can indeed be identified as a "paradigm":

A paradigm is a set of fundamental assumptions of principles, a mindset or frame of reference that shapes how one thinks about and talks about a given subject. A paradigm shapes the ways in which one interprets information, and determines what sort of questions one asks and how one asks them. A paradigm is a lens through which one views reality. (Walker, 2021, p. 17)

Paradigm shifts in society are important because they reframe how people see, interpret, discuss, teach, and study concepts previously understood in a different way (Walker, 2021). For example, humans experienced a paradigm shift from believing that the Sun and planets orbit the Earth to believing that the Earth and other planets orbit the Sun (Walker, 2021). This required scientists to reinterpret years of data and measurements, but it helped to make sense of unanswered questions and improve knowledge and research going forward (Walker, 2021).

Incorporating the neurodiversity paradigm into higher education can help neurodivergent students to succeed because it can shape academia to serve a broader variety of needs, but this is dependent partially on instructors' attitudes and knowledge about neurodiversity and neurodivergence and willingness to support neurodivergent students (Austin & Peña, 2017). The challenge of incorporating the neurodiversity paradigm and other critical theories into higher education is the apprehension to question the efficacy of university operations and restructure longstanding systems (Dolmage, 2017). However, higher educational institutions will at some point need to grapple with changing student demographics that are no longer served by an outdated status quo, leading to lower retention and enrollment rates (Dolmage, 2017). Based on research showing the impact of knowledgeable and responsive instructors on the educational outcomes of neurodivergent students and the increasing number of neurodivergent and disabled college students, the neurodiversity paradigm is a worthwhile venture for higher education (Austin & Peña, 2017; Walker, 2021). Effective teaching can prepare all students to enter the world as successful adults who represent and serve a diverse human population.

Conclusion

Although one study cannot provide an entirely comprehensive picture of the university landscape as a whole, understanding instructors' interactions with neurodiversity as a concept and neurodivergent students can help to contextualize how the neurodiversity paradigm currently fits into the academic culture at Rowan University (Sniatecki et al., 2015).

In the next chapter, I describe the context of Rowan University and how I designed my research study to investigate full-time Rowan instructors' knowledge and attitudes regarding neurodiversity and neurodivergent undergraduate students.

Chapter III

Methodology

Context of the Study

Rowan University is a 4-year public research university in New Jersey with campuses in Glassboro, Camden, and Stratford (Rowan University, n.d.). There are approximately 2,505 faculty members serving over 22,000 students across the three campuses for the 2022-2023 academic year (Rowan University, n.d.). Over the past few years, particularly at the start of the COVID-19 pandemic, many changes to institutional approaches to disability and neurodiversity have been made at Rowan.

The Office of Accessibility Services

The Office of Accessibility Services at Rowan provides accommodations and assistance to registered disabled students as required by Section 504 and the ADA (Rowan University Office of Accessibility Services, n.d.b). Approximately 3,152 students are registered with the Office of Accessibility Services (J. Woodruff, personal communication, April 10, 2022). Two-thirds of these students have hidden or unapparent disabilities, including diagnoses considered to fall under the umbrella of neurodivergence such as autism spectrum disorder, ADHD, learning disabilities, anxiety, and depression (J. Woodruff, personal communication, April 10, 2022). Students who are approved to receive classroom accommodations are provided with accommodation letters and are responsible for presenting these letters to their professors (Rowan University Office of Accessibility Services, n.d.a). Some accommodations, like testing accommodations, require faculty members to regularly communicate with the Office of Accessibility

Services to fulfill their students' accommodation needs (Rowan University Testing Services, 2019).

The Office of Accessibility Services functioned under the name "Disability Resources" until December of 2021 (Woodruff, 2021). The purpose for the name change was to "was to lessen the stigma of the word 'disability' and encourage students with 'hidden disabilities' such as Depression, Anxiety and PTSD, to know that they would be eligible for classroom, housing and even temporary accommodations" (Woodruff, 2021). The name change was proposed prior to the COVID-19 pandemic, but the pandemic helped to illuminate the need for accessibility on campus (Woodruff, 2021).

The Center for Neurodiversity

In October of 2021, Rowan opened a Center for Neurodiversity within the Division of Diversity, Equity, and Inclusion (Rowan Today, 2022). The Center for Neurodiversity is a cultural center which envisions "a fully inclusive community with meaningful participation for all" by "providing programming, research and community engagement that value and prioritize neurodiversity culture" (Rowan University Center for Neurodiversity, n.d.a). The physical space for the Center in Laurel Hall on the Glassboro campus has a sensory friendly student suite furnished with soft seating, diffused lighting, and fidget toys.

Since opening, the Center for Neurodiversity has coordinated a variety of programs and events for students, faculty, staff, and the outside community. Prominent experts in the field of neurodiversity such as Temple Grandin and Nick Walker have been featured as guest speakers during campus events (Rowan University Center for Neurodiversity, n.d.b).

The Center has also hosted the Inclusive Practices and Pedagogy (IPP) Certificate Program (for Rowan faculty and staff) and the Creating a Neuro-Inclusive Workplace Certificate Program (for participants external to Rowan) to bolster participants' knowledge about neurodiversity and equity in an educational environment and/or at work (Rowan University Center for Neurodiversity, n.d.c). The courses are approximately six weeks long and consists of both synchronous and asynchronous lessons, weekly assignments, and a final project (Rowan University Center for Neurodiversity, n.d.c). The IPP course requires participants to have already completed Rowan's DEI Certificate Program as a prerequisite (Rowan University Center for Neurodiversity, n.d.c).

The Center is also the home for Rowan's Neurodiversity Affinity Group for employees, which was split into two tracks starting in the fall of 2022: the Neurodivergent Employee Resource Group, which serves as a private community for neurodivergent Rowan employees, and the Neurodiversity Ally Group, which provides a space for employees to learn more about supporting neurodivergent students and colleagues. The Center also provides faculty support for the Neurodiversity Student Club, which allows an opportunity for neurodivergent students to meet and interact with their peers.

The PATH Program

The PATH (Preparation and Achievement in the Transition to Hire) Program at Rowan helps neurodivergent Rowan students transition to meaningful employment after graduation (Rowan University PATH Program, n.d.b). The PATH Program focuses on three main components: "career readiness, social engagement, and resource networks" (Rowan University PATH Program, n.d.b). Although initially developed for autistic

students, the PATH Program has recently expanded to assist any neurodivergent Rowan students. The PATH Program provides supports such as academic success coaching, mock interviews, assistance with building social and professional networks, and workshops for parents of neurodivergent students (Rowan University PATH Program, n.d.a).

Population and Sample

There are approximately 2,505 faculty members across Rowan University's three campuses (Rowan University, n.d.). Upon approval from the IRB (see Appendix A), I requested a list of the emails for all full-time instructional faculty members at Rowan from IRT. However, as it was mentioned as a limitation, the list only included faculty members with primary appointments at Rowan's Main Glassboro Campus.

I decided to survey only full-time instructional faculty members to avoid a low response rate due to adjunct/part-time faculty members who may not regularly check their Rowan emails or teach every semester. The number of full-time instructional faculty members on the list was 586. Using an online survey sample calculator, the target sample size at 95% confidence level and 5% margin of error was 233 participants. However, because the full-time instructional faculty list included instructors of both graduate and undergraduate students, and only instructors of undergraduate students were eligible to respond to the survey, it is likely that the ideal target sample size would be lower.

Participants were recruited via emails from Qualtrics, which sent automated recruitment emails and survey completion follow-up reminders (see Appendix D). At the beginning of the survey, participants were provided with information about the study and informed consent. To ensure privacy and anonymity, participants were not required to

interact with me, but my contact information was made available in the recruitment email and informed consent if participants had any questions, comments, or concerns.

Instrumentation

The survey consisted of an informed consent section, a demographics section, and then three main sections to assess instructors' knowledge and attitudes regarding neurodiversity and neurodivergent undergraduate students (see Appendix C). All questions after the informed consent were optional. The first part of the main survey asks instructors to assess their knowledge and attitudes regarding the topic of neurodiversity. There are a variety of questions designed to allow instructors to report and assess their own confidence, feelings, and interaction with professional development about this topic.

The second part of the survey was adapted with permission (see Appendix B) from Sniatecki et al.'s (2015) survey measuring faculty attitudes and knowledge regarding disabled students. I used Sniatecki et al.'s (2015) survey as a basis to ask instructors to assess their knowledge and attitudes regarding neurodivergent undergraduate students. I included operational definitions for the terms "neurocognitive functioning", "neurodiversity", "neurodivergent", and "neurodivergence" prior to the questions for this section. The purpose for this was to control for the possibility that a participant has low or no understanding about the topic of neurodiversity so that they could still answer the questions to the best of their ability. I changed the wording of relevant questions in Sniatecki et al.'s (2015) survey to fit the context of my research and amended pronouns from "he or she" to "they". I excluded questions from Sniatecki et al.'s (2015) survey that were not relevant to my own research questions. I also changed

the word “disability” to “neurodivergent status” in questions about student disclosure, because not all neurodivergent people identify as disabled.

The third part of the main survey has two open-ended questions for participants to provide extra comments or suggestions for what else they would like to know about neurodivergent students that is not already provided or offered.

Procedures of Gathering Data

Upon IRB approval, the survey data was collected through Qualtrics to preserve participant anonymity. Demographic information requested from participants included college/school, department, campus, years spent as an instructor in a higher education setting, and position type. All demographic questions were optional. Anonymous survey methods were used due to the nature of the topic being researched (McMillan, 2016).

This research required faculty members to reflect honestly on their attitudes and knowledge about a vulnerable population. The goal of using anonymous survey methods in this study was to mitigate inauthenticity or apprehension of speaking frankly about sensitive topics, which can be a limitation in qualitative research methods (McMillan, 2016). Another reason for using anonymous research methods in this context was because of my personal experience with this topic, which could be a source of bias for me, the researcher, or for the participants, if they are aware of my involvement with neurodiversity initiatives at Rowan.

Data Analysis

The survey data was analyzed using Qualtrics to calculate frequency distributions and percentages. Frequency distributions and percentages are useful because they can summarize trends within a population in a way that is brief and easily readable (Burrell &

Motel, 2017; Christopher, 2017). The data was only stored in Qualtrics, which is a Rowan-approved server, and the data was destroyed upon final committee approval of this thesis document.

Chapter IV

Findings

Context of the Study

A total of 586 full-time faculty members from Rowan's Main Glassboro Campus were invited to participate in the survey through Qualtrics email distribution. This list of faculty members was acquired from IRT after the study received IRB approval. Two reminder emails were sent to unfinished respondents. A total of 102 responses were received at the end of data collection, but 5 responses were deleted because they were blank or participants did not complete the survey past demographic information. With a total of 97 responses included in the data analysis, the response rate was 16.55%.

The survey was active from January 4th, 2023 until February 7th, 2023. The intent of this survey was to collect data to answer the following research questions:

1. What knowledge and attitudes do instructors have regarding the topic of neurodiversity?
2. What knowledge and attitudes do instructors have regarding neurodivergent students?

Profile of the Sample

Demographic information collected from the participants include college/school, department, campus, and years spent as an instructor in higher education. Participants in the survey represented all colleges from Rowan's Main Glassboro Campus. Table 1 shows the distribution of participants across colleges. The most represented colleges in the survey were the College of Science & Mathematics (26.80%), the Ric Edelman College of Communication & Creative Arts (19.59%), and the College of Humanities &

Social Sciences (16.49%). In total, 34 departments were represented. Of those who reported their department, the most represented departments were Writing Arts (9.89%), Biological & Biomedical Sciences (7.69%), and Psychology (7.69%). When asked to identify the number of years spent as an instructor in a higher education setting, answers ranged from 0.5 years to 35 years, with an average of 15.5 years and a mode of 10 years.

Table 1

Instructors' Colleges

Variable College	<i>f</i>	%
College of Science & Mathematics	26	26.80
Ric Edelman College of Communication & Creative Arts	19	19.59
College of Humanities & Social Sciences	16	16.49
College of Education	10	10.31
Henry M. Rowan College of Engineering	8	8.25
College of Performing Arts	5	5.15
Dual appointment	5	5.15
Rohrer College of Business	3	3.09
School of Earth & Environment	3	3.09
School of Nursing & Health Professions	1	1.03
No response	1	1.03

Research Question 1

The first research question, “what knowledge and attitudes do instructors have regarding the topic of neurodiversity?”, was addressed in Part 1 of the Survey. Part 1 of the survey asked 4 questions about participants’ familiarity with the concept of neurodiversity and how often they engage in professional development opportunities related to learning about neurodiversity. Participants were also asked to select any feelings they have when they encounter the word ‘neurodiversity’ and were given the option to select from the words uncertain, knowledgeable, confident, overwhelmed, hopeful, positive, negative, neutral, fearful, unprepared, anxious, confused, curious, and other (write-in). Participants were also asked to select statements that describe them, which include having personal experience with neurodiversity, feeling confident in their knowledge about neurodiversity and other issues affecting students in higher education, trying to make courses accessible to all students, applying aspects of DEI to their approach in teaching, and wanting to learn more about neurodiversity.

Table 2 demonstrates participants’ familiarity with the concept of neurodiversity. All participants had some familiarity with the concept of neurodiversity, with 21.65% identifying as extremely familiar, 35.05% identifying as very familiar, 40.21% identifying as moderately familiar, and only 3.09% identifying as slightly familiar. Table 3 demonstrates participants’ selection of statements regarding their knowledge about neurodiversity. Most participants reported that they would like to learn more about neurodiversity (77.32%). More than half of participants reported that they could confidently explain neurodiversity to someone who has never heard of it (55.67%). Less than half of participants reported that they have personal experience with neurodiversity

(47.42%) and that they know a lot about neurodiversity (31.96%). Table 4 demonstrates the frequencies and percentages of participants' selections of feelings about the word 'neurodiversity'. When asked to select any feelings participants have when they encounter the word 'neurodiversity', over half responded with 'curious' (55.67%) and 'positive' (53.61%). Only 1.03% of participants responded with 'negative' as a feeling they have when they encounter the word 'neurodiversity'. Of the participants who selected 'other' (6.19%) and wrote in a response, answers included "constant learning journey," "dreading DEI-like politics and lowering of standards," "questioning the context of how the word is being used," "seeking knowledge," and "unsure of need for more labels."

Participants were also asked about their approach to inclusive teaching, as demonstrated in Table 5. Most participants reported that they try to make their course(s) inclusive or accessible to the needs of students enrolled (90.72%), take concepts of DEI into account in their approach to teaching (87.63%), and consider themselves knowledgeable about current issues affecting students in higher education (77.32%).

Table 2*Instructors' Familiarity with the Concept of Neurodiversity*

Variable	Extremely familiar		Very familiar		Moderately familiar		Slightly familiar		Not familiar at all	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
How familiar are you with the concept of neurodiversity? (n=97)	21	21.65	34	35.05	39	40.21	3	3.09	0	0.00

Table 3*Instructors' Knowledge Regarding Neurodiversity*

Variable	<i>f</i>	%
Select any statements that describe you.		
I would like to learn more about neurodiversity.	75	77.32
I could confidently explain neurodiversity to someone who has never heard of it.	54	55.67
I have personal experience with neurodiversity.	46	47.42
I know a lot about neurodiversity.	31	31.96

Table 4*Instructors' Feelings Regarding Neurodiversity*

Variable Select any feelings you have when you encounter the word "neurodiversity".	<i>f</i>	%
Curious	54	55.67
Positive	52	53.61
Hopeful	37	38.14
Knowledgeable	31	31.96
Neutral	27	27.84
Uncertain	20	20.62
Confident	19	19.59
Unprepared	19	19.59
Anxious	8	8.25
Other	6	6.19
Overwhelmed	5	5.15
Confused	4	4.12
Negative	1	1.03
Fearful	0	0.00

Table 5*Instructors' Approaches to Inclusive Teaching*

Variable	<i>f</i>	%
Select any statements that describe you.		
I try to make my course(s) inclusive or accessible to the needs of the students enrolled.	88	90.72
I take concepts of diversity, equity, and inclusion into account in my approach to teaching.	85	87.63
I consider myself knowledgeable about current issues affecting students in higher education.	75	77.32

Research Question 2

The second research question, “what knowledge and attitudes do instructors have regarding neurodivergent students?”, was addressed in Part 2 of the survey. Part 2 of the survey asked 20 questions about participants’ attitudes and knowledge about neurodivergent students after being provided with operative definitions for ‘neurocognitive functioning’, ‘neurodiversity’, ‘neurodivergent’, and ‘neurodivergence’. Most of the questions allowed participants to select from options ranging from ‘strongly agree’ to ‘strongly disagree’. One question asked if participants are familiar with the Office of Accessibility Services at Rowan University, with options to choose ‘yes’, ‘no’, or ‘I don’t know’. Participants’ responses to these surveys are demonstrated in Tables 6 and 7.

Several questions assessed participants’ attitudes and beliefs about neurodivergent students and accommodations. In total, 97.89% of participants either strongly agreed or

agreed to believing that neurodivergent students can be successful at the college level and that neurodivergent students are able to compete academically at the college level.

73.26% of participants either strongly agreed or agreed that it would be appropriate to allow a neurodivergent student to substitute an alternative course for a required course if the substitution did not dramatically alter the program requirements. 92.14% of participants either strongly disagreed or disagreed that providing accommodations to neurodivergent students gives them an unfair advantage over other students, and 82.61% of participants strongly disagreed or disagreed that providing accommodations to neurodivergent students compromises academic integrity.

Participants were also asked questions about their willingness to support or accommodate the needs of neurodivergent students. 92.64% of participants strongly agreed or agreed that they are willing to spend extra time with neurodivergent students to provide them with additional assistance. 98.93% of participants strongly agreed or agreed to making appropriate individual accommodations for neurodivergent students who have presented a letter of accommodation from the Office of Accessibility Services, whereas 76.92% of participants strongly agreed or agreed to doing the same for neurodivergent students who have not presented a letter of accommodation. 91.49% of participants strongly agreed or agreed that they are willing to help a neurodivergent student navigate the various college processes and procedures. 88.29% of participants strongly agreed or agreed that they are willing to be an advocate for a neurodivergent student and help them secure needed accommodations.

Questions were also asked about participants' current knowledge and awareness about neurodivergent students and the supports available to them. 86.96% of participants

either strongly agreed or agreed that neurodivergent students have disclosed their neurodivergent status to them. 93.68% of participants strongly agreed or agreed that they are sensitive to the needs of neurodivergent students. 25.53% of participants agreed that they strongly agreed or agreed that they are uncertain about where to find additional support for neurodivergent students on campus when they are having difficulties, whereas 61.71% strongly disagreed or disagreed. 92.63% of participants reported familiarity with the Office of Accessibility at Rowan University.

Participants were also asked about their desire to learn more about the needs of neurodivergent students. 91.49% of participants either strongly agreed or agreed that they would like more information about the needs of neurodivergent students. 85.26% of participants either strongly agreed or agreed that they would be interested in attending professional development sessions related to learning about the needs of neurodivergent students. 77.90% of participants strongly agreed or agreed that they would be interested in attending a panel presentation where neurodivergent students share personal information about their neurodivergent status and their experiences in college.

Finally, participants were asked questions about the resources available to them as instructors to support the needs of neurodivergent students. 83.52% of participants either strongly disagreed or disagreed that given time constraints and other job demands, it is unrealistic for them to make reasonable accommodations for neurodivergent students. 70.21% of participants strongly disagreed or disagreed that they do not have sufficient knowledge to make adequate accommodations for neurodivergent students. Only 47.31% of participants either strongly agreed or agreed that they receive adequate support from

their department, program, or unit in working with and/or supporting neurodivergent students.

Table 6*Instructors' Knowledge and Attitudes Regarding Neurodivergent Students*

Variable	Strongly agree		Agree		Neither		Disagree		Strongly disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I believe that neurodivergent students can be successful at the college level. (n=95)	69	72.63	24	25.26	2	2.11	0	0.00	0	0.00
I believe that neurodivergent students are able to compete academically at the college level. (n=95)	65	68.42	28	29.47	2	2.11	0	0.00	0	0.00
Neurodivergent students have disclosed their neurodivergent status to me. (n=92)	39	42.39	41	44.57	6	6.52	4	4.35	2	2.17
I would like more information about the needs of neurodivergent students. (n=94)	38	40.43	48	51.06	7	7.45	1	1.06	0	0.00
I am sensitive to the needs of neurodivergent students. (n=95)	43	45.26	46	48.42	5	5.26	0	0.00	1	1.05
I think it would be appropriate to allow a neurodivergent student to substitute an alternative course for a required course if the substitution did not dramatically alter the program requirements. (n=86)	31	36.05	32	37.21	6	6.98	14	16.28	3	3.49

Variable	Strongly agree		Agree		Neither		Disagree		Strongly disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I am willing to spend extra time with neurodivergent students to provide them with additional assistance as needed. (n=95)	48	50.53	40	42.11	4	4.21	3	3.16	0	0.00
I make appropriate individual accommodations for neurodivergent students who have presented a letter of accommodation from the Office of Accessibility Services. (n=94)	71	75.53	22	23.40	1	1.06	0	0.00	0	0.00
I make appropriate individual accommodations for neurodivergent students who have disclosed their neurodivergent status to me but have not presented a letter of accommodation from the Office of Accessibility Services. (n=91)	38	41.76	32	35.16	14	15.38	6	6.59	1	1.10
When neurodivergent students are having difficulties, I am uncertain about where I can find additional support for them on campus. (n=94)	3	3.19	21	22.34	12	12.77	38	40.43	20	21.28
Given time constraints and other job demands, it is unrealistic for me to make reasonable accommodations for neurodivergent students. (n=91)	0	0.00	4	4.40	11	12.09	40	43.96	36	39.56

Variable	Strongly agree		Agree		Neither		Disagree		Strongly disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
Currently, in my role, I do not have sufficient knowledge to make adequate accommodations for neurodivergent students. (n=94)	0	0.00	7	7.45	21	22.34	42	44.68	24	25.53
I receive adequate support from my department/program/unit in working with and/or supporting neurodivergent students. (n=93)	9	9.68	35	37.63	28	30.11	12	12.90	9	9.68
I am willing to help a neurodivergent student navigate the various college processes and procedures. (n=94)	36	38.30	50	53.19	6	6.38	2	2.13	0	0.00
I am willing to be an advocate for a neurodivergent student and help them secure needed accommodations. (n=94)	40	42.55	43	45.74	9	9.57	1	1.06	1	1.06
In my discipline, providing accommodations to neurodivergent students compromises academic integrity. (n=92)	2	2.17	6	6.52	8	8.70	29	31.52	47	51.09
In my discipline, providing accommodations to neurodivergent students gives an unfair advantage over other students. (n=89)	1	1.12	0	0.00	6	6.74	30	33.71	52	58.43

Variable	Strongly agree		Agree		Neither		Disagree		Strongly disagree	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I would be interested in attending professional development sessions related to learning about the needs of neurodivergent students. (n=95)	24	25.26	57	60.00	9	9.47	4	4.21	1	1.05
I would be interested in attending a panel presentation where neurodivergent students share personal information about their neurodivergent status and their experiences in college. (n=95)	37	38.95	37	38.95	14	14.74	6	6.32	1	1.05

Table 7*Instructors' Familiarity with the Office of Accessibility Services*

Variable	Yes		No		I don't know	
	<i>f</i>	%	<i>f</i>	%	<i>f</i>	%
I am familiar with the Office of Accessibility Services at Rowan University. (n=95)	88	92.63	5	5.26	2	2.11

Open-Ended Responses

This survey also received several enlightening open-ended responses that clarified respondents' answers to questions or other thoughts or feelings. For example, many responses addressed participants' feelings about accommodations. Responses indicated that although participants may be willing to provide students with accommodations, many struggle with knowing exactly what they need to do to adequately provide these accommodations or what constitutes reasonable expectations. Participants discussed concerns that accommodations may not actually meet the needs of students or prepare them for life after college. Several participants also noted that accommodation letters seem too broad to really address the specific needs of individual students and do not provide thorough instructional guidance. Many participants recognized the vast spectrum of neurodiversity and stated the need to understand more about neurodivergence to be able to support a broader range of neurocognitive styles.

Other participants commented that being responsible for providing neurodivergent students with holistic support surpasses their job function and expertise. One participant

wrote, “I definitely would be willing to help students navigate college and advocate for help that they need, but I do not think that it is my job to do so.” When asked what information they want or need to be able to support neurodivergent students, another participant wrote, “The simple answer to this question is I do not want or need any more information. It is a complex issue that is beyond my level of expertise.”

Concerns also stemmed from the desire to support students but the need to set boundaries and receive support from other institutional resources:

Some of my answers regarding my willingness to personally assist neurodivergent students (e.g. "Are you willing to provide extra help") do not stem from a belief that it is not good and right to provide that help—but rather because I need to be sure I protect my own mental health by keeping a healthy work-life balance. I would love to be able to provide individual attention to every student—but with approximately 130 students a semester; I simply cannot be the only resource.

Another participant wrote that despite their best efforts to implement UDL in the classroom, “all the problems I encounter are systemic...so many of the accommodations I'd like to make would either take time I don't have or require support that the university doesn't give me.”

Participants also expressed a need for consultants who can provide them with guidance to design and teach their classes more inclusively:

I'm always wondering what we collectively don't know, and could be doing, to help them more. I guess what I'm trying to get across is I wish I had someone to have a casual chat with every now and then, when I have questions about a particular student. I've interacted with the Office of Accessibility Services over

the years, and they've been great about structural answers to these questions. But what I feel I've been missing is some professional, pedagogical advice.

Overall, there were concerns about staffing and resources available to support the Office of Accessibility Services, neurodivergent students, and instructors. However, participants expressed appreciation for the measures that the Office of Accessibility Services has taken to support neurodivergent students and their instructors, despite a lack of resources.

Chapter V

Discussion, Conclusions, and Recommendations

Summary of the Study

The purpose of this study was to survey full-time instructors of undergraduate students at Rowan University to better understand the knowledge and attitudes that they have regarding the concept of neurodiversity and neurodivergent students. This study investigated the following research questions:

1. What knowledge and attitudes do instructors have regarding the topic of neurodiversity?
2. What knowledge and attitudes do instructors have regarding neurodivergent students?

Discussion of the Findings

Overall, the findings showed that full-time instructors of undergraduate students have high levels of knowledge and positive attitudes about the concept of neurodiversity and neurodivergent students. However, the data shows that instructors are somewhat less certain about how to locate campus resources for neurodivergent students. Less than half of instructors reported receiving adequate support from their department, program, or unit in working with or supporting neurodivergent students.

Open-ended responses also added nuance to survey responses. Some instructors discussed apprehension toward whether accommodations actually serve neurodivergent students' needs, or they felt that they did not have adequate guidance to properly implement these accommodations. Many instructors expressed the need for consultations to help them address individual students' needs or to learn how to structure their classes

in a more inclusive way. Some instructors were concerned about maintaining boundaries of their job functions, time limitations, and mental health, as well as balancing a large roster of students while also meeting individuals' specialized needs.

Conclusions

The findings in this study demonstrate that many instructors at Rowan have high knowledge and positive attitudes about the concept of neurodiversity and neurodivergent students, which to an extent helps them to feel confident in their ability to support neurodivergent students. This is conclusive with previous research demonstrating that building “funds of knowledge” about different populations of students can help instructors become more responsive and effective in their approaches to teaching all students (Austin & Peña, 2017, p. 25). Instructors in this study were also overall interested in participating in professional development or training opportunities related to neurodivergent students or neurodiversity, which can help them to create more inclusive classroom environments (Birdwell & Bayler, 2021; Kuder et al., 2021; Moriña & Carballo, 2017). However, this study also demonstrates that knowledge and positive attitudes may not be enough to make instructors feel fully confident in or responsible for supporting neurodivergent students. Instructors need departmental and institutional support, which aligns with previous research demonstrating that exceptional instructors of neurodivergent students attribute their success in part to collaborative relationships on campus (Austin & Peña, 2017).

The concept of ‘willingness’ is also challenged in this study by respondents who expressed a desire to support neurodivergent students, but also want to maintain the boundaries of their professional roles. Instructors also struggled with knowing the

boundaries of where their support for neurodivergent students should begin and where it should end, especially considering the vague guidelines of accommodation letters. This supports previous findings that instructors may not understand the full scope of legal requirements for supporting neurodivergent or disabled students (Becker & Palladino, 2016; Markle et al., 2017; Stevens et al., 2018). Even if they understand neurodiversity as a concept and how it impacts neurodivergent students, instructors may not be knowledgeable enough about their responsibilities regarding ADA regulations.

These results also support arguments made by neurodiversity scholars regarding the ADA and similar legislation. Although there are legal requirements for supporting neurodivergent and disabled students, these regulations currently do not seem comprehensive enough for instructors to understand the actions or level of involvement necessary for them to help neurodivergent students succeed (Dolmage, 2017; Waltz, 2020). Instead, laws like the ADA require instructors to provide accommodations to students that instructors in this study do not feel are specific enough to help them support student success. Instructors in this study were apprehensive about accommodations for a variety of reasons, many aligning with neurodiversity scholars' arguments that accommodations do not address the root cause of neurodivergent students' challenges (Dolmage, 2017; Waltz, 2020).

Instructors' wariness to have high levels of responsibility for neurodivergent students' success also supports the need for the neurodiversity paradigm on campus. Having a campus culture where neurodiversity is not only understood and appreciated but also engrained in the systematic structure as a normal part of human existence can reduce the burden on instructors so that they do not have to rely solely on the Office of

Accessibility Services for support. A campus with the neurodiversity paradigm incorporated into its culture means that no single individual or department is responsible for the success of a specific population of students, and that all instructors, practitioners, and administrators have the tools to support all students. Student demographics are changing, and educational institutions must be prepared to meet diverse needs (Dolmage, 2017).

Recommendations for Practice

It is essential to train faculty members to better understand the concept of neurodiversity and the needs of neurodivergent students, but efforts cannot stop there. Practical steps can be taken to incorporate the neurodiversity paradigm into Rowan's culture. For example, the survey data demonstrates a need for more institutional and departmental support for instructors. Currently, the IPP Certificate Program seems to be the most proactive program in place for Rowan employees to learn specific ways to apply the neurodiversity paradigm and concepts of universal design directly to their work. Because there were no survey questions about specific training experiences, it is unknown how many respondents participated in Rowan's IPP Certificate Program. However, research is currently underway to examine the outcomes of this program and to improve the curriculum going forward. Recommendations for practice regarding the IPP Certificate Program include removing barriers to access, especially relating to time restraints. This could include no longer requiring a pre-requisite DEI Certificate, creating different modes for completing the certificate that are fully asynchronous to allow for broader participation regardless of schedule, providing opportunities for instructors to

complete the program in the summer, or incentivizing employees to participate in the program.

It is also recommended that departments on campus like the Office of Accessibility Services, the PATH Program, and the Center for Neurodiversity are provided with more resources that allow them to directly support a culture of neurodiversity on campus. Instructors expressed appreciation specifically for the Office of Accessibility Services, but there were also comments that the office is understaffed and underresourced. Adding more full-time staff to these departments, at the very least, is important for increasing support on campus and protecting current staff members from burnout. A specific staff position mentioned by instructors as desirable would be a neurodiversity or disability consultant who can answer questions and provide practical guidelines for supporting specific students or needs.

Recommendations for Further Research

Based on open-ended responses to this survey, it would be valuable to conduct a similar study of instructors using qualitative research methods, while taking the limitations of such methods into consideration. Broad research investigating the knowledge and attitudes of Rowan's adjunct, graduate, and/or medical school instructors about neurodiversity and neurodivergent students is also important, as this study only surveyed full-time instructors of undergraduate students from the Main Glassboro Campus.

Additionally, significant research should be performed to better understand the educational experiences and outcomes of neurodivergent students at Rowan and to see how their responses align with instructors' own self-assessments of teaching efficacy. In

particular, it would be useful to conduct a study at Rowan University similar to Austin & Peña's (2017) research of exceptional instructors of autistic students, as the faculty population researched in such a study was specifically identified by autistic students to be exceptionally effective.

Finally, it is important to research the experiences of neurodivergent faculty and staff at Rowan University. Although there are already many supports in place for neurodivergent students, there are very few supports for neurodivergent faculty and staff. If a culture of neurodiversity is to become integrated into Rowan's culture, all members of the community must be valued and supported.

References

- American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.). <https://doi.org/10.1176/appi.books.9780890425787>
- Americans with Disabilities Act of 1990, 42 U.S.C. § 12101 *et seq.* (1990). <https://www.ada.gov/pubs/adastatute08.htm>
- Austin, K. S., & Peña, E. V. (2017). Exceptional faculty members who responsively teach students with autism spectrum disorders. *Journal of Postsecondary Education and Disability*, 30(1), 17–32. <https://eric.ed.gov/?id=EJ1144609>
- Becker, S., & Palladino, J. (2016). Assessing faculty perspectives about teaching and working with students with disabilities. *Journal of Postsecondary Education & Disability*, 29(1), 65-82. <https://eric.ed.gov/?id=EJ1107476>
- Berenbaum, M. (2018). *T4 Program*. Encyclopedia Britannica. <https://www.britannica.com/event/T4-Program>
- Bertilsdotter Rosqvist, H., Stenning, A., & Chown, N. (2020a). Neurodiversity studies: Proposing a new field of inquiry. In H. Bertilsdotter Rosqvist, N. Chown, & A. Stenning (Eds.), *Routledge advances in sociology: Neurodiversity studies: A new critical paradigm* (pp. 226–229). Routledge/Taylor & Francis Group.
- Bertilsdotter Rosqvist, H., Chown, N., & Stenning, A. (Eds.). (2020b). *Routledge advances in sociology: Neurodiversity studies: A new critical paradigm*. Routledge/Taylor & Francis Group.
- Birdwell, M. L. N., & Bayley, K. (2022). When the syllabus is ableist: Understanding how class policies fail disabled students. *Teaching English in the Two-Year College*, 49(3), 220-237. <https://library-ncte-org.ezproxy.rowan.edu/journals/tetyc/issues/v49-3/31803>
- Blume, H. (1998, September). Neurodiversity: On the neurological underpinnings of geekdom. *The Atlantic*. <https://www.theatlantic.com/magazine/archive/1998/09/neurodiversity/305909/>
- Buck v. Bell, 274 U.S. 200 (1927). <https://www.law.cornell.edu/supremecourt/text/274/200>
- Burrell, N., & Motel, L. (2017). Frequency distributions. In M. Allen (Ed.), *The SAGE encyclopedia of communication research methods* (pp. 594–599). SAGE Publications. <https://doi.org/10.4135/9781483381411>
- Cai, R., & Richdale, A. (2016). Educational experiences and needs of higher education students with autism spectrum disorder. *Journal of Autism & Developmental Disorders*, 46(1), 31-41. <https://doi.org/10.1007/s10803-015-2535-1>

- Center for Disease Control (2022). A snapshot of autism spectrum disorder in New Jersey. <https://www.cdc.gov/ncbddd/autism/addm-community-report/new-jersey.html>
- Chickering, A. W., & Reisser, L. (1993). *Education and identity* (2nd ed.). Jossey-Bass.
- Charlton, J. I. (1998). *Nothing about us without us: Disability oppression and empowerment*. University of California Press.
- Christopher, A. N. (2017). *Interpreting and using statistics in psychological research*. SAGE Publications. <https://doi.org/10.4135/9781506304144>
- Clouder, L., Karakus, M., Cinotti, A., Ferreyra, M. V., Fierros, G. E., & Rojo, P. (2020). Neurodiversity in higher education: A narrative synthesis. *Higher Education*, 80(4), 757–778. <https://doi.org/10.1007/s10734-020-00513-6>
- den Houting, J. (2019). Neurodiversity: An insider’s perspective. *Autism*, 23(2), 271–273. <https://doi.org/10.1177/1362361318820762>
- Dolmage, J. (2017). *Academic ableism: Disability and higher education*. University of Michigan Press.
- Doyle, N. (2020). Neurodiversity at work: a biopsychosocial model and the impact on working adults. *British Medical Bulletin*, 135(1), 108–125. <https://doi.org/10.1093/bmb/ldaa021>
- Elias, R., & White, S. W. (2018). Autism goes to college: Understanding the needs of a student population on the rise. *Journal of Autism & Developmental Disorders*, 48(3), 732-746. <https://doi.org/10.1007/s10803-017-3075-7>
- Francis, G. L., Duke, J. M., & Fujita, M. (2022). Experiences of college students with disabilities and mental health disorders: Informing college transition and retention. *Psychology in the Schools*, 59(4), 661-677. <https://doi.org/https://doi.org/10.1002/pits.22637>
- Gobbo, K., & Shmulsky, S. (2014). Faculty experience with college students with autism spectrum disorders: a qualitative study of challenges and solutions. *Focus on Autism and Other Developmental Disabilities*, 29(1), 13–22. <http://dx.doi.org.ezproxy.rowan.edu/10.1177/1088357613504989>
- Hill, E. & Goldstein, D. (2015). The ADA, disability, and identity. *JAMA*, 313(22), 2227–2228. <https://doi.org/10.1001/jama.2015.4936>
- Individuals With Disabilities Education Act, 20 U.S.C. § 1400 *et seq.* (1990). <https://sites.ed.gov/idea/statute-chapter-33/subchapter-i/1400>
- Kaelber, L. (2009). *Eugenics: Compulsory sterilization in 50 American states*. <https://www.uvm.edu/~lkaelber/eugenics/>

- Kuder, S. J., Accardo, A., Woodruff, J., & Zaks, Z. (2021). *College success for students on the autism spectrum: A neurodiversity perspective*. Stylus Publishing, LLC.
- Kumar, M., Musindo, O., & Maina, R. (2020). Neurocognitive development. In D. T. Cook (Ed.), *The SAGE encyclopedia of children and childhood studies*. SAGE.
- Landmark, L. J., & Zhang, D. (2013). Compliance and practices in transition planning: A review of Individualized Education Program documents. *Remedial and Special Education, 34*, 113–125. <https://doi-org.ezproxy.rowan.edu/10.1177/0741932511431831>
- Law Offices of Stimmel, Stimmel & Roeser. (n.d.). *Americans with Disabilities Act (ADA) and educational accomodation*. <https://www.stimmel-law.com/en/articles/americans-disabilities-act-ada-and-educational-accomodation>
- Markle, L., Wessel, R. D., & Desmond, J. (2017). Faculty mentorship program for students with disabilities: Academic success outcomes (practice brief). *Journal of Postsecondary Education & Disability, 30*(4), 385-392. <https://eric.ed.gov/?id=EJ1172790>
- McGee, M. (2012). Neurodiversity: Understanding people in their social worlds. *Contexts, 11*(3), 12-13. <https://doi.org/10.1177/1536504212456175>
- McMillan, J. H. (2016). *Educational research: Fundamentals of educational research* (7th ed.). Pearson.
- Mello, M. P., Burke, M. M., Taylor, J. L., Urbano, R., & Hodapp, R. M. (2020). Characteristics of students with disabilities who do and do not receive transition services. *The Journal of Special Education, 54*(4), 251-259. <https://doi.org/10.1177/0022466920925437>
- Moriña, A., & Carballo, R. (2017). The impact of a faculty training program on inclusive education and disability. *Evaluation and Program Planning, 65*, 77-83. <https://doi.org/https://doi.org/10.1016/j.evalprogplan.2017.06.004>
- New England ADA Center. (n.d.) *ADA Title II Requirements*. <https://www.adaactionguide.org/ada-title-ii-requirements>
- Patrick, S., & Wessel, R. D. (2013). Faculty mentorship and transition experiences of students with disabilities. *Journal of Postsecondary Education & Disability, 26*(2), 105-118. <https://eric.ed.gov/?id=EJ1026835>
- Radulski, E. M. (2022). Conceptualising autistic masking, camouflaging, and neurotypical privilege: Towards a minority group model of neurodiversity. *Human Development, 66*(2), 113–127. <https://doi.org/10.1159/000524122>

- The Rehabilitation Act of 1973, 29 U.S.C. § 701 *et seq.* (1973).
<https://www2.ed.gov/policy/speced/leg/rehab/rehabilitation-act-of-1973-amended-by-wioa.pdf>
- Rowan Today. (2022, October 11). *Neurodiversity Center open house celebrates first year of operations*. <https://today.rowan.edu/news/2022/10/neurodiversity-center-open-house-celebrates-first-year-of-operations.html>
- Rowan University. (n.d.). *Rowan University fast facts 2022-23*. <https://sites.rowan.edu/fastfacts/>
- Rowan University Center for Neurodiversity. (n.d.a). *Mission & vision*. <https://sites.rowan.edu/neurodiversity/mission-vision.html>
- Rowan University Center for Neurodiversity. (n.d.b). *Neurodiversity events*. <https://sites.rowan.edu/neurodiversity/neurodiversity-events.html>
- Rowan University Center for Neurodiversity. (n.d.c). *Professional development and programming*. <https://sites.rowan.edu/neurodiversity/professional-development-and-programming.html>
- Rowan University Office of Accessibility Services. (n.d.a). *Disability FAQ's*. <https://sites.rowan.edu/accessibilityservices/disabilityfaqs.html>
- Rowan University Office of Accessibility Services. (n.d.b). *Office of Accessibility Services*. <https://sites.rowan.edu/accessibilityservices/>
- Rowan University Office of the President. (n.d.). *Rowan University facts at a glance: 2020-21* [Infographic]. https://sites.rowan.edu/fastfacts/_docs/facts-at-a-glance-20-21.pdf
- Rowan University PATH Program. (n.d.a) *PATH program components*. <https://sites.rowan.edu/path/path-program-components.html>
- Rowan University PATH Program. (n.d.b). *What is PATH?* <https://sites.rowan.edu/path/>
- Rowan University Testing Services. (2019, August 19). *Accommodated testing information for instructors*. https://sites.rowan.edu/accessibilityservices/_docs/accommodated-testing-information-for-instructors-rev.-08-19-19.pdf
- Singer, J. (1999). 'Why can't you be normal for once in your life?': From a 'problem with no name' to the emergence of a new category of difference. In M. Corker & S. French (Eds.), *Disability discourse* (pp. 59–67). Open University Press.

- Sniatecki, J. L., Perry, H. B., & Snell, L. H. (2015). Faculty attitudes and knowledge regarding college students with disabilities. *Journal of Postsecondary Education & Disability*, 28(3), 259-275. <https://eric.ed.gov/?id=EJ1083837>
- Stevens, C. M., Schneider, E., & Bederman-Miller, P. (2018). Identifying faculty perceptions of awareness and preparedness relating to ADA compliance at a small, private college in NE PA. *American Journal of Business Education*, 11(2), 27-40. <https://doi.org/http://dx.doi.org/10.19030/ajbe.v11i2.10142>
- Temple University. (n.d.). *Disability rights timeline*. Institute on Disabilities. <https://disabilities.temple.edu/resources/disability-rights-timeline>
- University of Connecticut. (n.d.). *The center for neurodiversity & employment innovation*. Werth Institute for Entrepreneurship and Innovation. <https://entrepreneurship.uconn.edu/neurodiversitycenter/>
- U.S. Department of Education & National Center for Educational Statistics. (2021). *Digest of education statistics 2019* (NCES 2021-009). <https://nces.ed.gov/pubs2021/2021009.pdf>
- U.S. Department of Education & National Center for Educational Statistics. (2022, April 26). *A majority of college students with disabilities do not inform school, new NCES data show* [Press release]. https://nces.ed.gov/whatsnew/press_releases/4_26_2022.asp
- U.S. Department of Justice Civil Rights Division. (n.d.). *Introduction to the ADA*. Information and Technical Assistance on the Americans with Disabilities Act. https://www.ada.gov/ada_intro.htm
- U.S. Department of Education & Office for Civil Rights. (2020, January 10). *The civil rights of students with hidden disabilities under Section 504 of the Rehabilitation Act of 1973*. <https://www2.ed.gov/about/offices/list/ocr/docs/hq5269.html>
- U.S. Department of Education & Office for Civil Rights. (2021, April 27). *Auxiliary aids and services for postsecondary students with disabilities*. <https://www2.ed.gov/about/offices/list/ocr/docs/auxaids.html>
- U.S. Department of Education & Office for Civil Rights. (2011). *Students with disabilities preparing for postsecondary education: Know your rights and responsibilities* [Brochure]. <https://www2.ed.gov/about/offices/list/ocr/transition.html#reproduction>
- Walker, N. (2021). *Neuroqueer heresies: Notes on the neurodiversity paradigm, autistic empowerment, and postnormal possibilities*. Autonomous Press.

- Waltz, M. (2020). The production of the 'normal' child: Neurodiversity and the commodification of parenting. In H. Bertilsdotter Rosqvist, N. Chown, & A. Stenning (Eds.), *Routledge advances in sociology: Neurodiversity studies: A new critical paradigm* (pp. 226–229). Routledge/Taylor & Francis Group.
- Wilson, P. K. (2021, August 4). *Eugenics*. Encyclopedia Britannica. <https://www.britannica.com/science/eugenics-genetics>
- Woodruff, J. (2021, December 1). *Sometimes access is not enough*. Rowan University DEI blog. <https://sites.rowan.edu/diversity-equity-inclusion/blog/2021/12/dei-prof-spectives-sometimes-access-is-not-enough.html#:~:text=With%20over%20900%20students%20registered,Disability%20Resources%20to%20Accessibility%20Services>

Appendix A
IRB Approval



DHHS Federal Wide Assurance Identifier: FWA00007111
Rowan IORG/IRB: Glassboro/CMSRU
IRB Chair Person: Dr. Ane Johnson
IRB Director: Eric Gregory
Effective Date: December 7, 2022

Notice of Approval - Initial

Study ID: PRO-2022-303
Title: Rowan University Instructors' Knowledge and Attitudes about Neurodiversity and Neurodivergent Students
Principal Investigator: Stephanie Lezotte
Study Coordinator: Serena Powell
Co-Investigator(s): Serena Powell
Sponsor: Internal

Submission Type: Initial
Submission Status: Approved

Approval Date: December 6, 2022
Closure Required: Yes

Review Type: Expedited
Expedited Category: 7. Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.

Appendix B

Permission to Use Survey

From: Sniatecki, Jessica (jsniatecki) <jsniatecki@brockport.edu>
Sent: Friday, October 21, 2022 11:16 AM
To: Powell, Serena J
Cc: Holly Bosley Perry; Snell, Linda (Isnell)
Subject: [EXTERNAL] Re: Request to Use Survey

Dear Serena,

No problem, I still get the emails from the old one as well. We have no problem with you using the survey for your research, provided that you cite the original (as you have indicated). Best of luck! Please do not hesitate to reach out if you have any questions about its development and/or our findings.

Best,
Dr. Sniatecki

Jessica L. Sniatecki, Ph.D., C.R.C.
Chair and Associate Professor
Department of Healthcare Studies, SUNY Brockport
Vice President of Membership - New York State Career Development Association
350 New Campus Drive
Brockport, NY 14420
(585) 395-5092
Pronouns: she/her/hers

Appendix C

Survey

You are invited to participate in this online research survey entitled Rowan University Instructors' Knowledge and Attitudes about Neurodiversity and Neurodivergent Students. You are included in this survey because you have been identified as a faculty member at Rowan University. The number of subjects to be enrolled in the study will be 2,505.

The survey may take approximately 10 minutes to complete. Your participation is voluntary. If you do not wish to participate in this survey, do not respond to this online survey. Completing this survey indicates that you are voluntarily giving consent to participate in the survey.

The purpose of this research study is to investigate the knowledge and attitudes that full-time instructors of undergraduate students at Rowan University have about neurodiversity and neurodivergent students.

There are no risks or discomforts associated with this survey. There may be no direct benefit to you, however, by participating in this study, you may help us to better understand aspects of the climate surrounding neurodiversity at Rowan University.

Your response will be kept confidential. We will store the data in a secure computer file and the file will be destroyed once the data has been published. Any part of the research that is published as part of this study will not include your individual information. If you have any questions about the survey, you can contact Serena Powell or Stephanie Lezotte at the addresses provided below, but you do not have to give your personal identification.

Serena Powell
powellse@rowan.edu

Stephanie Lezotte
lezotte@rowan.edu

If you have any questions about your rights as a research subject, please contact the Office of Research Compliance at (856) 256-4078– Glassboro/CMSRU. This study has been approved by the Rowan IRB, PRO-2022-303. Please complete the questions below.

C1. To participate in this survey, you must be a full-time instructor of undergraduate students at Rowan University and between the ages of 18 and 89.

- I agree

C2. Completing this survey indicates that you are voluntarily giving consent to participate in the survey.

- I agree

Demographics:

D1. College

- Rohrer College of Business
- Ric Edelman College of Communication & Creative Arts
- College of Education
- Henry M. Rowan College of Engineering
- John H. Martinson Honors College
- College of Humanities & Social Sciences
- College of Performing Arts
- College of Science & Mathematics
- School of Earth & Environment
- School of Nursing & Health Professions
- Global Learning & Partnerships
- Graduate School of Biomedical Sciences
- Cooper Medical School of Rowan University
- Rowan University School of Osteopathic Medicine
- School of Innovation and Entrepreneurship

D2. Department

D3. Campus

- Glassboro Campus
- Camden Campus/CMSRU
- RowanSOM Stratford

D4. How many years have you been an instructor in a higher education setting?

D5. My position at Rowan University is:

- Tenure-track
- Tenured
- Associate Professor
- Assistant Professor
- Other _____

Part 1:

1. How familiar are you with the concept of neurodiversity?

- Extremely familiar

- Very familiar
- Moderately familiar
- Slightly familiar
- Not familiar at all

2. Select any statements that describe you.

- I have personal experience with neurodiversity.
- I could confidently explain neurodiversity to someone who has never heard of it.
- I know a lot about neurodiversity.
- I consider myself knowledgeable about current issues affecting students in higher education.
- I take concepts of diversity, equity, and inclusion into account in my approach to teaching.
- I would like to learn more about neurodiversity.
- I try to make my course(s) inclusive or accessible to the needs of the students enrolled.

3. Select any feelings you have when you encounter the word "neurodiversity".

- Uncertain
- Knowledgeable
- Confident
- Overwhelmed
- Hopeful
- Positive
- Negative
- Neutral
- Fearful
- Unprepared
- Anxious
- Confused
- Curious
- Other _____

4. How often do you participate in professional development opportunities related to learning about neurodiversity?

- Often
- Sometimes
- Rarely
- Never

Part 2:

Please refer to the following definitions when answering the questions below:

Neurocognitive functioning refers to memory, processing speed, reasoning, planning, coordination, attention/concentration, and motor skills. Neurocognitive functioning can impact an individual's behavior, learning, communication, and emotional regulation (Kumar et al., 2020).

Neurodiversity refers to the diversity and variation within human neurocognitive functioning (Walker, 2021).

Being neurodivergent refers to having a mind that is considered to operate outside of the "dominant societal standards of 'normal'" neurocognitive functioning (Walker, 2021; p. 38). For example, someone who is neurodivergent may have a clinical diagnosis of autism spectrum disorder, ADHD, dyscalculia, dyslexia, dyspraxia, Tourette syndrome, and many other psychological, cognitive, and neurological differences (McGee, 2012).

Neurodivergence is "the state of being neurodivergent" (Walker, 2021; p. 38).

5. I believe that neurodivergent students can be successful at the college level.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

6. I believe that neurodivergent students are able to compete academically at the college level.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

7. Neurodivergent students have disclosed their neurodivergent status to me.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

8. I would like more information about the needs of neurodivergent students.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

9. I am sensitive to the needs of neurodivergent students.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

10. I am familiar with the Office of Accessibility Services at Rowan University.

- Yes
- No
- I don't know

11. I think it would be appropriate to allow a neurodivergent student to substitute an alternative course for a required course if the substitution did not dramatically alter the program requirements.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

12. I am willing to spend extra time with neurodivergent students to provide them with additional assistance as needed.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

13. I make appropriate individual accommodations for neurodivergent students who have presented a letter of accommodation from the Office of Accessibility Services.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

14. I make appropriate individual accommodations for neurodivergent students who have disclosed their neurodivergent status to me but have not presented a letter of accommodation from the Office of Accessibility Services.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

15. When neurodivergent students are having difficulties, I am uncertain about where I can find additional support for them on campus.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

16. Given time constraints and other job demands, it is unrealistic for me to make reasonable accommodations for neurodivergent students.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

17. Currently, in my role, I do not have sufficient knowledge to make adequate accommodations for neurodivergent students.

- Strongly agree

- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

18. I receive adequate support from my department/program/unit in working with and/or supporting neurodivergent students.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

19. I am willing to help a neurodivergent student navigate the various college processes and procedures.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

20. I am willing to be an advocate for a neurodivergent student and help them secure needed accommodations.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

21. In my discipline, providing accommodations to neurodivergent students compromises academic integrity.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

22. In my discipline, providing accommodations to neurodivergent students gives an unfair advantage over other students.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

23. I would be interested in attending professional development sessions related to learning about the needs of neurodivergent students.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

24. I would be interested in attending a panel presentation where neurodivergent students share personal information about their neurodivergent status and their experiences in college.

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree
- I don't know

Part 3:

25. As a faculty member, what do you want or need to know about neurodivergent students that is not already provided/offered?

26. Additional comments:

Appendix D

Recruitment Email

Email Subject: Instructors' Knowledge and Attitudes about Neurodiversity & Neurodivergent Students

Hello,

I am writing to you about a volunteer opportunity to participate in a research study titled "Rowan University Instructors' Knowledge and Attitudes about Neurodiversity and Neurodivergent Students". The purpose of this research study is to investigate the knowledge and attitudes that full-time instructors of undergraduate students at Rowan University have about neurodiversity and neurodivergent students. A potential benefit of this important research study is that it will help us to better understand aspects of the climate surrounding neurodiversity at Rowan University.

You may volunteer to participate in this study if you are a full-time instructor of undergraduate students at Rowan University. Your participation will require you to complete a 10-minute online survey.

Please contact Serena Powell (powellse@rowan.edu) or Stephanie Lezotte (lezotte@rowan.edu) if you have any questions about this research study.

This study has been approved by Rowan University's IRB (Study # PRO-2022-303).

Sincerely,

Serena Powell