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Exploration of the Implementation of the Workforce Innovation and Opportunity Act by Vocational Rehabilitation Programs Through Collaboration with Education Officials

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Walden University
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Abstract

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Elyse Leinani Luke

MSPH, University of Hawaii, 1998

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Dissertation Submitted in Partial Fulfillment

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Doctor of Philosophy

Public Policy and Administration

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Abstract

Despite public policies intended to achieve employment equity for students with disabilities, compared to students without disabilities, transition-age students with disabilities are less likely to be in the workforce even after receiving public vocational rehabilitation (VR) services. The purpose of this qualitative, multicase study was to explore implementation of the Workforce Innovation and Opportunity Act (WIOA) by VR programs through collaboration with state education officials to deliver pre-employment transition services (pre-ETS) to students with disabilities. The Integration Continuum was used to conceptually frame this study because the model provides a hierarchical scale with definitions about how organizations work together at each level. The research question explored how VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities. Two overarching themes emerged from the data analysis and informed the Effort-Impact Matrix. Local level coordination between VR and education agency staff was the most frequent way VR agencies collaborated with education officials to provide pre-ETS to students with disabilities. In contrast, a coordinated community response, the highest and most aspirational level of collaboration, rarely occurred. The current state of coordination will continue to manage the disparity in employment outcomes between students with and without disabilities. The positive social change implication is to achieve the intent of WIOA by moving from coordination to collaboration and ending the disparity in employment outcomes by moving from collaboration to a coordinated community response to achieve systems change for students with disabilities.

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Dedication

I dedicate this work to my son, Ryan Kamalani Luke. You give me purpose. You give me strength. You persevere despite daily challenges you face. You have more courage, strength, and depth of character than every adult I know. I admire your indomitable spirit and never-give up attitude. My life would be hollow without you. Thank you for filling my life with love, gratitude, and hope. You have taught me life lessons I never would have had the privilege and honor to learn. You have made me a fierce advocate for people with disabilities. You inspire me every day of my life. I thank God for you every day. Thank you for being the bright shining light of my life.

I also dedicate this work to Paul Scott Luke, my husband and soul mate. You are my rock. You stood by me throughout this entire journey. You held me up the first time I attempted to complete my degree. Then you held me up when I had to set aside pursuit of my degree to fight the hardest fight of my life. Now once again, you have held me up, even carried me so I could try again to finally finish my degree. Thank you for treating me like a queen and for making me feel like the most important person in the world, next to our son, of course. Thank you for holding my hand and walking through life with me. I am not whole without you.

Finally, I dedicate this work to children with disabilities and their parents and families. They say God gives special children to special people. I have learned through observation of and experience with my husband and other parents and families of children with disabilities that this is true. You are the inspiration for people who dedicate their lives, careers, energy, and passion to advancing the lives of people with disabilities.

Acknowledgments

Once again, I acknowledge and thank the two most important people in my life: my husband and my son. I never could have completed my degree if my husband had not taken on the lift of our home life, caregiving of our son and, just everything. Thank you both for being my rock and the foundation I stand on to survive, thrive, and give to others. I will be forever grateful that God blessed me with both of you, my loving, full of integrity, handsome, and strong men.

I need to thank Dr. Raj Singh, my dissertation Chair, for his never-ending support. Thank you for understanding that when life happened, I needed to make space for competing priorities. I also need to thank Dr. Kristin Dailey for being on my dissertation committee. I am so grateful for your support in getting me through my dissertation.

I would be remiss if I did not acknowledge vocational rehabilitation professionals and public servants who dedicate their careers to assisting people with disabilities find a job, keep a job, or advance in a job. I also acknowledge policymakers who demand states do more to increase the participation of people with disabilities in the workforce. In addition, I thank and acknowledge leaders in federal, state, and local government, the private sector, and non-government organizations who have the courage to demand more from themselves to honor the lives and dignity of people with disabilities.

Finally, I acknowledge my family and family of friends and thank them for their love and support. I especially thank my parents, grandparents and ancestors who sacrificed and poured generations of hopes and dreams into me. I hope I have proven myself worthy.

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Chapter 1: Introduction to the Study

Introduction

This study focused on implementation of the Workforce Innovation and Opportunity Act of 2014 (WIOA) by federal-state Vocational Rehabilitation (VR) programs. I focused on implementation through coordination between state VR and educational officials responsible for the public education and transition of students with disabilities from the receipt of educational services in school to the receipt of VR services, including pre-employment transition services (pre-ETS; WIOA, 2014). Of the five required pre-ETS, this study focused on work-based learning experiences (WBLE) because WBLE has been found to most frequently result in desired employment outcomes (Kaya et al., 2021; Luecking et al., 2018; Mazzotti et al., 2021). WBLE may include in-school or after-school work-based learning opportunities, experiences outside of the traditional school setting and/or internships. The remaining four required pre-ETS are as follows: (a) job exploration counseling, (b) counseling on opportunities for enrollment in comprehensive transition or postsecondary educational programs, (c) workplace readiness training to develop social skills and independent living, and (d) instruction in self-advocacy (WIOA, 2014).

In 2014, the 113th Congress passed WIOA "to strengthen the United States workforce development system through innovation in, and alignment and improvement of, employment, training, and education programs in the United States, and to promote individual and national economic growth, and for other purposes" (WIOA, 2014). In the amendment to the Workforce Investment Act of 1998, WIOA states that:

> A high proportion of students with disabilities is leaving secondary education without being employed in competitive integrated employment or being enrolled in postsecondary education and there is substantial need to support such students as they transition from school to postsecondary life. (WIOA, 2014)

This study was necessary because the Rehabilitation Services Administration (RSA), the federal agency that provides oversight of federal-state VR programs, has not yet formally evaluated the implementation of WIOA (2014). The National Council on Disability (2020) is the independent federal agency charged with advising the President, Congress, and other federal agencies about policies, programs, practices, and procedures that affect people with disabilities. The Council has stated that not enough time has passed to formally evaluate whether the implementation of WIOA is achieving anticipated outputs (e.g., delivery of WBLE) and employment outcomes (e.g., student with a disability got a job after participating in WBLE).

At the organizational level, a potential implication for positive social change is improved collaboration among VR and educational state agencies to increase employment and postsecondary outcomes for students with disabilities. Findings from this study can provide organizations with information about the current state and future desired state of collaboration. If state agencies understand what the desired state of collaboration is and what the current state of collaboration is, then they may move towards a higher level of collaboration to achieve the intent of WIOA and also improve employment and postsecondary outcomes for students with disabilities. Thus, this study may assist with improving programming by VR and educational state agencies.

Chapter 1 begins with an introduction to the study and background information that summarizes research about WIOA (2014) and the gap in knowledge the study fills. Next, the research problem, purpose of the study, and research question are described. Then, the current state of the implementation of public policy theories and why I chose the conceptual framework I chose to frame the research are discussed. After that, the nature of the study and rationale for selecting the study design are addressed. Then, definitions, assumptions, boundaries that defined the scope and delimitations of the study, and limitations of the study are discussed. Chapter 1 ends with the significance of the study and the contributions the study can make to understanding how the implementation of WIOA is being carried out by VR programs through collaboration with education officials. Finally, Chapter 1 closes with a summary.

Background

Two major themes from the literature were relevant to the implementation of WIOA by state VR agencies: collaboration and WBLE. The first major theme was collaboration, particularly between state VR and educational agencies. Collaboration is most frequently cited in scholarly literature about WIOA because the statute mandates that these state agencies coordinate services for students with disabilities (Grossi et al., 2019; Grossi & Thomas, 2017; Hartman et al., 2019; Kittleman et al., 2018). Collaboration occurs at the federal-state level (Hartman et al., 2019), state-local level (Kittleman et al., 2018), and within the secondary education setting (Grossi & Thomas, 2017; Grossi et al., 2019). The second major theme was WBLE, which is one of five pre-ETS that VR programs are required to provide to transition age students with disabilities

aged 16-21. Of the five required pre-ETS, WBLE is most strongly associated with beneficial employment outcomes among students with disabilities (Kaya et al., 2021; Luecking et al., 2018; Mazzotti et al., 2021).

Roux et al. (2016) used WIOA State Plans to explore the implementation of WIOA by state VR programs and content analysis to explore similar or different themes between state VR programs. Although researchers have investigated the impact of VR on employment outcomes for students and youth with disabilities, investigators have not explored the implementation of WIOA (2014). This study filled a gap in the literature by exploring the implementation of WIOA (a) at the organizational level, (b) with a specific focus on WBLE, (c) using standardized definitions of collaboration to explore collaboration within and between VR and education agencies, (d) from the perspective of state-level VR administrators who prepare WIOA State Plans, and (e) over multiple years.

This study was necessary to understand how VR programs plan to or are already coordinating with educational agency personnel and education officials to deliver pre-ETS. Members of Congress passed WIOA (2014) with the intent to align and improve employment, training, and education programs in the U.S. and to support students with disabilities as they transition from school to competitive integrated employment or postsecondary education. This study was also necessary to explore how VR programs have operationalized collaborative activities that may lend clues about effective programming. For example, providing WBLE takes coordination between a VR agency, education agency, and employers. Understanding this relationship and how these

organizations collaborate may lend clues to employment outcomes (Magee, 2019). Researchers have indicated that while WBLE is strongly associated with desired employment outcomes (Kaya et al., 2021; Luecking et al., 2018; Mazzotti et al., 2021), not all students and youth with disabilities who were eligible to receive public VR services actually received services while they were in high school (Awsumb et al., 2020). Researchers have also found that even when students received VR services, most were not employed as adults (Awsumb et al., 2020).

Problem Statement

There is a problem in successful employment outcomes among transition-age students with disabilities. That problem, specifically, is that despite public policy requiring VR programs to collaborate with education officials to improve employment outcomes for students with disabilities (WIOA, 2014), students with disabilities are less likely to be in the workforce even after receiving public VR services (Awsumb et al., 2020). Also, WIOA (2014) requires that VR programs set aside 15% of their federal grant award to provide pre-ETS to students with disabilities. However, despite the mandated set aside and the requirement to provide students with pre-ETS, it is unclear whether implementation of WIOA by VR programs is successfully removing barriers to employment for students with disabilities. This problem impacts transition-age students with disabilities because pre-ETS are intended to improve preparation of students with disabilities for employment and to increase the number of students with disabilities who participate in postsecondary education.

There are many possible factors contributing to this problem, among which are differences in the way VR programs have outlined their pre-ETS policies (Carlson et al., 2020), operationalized delivery of pre-ETS, and prioritized pre-ETS based on familiarity of traditionally provided services as opposed to nontraditional services VR programs are required to provide under WIOA (Taylor et al., 2021). This study contributes to the body of knowledge needed to address this problem by using publicly available WIOA State Plans to conduct a qualitative multicase study and explore collaboration between state VR and education agencies to deliver pre-ETS to students with disabilities.

Purpose of the Study

The research methods were qualitative in nature and in alignment with a qualitative constructivist approach, which aligned with my personal philosophical and methodological assumptions. The intent of this qualitative multicase study was to explore how VR programs plan to collaborate with education officials to implement WIOA (2014). The central phenomenon studied was the collaboration between state level VR and education agencies to provide pre-ETS to students with disabilities as young as age 14 to age 21. This study did not involve human research participants. Instead, existing WIOA State Plans were used that VR program administrators are required to prepare and submit to the U.S. Department of Labor and the U.S. Department of Education (the Departments) every 4 years, with an update to the plan every 2 years. I coded and categorized narrative data (i.e., words) on collaboration between VR and education state agencies from within and across WIOA State Plans to answer the research question.

Research Question

How have VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities?

Conceptual Framework

The concept that grounds this study is collaboration. Burt and Spellman (2007) organized five levels of collaboration on a continuum in the Integration Continuum conceptual framework that ranges from no communication to an integration of parties that work together to solve a problem. The phenomenon under study was the collaboration between state VR and education agencies to provide pre-ETS to students with disabilities. I studied collaboration because the intent of WIOA is to create a seamless customer-focused one-stop delivery system that integrates service delivery across partner programs and entities that are jointly responsible for workforce and economic development, educational, and other human resource programs through collaboration (Rehabilitation Services Administration, 2015, p. 3).

Two conceptual models were considered to frame this study. The first was the Interdisciplinary Framework of Collaborative Working (Rose & Norwich, 2013). I considered this model because it frames inter-professional collaboration at the social psychological level and explains that individuals participate in and interface with groups to conduct collaborative work at the local level to implement policy at the local and national level. The second model I considered was the Integration Continuum (Burt & Spellman, 2007). I considered this conceptual framework because Burt and Spellman created distinct definitions that describe the current state of collaboration between

organizations, what activities should occur to move to a more integrated state, and activities that indicate a drop-off of collaboration.

I chose to use the Integration Continuum (Burt & Spellman, 2007; Figure 1) to frame this study because this conceptual model defines collaboration on a continuum from none to coordinated. The five levels on the continuum are isolation, communication, coordination, collaboration, and coordinated community response. I provided a detailed definition of each level of cooperation from the Integration Continuum in Chapter 2. I planned to use definitions from each level of the conceptual framework to standardize the level of cooperation I assigned to each VR program. Standardizing the way collaboration was defined across each VR program helped me understand collaboration within VR programs and between state VR programs and education agencies. In Chapter 2, I also explained why I chose the Integration Continuum over the Interdisciplinary Framework of Collaborative Working to frame this study.

Nature of the Study

The intent of the research question and study purpose was to understand how VR programs collaborate with state education officials to implement WIOA and provide pre-ETS to students with disabilities. The phenomenon explored was collaboration between state VR and education agencies to provide transition services to students with disabilities with the goal of improving education outcomes for this population. A social constructivism research paradigm underlies this qualitative study and aligns with my personal research philosophy that the nature of reality is subjective, and that the way we know the world is tied to one's world view and the social world we live in. Thus, the

nature of this study was qualitative because qualitative research prioritizes meaning, over and above cause and effect and uses words as data as opposed to quantitative research that uses numbers as data (Braun & Clarke, 2013).

The study did not involve human research participants. Instead, I used publicly available secondary data as the data source. A multicase study research design was used to look into specific circumstances of the phenomenon within the bounded context of individual WIOA State Plans. I focused specifically on collaboration between state VR and education agencies, over predefined periods when VR programs submitted WIOA State Plans to the Departments: 2016, 2018, 2020, and 2022. A single WIOA State Plan was a case and the unit of analysis for this study. I applied criteria for inclusion in the data analysis and drew a purposive sample of five WIOA State Plans from their respective VR programs, thus resulting in a multiple-case study design. The narrative responses were reviewed from five questions VR programs are required to respond to about what they plan to do or are already doing to collaborate with education officials to provide transition services to students with disabilities (Department of Labor, n.d.). The overall process of data analysis was to identify segments in the narrative responses that were responsive to the research question. The method of analysis followed the process to analyze qualitative data as described by Merriam and Tisdell (2016) and involved coding and recoding, organizing the data into core categories and subcategories, and then into themes to answer the research question.

Definitions

Authorized pre-ETS: Pre-employment transition services (pre-ETS) includes a specific set of activities that are designed for students with disabilities to improve their transition from school to postsecondary education or to an employment outcome (Rehabilitation Act, 1973a). The Workforce Innovation and Opportunity Act (2014) amended the Rehabilitation Act of 1973 and requires vocational rehabilitation (VR) agencies to set aside at least 15% of their federal funds to provide pre-ETS to students with disabilities who are eligible or potentially eligible for VR services (Rehabilitation Act, 1973b). If VR agencies have funds remaining after providing the five required pre-ETS (Rehabilitation Act, 1973c), they may provide additional (authorized) pre-ETS to improve the transition of students with disabilities from school to postsecondary education or employment. The nine authorized pre-ETS are given below (Rehabilitation Act, 1973c):

- Strategies that increase independent living and inclusion in communities and competitive integrated workplaces.
- Strategies for individuals with intellectual and significant disabilities to live independently, participate in postsecondary education experiences, and obtain and retain competitive integrated employment.
- Training of VR counselors, school transition staff, and others supporting students with disabilities.
- Information on innovative, effective, and efficient approaches to implement pre-ETS.

- Activities with transition services provided by local educational agencies under the Individuals with Disabilities Education Act (2004).
- Evidence-based findings to improve policy, procedure, practice, and the preparation of personnel.
- Model transition demonstration projects.
- Multistate or regional partnerships that involve States, local educational agencies, Designated State Units, developmental disability agencies, private businesses, or others.
- Information and strategies to improve the transition to postsecondary activities of those who are traditionally unserved.

Competitive Integrated Employment: Competitive integrated employment means work that is performed on a full- or part-time basis for which an individual with a disability is: (a) compensated at or above minimum wage and comparable to the customary rate paid by the employer to employees without disabilities in similar occupations by the same employer with similar training, experience, and skills; (b) eligible for the level of benefits provided to other employees without disabilities in similar positions; (c) working at a location where the employee with a disability interacts with other employees without disabilities who are in comparable positions; and (d) presented with opportunities for advancement that are similar to those without disabilities who are in similar positions. (Rehabilitation Act, 1973d).

Pre-ETS: Pre-employment transition services (pre-ETS) represent the earliest set of services available for students with disabilities who are eligible or potentially eligible

for vocational rehabilitation (VR) services. Pre-ETS include a specific set of activities that are designed for students with disabilities to improve their transition from school to postsecondary education or to an employment outcome. Pre-ETS is provided to all who meet the definition of a student with a disability who may need VR services and are eligible for VR services or are potentially eligible for VR services (i.e., all students with disabilities without regard to the type of disability) (Rehabilitation Act, 1973a). Pre-ETS are short term in nature to help students with disabilities identify career interests, which they may explore through additional transition and other individualized VR services.

Required pre-ETS: Pre-employment transition services (pre-ETS) include a specific set of activities that are designed for students with disabilities to improve their transition from school to postsecondary education or to an employment outcome. Pre-ETS is provided by a state vocational rehabilitation (VR) agency to all who meet the definition of a student with a disability who may need VR services regardless of disability and are eligible for VR services or are potentially eligible for VR services. Pre-ETS are short term in nature to help students with disabilities identify career interests, which they may explore through additional transition and other individualized VR services. VR programs are required to provide these five activities statewide to all students with disabilities who may need VR services (Rehabilitation Act, 1973c): (a) job exploration counseling; (b) work-based learning experiences which may include in-school or after school opportunities, experiences outside of the traditional school setting and/or internships; (c) counseling and postsecondary education opportunities for enrollment in comprehensive transition of postsecondary educational programs; (d)

workplace readiness training to develop social skills and independent living; and (e) instruction in self-advocacy.

Rehabilitation Services Administration-911: The Rehabilitation Services Administration (RSA) is a federal agency under the United States Department of Education, Office of Special Education and Rehabilitative Services. RSA assists state and other agencies in providing vocational rehabilitation (VR) and other services to individuals with disabilities. RSA provides oversight to federal-state VR programs to maximize employment, independence, and integration into the community and competitive labor market. RSA-911 Case Service Report is the administrative data collected by each state VR agency on consumers closed in a fiscal year and submitted to RSA (Cornell University, 2016).

Student with a disability: A student with a disability is an individual with a disability in a secondary, postsecondary, or other recognized education program who falls within a required age range (Rehabilitation Act, 1973e). The minimum age for a student with a disability varies by state and may not be younger than the earliest age for transition services as defined by the Individuals with Disabilities Education Act (2017). For example, in Washington, the minimum age that defines a student with a disability is 14. The maximum age for a student with a disability is 21 unless a state law provides a higher maximum age for a student to receive services under the Individuals with Disabilities Education Act.

Unified and Combined WIOA State Plan: States outline a strategic vision of, and goals for how their workforce development systems will achieve the purpose of the

Workforce Innovation and Opportunity Act (WIOA; 2014) in a Unified or Combined State Plan (Rehabilitation Act, 1973f). The Governor of each State must submit a Unified or Combined State Plan to the Secretary of the U.S. Department of Labor and the Secretary of the Department of Education that outlines a 4-year strategy for the State's workforce development system. WIOA State Plans outline what states and territories are doing to help Americans with barriers to employment (e.g., individuals with disabilities) become employed into high-quality careers and assist businesses with hiring and retaining skilled workers. States are required to update their 4-year strategic plan every 2 years. At a minimum, a state must submit a Unified State Plan that outlines a 4-year strategy for the six core programs, including the VR program. Alternatively, a state may submit a Combined State Plan that outlines a 4-year strategy for WIOA's six core programs, plus one or more of 11 partner programs (Employment and Training Administration, 2019). States use the WIOA State Plan Requirements Information Collection Request (Department of Labor, n.d.) to report their plans and submit their plans to the WIOA State Plan Portal (Department of Education, n.d.).

Vocational rehabilitation: Vocational rehabilitation (VR) is a process that a person with a disability goes through to gain, maintain, return to, or advance in a job. The length and complexity of the process and services available to an individual with a disability depends on the individual's needs. VR counselors work with individuals with disabilities to find a job, keep a job, return to, or advance in a job. Every state has a VR department. An individual with a disability must meet these requirements to be eligible to receive VR services: (a) the individual must have a physical, emotional, mental, or

learning disability that prevents the individual from being able to hold a job; (b) the individual needs the help of VR services to get, maintain, return to, or advance in a job; and (c) the individual will benefit from having a job that VR services will help the individual get and keep (Rehabilitation Act, 1973g).

WINTAC: The Workforce Innovation Technical Center (WINTAC) provides training and technical assistance to state vocational rehabilitation agencies and rehabilitation professionals and service providers to help them meet requirements of the Workforce Innovation and Opportunity Act (WINTAC, 2016-a). WINTAC provides training and technical assistance on many topic areas, including pre-employment transition services to students with disabilities. WINTAC was funded by a Department of Education grant.

Work-based learning: Work-based learning is one of five required pre-ETS that VR state agencies are required to provide students with disabilities to improve their transition from school to postsecondary education or to an employment outcome (Rehabilitation Act, 1973c). Work-based learning experiences (WBLE) uses the workplace or real work to provide students with disabilities the knowledge and skills that will help them connect school experiences to real life work activities and future career opportunities. It is essential that direct employer or community involvement be a component of work-based learning to ensure in-depth student engagement. These work-based learning opportunities can be done in conjunction with private, for-profit, public, or nonprofit businesses in the community and/or through web-based resources. In addition, work-based learning requires in-depth engagement of youth and an evaluation of

acquired work relevant skills. WBLE may include job shadowing, career mentorship, career-related competitions, informational interviews, paid and unpaid internships, practicum, service learning, student-led enterprises, simulated workplace experience, paid and unpaid work experience, volunteering, and workplace tours and field trips. WBLEs must be provided in an integrated setting in the community (i.e., in a setting that includes individuals with and without disabilities). Students who are paid during their WBLE must be paid at no less than minimum wage.

Youth with a disability: A youth with a disability is an individual with a disability who is not younger than 14 years of age and not older than 24 years of age (Rehabilitation Act, 1973h).

Assumptions

From a practical perspective, a key assumption was that the information supplied by VR program administrators in WIOA State Plans was true and accurate. A related assumption was that while WIOA State Plans included activities that are planned, when stated as already being carried out, those activities were already being done in addition to having been planned. I also planned to use data from the Pre-ETS Data Tool provided by RSA (n.d.) to ascertain the number of students who received WBLE services from VR programs during program year 2019 (July 1, 2018 -June 30, 2019) and assumed that those data were also true and accurate. Determining an accurate number of students who experienced a work-based learning opportunity was critical to this study because the VR programs who provided WBLE to the greatest number of students during program year 2019 was a criterion for inclusion in the sample.

As a researcher with my own experiences and perceptions, I recognized that my perspective, assumptions, and biases would become part of the research and would guide how I processed and interpreted data to draw meaningful conclusions (Creswell, 2014). I also recognized that my philosophical assumptions about how I view the world (ontology), and how I know what I know about the world (epistemology) would influence my role as an instrument in the research (axiology). In addition, I recognized that my philosophical stance would influence decisions I would make to move from abstract to concrete ideas (i.e., the methodology, or the lens through which I would view and make decisions about the study), and the methods I would use to understand the world (i.e., codes, categories, and themes created to answer the research question). By aligning my philosophical and methodological assumptions with the research purpose and methods, I improved the rigor of the research process and increased trustworthiness of the findings (Harrison et al., 2017). Therefore, I need to briefly address my philosophical and methodological assumptions that guided this study.

I proposed to carry out a qualitative study that was aligned with a constructivist research paradigm. The research design was a multicase study that was not only a type of qualitative research design but was also a variation of an inductive methodology with its own philosophical foundations. Yin, Stake, and Merriam are three seminal case study researchers. Yin's philosophical orientation is a postpositivist one (Yin, 2009), where a researcher categorizes qualitative data to create quantitative data that can be analyzed using quantitative data analysis and statistical methods. Stake's (2010) philosophical orientation is aligned with a constructivist and interpretivist approach that views reality as

"more what we presume than what it is" (p. 218) and is based on meaning and understanding of experiences in context. For Stake, interviews and observations are the dominant method of data collection where the researcher partners with research participants in the discovery of knowledge (Stake, 2010). Merriam takes a constructivist approach to case study research that is in between Yin and Stake. Merriam advocates for case study research where cases are selected based on the research question and purpose and where data collection and analysis are organized, rigorous, credible, and applicable (Merriam, 2009). Brown (2008) discusses case study methodology as a continuum where Stake's work is located to the far left, Yin's work is situated to the far right, and Merriam is somewhere near the middle of the continuum. Brown stated that, "Merriam presented a balanced, pragmatic approach, while Yin was highly methodical and logical, and Stake was like an artist or poet, creating and crafting meaning" (p. 7).

For this study, I explored how VR programs planned to or had collaborated with education officials to implement WIOA. Rather than use an empirical study design and statistical methods to analyze the data within the context of a case as Yin might have planned or interview VR program administrators and partner with them to generate knowledge and use both direct interpretations and thematic findings to answer the question as Stake might have done, I followed Merriam's (1998) pragmatic constructivist approach. Like Merriam, my ontological and epistemological view of the world is that knowledge is constructed through meanings and understandings that are developed socially and experimentally. From a pragmatic perspective, I also align with Merriam (2009) in that my approach to deciding on a case and the type of data to collect and

analyze depends on the question being answered and the purpose of the inquiry. I further align with Merriam and believe that case study processes should be descriptive and thematic, and that triangulation is a key strategy for ensuring the quality of a study (Merriam & Tisdell, 2016).

Scope and Delimitations

Despite public policies intended to improve employment outcomes for students with disabilities, transition-age students with disabilities take longer to graduate from high school (Cheatham et al., 2020), are less likely to graduate from high school (Cheatham et al., 2020), and are less likely to be in the workforce even after receiving public VR services than students without disabilities (Awsumb et al., 2020). Also, students who are higher functioning are more likely to receive transition services than students who have greater support needs (Mello et al., 2021). I explored how VR programs have collaborated with state education officials to provide students with pre-ETS. I chose to focus on collaboration because WIOA (2014) requires federal-state VR programs to coordinate with education officials to deliver pre-ETS to students with disabilities. I chose to focus specifically on collaboration with state educational agencies because educational personnel play a pivotal role in transitioning students with disabilities from school to post-school activities after high school, including VR services. The purpose of federal-state VR programs is to assist people with disabilities, including students and youth, with getting a job, keeping a job, and advancing in a job or career (WIOA, 2014). Therefore, understanding the working relationship between state VR and

education agencies was important for exploring how VR programs have implemented WIOA (2014) to provide pre-ETS to students with disabilities.

This study did not involve human subjects. The source of the data was WIOA State Plans that each of the 78 federal-state VR programs submits to the Departments every 4 years. There is one VR program in each of the 50 states in the U.S. There are six additional VR programs, including one each in the District of Columbia, Puerto Rico, American Samoa, Virgin Islands, Northern Marianas, and Guam. Of the 56 programs, 34 are Combined VR Programs that provide employment services to individuals with all types of disabilities. The remaining programs have two separate designated state units: 22 Blind VR Programs that provide employment services to people who are blind or visually impaired and 22 General VR Programs that provide employment services to individuals with all other types of disabilities. Regardless of the type of designated state unit—Combined, Blind, or General—each VR program must prepare and submit a WIOA State Plan to the Departments every 4 years and update those plans every 2 years. To date, VR programs have submitted WIOA State Plans in 2016, 2018 (an update to 2016 plan), 2020, and 2022 (an update to 2020 plan). The outermost boundaries of this study, then, was every federal-state VR program that is funded by the U.S. Department of Education.

Limitations

While I explored the phenomenon of collaboration between state VR and education agencies to provide transition services to students with disabilities, a limitation of this qualitative multicase study was that I would not be able to transfer or generalize what I learned from one program to the next. However, I was able to assign a level of

collaboration by using the conceptual framework and by comparing the level of collaboration within a VR program and between VR programs in the study. Transferring or generalizing results from this study to other VR programs was particularly limiting because each program creates their own policies and procedures so what applies in one program may not apply in another program. However, each VR program must follow the same federal requirements so there may have been similarities in the way VR agencies have operationalized their policies. Nonetheless, as with qualitative studies in general, the goal was to understand a phenomenon, not to propose cause and effect relationships as quantitative research designs do. In short, results from this study would also not reveal whether collaboration between state VR and education agencies resulted in a job after a student completed a work-based learning opportunity. Results did not further reveal whether a student who received WBLE and subsequently became employed did so because the VR program effectively collaborated with education officials. This study was exploratory in nature and was not designed to draw conclusions about the association between collaboration and employment outcomes.

The study results relied on analysis of publicly available data with standardized templates, definitions, and requirements which I expected would produce valid and reliable conclusions. However, the conclusions I drew were limited by the completeness, accuracy, and reliability of data supplied by the VR programs themselves. A specific limitation of using WIOA State Plans as the source of the data was that these plans were not necessarily written for the purpose of research, so systematic methods I may have used to collect information did not apply. Therefore, I may have had incomplete

information from a research perspective, and I was limited to information supplied by the VR program administrator. Another limitation was that the information may have been biased because the audience of the report was the Departments and program administrators write their plans with this audience in mind. Therefore, obtaining information that was reliable and objective was a limitation. Yet another limitation was that the quality of narratives to questions required by the Department of Labor (n.d.) varied by state. While some states provided in-depth descriptions of services they delivered to students with disabilities, other states provided only generic statements (Taylor et al., 2021). Thus, the usability and reliability of results from this study was limited because of incomplete information, bias, and differences in breadth and depth of information in WIOA State Plans.

My professional role may also have presented a limitation of the study. While I am a staff member of a state VR program, and my program did not meet the criteria to be included in the study, I do interact with administrators of VR programs that were in the study. Therefore, keeping a reflexive journal and doing analytic memoing during data analysis was important for mitigating the risk of researcher bias when analyzing state plans. In addition to being a public servant who works in VR, I am also the parent of a child who has significant disabilities and has received public services. However, as a scholar practitioner, I understood and practiced techniques to maximize the trustworthiness of the study, like keeping a reflexive journal and doing analytic memoing throughout coding, categorizing, and theming of the data, and throughout the write-up of the results and conclusions.

Significance

This study is significant because it could advance knowledge about factors contributing to the research problem, including an understanding of how VR programs have outlined their pre-ETS policies to work with education officials, operationalized delivery of pre-ETS, and worked with educational agency staff to plan for the transition of students from school to post-school activities, including the receipt of VR services. This study may also inform future research to build a theory of collaboration or inform future quantitative studies aimed at examining cause and effect relationships (e.g., high degree of collaboration results in improved employment outcomes). Understanding how VR programs planned to or have collaborated with educational officials may contribute to knowledge about relationships between organizations that may influence employment outcomes among students with disabilities (Magee, 2019). This study is also significant because it may result in improved collaboration between state VR and education agencies to successfully transition students with disabilities to a job or postsecondary education after high school. In addition, this study is significant because it may advance policies and practice by VR and education agencies that result in improved and effective programming to serve students with disabilities. A potential implication for social change at the organizational level is improved collaboration among VR and educational state agencies and improved programming by VR and educational state agencies to achieve the intent of WIOA (2014) and address employment outcomes among students with disabilities.

Summary

In this chapter, I introduced the topic of implementation of WIOA (2014) by federal-state VR programs. Of the five pre-ETS VR programs are required to provide students with disabilities, I focused on WBLE because research has shown that work-based learning opportunities are most strongly associated with competitive integrated employment—the desired outcome members of Congress intended with the passage of WIOA (Kaya et al., 2021; Luecking et al., 2018; Mazzotti et al., 2021). My review of the scholarly literature revealed a gap the proposed study filled: an exploration of the implementation of WIOA (a) at the organizational level, (b) with a specific focus on WBLE, (c) using standardized definitions of collaboration to explore collaboration within and between VR programs, (d) from the perspective of VR program administrators, and (e) over multiple years. I analyzed data from five WIOA State Plans to explore collaboration between state VR and educational agencies. This secondary data source is universally required by every VR program every 4 years with an update to the plan every 2 years (Department of Labor, n.d.). In lieu of a formal evaluation of the implementation of WIOA, the study provides an early look at how states have created policies, operationalized, and then delivered pre-ETS through collaboration with education officials. In Chapter 2, I reviewed, described, and then synthesized the scholarly literature on pre-ETS with a focus on WBLE. I described strengths and weaknesses inherent in approaches researchers took and used the literature to justify the rationale for selecting the variables and concepts I studied. I also described how this study filled a gap in the

scholarly literature about how VR programs across the United States have implemented WIOA.

Chapter 2: Literature Review

Introduction

There is a problem in successful employment outcomes among transition-age students with disabilities. That problem, specifically, is that despite public policies crafted with the intent to improve employment equity for students with disabilities (WIOA, 2014), compared to students without disabilities, students with disabilities are less likely to be in the workforce even after receiving public VR services (Awsumb et al., 2020). Students with disabilities also take longer to and are less likely to graduate from high school (Cheatham et al., 2020). In addition, students with disabilities are more likely to be working part-time and to be employed in lower paid jobs (Bureau of Labor Statistics, 2021). Moreover, despite the WIOA mandate that VR programs set aside 15% of their program budget to provide pre-ETS to transition-age students with disabilities, VR professionals have reported that their programs are only spending five of the 15% budget set aside (Sherman et al., 2019). The lower-than-expected use of a VR programs' budget set-aside is worrisome because it suggests that fewer students than expected are being offered employment opportunities to achieve employment outcomes members of Congress intended. Furthermore, while researchers have found that of the five required pre-ETS, WBLE is most strongly associated with competitive integrated employment (Kaya et al., 2021), few students and youth with disabilities who received VR services while in high school were employed as adults and only half of all students who were eligible to receive public VR services actually received VR services (Awsumb et al., 2020). Thus, it is unclear whether implementation of WIOA by VR programs is

successfully removing barriers to employment for this population of people with disabilities. The purpose of this qualitative multicase study was to explore the implementation of WIOA (2014) by federal-state VR programs through collaboration with state education officials to deliver pre-ETS to students with disabilities. The phenomenon under study was the collaboration between state level VR and education agencies to provide transition services to students with disabilities.

The concept that underlies much of the scholarly literature on WIOA (2014) is collaboration, particularly between state VR agencies and state education officials and professionals. Collaboration is the most frequently studied aspect of the implementation of WIOA (2014) because requirements in the Act mandates that these state agencies coordinate services for students with disabilities (Grossi et al., 2019; Grossi & Thomas, 2017; Hartman et al., 2019; Kittleman et al., 2018). Collaboration occurs at the federal-state level (Hartman et al., 2019), state-local level (Kittleman et al., 2018), and within the secondary education setting (Grossi et al., 2019; Grossi & Thomas, 2017). What is less known are the factors that contribute to or impede successful employment outcomes, such as training on employment services among education professionals (Carlson, 2022; Oertle et al., 2017) and research about hiring students with disabilities among employers (McDonnall & Antonelli, 2020). The other aspect that is not well known is how many and the degree to which each factor mediates or moderates the relationship between the delivery of pre-ETS and the employment outcomes of students with disabilities (Carlson, 2022; Oertle et al., 2017).

Chapter 2 includes the literature search strategy, including the criteria I used to decide which literature to include in the review, the library databases and search engines accessed, key search terms used, and the iterative search process I employed to identify scholarly literature. Next, two conceptual models are discussed as options to provide a framework for interpretation: an Interdisciplinary Framework of Collaborative Working (Rose & Norwich, 2013) and the Integration Continuum (Burt & Spellman, 2007). After that, scholarly literature related to WBLE, a key service related to successful employment outcomes and collaboration, the concept that undergirded the study are reviewed. After summarizing what is well known, alignment of this study with scholarly literature and what remains to be studied are discussed. The chapter ends with a discussion about how the study fills a gap in the literature and extends knowledge about the implementation of WIOA through collaboration between state VR and education agencies.

Literature Search Strategy

The literature search strategy involved searching for scholarly literature based on categories of information I wanted to find including (a) concepts related to the research question; (b) search terms related to the population of interest; (c) WIOA State Plan requirements as defined by the WIOA State Plan Information Collection Request template (Department of Labor, n.d.); (d) types of literature, such as reviews and dissertations; (e) research studies based on WIOA State Plans as the source of data; (f) research studies that used the same approach and data analysis method I used; and (g) theories on implementation of public policy. First, I searched the scholarly literature for concepts related to the research question: How have VR programs collaborated with state

education officials to implement WIOA and provide pre-ETS to students with disabilities? The concepts identified from the research question were as follows: vocational rehabilitation, implementation of public policy, WIOA, and students with disabilities. These concepts were the basis for the search terms used. Second, I searched for literature on transition age students with disabilities who received pre-ETS, focusing specifically on WBLE. An initial review of the literature revealed that of the five pre-ETS VR programs are required to provide, WBLE results in the desired employment outcome for students with disabilities. Third, the WIOA State Plan Information Collection Request template was used to search for elements that states are required to report on that could be used as search terms in the literature review. I reasoned that if federal oversight agencies required states to report on particular elements in their WIOA State Plan, then those elements may be a measure the federal agency could use to gauge how VR programs are implementing WIOA and were therefore critical to the study. These key concepts were identified as potential search terms for the literature review: cooperative agreements with Federal, State, and local agencies and programs, coordination with education officials, and coordination with employers.

The common theme was collaboration, which made sense as a measure to monitor the implementation of WIOA because the aim of WIOA is to "strengthen the United States workforce development system through innovation in, and alignment and improvement of, employment, training and education programs in the United States" (WIOA, 2014). Fourth, the search terms above were used to find these types of literature: reviews, individual research studies, and dissertations. The strategy was to begin with

reviews on the implementation of public policy in general, and then WIOA in particular. I began with reviews to gain a broad understanding of the research topic. Next, I moved to individual scholarly research. Then, I searched for dissertations using key terms I identified in the steps described above. Also, even though grey literature is not scholarly work, I searched to see if there were concepts that I was unaware of, or guidance that had been created by organizations contracted by RSA to provide VR programs with technical assistance (e.g., WINTAC) that may have been instructive in the literature search. Fifth, after completing the literature search, I sorted through the articles to find studies conducted by researchers who also used WIOA State Plans as a source of data, as I planned to do. I sought to determine whether researchers who used State Plans used a sample of plans or examined plans from all 50 states and the District of Columbia and the rationale for their decision. Sixth, after obtaining literature from the search, I looked for research studies that used the same research approach and data analysis method I planned for the study. Finally, I searched for theories on the implementation of public policy, implementation of WIOA, and theories on coordination or collaboration in government.

Criteria for Inclusion in the Literature Review

To be included in the literature review, research studies published by researchers must have met three criteria. The first criterion was that the research study must have been published between August 2014 and 2022 because WIOA was passed in July 2014 and 2022 was the most recent date VR programs were required to submit an updated WIOA State Plan to the Departments. My preference was to include literature published after 2017 because the final WIOA rule was published in October 2016 (WIOA, 2016).

The second criterion was that the research study must have been published in a peer-reviewed journal, or, for dissertations, searchable using Library Search (formerly Thoreau), one of Walden University Library's search engines. The third criterion was that the research study must have focused on pre-ETS, preferably WBLE for transition age students with disabilities. I chose these criteria in particular to ensure that the most recent research that was published in the last five years, after WIOA was passed, was reviewed, thus narrowing the scope of pre-ETS to WBLE.

Accessed Library Databases and Search Engines Used

I accessed Walden University Library's search engine Library Search (formerly, Thoreau) to find literature to review. I also used Walden University's Library to access these databases: Academic Search Complete, APA PsycArticles, APA PsycInfo, Business Source Complete, CINAHL Plus with Full Text, Complementary Index, Director of Open Access Journals, EBSCO, Education Source, ERIC, MEDLINE with Full Text, Political Science Complete, ProQuest Dissertations &Theses Global, Social Sciences Citation Index, Supplemental Index, and Teacher Reference Center. SAGE Knowledge was also used to find encyclopedias and handbooks to identify theories on the implementation of public policy and collaboration in government. In addition, I searched SAGE Research Methods Online to search for methods on case study research design.

Key Search Terms and Combinations of Search Terms

I used key search terms and combinations of search terms to collect literature for the study. First, I used these individual and combined search terms to find scholarly literature related to the research question: *implementation of WIOA*, *implementation of*

public policy and vocational rehabilitation, *WIOA*, *Workforce Innovation and Opportunity Act and vocational rehabilitation*, and *Workforce Innovation and Opportunity Act and vocational rehabilitation and implementation*. Next, I used these individual and combined search terms to find scholarly literature related to the population of interest: *pre-employment transition services*, *students with disabilities and vocational rehabilitation and work-based*, *students with disabilities and vocational rehabilitation*, and *vocational rehabilitation and work-based learning and outcomes*. The following combined search terms were used to find scholarly literature related to WIOA State Plan requirements: *vocational rehabilitation and collaboration*, *vocational rehabilitation and partnership and employer and pre-employment transition services*, *WIOA and coordination with education agencies*, *WIOA and coordination with employers*, and *WIOA and cooperative agreements*. Finally, I used these individual and combined search terms to find theories on collaboration: *collaboration theory*, *collaboration theory and government*, and *collaboration theory and government and public policy*. These terms were used to find theories on implementation of public policy and implementation theory: *implementation of public policy* and *public policy implementation theory*.

Iterative Search Process

I began the literature search with a search for dissertations using the ProQuest Dissertations and Theses Global database. After entering the search term and reviewing the resulting dissertations, I reviewed the abstract, research question(s), conceptual or theoretical framework, methods, and results to determine if the dissertations I found were relevant to the study. I used these four criteria to initially filter dissertations and peer-

reviewed research to decide if a study had relevance to mine: the research question was similar to mine, the study was relevant to WIOA, the population under study was students with disabilities, and the research study was conducted in the United States.

Next, I used Library Search (formerly, Thoreau), one of Walden University Library's search engines and accessed various library databases to search for original research in peer-reviewed journals. I added a fifth criterion: the literature must have been published in a peer reviewed scholarly journal. I initially read the title and abstract of each article and also did a search for key terms (e.g., implementation, pre-employment transition services, collaboration, partnership, outcomes) in each article to determine if a study was germane to mine. When a key search term resulted in an article that was relevant to the study and met the five criteria for filtering literature to review, I retained that article for further review.

During the search for scholarly literature, I noticed that many salient research articles were published in the Journal of Vocational Rehabilitation. Therefore, I used the key words "Workforce Innovation and Opportunity Act" and "pre-employment transition services" and did a hand search of this journal to see if there were additional articles I could add to the review. The search returned relevant articles, but they were duplicates of articles I had already found.

After organizing the literature, there were few articles on implementation theory and collaboration theory in particular. Therefore, using literature where researchers discussed or referenced theory, I carried out backward chaining by searching the bibliography of each article. After excluding duplicate research articles, I did not find

scholarly literature on a theory of implementation of public policy or a theory on collaboration in particular. Therefore, I did a hand search on the implementation of WIOA by VR programs that was authored by the National Council on Disability because of the agency's role is advising national decision makers about policies, including WIOA, programs, practices, and procedures that affect people with disabilities. I searched every publication on employment on the National Council on Disability's website (https://www.ncd.gov) from 2014, the year Congress passed WIOA to June 2022; this search resulted in two articles I had already identified for the study.

In summary, after (a) implementing the search strategy, (b) applying five criteria I determined for inclusion in the literature review, (c) searching library databases using individual and combined search terms, and (d) doing backward chaining, I collected 578 journal articles and 28 dissertations that were potentially germane to the study. Elimination of duplicate articles and application of additional filters (e.g., research question was similar to mine) resulted in 188 research articles. I reviewed each article to determine how closely a study aligned with the research question, data source, or research methodology. Of the 188 articles, I retained and fully reviewed 40 research articles and four dissertations for potential inclusion in the study.

Conceptual Framework

The phenomenon under study was the collaboration between state VR and education agencies to provide transition services to students with disabilities. The research question was, how have VR programs collaborated with state education officials to implement WIOA (2014) and provide pre-ETS to students with disabilities? I searched

scholarly literature to find a framework around which I could organize the concept of collaboration, particularly between government organizations at the state level. The literature search revealed that despite 30 years of research in the field of policy implementation, scholars have not reached consensus on a theory that postulates how the implementation of a public policy may be associated with intended outcomes (Bourgon, 2007). Nevertheless, scholars seem to agree that the core question is what happens between the intended establishment of policy and the impact of that policy in the world (O'Toole, 2000). Therefore, rather than use a theoretical framework, I searched for a model that conceptually organized the idea of collaboration. I found two potential conceptual frameworks, considered both, and then chose the one that organized collaboration at the unit of analysis the study used: the state level organization, in this case a VR agency or program, as accounted for by each organization's WIOA State Plan.

Search for Research on Implementation of Public Policy Through Collaboration and Partnerships

Taylor et al. (2022) used 2018 WIOA State Plans from 10 VR Programs to address the research question: How do states plan to deliver required pre-ETS to transition-age students with disabilities? Using content analysis, Taylor et al. identified three emergent themes: instructional priorities, instructional contexts, and networks of stakeholders. They defined instructional priorities as specific skills and experiences within pre-ETS required activity categories (e.g., WBLE, employment skills, postsecondary education skills, self-advocacy) that states planned to offer students. They defined instructional contexts as the settings and environments in which services and

instruction occur, with an emphasis on workplace and campus settings (e.g., specific community-based work experience, postsecondary experiences, annual events, short-term events, and summer programming). They defined networks of stakeholders as not only formal inter-agency partnerships but also partnerships with community stakeholders to expand opportunities for student engagement (e.g., businesses, state and local organizations, universities and colleges, and families). To implement public policy, one must first decide how to operationalize implementation. Taylor et al. revealed how VR program administrators operationalized what pre-ETS to provide (instructional priorities), when and where to provide pre-ETS (instructional contexts), and with whom to partner with to provide pre-ETS (networks of stakeholders). Focusing on the theme of having networks of stakeholders to provide pre-ETS, I searched for a framework to conceptually organize collaboration and partnerships among a network of stakeholders.

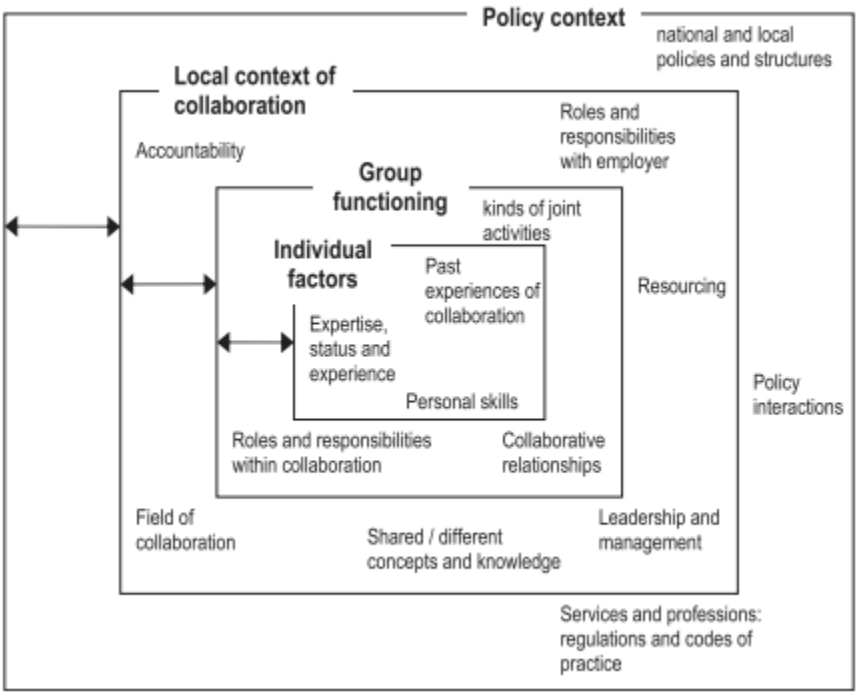
Conceptual Framework: Interdisciplinary Framework of Collaborative Working

The first conceptual model I considered to frame the study drew upon two broad aspects: collective commitment and outcomes belief on one hand and motivational processes within social processes and factors relevant to multi-agency and inter-professional collaboration on the other hand (Rose & Norwich, 2013). Figure 1 conveys the idea that individuals participate in and interface with groups to conduct collaborative work and shared goals at the local level to implement policy at the local and national level. I considered using this model to conceptually frame the study for several reasons. First, Rose and Norwich's (2013) model is specific at the individual professional level (i.e., a professional's motivations, experiences, and expertise) which also applies to VR

and educational professionals and was therefore relevant to the implementation of WIOA. Second, the model is situated within an individual's work within their own group or individuals from another organization, as is true of professionals from VR and educational agencies. Third, the model accounts for the wider local and national context, which was also true of the implementation of WIOA because transition services are provided at the local level and has implications for employment outcomes and public policy at the state and national level. Fourth, clarity about how VR and education officials agree to work together, professional roles, identities, and decision-making processes to achieve implementation goals at the local and national level was accounted for by the model, as it would be for the implementation of WIOA. Rose and Norwich suggest that a two-way relationship between collaborative outcomes, motivational processes, and group tensions and dilemmas to achieve shared goals is a strength of this framework (Figure 1).

Figure 1

A Contextual Framework of Collaboration (From Rose & Norwich, 2013)



The social-psychological framework Rose and Norwich put forward extends the literature around theoretical approaches to collaborative work in a multi-agency or inter-professional context with a specific focus on motivations of the individual within a group (p. 1). The framework builds on activity theory (Engeström, 1999) and communities of practice (Wenger, 1998), which are framed in terms of social theory and therefore do not address interaction between individuals or the groups in which they work (Edwards, 2007). Edwards (2005, 2007) and Edwards et al. (2010) focused on the capacity of individuals to develop shared understandings in joint work (p. 1). Rose and Norwich built upon the work by Edwards (2005, 2007) and Edwards et al. (2010) by placing individual

professionals' motivations and experience within the context of social theories (Engeström, 1999; Wenger, 1998) to accomplish work with collective goals.

Rose and Norwich's (2013) Interdisciplinary Framework on Collaborative Working was built on the recognition that changes to funding of children's services resulted in expectations that professionals from multiple disciplines (e.g., educational psychologists, mental health workers, speech and language therapists, social workers, and school nurses) and organizations would work together to develop efficient ways of working together to create child-centered services (Rose & Norwich, 2013). Despite this expectation, however, their guidance about how to work together to achieve child-centered services was lacking (Dalzell, Nelson, Haigh, Williams, & Monti, 2007).

Recently, Brink (2018) conducted a quantitative study to validate Rose and Norwich's (2013) Interdisciplinary Framework of Collaborative Working by analyzing individual factors, group factors, and local context between special education teachers and VR counselors to implement the Individuals with Disabilities Education Act (2004) and WIOA (2014) requirements, increase working alliance, and promote effective transition collaboration activities. Brink verified the importance of developing a working alliance between education and VR professions and joint trainings and professional development aimed at increasing awareness and competence of legislative mandates and corresponding outcomes intended as youth with disabilities transition to adult life (p. 140).

I considered this conceptual framework for the study because this model helps one understand that both individual and group factors influence interdisciplinary

collaboration and are needed to successfully achieve an intended public benefit and shared public policy implementation goals. Specifically, the conceptual framework helps one understand that an individual professional's ability to work collaboratively is shaped by that individual's experience and motivation (individual factors). The framework also helps one understand that expertise within a person's professional organization (group functioning) influences how that person works with other professionals. In addition, the framework helps one understand that the combination of individual and group factors influences a professional's ability to work with other professionals within their own or another profession (local context of collaboration) to achieve the intent of local, state, and national policy (policy context). The unit of analysis for the Interdisciplinary Framework on Collaborative Working (Rose & Norwich, 2013) is the individual professional. After consideration of the methodology and data analysis, I realized that I would be unable to use this framework and needed to find a conceptual framework that aligned with the unit of analysis for this study: an individual WIOA State Plan.

Conceptual Framework: The Integration Continuum

The Workforce Innovation Technical Assistance Center (WINTAC) is funded by the U.S. Department of Education and "provides training and technical assistance to state VR agencies and related agencies and rehabilitation professionals and service providers to help them develop the skills and processes needed to meet the requirements of WIOA" (WINTAC, 2016-a). WINTAC (2016-b) adapted the Integration Continuum which is based on Burt and Spellman's (2007) work on homelessness. The Integration Continuum is grounded in research on services integration (Burt & Spellman, 2007), systems change

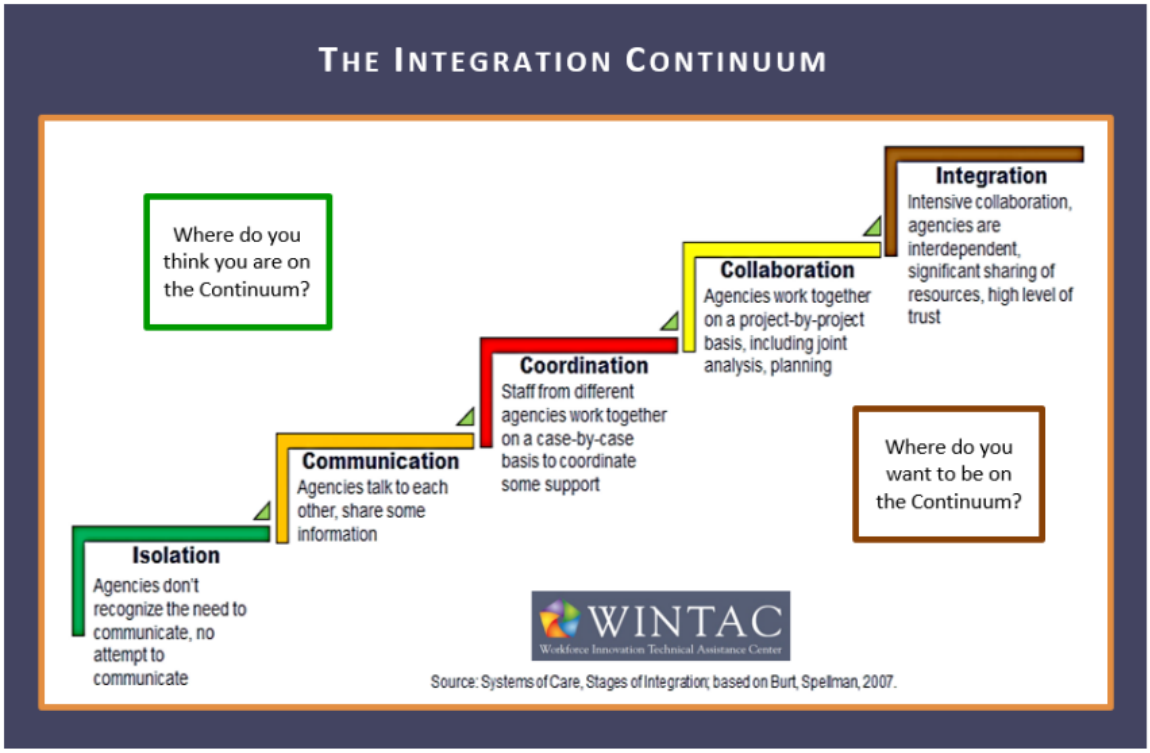
(Burt & Spellman, 2007; Dennis et al., 1999), and collective impact (Kania & Kramer, 2011). The idea behind application of the Integration Continuum is that state and local agencies can use the conceptual model to benchmark their progress from no communication to an integration of parties that work together to resolve the situation of homelessness for the largest number of people in the shortest period of time (p. 2-6). The National Alliance to End Homelessness developed a plan to shift the orientation and emphasis from managing homelessness to ending it (NAEH, 2000). WINTAC encouraged state VR agencies to use the Integration Continuum (Figure 2) to gauge their level of collaboration within their workforce development system (WINTAC, 2016-b). WINTAC advocated that the conceptual model could assist state VR agencies with determining where they think they are on the collaboration continuum and where they want to be to achieve their strategic goals to serve students with disabilities. The Integration Continuum is the second conceptual model I considered to frame this study on collaboration to implement WIOA (2014).

Figure 2 shows the five levels that comprise the Integration Continuum: isolation, communication, coordination, collaboration, and integration (WINTAC, 2016-b). Whereas WINTAC abbreviated definitions for each term, Burt and Spellman (2007) provided in-depth definitions for the first four levels of the continuum: isolation, communication, coordination, and collaboration. Isolation is described as recognizing the need to communicate about the issue where a system solution is lacking, as is any attempt to communicate (p. 2-6). Communication is described as the first, necessary step to inform counterparts about what each agency does, resources available to them, and the

types of services each offers (p. 2-6). Coordination is described as services integration where multi-agency teams help specific individuals obtain appropriate services from each agency, each agency agrees not to get in each other's way, there is no case coordination, and each agency has their own eligibility, procedures, and priorities (p. 2-7). Collaboration "adds the element of joint analysis, planning, and accommodation" toward systems integration where leadership from each agency supports and enforces adherence to new joint policies and protocols, with the goal to provide continuity of services even when public servants leave their position (p. 2-7). Having joint processes ensures that processes and procedures are standardized rather than being employee specific. As to the fifth level, instead of the term integration, Burt and Spellman use the term coordinated community response and describe this stage as "collaboration involving all of the critical and most of the desirable systems and actors in a community" to promote integrated services and supports for homeless people and to create systems change that goes beyond collaboration (pp. 2-7-2-9).

Figure 2

The Integration Continuum



I considered the Integration Continuum to study the phenomenon of collaboration between VR and education officials to implement WIOA (2014) and provide pre-ETS to students with disabilities for two reasons. First, Burt and Spellman (2007) included specific definitions for each level on the continuum. Second, Burt and Spellman placed the continuum within the broader context of community-wide efforts to achieve public good in a way that reorients individual agency's activities towards services integration, as WIOA intends. Applying definitions from various levels in the model to narrative responses in WIOA State Plans allowed me to standardize the definition of collaboration within and across VR programs. Having a standardized definition of collaboration

allowed me to understand whether VR and educational agencies were implementing WIOA with the same degree of coordination.

Whereas WINTAC (2016-b) advocated use of the Integration Continuum as a way for states to describe their degree of collaboration within a state's workforce development system, one can deduce that the model could also be used to gauge collaboration between VR and education state agencies. The model was further useful because the WIOA State Plan Information Collection Request (Department of Labor, n.d.) requires state VR agencies to describe coordination with education officials and employers but does not provide definitions or examples states can use to accurately, and systematically report on their efforts to collaborate. Therefore, what one state VR agency may consider a high degree of collaboration may be perceived by another state VR agency as a moderate degree of collaboration. Without a standardized way to describe coordination and collaboration, evaluating the impact of WIOA on collaborative activities makes it difficult for federal oversight agencies to evaluate the degree to which collaboration is occurring to successfully transition students from high school to post-high school, including employment services and postsecondary education. Most importantly though, with respect to the study, the Integration Continuum served as an excellent conceptual framework because I was able to explore the level of coordination and collaboration at the case level (i.e., an individual VR program level) using standardized definitions for collaboration. Therefore, I was also able to compare the level of collaboration across VR programs in the study.

Literature Review Related to Key Variables and Concepts

In addition to searching scholarly literature for implementation of public policy, pre-ETS, and theories or conceptual frameworks on collaboration, the literature was searched for three specific aspects of the implementation of WIOA by VR and education state agencies through collaboration. First, the literature was searched for research that addressed the desired outcome of the implementation of WIOA: improved employment outcomes for students with disabilities (i.e., a student got a job after receiving pre-ETS). Second, the literature was searched for research that used WIOA State Plans as the source of qualitative data to explore the implementation of WIOA broadly and particular aspects of implementation. Third, the literature was searched for the delivery of transition services to students with disabilities through collaboration at various levels of government (e.g., federal-state, state-local level). Then, what remained to be studied was assessed.

Participation in WBLE Results in Desired Employment Outcomes

WBLE is one of five pre-ETS that state VR programs are required to provide students with disabilities (WIOA, 2014). VR programs must work with employers to provide work-based learning opportunities to students because employers hire students with disabilities. It was not surprising then to find that offering WBLE involves collaboration at the state (i.e., state VR and education agencies) and local level (i.e., local businesses). It was also not surprising to learn that WBLE is most strongly associated with beneficial employment outcomes among students who receive this employment service (Kaya et al., 2021; Luecking et al., 2018; Mazzotti et al., 2021). Therefore, I

explored how VR programs implemented WIOA (2014) and was mindful that of the five employment transition services for students with disabilities, WBLE was most strongly associated with getting a job.

WIOA State Plans Have Been Used to Explore Implementation of WIOA by VR Programs

Even though it is too soon for federal oversight agencies to do a formal evaluation of WIOA and WBLE in particular, researchers have used WIOA State Plans as a secondary source of data to explore implementation of WIOA. Researchers have used WIOA State Plans to explore how VR programs have implemented WIOA for the same reason I did: because these plans are required by every VR program by the Departments. Researchers have also used WIOA State Plans as qualitative data because VR programs are required to report their plans to implement WIOA using a standardized template with answers to predetermined questions required by the Department of Labor (n.d.).

Roux et al. (2019) analyzed federal fiscal year 2016 Unified and Combined WIOA State Plans from all 50 states and the District of Columbia to characterize the prevalence and types of autism-specific references across State Plans. These researchers also analyzed the degree to which youth and adults with autism were identified as an underserved group. They defined underserved as groups of people who had not traditionally received equal access to or benefited from rehabilitation services (e.g., racial and ethnic minorities) (p. 287). Roux et al. described the goals, strategies, and programs states proposed to improve VR services for youth and adults with autism.

Using content analysis and NVivo qualitative analysis software, Roux et al. (2019) found that of 51 state plans, 44 contained references to autism. They also found that 19 state VR agencies explicitly identified autism as a disability group that was underserved. In addition, they found that even among states that defined autism as an underserved group, only 10 provided comprehensive plans with defined goals and strategies to address the vocational needs of this group. Roux et al. concluded that studying the content of WIOA State Plans is an important step in understanding why individuals with autism in some states have better employment outcomes than in others (p. 295).

The research done by Roux et al. (2019) was relevant to this study in two important ways. First, the researchers suggested that differences in plans to implement WIOA (2014) may contribute to differences in employment outcomes between states. Thus, in lieu of a formal evaluation, WIOA State Plans may serve as a valid data source for exploring not only how VR programs plan to implement WIOA but also that differences in plans may signal differences in employment outcomes. Second, like Roux et al., I planned to use WIOA State Plans as the source of qualitative data and planned to code the narrative data and identify themes to answer the research question about implementation through collaboration. Unlike Roux et al., however, the focus of this study was collaboration between VR and educational state agencies, not youth and adults with autism. Nonetheless, the idea to use WIOA State Plans as secondary data for the qualitative multicase study was validated by Roux et al.

Collaboration at Various Levels of Government

An example of collaboration at the federal level is the Wisconsin Promoting the Readiness of Minors in Supplemental Security Income (PROMISE) which was a U.S. Department of Education federal demonstration grant in collaboration with the Health and Human Services, Labor, and Social Security Administration. Through state inter-agency collaboration, the Wisconsin Division of VR implemented Wisconsin PROMISE to improve education and career and financial self-sufficiency outcomes by providing coordinated services and supports to youth with disabilities receiving supplemental security income benefits. Compared to the control group that received usual services, members of the PROMISE group increased their employment rates from 1% in 2013 to 67% in 2018 (10-percentage points higher than the control group) (Hartman et al., 2019).

Collaboration is not only important at the federal-state agency level. It is even more important at the state-local level because it is the team of professionals employed at the state level but deployed at the local level that provides hands-on services to students with disabilities. As an example, when students with disabilities participating in work-based learning opportunities exhibit behavior problems, it puts them at risk for having their work experience terminated and they may be unable to maintain future long-term employment (Kittleman et al., 2018). To improve the retention of students in WBLE and long-term employment outcomes, Kittleman et al. (2018) proposed a partnership that would involve educational professionals (e.g., general, and special education teachers), families, transition personnel from state VR agencies, and employers to implement behavioral support plans for students.

Research has also been done on collaboration between state VR and education agencies and other local partners in the secondary education setting. Grossi and Thomas (2017) described a school-to-work project of a collaborative of employment providers embedded in schools to improve agency connections prior to leaving school and work experience that led to employment outcomes. Embedding a provider employment specialist in the school resulted in many beneficial outcomes for students with disabilities. Students had a single point of contact who represented a coalition of providers, including VR counselors who specialize in transition services; students could be connected to VR services and other community agencies. Students had more opportunities for work experiences, internships, and paid employment prior to leaving high school. Students also had continuity with employment providers after leaving high school. In a follow-up publication, Grossi et al. (2019) reported that when a community provider employment specialist (e.g., Career Coach) was embedded in a school, the result was that students with disabilities had more work-based learning opportunities, better employment outcomes, and more connections to adult service providers compared to schools without a Career Coach (Grossi et al., 2019).

What Remains to be Studied

Oertle et al. (2017) have argued that cross systems instruction may be intentionally targeted as an immediate strategy to improve effective secondary transition service delivery by preparing special education and VR professionals to engage in collaboration. Carlson (2022) supports this idea and suggests that secondary special education teachers need to be aware of coordination activities between education and

state VR agencies. Carlson also advocated that school personnel contact their local VR office to inquire about opportunities for coordination and collaboration. Research by Oertle et al. and Carlson suggest that training and increased awareness of transition services by educational professionals may improve collaboration. However, training and awareness of services as factors that may improve collaboration, and employment outcomes among students with disabilities, remains to be explored.

Another area that remains to be studied is employer attitudes, knowledge, and intent to hire students with disabilities. McDonnall and Antonelli (2020) reported on an education intervention they carried out to evaluate whether knowledge about students with disabilities and improvements in employers' intent to hire was sustained over time. The researchers reported that the improvement was not retained and that ongoing contact with employers would be beneficial for hiring students with disabilities, particularly students who are blind or visually impaired. Thus, research about hiring students with disabilities among employers remains to be studied.

Review and Synthesis of Research Related to Research Question

The research question was: How have VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities? I deduced from the literature review that research on WIOA relates to the research question in four key areas: conceptual framework, implementation of public policy through collaboration, WIOA State Plans as a source of qualitative data, and employment outcomes after completion of a work-based learning opportunity. The first way research related to the implementation of WIOA through collaboration was through

the conceptual framework. I considered two conceptual frameworks for the study: The Interdisciplinary Framework of Collaborative Working (Rose & Norwich, 2013) and the Integration Continuum (Burt & Spellman, 2007). The model by Rose and Norwich (2013) seemed to be a good fit to frame the study because the model accounted for collaborative working at both the individual professional level and at the organizational level. However, if the Interdisciplinary Framework of Collaborative Work was used, then the case, or unit of analysis would have been the individual professional. I planned to use WIOA State Plans as the qualitative data and these plans did not describe the social-psychological motivations for participating individual professionals in multi-agency or inter-professional collaborative work. Therefore, this conceptual framework was set aside and a search for an alternate conceptual framework. The alternate framework was the Integration Continuum (Burt & Spellman, 2007). The conceptual framework is grounded in research on services integration (Burt & Spellman, 2007), systems change (Burt & Spellman, 2007; Dennis et al., 1999), and collective impact (Kania & Kramer, 2011). WINTAC encouraged state VR agencies to use the Integration Continuum (Figure 2) to gauge their level of collaboration within their workforce development system (WINTAC, 2016-b). I planned to apply definitions from each of the five levels on the continuum to the narrative data in WIOA State Plans to assign a level of collaboration between VR and educational agencies within and between the five VR programs in the study. Standardizing the way collaboration was defined mitigated response bias by individual VR programs and me and allowed a valid assessment of collaboration within and between VR programs.

Collaboration underlies much of the scholarly literature on WIOA (2014), particularly between state VR agencies and state education officials and professionals, likely because requirements in WIOA (2014) mandates that these state agencies coordinate services for students with disabilities (Grossi et al., 2019; Grossi & Thomas, 2017; Hartman et al., 2019; Kittleman et al., 2018). Researchers have studied collaboration at the federal-state level (Hartman et al., 2019), state-local level (Kittleman et al., 2018), and within the secondary education setting (Grossi et al., 2019; Grossi & Thomas, 2017). Like Kittleman et al., this study explored state-local level coordination. However, unlike Kittleman et al. who studied partnerships that involved educational professionals, families, VR professionals, and employers to implement behavioral support plans for students, this study was limited to education and VR professionals employed at the state level but deployed at the local level. Nonetheless, previous research on collaboration was relevant and meaningful to the research question because it provided knowledge about how government agencies have worked together to implement public policy and helped identify a gap in the literature that this study could fill.

This study used a qualitative multicase study design. Responses VR program administrators provided to open-ended questions that every VR program must address in their required WIOA State Plan (Department of Labor, n.d.) was used as the qualitative data. The secondary data were coded and categorized and themes that emerged were used to answer the research question. Other researchers (Roux et al., 2016) have also used WIOA State Plans as secondary data for their qualitative research. Therefore, research that used WIOA State Plans as a data source was meaningful to this study. WIOA State

Plan data are qualitative in nature, so the method of data analysis Roux et al. used validated the methods used for this study. While the same overall process of data analysis was used, data extracted from WIOA State Plans for this study was different. Roux et al. extracted narrative responses on the prevalence and types of autism-specific references across WIOA State Plans and the degree to which youth and adults were identified as an underserved group. Narrative data from each of five questions about collaboration between VR and education officials were extracted for this study.

Exploring the implementation of WIOA (2014) by VR programs through collaboration with education officials may be an important step in understanding why some VR programs are more successful than others at delivering pre-ETS to students with disabilities. Researchers have found that WBLE is most strongly associated with competitive integrated employment (Kaya et al., 2021; Luecking et al., 2018; Mazzotti et al., 2021). However, Awsumb et al. (2020) found that few students and youth with disabilities who received VR services while in high school were employed as adults and only half of all students who were eligible to receive public VR services actually received employment transition services (Awsumb et al., 2020). Nonetheless, understanding how VR and education state agencies collaborate to provide pre-ETS, as this study aimed to do, was important because while collaboration is required (WIOA, 2014), knowing whether collaboration results in the desired employment outcomes is unclear. This study was qualitative in nature and was not intended to uncover a cause-and-effect relationship (i.e., whether collaboration resulted in a student getting a job) but it did reveal themes

about the role of collaboration in successfully transitioning students with disabilities from school to life after high school, including the delivery of VR employment services.

Summary and Conclusions

Two themes dominate scholarly literature that relate to the implementation of WIOA (2014) by state VR agencies in collaboration with education officials. The first is that of the five pre-ETS, WBLE is most strongly associated with beneficial employment outcomes for students with disabilities (Kaya et al., 2021; Luecking et al., 2018; Mazzotti et al., 2021). The second is collaboration, particularly between state VR and education agencies. Collaboration is likely frequently studied by researchers because WIOA mandates that these state agencies coordinate services for students with disabilities (Grossi et al., 2019; Grossi & Thomas, 2017; Hartman et al., 2019; Kittleman et al., 2018).

It is too soon to do an evaluation of WIOA (2014) (National Council on Disability, 2017). WIOA was passed in 2014. State VR agencies were required to begin implementing the public policy in 2016 after the final rule was published (WIOA, 2016). Therefore, VR programs have only been implementing WIOA for seven years. Thus, it is not surprising that research about the implementation of WIOA is qualitative in nature (Carlson, 2022; Grossi & Thomas, 2017; Oertle et al., 2021). In lieu of a formal evaluation, researchers have used WIOA State Plans as a source of data to study the implementation of WIOA (Roux et al., 2019). This study was also qualitative in nature and I also planned to use WIOA State Plans as the source data. However, I added rigor to the way I explored interagency collaboration by applying definitions of collaborative

work from each of the five levels on the Integration Continuum—the conceptual framework—to narrative data in five WIOA State Plans I analyzed. Having standardized definitions of collaboration assisted me with fairly assessing the degree to which collaboration had occurred within and between state VR programs. Furthermore, I filled a gap in the literature and extended knowledge about interagency collaboration during the implementation of WIOA by analyzing WIOA State Plans.

I did not find research that used quantitative methodology to examine whether interagency collaboration resulted in a student getting a job (i.e., a cause-and-effect relationship). Hence, what is not known is whether interagency collaboration is associated with an employment outcome and to what degree collaboration results in a student getting a job. While this was a qualitative study, I added a degree of rigor by drawing a purposive sample comprised of VR programs that provided WBLE to the greatest number of students during program year 2019. By analyzing the most information-rich data from high performing VR programs in the country using standardized definitions of collaboration, I contributed to knowledge about theory building or potential factors that could be examined in future quantitative studies that involve explanatory data analyses. Moreover, I filled a gap in the literature and extended knowledge about the provision of WBLE through interagency collaboration by using standardized definitions of collaboration within and between VR programs.

In Chapter 3, I described the research design and rationale for the research tradition I used. My role as the researcher is described as is professional relationships I have with VR program administrators who are required to prepare and submit WIOA

State Plans to the Departments. In addition, I discussed the methodology and data analysis plan I used. Next, I addressed issues of trustworthiness. Then, I summarized the chapter.

Chapter 3: Research Method

Introduction

The purpose of this qualitative multicase study was to explore the implementation of WIOA (2014) by federal-state VR programs through collaboration with state education officials to deliver pre-ETS to students with disabilities. The major sections of this chapter are the research design and rationale for the research tradition, my role as the instrument of data collection and data analysis, the methodology, and issues of trustworthiness. The chapter closes with a summary.

Research Design and Rationale

The research question was as follows: How have VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities? The central phenomenon studied was the collaboration between state level VR and education agencies to provide transition services to students with disabilities. I followed a qualitative research tradition because the research question is a *how* question, and qualitative research traditions aim to understand and interpret, and are exploratory in nature (Braun & Clarke, 2013). Qualitative research traditions also focus on meaning, over and above cause and effect, and uses words as data as opposed to quantitative research that uses numbers as data (Braun & Clarke, 2013). Taking a qualitative approach means that the goal was to understand a VR program deeply, not to generalize findings from the study to all VR programs across the United States. A qualitative approach also means that the research methods used align with a qualitative philosophy, such as social constructivism. Social constructivism aligns with my personal research philosophy in that

the nature of reality is subjective, and that the way we know the world is tied to one's own world view and the social world we live in (Braun & Clarke, 2013).

The research methodology was inductive, the research methods were qualitative in nature, and the research design was a multicase design. In the sampling strategy, the unit of analysis for this study was a single WIOA State Plan; I analyzed state plans from five state VR agencies using two stages of analysis: a within-case analysis and a cross-case analysis (Merriam & Tisdell, 2016). The within-case analysis involved analyzing data from four individual plans for each of five VR programs: 2016, 2018, 2020, and 2022. State plans from 2016 and 2020 were 4-year plans, and plans from 2018, and 2022 were 2-year updates to account for changes in the labor market and economic conditions or other factors that may affect implementation of the State Plan (Department of Labor, n.d.). After I completed within-case analyses for each of the five individual cases, I started the cross-case analysis and began to build abstractions about the phenomenon I studied across cases (Merriam & Tisdell, 2016). I built a general explanation about the implementation of WIOA by state VR agencies through collaboration with education officials that fit each individual case (Yin, 2018).

Role of the Researcher

I used narrative responses from five WIOA State Plans (Department of Education, n.d.) prepared by VR state agencies as the data source. Therefore, I was not an observer or participant of the phenomenon under study. Instead, my role was as the instrument to extract relevant data from WIOA State Plans and as the analyst of the qualitative data. WIOA State Plans were prepared by VR program administrators and their delegates. As a

member of national VR workgroups, I have professional relationships with VR program administrators, including administrators and delegates from the states under study. However, my role is as a peer, not as a superior or a subordinate. Therefore, there were no power relationships to manage or personal or professional relationships that could bias the analysis. As an employee of a state VR program, I have expertise in VR, but my program was not in my sample. Also, I used secondary data, so I was unable to influence the data collected because state plans had already been published, were available to the public, and could not be edited by members of the public for use by another member of the public.

Methodology

This study did not involve human research participants. Instead, WIOA State Plans were utilized that the Department of Education (n.d.) makes available to the public at https://wioaplans.ed.gov. Each U.S. State and Territory VR program must submit either a Unified or Combined State Plan to the Departments "that outlines its workforce development system's 4-year strategy, and updates the plan as required after two years" (Department of Education, n.d.). Members of the public can view or download WIOA State Plans for any of the 78 VR programs from 2016, 2018, 2020, or 2022. Plans from 2016 and 2020 are 4-year plans. State plans from 2018 are 2-year updates to 2016 plans. Plans from 2022 are updates to 2020 plans. The Departments require states to update their plans every 2 years to account for changes in the labor market and economic conditions or other factors that may affect implementation of the State Plan (Department of Labor, n.d.).

I chose WIOA State Plans as the data source because these plans are required by every U.S. State and Territory VR program over the same reporting periods (Department of Labor, n.d.) and are readily available to the public (Department of Education, n.d.). Therefore, I felt confident that I had access to data from every state VR program. Also, the research question was exploratory in nature; thus, the narrative data assisted in understanding the phenomenon under study. In addition, every program must address the same questions throughout their plan, and there were questions specifically about how VR programs work with education agencies to deliver pre-ETS to students with disabilities (Department of Labor, n.d.). In summary, the logic for selecting WIOA State Plans as the source of qualitative data for the study was recognition that these plans would be an information-rich resource, and because that these data would be available for each of the 78 federal-state VR programs across the U.S. and U.S. territories.

Sampling Strategy

While analyzing WIOA State Plans from all 78 VR programs would have answered the research question, doing so was both unnecessary and unrealistic. Analyzing plans from every VR program was unnecessary because the point of saturation would have been reached before analyzing 78 State Plans. Analyzing plans from every VR program was also not feasible because for a single case (i.e., a single WIOA State Plan), narrative responses to five questions required by the Department of Labor (n.d.) for each of the four years of available data would need to be analyzed (2016, 2018, 2020, and 2022). In total, data from 1,560 unique narratives (i.e., data from four years of data from five questions in 78 state plans) would have been coded, categorized, and themed. Given

that analyzing every state plan was both unnecessary and unfeasible, I used purposive sampling and developed four criteria to establish the boundaries of the study and determine the sample of WIOA State Plans under analysis. The first criterion was that a VR program must have submitted a State Plan in 2016, 2018, 2020, and 2022. The second criterion was that the VR program must be geographically located in one of the 50 states in the U.S. The third criterion was that the VR program must be a Combined VR Program that provides employment services to people with all types of disabilities, not just to individuals who are blind or have visual impairments. This criterion was chosen because most students receive pre-ETS from General or Combined VR programs (RSA, n.d.). I also excluded Blind VR programs because students who are blind or visually impaired need services and supports that students who are not blind or visually impaired need, such as orientation and mobility (Danaher, 2019), an expanded core curriculum (Vasile et al., 2021), and intensive job search training (Cmar & McDonnall, 2019). In addition, I excluded Blind VR programs because serving students who are blind or visually impaired requires expanded partners and a collaborative approach that includes families, teachers of students with visual impairments, and vocational rehabilitation therapists in particular (Smith & Vasile, 2021).

The fourth and final criterion was that when compared to other Combined VR Programs, the VR program must have provided WBLE to the greatest number of students during program year 2019 (July 1, 2018, to June 30, 2019). A student was counted if the student was potentially eligible to receive WBLE services, or if the student was a consumer of a VR program and developed an Individualized Plan for Employment with

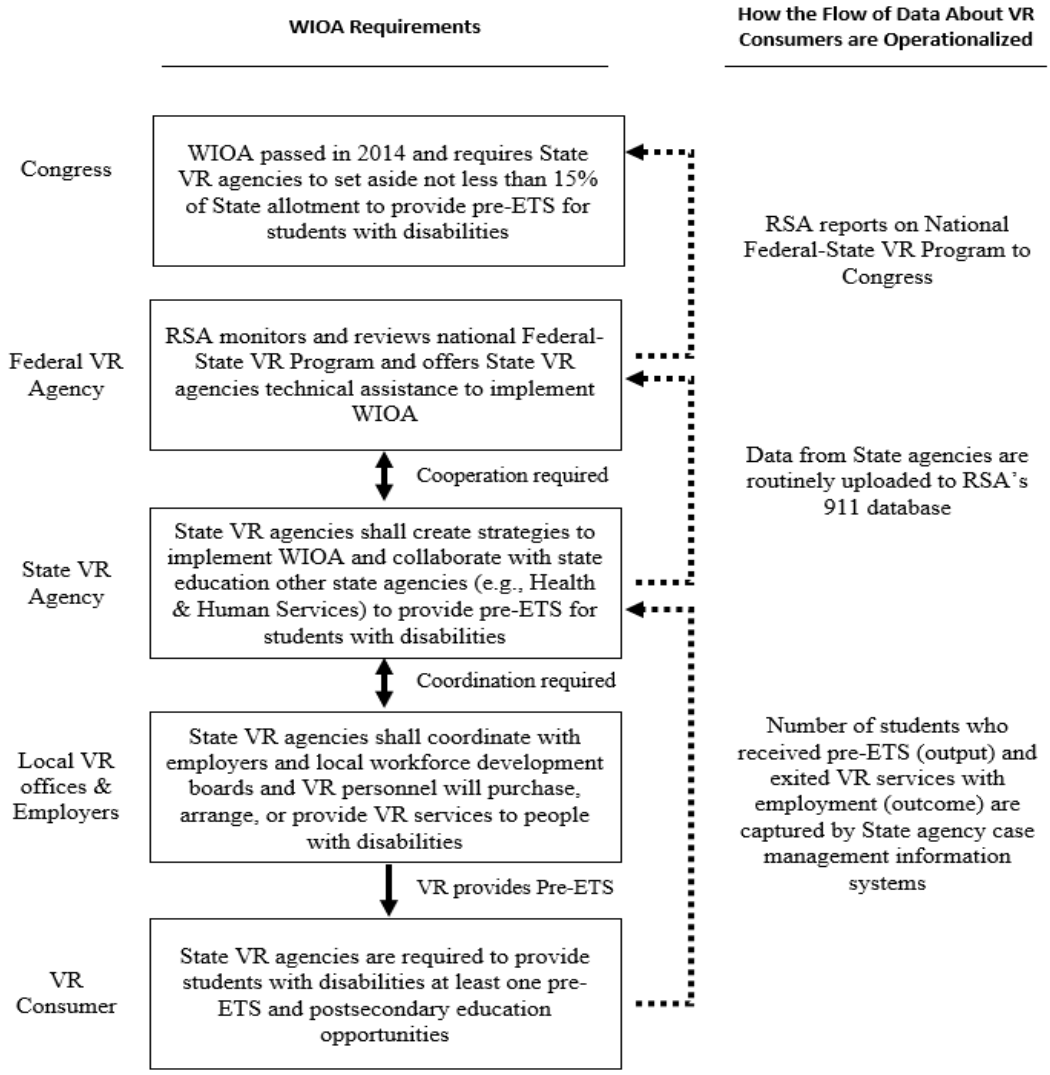
the VR program. Data on the number of students who received pre-ETS, and WBLE in particular were available for program years 2017, 2018, and 2019 (RSA, n.d.). I chose data from program year 2019 because these were the most current statistics. This final criterion was critical to the research problem because of the five pre-ETS VR programs are required to provide transition-age students with disabilities, WBLE is most strongly associated with the employment outcome desired for students with disabilities: employment (Kaya et al., 2021; Luecking et al., 2018; Mazzotti et al., 2021).

The unit of analysis for the study was a single WIOA State Plan that represents an individual VR program. There are 78 VR programs: 34 Combined programs that serve individuals with all types of disabilities, 22 Blind programs that serve individuals who are blind or visually impaired, and 22 General programs that serve individuals with all types of disabilities, except individuals who are blind or visually impaired. Each of the 78 programs submitted a State Plan in 2016, 2018, 2020, and 2022, so application of the first criterion resulted in a total of 78 programs. Application of the second criterion excluded the District of Columbia, Puerto Rico, American Samoa, Guam, Northern Marianas, and Virgin Islands, and resulted in a total of 72 programs. Application of the third criterion excluded the 22 Blind VR programs and the 22 General VR programs and resulted in a total of 28 programs. Application of the fourth criterion excluded 23 Combined VR programs and resulted in a sample size of five VR programs. Therefore, the multicase study design included a sample of five WIOA State Plans that represented each of five Combined VR programs.

Application of the fourth criterion requires explanation. The first three criteria were categorical, individual VR programs with clear definitions about the type of program (i.e., Combined, Blind, or General). They were therefore straightforward to count and then exclude. The fourth criteria, however, required a judgment call because the number of students who received WBLE by program in 2019 was continuous. Figure 3 shows how the flow of VR consumers is operationalized by VR programs and reported to RSA each year. Each VR program captures data on people with disabilities that they provide employment services to in their case management information systems which may be homegrown or developed by a third party. VR programs upload data from their case management information systems to RSA's 911 database (Cornell University, 2016). Data from RSA's 911 database was the source of the data that was used to determine the number of students with disabilities who received pre-ETS, and WBLE in particular, during program year 2019 (RSA, n.d.).

Figure 3

WIOA Requirements and how the Flow of Data About VR Consumers are Operationalized and Reported to RSA



Appendix A shows the number of students who received WBLE during program year 2019 by state VR program. Data on the number of students who received WBLE in 2019 show a natural break between the top five programs and the remaining 23 programs. The five programs that provided WBLE to the greatest number of students in program year 2019, beginning with the state that served the greatest number of students, were: Wisconsin, Alabama, Ohio, Oklahoma, and California. Thus, the multicase sample size was five state VR programs that were represented by each of five WIOA State Plans. The WIOA State Plans were obtained from the U.S. Department of Education (n.d.) WIOA State Plan portal at https://wioaplans.ed.gov.

I organized the 28 programs by the number of students VR programs provided WBLE to in descending order (Appendix A). During program year 2019, Wisconsin provided WBLE to 2,388 students with disabilities which was the greatest number of students who received WBLE during that year. Alaska provided WBLE to 14 students, which was the fewest number of students who received WBLE from the sampling frame. Of the 28 VR programs in the sampling frame, the average number of students who received WBLE was 365 and the median was 235. Ten programs provided WBLE to 365 or more students. They are, in descending order from the most to the fewest students: Wisconsin, Alabama, Ohio, Oklahoma, California, Pennsylvania, West Virginia, Nevada, Illinois, and Louisiana. I purposefully limited the sample size to the first five states because there was a natural break between the first five (Wisconsin, Alabama, Ohio, Oklahoma, California) and the next five states (Pennsylvania, West Virginia, Nevada, Illinois, Louisiana). However, if saturation on the themes deduced about collaboration

was not reached after analyzing data from the first five programs, then I would have analyzed data from the next leading state, in descending order, until saturation was reached. For example, if saturation was not reached after I finished analyzing data from Wisconsin, Alabama, Ohio, Oklahoma, and California, then I would have analyzed Pennsylvania's plan. If saturation was still not reached after analyzing Pennsylvania's plan, then I would have analyzed West Virginia's plan, and so on, until saturation was reached.

Instrumentation

I did not create, adapt, or use a published instrument to collect data. Instead, I used secondary qualitative data available in WIOA State Plans. I obtained WIOA State Plans from the U.S. Department of Education (n.d.) WIOA State Plan portal at https://wioaplans.ed.gov. WIOA State Plans were sufficient sources of qualitative data because they are the single source of standardized reporting on VR program collaboration with state education officials across all 78 federal-state VR programs (Department of Labor, n.d.). I used secondary data for the study, so I was the data collection instrument, which means that I extracted qualitative data (i.e., narratives) from each of five questions required by the Department of Labor (n.d.) from the five state plans in the study. I was neither an observer nor a participant in data collection because the data had already been supplied by VR programs and published by the Department of Education.

Data Analysis Plan

I planned to analyze narrative responses to five questions VR program administrators must have addressed about how they would coordinate with education

officials to provide pre-ETS to students with disabilities (Department of Labor, n.d.). The first narrative was the VR programs' description of how they planned to coordinate with education officials to provide pre-ETS to students with disabilities (WIOA, 2014, p. 40). The second narrative was the VR programs' description of how the program would provide consultation and technical assistance to help education agencies plan for the transition of students with disabilities from school to post-school activities, including VR services (WIOA, 2014, p. 40). The third narrative was how the VR program would facilitate transition planning with VR and educational state agency personnel (WIOA, 2014, p. 41). The fourth narrative was roles and responsibilities of the VR agency and educational agency, including financial responsibilities (WIOA, 2014, p. 41). The fifth narrative was procedures for outreach to and identification of students with disabilities who need transition services (WIOA, 2014, p. 41). Table 1 shows the number of narratives I planned to analyze for the study; I planned to analyze 20 narratives from each of five VR programs for a total of 100 narratives to be coded, categorized, and themed. I planned to use Dedoose, a software application for analyzing qualitative data to analyze the data. I planned to code all 100 narratives using the process described below and while I did not anticipate discrepant cases (i.e., a discrepant WIOA State Plan), should I have encountered a discrepant case, I would have included that case in the data analysis and results.

Table 1

Count of Students who Received WBLE in 2019 and Count of Narratives to be Analyzed from Study Sample

	Wisconsin	Alabama	Ohio	Oklahoma	California
Count of students who received WBLE during PY 2019	2,388	889	849	722	705
VI.D.1 State VR's plan to coordinate with education officials (PY 2016, 2018, 2020, 2022)	4	4	4	4	4
VI.D.2.A Consultation and technical assistance to assist educational agencies in planning for the transition of students from school to post-school activities (PY 2016, 2018, 2020, 2022)	4	4	4	4	4
VI.D.2.B Development and implementation of individualized education programs (PY 2016, 2018, 2020, 2022)	4	4	4	4	4
VI.D.2.C Roles and responsibilities of VR and education agencies (PY 2016, 2018, 2020, 2022)	4	4	4	4	4
VI.D.2.D Procedures for outreach (PY 2016, 2018, 2020, 2022)	4	4	4	4	4
Total	20	20	20	20	20

Note. Count of students with disabilities who received WBLE (RSA, n.d.); PY = program year which begins on July 1 and ends on June 30 (e.g., PY 2019 begins on July 1, 2019, and ends on June 30, 2020).

The overall process of data analysis was to identify content from the narrative data that were responsive to the research question. I was the instrument for data analysis, which meant that analysis of the data would be influenced by my experiences and expertise. Therefore, issues related to trustworthiness were key to believability of the results and are addressed in the next section. I analyzed data through the lens of a constructivist stance and therefore focused on how authors of each state plan constructed knowledge or made meaning of collaboration. For example, when reviewing each narrative, I asked myself if the authors were consistent in the way they viewed and

described collaboration. Did they describe collaboration the same way throughout their responses, or did they describe collaboration in different ways depending on the context? Did they use the word cooperation instead of collaboration and how did they describe the distinction between these two concepts?

I followed the process of analyzing qualitative data described by Merriam and Tisdell (2016) because my personal philosophical view aligns with Merriam's pragmatic constructivist approach to case studies. I analyzed state plans in chronological order, beginning with the 2022 report from each VR program. After I finished analyzing plans from all four years for one program, I moved to the next program in the sample and repeated the process.

First, I extracted narrative responses from five questions on coordination with education officials within each State Plan from VR agencies that provided WBLE to greatest number of students in 2019: Wisconsin, Alabama, Ohio, Oklahoma, and California (Table 1). Next, I used inductive, open coding for each of five questions across four years (2016, 2018, 2020, 2022). Coding was guided by the research question, purpose, and conceptual framework. Then, I did axial coding to sort codes into fewer, more comprehensive categories or recurring themes within and across the five VR programs. Merriam and Tisdell (2016) considered a category "a theme, pattern, finding, or answer to a research question" (p. 204). Therefore, I constructed categories and recategorized the data until I had a set of themes that were responsive to the purpose of the research, exhaustive, sensitizing, and conceptually congruent (Merriam & Tisdell, 2016). I themed the data within a case (a VR program) and across cases. Exploring the

phenomenon under study across VR programs allowed me to compare the level of collaboration across years in a single case, and across multiple cases.

I did analytic memoing throughout analysis of the data to keep my biases in check and to serve as an additional source of data to gain insight into themes to answer the research question. If saturation was not met after analyzing the first five state plans, then I would have analyzed each successive state plan beginning with the VR state agency that ranked the sixth highest in providing WBLE to students with disabilities in program year 2019 (Appendix A). I would have analyzed additional state plans according to the number of students who received WBLE, in descending order from the greatest to the fewest number of students until I reached saturation. By the time I reached saturation, I would have been operating from a deductive stance as I began to determine if additional data supported the final set of categories or themes to answer the research question. I used definitions from the conceptual framework to assign a level of collaboration within and across VR programs throughout the data analysis process. The data analysis codebook template is shown in Appendix B. I updated my codebook as I analyzed the data such that the final codebook accurately reflected the structure of the data.

Issues of Trustworthiness

Trustworthiness helps one decide the extent to which a research study's results can be believed. The trustworthiness of a study's results involves establishing credibility, transferability, dependability, and confirmability (Lincoln & Guba, 1985). I planned to use various techniques to address these criteria, such as saturation, intercoder reliability,

triangulation of WIOA State Plans from four different years, and keeping a reflexive journal to establish trustworthiness of the research findings.

Credibility, or internal validity addresses whether research participants believe a study's results accurately reflect reality. I did not have research participants. VR program administrators develop WIOA State Plans. Therefore, I will be sharing results from the study with the five program administrators from the VR programs in the study. However, I will not know whether program administrators have confidence in the findings until well after the research is done.

One strategy I used to establish credibility during the study was to use definitions from the five levels of cooperation from the conceptual framework to standardize the way collaboration was defined. Having a standardized definition of collaboration lent credibility to the study because a standardized definition minimized insertion of my own biases about what collaboration means to me. Standardized definitions also mitigated any bias by program personnel who prepared each state plan. Doing analytic memoing to create preliminary codes and coding each state plan in chronological order resulted in a pattern of collaboration that was unique for each program. The pattern and themes of collaboration within a program assisted with establishing internal validity. Yet another strategy was analyzing data from WIOA State Plans until I reached saturation. When I reached the point of saturation, I had categorized and recategorized narrative data until no new themes were identified. At that point, I felt confident that I had extracted themes that accurately reflected collaboration within and across VR state agencies, particularly

because I had standard definitions of collaboration that I drew upon from the conceptual framework.

Transferability, or external validity and whether a research study's findings can be applied to comparable contexts was also important for establishing trustworthiness. For example, one could ask whether results from the study could be applied to other VR programs. Every VR program creates their own program policies and programming, so the content of each program was different and what holds true for one VR program may not hold true for another. Therefore, even though VR program administrators followed the same federal requirements when administering the VR program, transferability of results from this study to other VR programs is not advised. Also, while thick description is a method that can be used to establish transferability (Holloway, 1997), the data analysis plan followed the process outlined by Merriam and Tisdell (2016) and I continuously reduced codes into categories and themes to answer the research question instead. Thus, while an important aspect of trustworthiness, transferability of results from this study is not advised. The purpose of this multicase study was to take a deep dive into a phenomenon, not to transfer or generalize findings from VR programs in the study to other VR programs.

Dependability is the qualitative counterpart of reliability in quantitative research. One approach I used to address dependability of the findings was to undertake intercoder reliability. I recruited a professional colleague who has 30 years of experience in VR and more than ten years of experience coding qualitative data in her role as a VR deputy director and program director. She is a peer, not a superior, or a subordinate. She was not

remunerated for her role in coding a sample of data I also coded to establish intercoder reliability.

Confirmability is akin to objectivity in quantitative research and accounts for potential sources of bias, such as the influence of personal experience and expertise from development of the research question, choice of research method, study design, data sources, data analysis, and interpretation of the results. I kept a reflexive journal where I made regular entries throughout the process of extracting data from WIOA State Plans, data analysis, and interpretation and reporting of the findings to assist with establishing confirmability. In these entries, I recorded decisions I made, logistics of the study, and reflections of my values, experiences, expertise, and biases as I carried out the study. Keeping a reflexive journal helped me address internal validity, or credibility.

If findings from the study are to be used by future researchers, then the study must have been carried out with methodological rigor. However, the believability of the study was not limited to just the results. To be trusted, I must have established trustworthiness throughout the study beginning with acknowledging my own personal philosophical assumptions, and my personal and professional experiences, expertise, and biases. I used appropriate strategies to create trustworthiness of the study from selection of the research question to data analysis and interpretation of the results.

Ethical Procedures

I did not use human subjects for the study, so I did not recruit human participants for the study or seek informed consent from individuals to participate in the study and data collection. I used secondary data for the study. The data I accessed are publicly

available, so I did not need to seek permission to gain access to WIOA State Plans that the U.S. Department of Education (n.d.) makes available to the public through the WIOA State Plan Portal at https://wioaplans.ed.gov. I also used quantitative data on the number of students who received WBLE from VR programs during program year 2019 that RSA makes available to the public at https://rsa.ed.gov/performance/rehabdata-workgroup (Rehabilitation Services Administration, n.d.). I accessed the secondary data without any special permissions, so I did not need to manage any privacy or power relationships. Also, WIOA State Plans and data from RSA's pre-ETS data tool are reported in the aggregate and it is not possible to identify individual VR consumers from either data source.

While the data sources were publicly available and individual consumers were anonymous and reported in the aggregate, the five states in the sample were identifiable. Therefore, I stored data from the analyses in the same way I would have stored confidential data with identifiable information at the individual-consumer level. I stored data on an external hard drive that only I accessed, and I kept it in a locked safe. I also kept hard copies of the data and analyses in a locked safe. In addition, I password protected files as I worked with them on a computer that only I used. I further used a screen lock and locked my computer whenever I stepped away from my desk. Moreover, I installed all available updates to my operating system and had up-to-date anti-virus software running on my computer when it was in use. I will store the data for at least 5 years and will dispose of electronic and hard copies by shredding them.

Finally, I am a member of a state VR agency, but I did not conduct the research at my work environment. Also, the volunteer who assisted me with intercoder reliability was a peer and was neither a direct report nor my superior. Therefore, there were no power differentials to manage. I did not offer financial or other incentives to assist me with intercoder reliability. However, there was mutual benefit to assisting me with intercoder reliability: I benefited by improving trustworthiness of the research while my peer benefited by learning new knowledge that resulted from the study. Lastly, I plan to share results of the study with program administrators from the VR programs in the study via email.

Summary

The main points of Chapter 3 are that I undertook a qualitative, inductive, multicase study to explore the phenomenon of collaboration between state level VR and education agencies to provide pre-ETS to students with disabilities. I followed the process of analyzing qualitative data described by Merriam and Tisdell (2016) because my personal philosophical view aligns with Merriam's pragmatic approach to case studies. The study did not involve human research participants. I used WIOA State Plans as the source of the data, and each State Plan was a single case. The sample included five cases that represent these state VR programs: Wisconsin, Alabama, Ohio, Oklahoma, and California. The programs in the sample provided WBLE to the greatest number of students with disabilities in program year 2019. My role was the instrument to extract narrative data from state plans and the instrument for data analysis. Data analysis involved organizing the data, coding the data, and then categorizing and recategorizing

the data to develop themes to answer the research question. Key to data analysis was to use definitions from the conceptual framework to standardize the definition of collaboration within and between cases. By standardizing the definition of collaboration, I was able to understand interagency relationships that could inform theory building or qualitative or quantitative research by future researchers. The themes I identified also revealed collaborative practices among the top performing VR programs in the study. Studying state plans may be an important step in understanding why some states have better employment outcomes than others (Roux et al., 2019). I addressed issues of trustworthiness by using intercoder reliability, triangulating WIOA State Plans from five state VR agencies, and keeping a reflexive journal. Results from the data analyses are presented in Chapter 4.

Chapter 4: Results

Introduction

The purpose of this qualitative multicase study was to explore the implementation of WIOA (2014) by five federal-state VR programs through collaboration with state education officials to deliver pre-ETS to students with disabilities. The phenomenon of study was the collaboration between state VR and education agencies to provide transition services to students with disabilities. The research question was as follows: How have VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities?

Chapter 4 begins with a review of how secondary data were gathered for analysis, which included WIOA State Plans from the Wisconsin, Alabama, Ohio, Oklahoma, and California VR Programs. The data analysis process, including how the data were coded and categorized are discussed next. Themes that emerged from across the five cases are discussed. Then, incorporation of two themes into the Integration Continuum (Burt & Spellman, 2007) conceptual framework to create 28 distinct definitions to answer the research question are presented. Methods used to establish trustworthiness of the research findings are addressed. Chapter 4 concludes with results of the data analysis and a summary of the chapter.

Data Collection

The study did not involve human research participants. Rather, publicly available WIOA State Plans were used as the secondary data source. A qualitative multicase research design within the bounded context of WIOA State Plans was done. WIOA State

Plans from the top five VR programs that provided WBLE to the greatest number of students with disabilities in program year 2019 were analyzed. Beginning with the state that provided WBLE to the greatest number of students, the sample included WIOA State Plans from Wisconsin, Alabama, Ohio, Oklahoma, and California (Appendix A). Data were obtained from plans for four years (2016, 2018, 2020, and 2022) from each of the five states for a total of 20 state plans. A case was a single state plan, and the initial sample size was 20 state plans. State plans were obtained from the U.S. Department of Education (n.d.) WIOA State Plan portal at https://wioaplans.ed.gov. VR program responses to these five questions in each state plan were extracted: (a) state VR's plan to coordinate with education officials, (b) consultation and technical assistance to assist in transition planning from school to post-school activities, (c) development and implementation of individualized education programs, (d) roles and responsibilities, and (e) procedures for outreach.

Organized the Data and Created Multicase Sample for Data Analysis

The state plans were read in descending order for the top five states beginning with the state that provided WBLE from the greatest to the fewest number of students (Appendix A). Beginning with Wisconsin, I read and reread the program year 2022 WIOA Plan to identify if the plan had sufficient context for each of the five sections related to coordination between VR and education officials: (a) state VR's plan to coordinate with education officials, (b) consultation and technical assistance to assist in transition planning from school to post-school activities, (c) development and implementation of individualized education programs, (d) roles and responsibilities, and

(e) procedures for outreach. It was determined that each state plan had ample content and context to study the phenomenon of collaboration between the state VR and education officials.

The program year 2022 plan was compared to the 2016, 2018, and 2020 plans for each state to determine if there were substantive differences between each year's plan. For each state, it was determined that the plans for each year were substantively similar. Therefore, program year 2022 plans were used for the study. These plans also represented the most mature level of planning and programming since the passage of WIOA. The final multicase sample included five cases, one from each state for program year 2022. Not surprisingly, discrepant cases were not observed because each state used the WIOA State Plan Information Collection Request template provided by the Department of Labor (n.d.), so the information reported by each program was similar.

Upon selecting the 2022 state plan for each state, Mindjet, a mind-mapping software was used to organize the data. For each state, similar ideas were grouped. The data were reviewed for patterns that would lend to subcategories. The goal was to create a single framework that could be used to do within-case analyses of each VR program's state plan and cross-case analyses across the plans.

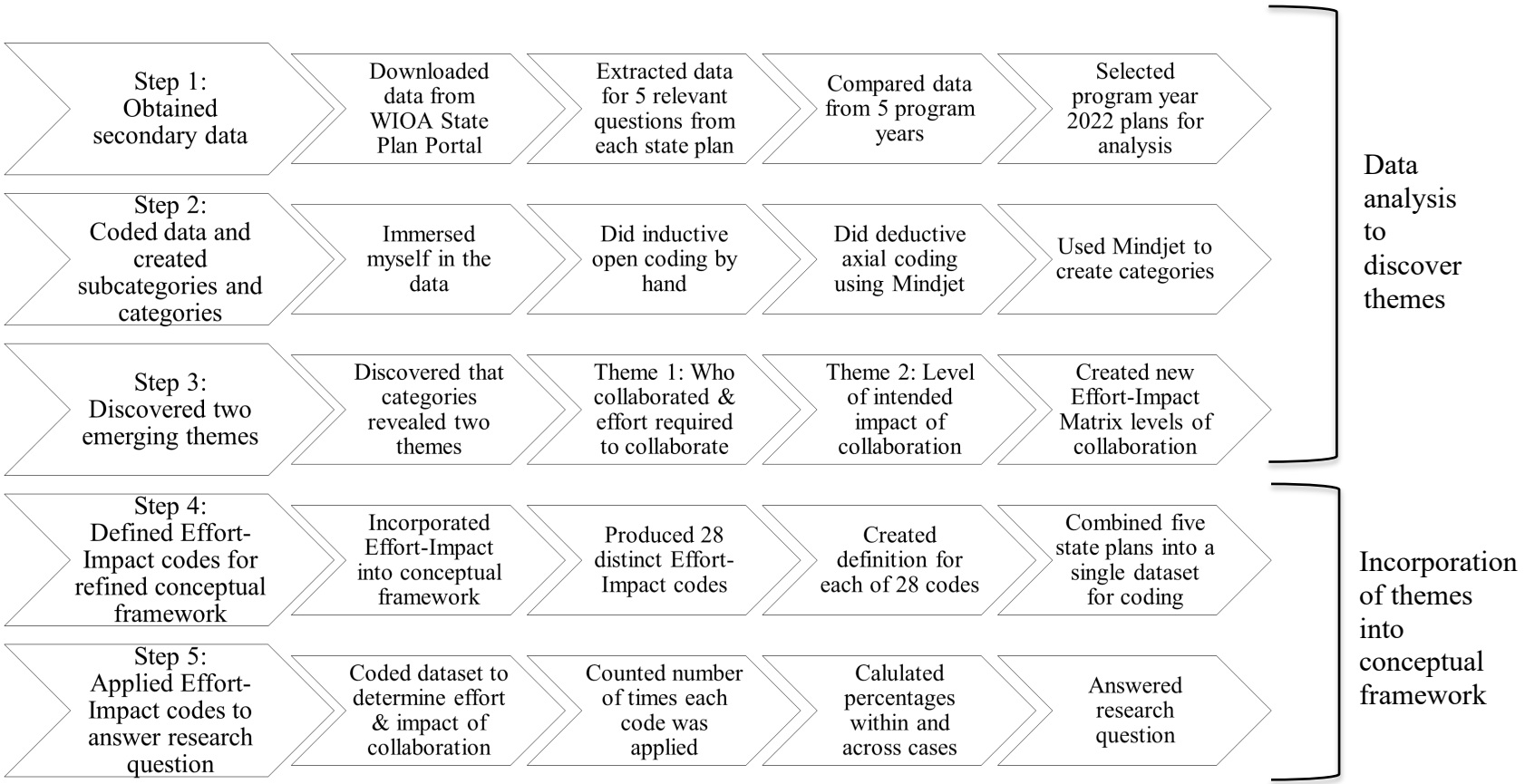
Data Analysis

Using the data analysis process described by Merriam and Tisdell (2016) and the codebook template (Appendix B), the qualitative data were analyzed by using an iterative process to code and recode the data based on like ideas. The data were organized into subcategories, categories, then themes that emerged from the data to answer the research

question. The first three steps in Figure 4 illustrate the overall process that was used to obtain and then code the data to create themes. The last two steps show the actions taken to incorporate themes that emerged from analysis of the data and how the two themes that emerged from the data were integrated into the Integration Continuum (Burt & Spellman, 2007) to answer the research question. The figure in Appendix C illustrates the process used to move from codes to themes to answering the research question.

Figure 4

The Process for Obtaining Data Through Coding, Creation of Themes, and Answering the Research Question



Coding the Data

Data analysis was initiated by being immersed in the information to understand the depth and breadth of the material and formulating ideas to organize the information. Mindjet, a mind-mapping software, was utilized to create preliminary labels and codes. The codebook template (Appendix B) and Mindjet were used to group ideas and to code data one state at a time. Coding involved reading individual sentences or a group of sentences, assigning a label to the content, and then deciding whether the label was applicable across each state plan and how they could be grouped into subcategories. Data from Wisconsin were analyzed first and a determination was made about whether the same idea was present in the remaining state plans.

Data Excluded from Coding

Only data that were relevant to the phenomenon under study were coded. Descriptions or definitions of WIOA requirements or a VR program's plan to comply with federal requirements were not coded. For example, when a program listed the five required pre-ETS, these data were not coded because they were compliance focused and did not provide information about how the VR and education state agencies planned to collaborate to provide pre-ETS to students with disabilities. While notable, best practices were also not coded because they were considered programmatic practices, not collaborative activities (e.g., a state plan included an explanation about streamlining their internal processes). In addition, mention of collaborative efforts without an explanation of how the work was carried out or who was involved in the collaboration were not coded. Moreover, the location where pre-ETS was delivered (e.g., in school setting) or

desired student outcomes—employment and postsecondary education—were not coded because the focus of the research question was collaboration. Furthermore, whether VR programs used the term "coordination" or "collaboration" were not coded because standardized definitions from Burt and Spellman's (2007) Integration Continuum were used to establish a uniform way to distinguish coordination versus collaboration.

Data That Were Coded

The process of coding began by using the research question as a guide and the frequency of ideas within and across state plans. Preliminary thoughts for labeling the text emerged and a decision was made to organize the data into two groups: who was involved in collaboration and how VR planned to collaborate with education officials. VR programs described the intended impact of their collaborative efforts in their plans. Even though the research question focused on how VR collaborated with education officials, data on the impact VR programs intended with their work were coded because the research question also included an aspect of service delivery to students with disabilities who VR programs intend to impact. Altogether, 20 different codes were created and applied to the data.

Who Was Involved in Collaboration. As expected, based on the State Plan Information Request template (Department of Labor, n.d.) and the sections of data that were extracted from state plans, VR programs most often described collaboration with education officials. However, they also described plans to collaborate with education officials and other organizations including other state agencies (e.g., state Medicaid agency), government organizations (e.g., city transportation), non-governmental

organizations (e.g., employers), and community partners (e.g., centers for independent living) to deliver pre-ETS to students with disabilities as part of their routine business. Based on information provided in the state plans, these four codes were created and applied to the data: “community partners”, “local level”, “state level”, and “systems level”.

How VR Programs Planned to Collaborate with Education Officials. A VR program’s plan to collaborate with education officials was most frequently included in agreements between the state VR and education agency. These four codes were created and applied to the data: “agreements”, “outreach,” “training”, and “communication”. VR programs also described instruments they planned to use to carry out their agreements including policies and procedures for collaborating with the state education agency. These three codes were created and applied to data about policies that applied to providing pre-ETS to students with disabilities: “policy manual,” “who pays”, and “documentation”. These three codes were created and applied to data about procedures for delivering pre-ETS to students: “guides,” “roles and responsibilities”, and “process”. In addition, VR programs often described who delivered pre-ETS to students, so these three codes were created and applied to the data: “school staff,” “VR liaisons,” and “VR counselor assigned to school”.

Intended Impact of Collaboration. Another aspect of the data was observed: VR programs frequently described the intended impact of their collaborative work with education officials. Each VR program explained the impact of their work on students and their families and the intended impact of their work at the service delivery level.

Therefore, these three codes were created and applied to the data: “student,” “families,” and “service delivery level.”

Reducing Codes Into Subcategories

The figure in Appendix C illustrates the process used to move from codes to subcategories. Being immersed in the data revealed two key aspects of collaboration between VR programs and education officials to deliver pre-ETS to students with disabilities: policies and procedures for collaborating to provide pre-ETS and a plan to collaborate with education officials. Therefore, these six codes were reduced into a subcategory that described policies and procedures for collaborating with education officials to provide pre-ETS: “policy manual,” “who pays,” “documentation”, “guides”, “roles and responsibilities”, and “process”. Then these four codes were reduced into a subcategory that captured a VR program’s plan to collaborate with education officials and other partners: “agreements,” “outreach,” “training”, and “communication”. Next, the idea of who delivered pre-ETS was captured in a subcategory and included these three codes: “school staff,” “VR liaisons,” and “VR counselor assigned to school”. Then the idea of impact of collaboration was captured in two ways: the intended impact at the individual level and at the organizational level. These three codes were organized into a subcategory to capture the idea of intended impact at the individual level: “student,” “families,” and “service delivery level.” These four codes were organized into a subcategory to capture the idea of impact at the organizational level: “community partners,” “local level,” “state level”, and “systems level”. Thus, the data from five cases and 20 codes were reduced into five subcategories that captured concepts related to plans,

policies, and procedures to collaborate, delivery of pre-ETS, and the impact of collaboration at the individual and organizational level.

Merging Subcategories Into Categories

The figure in Appendix C illustrates the reduction of five subcategories into three categories. The next step in analyzing the data involved merging subcategories into categories to assist with further reduction of the data into themes to answer the research question. The concept that underlies the research question was *how*: How have VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities? Two subcategories in particular addressed how VR programs collaborated to provide pre-ETS: policies and procedures for collaborating to provide pre-ETS and a VR plan to collaborate with education officials and other partners. A third subcategory explained who delivered pre-ETS, so this subcategory was retained as a category. Then, the intended impact of collaboration merged these two subcategories: impact of collaboration at the individual level and impact of collaboration at the organizational level. Therefore, five subcategories were merged into three categories: how VR collaborated with education officials, who delivered pre-ETS to students and their families, and the level of impact of collaboration.

Emergence of Two Themes

Two overarching themes emerged within and between the five cases: effort expended by VR programs to collaborate with education officials and other organizational partners to deliver pre-ETS to students with disabilities (i.e., the degree to which VR would collaborate and who would be involved in the collaboration) and the

level of intended impact of the collaboration (e.g., service delivery level, organizational level, systems level). There was a relationship between the themes: the plan to collaborate and the intended impact of that collaboration. The first theme addressed the first part of the research question about how VR programs planned to collaborate with state education officials. The second theme addressed the second part of the research question about the implementation of WIOA and the provision of pre-ETS intended to impact students with disabilities. While the research question could have been answered broadly with data about a VR programs' effort to collaborate and the intended impact of that collaboration at the various levels observed (e.g., service delivery level), I capitalized on the relationship between the themes to more fully understand how VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities. Analysis of the data was taken one step further by using the themes that resulted from reducing the data into themes and incorporating them into the five levels of collaboration from the Integration Continuum (Burt & Spellman, 2007), thus refining the conceptually framework so that I could succinctly answer the research question.

Refined Conceptual Framework to Answer Research Question

Chapter 2 explains that the Integration Continuum (Burt & Spellman, 2007) would serve as an excellent conceptual framework because Burt and Spellman offered descriptions for each level of collaboration which could be used to standardize the definition of collaboration and mitigate insertion of my own biases as well as potential biases from program personnel who prepared each state plan. Standardizing the definition

of collaboration across cases added rigor to the study because using standardized definitions allowed me to fairly assess the degree to which collaboration occurred within and between cases. Therefore, the next steps in analysis of the data were to (a) use the themes that resulted from reduction of the data to create an Effort-Impact Matrix; (b) incorporate the Effort-Impact Matrix into the Integration Continuum framework thereby refining the conceptual framework and creating succinct definitions within each of the five levels of collaboration; and (c) combine the state plans and then assign a level of collaboration using standardized definitions from the refined conceptual framework, so that the research question could be answered succinctly.

Used Themes to Create Effort-Impact Matrix

Reduction of the data resulted in two themes: effort expended by VR programs to collaborate with education officials and impact of the collaboration. An effort to collaborate involved two concepts: the degree to which VR collaborated with a partner organization and who collaborated with VR. The impact of collaboration was determined while coding the data (e.g., impact at the service delivery level, state agency level), so this aspect of the data did not need to be refined. Who VR collaborated with was also determined when coding the data (education agency only or multiple state agencies), so this aspect of the data also did not need to be refined. However, the degree to which collaboration took place or was planned needed to be refined, so definitions from the Integration Continuum (Burt & Spellman, 2007) were used to standardize the degree of collaboration within and across state plans. Once information about the degree to which

VR collaborated with their partners was ascertained, I used this information to refine the conceptual framework and succinctly answer the research question.

Defined Level of Effort

Data analysis began with the idea that the Integration Continuum (Burt & Spellman, 2007) with these five levels of collaboration would be used as the conceptual framework: isolation, communication, coordination, collaboration, and coordinated community response (Figure 2). However, insight into the data provided an opportunity to explore collaboration at a more granular level by extracting explanations Burt and Spellman (2007) provided to define each of the five levels from the Integration Continuum. Therefore, main ideas for each level were extracted and labels for each level of collaboration were created.

Degree of Effort VR Expended to Collaborate. Table 2 shows the level and degree of collaboration based on explanations from the Integration Continuum (Burt & Spellman, 2007). Definitions for each degree of collaboration are provided in Appendix D. Based on the explanation for "isolation," two main ideas were extracted: no communication and hostile communication. Five major points were described for "communication": agency level communication, middle level communication, frontline communication, VR communicates what they do, and state agencies listen to each other. Eight points "coordination" were extracted: case-by-case work, cross agency training, clear roles and responsibilities, agency level policy commitments, local level coordination, state level coordination, systems level coordination, and services integration. Table 2 shows that systems level coordination (3.7) and services integration

(3.8) only applied when VR collaborated with education officials and other organizations, not just the state education agency. The next highest level on the Integration Continuum is collaboration. Six major points on collaboration were extracted: joint planning, agencies have shared goals, VR, education, and others collaborate, agency leadership on board, commitment to collaborate, and cross agency initiatives. Table 2 shows that VR, education, and others collaborate (4.3) only applied when VR collaborated with the state education agency and other organizations. The highest level of collaboration is coordinated community response which by definition must include collaboration between VR, the state education agency, other state agencies, city, county, and other community partners as observed in WIOA state plans. Seven major points were extracted from Burt and Spellman's conceptual framework: VR, education, and other agencies, systems in the community, system to improve outcomes, continuous improvement mechanism, shared decision making, paid coordinator, and systems level continuous improvement. Thus, 28 distinct labels within each of five levels of collaboration from the Integration Continuum were defined and applied to the data to deepen exploration of the phenomenon under study and to succinctly answer the research question (Table 2).

Table 2

Level and Degree of Collaboration Based on the Integration Continuum

Level of collaboration	Degree of collaboration (Burt & Spellman, 2007)
1.0 Isolation-VR only	1.1 No communication
	1.2 Hostile communication
2.0 Communication-VR & Education	2.1 Agency level communication
	2.2 Middle level communication
	2.3 Frontline communication
	2.4 VR communicates what they do
	2.5 State agencies listen to each other
3.0 Coordination-VR & Education	3.1 Case-by-case work
	3.2 Cross-agency training
	3.3 Clear roles and responsibilities
	3.4 Agency level policy commitments
	3.5 Local level coordination
	3.6 State level coordination
3.0 Coordination-Multi-agency	3.3 Clear roles & responsibilities
	3.5 Local level coordination
	3.7 Systems level coordination
	3.8 Services integration
4.0 Collaboration-VR & Education	4.1 Joint planning
	4.2 Agencies have shared goals
	4.4 Agency leadership on board
	4.5 Commitment to collaborate
	4.6 Cross agency initiatives
4.0 Collaboration-Multi-agency	4.1 Joint planning
	4.2 Agencies have shared goals
	4.3 VR, education, & others collaborate
	4.4 Agency leadership on board
	4.5 Commitment to collaborate
	4.6 Cross agency initiatives
5.0 Coordinated Community Response	5.1 VR, education, & other agencies
	5.2 Systems in the community
	5.3 System to improve outcomes
	5.4 Continuous improvement mechanism
	5.5 Shared decision making
	5.6 Paid coordinator
	5.7 Systems level continuous improvement

VR Collaborated with Education Officials and Other Organizations. After 28 distinct degrees of collaboration (Table 2) with definitions for each degree of collaboration (Appendix D) was done, attention turned to who VR collaborated with to implement WIOA. A review of WIOA state plans revealed that the plans not only included the VR programs' plans to collaborate with education officials, they also included collaborative work with other state agencies (e.g., state Medicaid agency), government organizations (e.g., city transportation), non-governmental organizations (e.g., employers), and community partners (e.g., centers for independent living) to deliver pre-ETS to students with disabilities as part of their routine business. Therefore, during initial coding of the data, state plans that included VR collaboration with education officials only or collaboration with education officials and other organizations were noted. When the level of collaboration involved multiple agencies, the degree of collaboration must have included more than just collaboration between VR and the state education agency. For example, systems level coordination and services integration (Table 2) must by definition (Appendix D) involve collaboration between VR and the state education agency and other state agencies.

Defined Intended Level of Impact of Collaboration

Throughout each state plan, VR programs consistently described not just who they collaborated with or planned to collaborate with, they also described the intended level of impact of their work to provide pre-ETS to students with disabilities. Based on this observation, four levels of intended impact were created based on patterns in the data: service delivery level, state VR and education agency level, multi-state agency

level, and systems level. Impact at the service delivery level means that the provision of pre-ETS by a VR program was intended to affect students with disabilities and their families. Impact at the service delivery level may also have involved other government and non-government organizations, and members of the community who provided services to students with disabilities and their families. Impact at the state VR and education agency level means that the delivery of pre-ETS by a VR program would have an affect on staff, management, and leadership at both the VR and state education agencies. Impact at the multi-state agency level means that the provision of pre-ETS by a VR program would have an affect on staff, management, and leadership from the VR, state education, and other state agencies. Impact at the systems level means that the provision of pre-ETS by a VR program would have an affect on the VR state agency, state education agency, other state agencies (e.g., state Medicaid agency), and other government and non-governmental organizations at the state or local level. Impact at the systems level also means that the intended impact was to remove systemic barriers to employment for people with disabilities (e.g., removal of transportation or housing as a barrier to employment).

Created Effort-Impact Matrix

Analysis and reduction of the data yielded two themes: effort expended by VR programs to collaborate and impact of the collaboration. Effort expended to collaborate included two concepts: the level and degree to which VR collaborated with a partner (e.g., collaboration via joint planning) and who VR collaborated with (state education agency only or state education agency and other state agencies). The four levels of impact

of collaboration were: service delivery level, state VR and education agency level, multi-state agency level, and systems level. The relationship between the two themes was: a plan to collaborate (with whom and to what degree) and the intended impact of the collaboration. Based on this association, the Effort-Impact Matrix was created to organize themes that resulted from the initial coding and reduction of the data to two themes. The Effort-Impact Matrix is shown in Appendix E.

Incorporated Effort-Impact Matrix Into Integration Continuum to Refine Conceptual Framework

By incorporating the Effort-Impact Matrix into the Integration Continuum (Burt & Spellman, 2007), the conceptual framework added an additional group of collaborators (multiple state agencies in addition to the state VR and education agencies), defined the degree to which collaboration occurred (e.g., case-by-case, cross agency training), and added the intended impact of collaboration (service delivery level, state VR and education agency level, multi-state agency level, or systems level). Adding an a group of collaborators to the initial conceptual model resulted in seven levels of collaboration (Table 2): (a) isolation, (b) communication between the state VR and education agency, (c) coordination between the state VR and education agency, (d) coordination between the state VR and education agency and other state agencies, (e) collaboration between the state VR and education agency, (f) collaboration between the state VR and education agency, other state agencies, and community partners, and (g) coordinated community response by the state VR agency, state education agency, other state agencies, city, county, and other community partners (Table 2). The refined conceptual framework is

shown in Appendix E. Answering the research question more succinctly was possible because the level of collaboration from the conceptual framework and degree of collaboration, who VR collaborated with to deliver pre-ETS and the intended impact of the collaborative work at the individual, agency, multi-agency, or systems level was defined. The refined conceptual framework was specific to the VR program.

A second round of coding was done to answer the research question. Using definitions for each of the 28 distinct levels and degree of collaboration (Appendix D) from the refined Effort-Impact conceptual framework (Appendix E), deductive coding was done by assigning one of the 28 labels to 144 unique passages in a combined multicase dataset using Dedoose. Frequency counts and percentages were produced for each of the 28 levels of collaboration. Finally, the frequency counts and percentages were reviewed and the research question was succinctly answered. Appendix C shows the process used to move from themes to the refined Effort-Impact conceptual framework and then deductive coding and analysis of the data to concisely answer the research question.

Evidence of Trustworthiness

Three strategies were used to establish credibility of the results: analytic memoing, standardized definitions from Burt and Spellman's Integration Continuum (2007), and coding to the point of saturation. A reflexive journal was kept and regular entries were made from the time data were extracted from state plans through data analysis and interpretation of the findings. Decisions I made, logistics of the study, and reflections of my experiences, expertise, biases, assumptions, and preconceived ideas

about what I might find to assist me with establishing credibility of the findings were recorded. An audit trail was created by consistently recording the steps used to reduce the information from sentences and paragraphs in state plans to a code that was either a word or short phrase that represented an idea described by a VR program. Notes included the rationale for the code that was chosen, why codes were reduced into subcategories and categories, and the rationale for defining themes.

Credibility

Definitions from the five levels of collaboration from Burt and Spellman's (2007) work was purposefully used to establish credibility of the findings because the definitions standardized the way each level was defined. Using a standardized definition gave internal validity to the study because it minimized insertion personal biases about what collaboration means. Using standardized definitions also removed any bias unintentionally introduced in the state plans. Rather than use terms, like coordination or collaboration provided in state plans, I used descriptions provided in state plans and aligned it with definitions from Burt and Spellman's Integration Continuum.

In addition to doing analytic memoing to create preliminary codes and refining codes for each successive state plan analyzed, it was established that saturation was reached after reviewing only three of the five state plans in the study. Reaching saturation provided confidence that codes and subcategories and extracted themes that accurately reflected collaboration within a state and across states were exhausted. Reaching saturation, using a set of subcategories that were organized into one of five levels of collaboration from the conceptual framework and standardized definitions from Burt and

Spellman's (2007) work helped achieve internal validation and trustworthiness of the study's results.

Analysis of data across four years (2016, 2018, 2020, 2022) for each VR program was planned but comparison of the plans revealed that the plans were not substantively different from each other. Therefore, only the 2022 plan for each program was analyzed. Thus, analysis across multiple years was not used as a method to establish credibility of the study.

Transferability

The purpose of this multicase study was to do a deep dive into the phenomenon of collaboration between state VR and education agencies to provide pre-ETS to students with disabilities, not to establish generalizability of the findings across VR programs. While transferability of data from a qualitative multicase study is not advised, the subcategories and two overarching themes consistently held up across the five VR state plans in the sample. Nonetheless, results from this study are not transferable to other VR programs.

Dependability

The primary strategy used to establish dependability was intercoder reliability. My professional colleague who has 30 years of experience in VR and many years of experience in coding qualitative data used the conceptual framework with initial definitions for each subcategory and the Effort-Impact Matrix (Appendix E) to code 30 passages randomly selected from a combined dataset comprised of all five state plans. Thirty passages were selected for intercoder reliability because they represented 10

percent of the 300 passages that were initially coded from all five state plans. An initial round of coding was done by my colleague and compared to the code I assigned to the data. When our coding differed, each passage was discussed. The process of intercoder reliability helped with refining definitions of the subcategories and also provided confidence that the approach to use predetermined and predefined levels of collaboration and the addition of the Effort-Impact Matrix (Appendix E) was a sound approach to analysis of the data. After discussing each passage, 100 hundred percent agreement on the codes was reached. In the case where our codes differed, I returned to the dataset and recoded each passage based on the refined and agreed upon category definition. Every state plan was reviewed again to ensure consistency in the application of the codes. Each passage was checked against each defined code at least three times. Each idea was only coded once even if it was referenced in multiple places in a plan. The refined dataset with intercoder reliability coding was used in the subsequent step to produce frequency counts for each level and degree of collaboration to concisely answer the research question.

Confirmability

A reflexive journal was kept and regular entries were made throughout the process from extracting data from WIOA state plans, data analysis, coding, intercoder reliability, and interpretation of the findings to account for potential bias from personal experience and expertise. Decisions made, logistics of the study, and reflections of what was observed during review and analysis of the data, and interpretation of the results were recorded. There were no preconceived ideas about what would be found. Journaling helped with reflecting on what was being learned, how what I was learning influenced

my professional work, and how I could weave what I learned with my professional work. Reflecting on the research also validated the decision to do a deep dive into the phenomenon of collaboration.

Results

Using frequency counts and percentages for each of the 28 distinct levels and degree of collaboration (Appendix D), the data were analyzed in three ways. First, the frequency of the aggregated level of collaboration for all VR programs combined was analyzed to understand overall how VR programs collaborated with state officials and other partners to implement WIOA and provide students with disabilities. Second, frequency counts and percentages were analyzed to understand the degree of collaboration by the level of collaboration for all VR programs combined. Third, frequency counts and percentages were analyzed to understand the level and degree of collaboration by each VR program.

Aggregated Level of Collaboration For All Five VR Programs Combined

Table 3 shows results from an analysis of the level of collaboration for all five VR programs combined. Analysis of the data revealed that coordination by VR and state education officials was the most frequently observed form of collaboration (44.8%). The next most frequently observed was collaboration between the state VR and education agency (20.3%). The third most frequently observed was communication between the VR and education agency (16.1%). Thus, the top three most frequently observed level of collaboration was between the state VR and education agency (as opposed to collaboration with multiple state agencies). When VR programs worked with multiple

state agencies, they were more likely to coordinate (8.9%) than collaborate (5.7%). The highest level of collaboration was coordinated community response and was the least common way VR programs collaborated with education officials to implement WIOA and provide pre-ETS to students with disabilities (4.2%). It was not surprising that isolation was not observed in any of the five state plans because WIOA requires VR programs to coordinate with state education officials to provide pre-ETS to students with disabilities.

Table 3

Level of Collaboration for all Five VR Programs Combined

Level of collaboration based on conceptual framework	Total count	Percent (%)	Level of collaboration ranked	Level of collaboration desired based on conceptual framework
1.0 Isolation-VR only	0	0	7	Undesired
2.0 Communication-VR & Education	31	16.1	3	
3.0 Coordination-VR & Education	86	44.8	1	
3.0 Coordination-Multi-agency	17	8.9	4	
4.0 Collaboration-VR & Education	39	20.3	2	
4.0 Collaboration-Multi-agency	11	5.7	5	
5.0 Coordinated Community Response	8	4.2	6	Aspirational
Total	192	100		

Level and Degree of Collaboration for All Five VR Programs Combined

After obtaining an overall picture of collaboration for all programs combined, the analysis was expanded to explore the degree of collaboration within each level of collaboration for all programs combined. Table 4 shows the results of the analysis. Coordination between VR and state education officials was analyzed first because the previous analysis revealed that coordination between VR and education was most frequently observed (Table 3). The analysis revealed that local level coordination

between VR and education officials was most frequently observed (40.7%) and occurred almost twice as often as the next two forms of coordination: having clear roles and responsibilities when providing pre-ETS to students (22.1%) and working with students and their families on a case-by-case basis (20.9%) (Table 4).

Then, collaboration between VR and education officials was analyzed and a commitment to collaborate with education officials was most frequently observed (33.3%). Committing to collaborate with education officials was followed by VR agency leadership that were on board with plans to collaborate (23.1%), joint planning (15.4%), and shared goals (15.4%). Cross agency initiatives, which require a higher degree of collaborative work was least often observed (12.8%).

Next, communication between VR and education officials was analyzed and it was found that when compared to other forms of communication with state education officials, VR programs most frequently communicated what they do (80.6%), which is not a form of collaboration because it involves informing others, not active coordination with others. Agency level communication and listening to state education officials was much less frequently observed (9.7% equally).

After that, collaborative work that involved state education officials and other stakeholder groups, including other state agencies, government organizations, non-government organizations, and community stakeholders was analyzed. The data were analyzed in order from the most to the least frequently observed overall: coordination, collaboration, and coordinated community response (Table 4). Similar to working with education officials only, local level coordination with multiple stakeholder groups,

including education officials, was most frequently observed (41.2%). Analysis of collaboration with multiple state agencies and other stakeholder groups revealed three practices that VR programs were most likely to perform when working with multiple state agencies: collaborating with state education and other agencies (27.3%), having agency leadership on board with plans to collaborate (27.3%), and making a commitment to collaborate (27.3%). Undertaking cross agency initiatives was less frequently observed (18.1%). However, these data should be interpreted with caution because the total number of observations for collaboration with multiple state agencies was small (n=11). The number of observations of a coordinated community response was even smaller (n=8), so the revelation that half of those observations involved the delivery of employment and transition related services by systems in a community (e.g., workforce development boards, healthcare) should be interpreted with caution.

Table 4

Level and Degree of Collaboration for all Five VR Programs Combined

Level and degree of collaboration	Total	Percent (%)
1.0 Isolation-VR only		
1.1 No communication	0	0
1.2 Hostile communication	0	0
Total	0	0
2.0 Communication-VR & Education		
2.1 Agency level communication	3	9.7
2.2 Middle level communication	0	0
2.3 Frontline communication	0	0
2.4 VR communicates what they do	25	80.6
2.5 State agencies listen to each other	3	9.7
Total	31	100
3.0 Coordination-VR & Education		
3.1 Case-by-case work	18	20.9
3.2 Cross-agency training	2	2.3
3.3 Clear roles and responsibilities	19	22.1
3.4 Agency level policy commitments	3	3.5
3.5 Local level coordination	35	40.7
3.6 State level coordination	9	10.5
Total	86	100
3.0 Coordination-Multi-agency		
3.3 Clear roles & responsibilities	4	23.5
3.5 Local level coordination	7	41.2
3.7 Systems level coordination	5	29.4
3.8 Services integration	1	5.9
Total	17	100
4.0 Collaboration-VR & Education		
4.1 Joint planning	6	15.4
4.2 Agencies have shared goals	6	15.4
4.4 Agency leadership on board	9	23.1
4.5 Commitment to collaborate	13	33.3
4.6 Cross agency initiatives	5	12.8
Total	39	100
4.0 Collaboration-Multi-agency		
4.1 Joint planning	0	0
4.2 Agencies have shared goals	0	0
4.3 VR, education, & others collaborate	3	27.3
4.4 Agency leadership on board	3	27.3
4.5 Commitment to collaborate	3	27.3
4.6 Cross agency initiatives	2	18.1
Total	11	100
5.0 Coordinated Community Response		
5.1 VR, education, & other agencies	3	37.5
5.2 Systems in the community	4	50.0
5.3 System to improve outcomes	0	0
5.4 Continuous improvement mechanism	1	12.5
5.5 Shared decision making	0	0
5.6 Paid coordinator	0	0
5.7 Systems level continuous improvement	0	0
Total	8	100

Level and Degree of Collaboration by Individual VR Program

Finally, individual state plans from Wisconsin, Alabama, Ohio, Oklahoma, and California were analyzed. Results from these analyses are shown in Table 5. Each individual plan was compared to the combined data from all five VR programs. Analysis of the Wisconsin state plan revealed that while coordination between VR and education officials was most frequently noted for all VR programs combined, multi-agency coordination, a higher degree of coordination and effort required to collaborate was most frequently observed (27.3%) (Table 5). Coordination between the VR and education agency accounted for 24.2% of the data coded. However, the difference between multi-agency coordination (n=9) and coordination between VR and the state education agency (n=8) was negligible. Communication between the state VR and education agency (18.2%, n=6) was observed as was coordinated community response (12.1%, n=4), collaboration between VR and education officials (9.1%, n=3), and VR and multiple state agencies and organizations (9.1%, n=3). However, data from analyzing the Wisconsin state plan should be interpreted with caution because of the low frequency counts by level and degree of collaboration.

Analysis of state plans from Alabama, Oklahoma, and California revealed that coordination between VR and education officials was most frequently noted in their state plans (47.8%, 58.7%, and 57.1% respectively). Ohio contributed to this common finding with 33.3% of all passages coded falling into coordination between VR and education officials (Table 5). When compared against each other, state plans from Oklahoma and California most frequently noted coordination between VR and education officials as the

most common way of implementing WIOA and providing pre-ETS to students with disabilities (58.7% and 57.1% respectively), which mimicked the most common finding for all cases combined. The other notable result that mirrored all cases combined was the finding that the third most common method of collaboration described in state plans from Wisconsin, Alabama, Ohio, and Oklahoma was communication with education officials (18.2%, 17.4%, 12.5%, and 10.9% respectively).

While analysis of the degree of collaboration (e.g., case-by-case work, cross agency training, clear roles and responsibilities) would have been informative, identifying patterns in the data and subsequent analyses of these data would yield questionable findings because the count of observations within each subcategory was small. The largest count of 10 in Ohio's state plan and nine in California's plan was not surprisingly local level coordination, which aligned with results from all five states combined (Table 5). Thus, obtaining meaningful results about how VR collaborated with education officials was limited to communication, coordination, and collaboration because of the low frequency counts by individual programs.

Table 5

Level and Degree of Collaboration by VR Program

Subcategories within level of collaboration based on conceptual framework	WI	AL	OH	OK	CA
1.0 Isolation-VR only					
1.1 No communication	0	0	0	0	0
1.2 Hostile communication	0	0	0	0	0
Total	0	0	0	0	0
Percent (%)	0	0	0	0	0
2.0 Communication-VR & Education					
2.1 Agency level communication	0	2	0	1	0
2.2 Middle level communication	0	0	0	0	0
2.3 Frontline communication	0	0	0	0	0
2.4 VR communicates what they do	6	2	4	4	9
2.5 State agencies listen to each other	0	0	2	0	1
Total	6	4	6	5	10
Percent (%)	18.2	17.4	12.5	10.9	23.8
3.0 Coordination-VR & Education					
3.1 Case-by-case work	2	1	2	8	5
3.2 Cross-agency training	0	0	0	1	1
3.3 Clear roles and responsibilities	1	3	2	9	4
3.4 Agency level policy commitments	0	0	1	0	2
3.5 Local level coordination	4	6	10	6	9
3.6 State level coordination	1	1	1	3	3
Total	8	11	16	27	24
Percent (%)	24.2	47.8	33.3	58.7	57.1
3.0 Coordination-Multi-agency					
3.3 Clear roles & responsibilities	4	0	0	0	0
3.5 Local level coordination	1	0	1	5	0
3.7 Systems level coordination	4	0	0	1	0
3.8 Services integration	0	0	1	0	0
Total	9	0	2	6	0
Percent (%)	27.3	0	4.2	13.0	0
4.0 Collaboration-VR & Education					
4.1 Joint planning	0	1	5	0	0
4.2 Agencies have shared goals	0	1	4	1	0
4.4 Agency leadership on board	1	1	4	2	1
4.5 Commitment to collaborate	1	1	6	3	2
4.6 Cross agency initiatives	1	3	1	0	0
Total	3	7	20	6	3
Percent (%)	9.1	30.4	41.7	13.0	7.1
4.0 Collaboration-Multi-agency					
4.1 Joint planning	0	0	0	0	0
4.2 Agencies have shared goals	0	0	0	0	0
4.3 VR, education, & others collaborate	1	0	1	0	1
4.4 Agency leadership on board	1	0	1	0	1
4.5 Commitment to collaborate	1	0	1	0	1
4.6 Cross agency initiatives	0	0	1	0	1
Total	3	0	4	0	4
Percent (%)	9.1	0	8.3	0	9.5

Table 5

Level and Degree of Collaboration by VR Program

Subcategories within level of collaboration based on conceptual framework	WI	AL	OH	OK	CA
5.0 Coordinated Community Response					
5.1 VR, education, & other agencies	2	0	0	1	0
5.2 Systems in the community	2	1	0	1	0
5.3 System to improve outcomes	0	0	0	0	0
5.4 Continuous improvement mechanism	0	0	0	0	1
5.5 Shared decision making	0	0	0	0	0
5.6 Paid coordinator	0	0	0	0	0
5.7 Systems level continuous improvement	0	0	0	0	0
Total	4	1	0	2	1
Percent (%)	12.1	4.3	0	4.3	2.4

Summary

The research question for this qualitative multicase study was: How have VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities? Two major actions were undertaken to answer this question. First, an initial round of inductive coding of secondary data was done and the data were reduced into two themes: effort expended by VR programs to collaborate with education officials and impact of the collaboration. Effort to collaborate was defined as the degree to which VR collaborated with a partner organization and who VR collaborated with (Appendix D). Definitions from the Integration Continuum (Burt & Spellman, 2007) were used to distinguish the degree of collaboration within each of five levels of collaboration (Table 2). The result of that model was the Effort-Impact Matrix (Appendix E). A second round of coding was done to concisely answer the research question, as opposed to broadly answering the question using themes that emerged from initial coding and analysis of the data. In the second round of coding, a deductive approach was taken and 28 unique levels of collaboration was created (Appendix E) by

incorporating the Effort-Impact Matrix into the Integration Continuum to refine the conceptual framework and concisely answer the research question.

Data from all five VR programs were combined into a single multicase dataset for the first analysis which revealed that coordination between VR and the state education agency was overwhelmingly the most frequent way VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities (Table 3). When a deeper dive was done on both the level and degree of coordination for all programs combined (Table 4), local level coordination between the state VR and state education agency was found to be the most common way VR programs coordinated with education officials to implement WIOA and deliver pre-ETS to students with disabilities, thus succinctly answering the research question.

Collaboration with education officials was the second most common way VR programs worked with state education officials to provide pre-ETS to students. Making a commitment to collaborate was most often reported as the way state VR and education agencies collaborated. Communication, and specifically communicating what VR does was the third most common way VR programs reported collaborating with state education officials (Table 4). Analysis of the data also revealed that collaboration with only state education officials occurred four times more often than collaboration with education officials and other state agencies (Table 3).

Chapter 5 interprets findings from analysis of the data, describes how the Effort-Impact Matrix expanded the Integration Continuum (Burt & Spellman, 2007), extends knowledge in the literature, provides researchers with a VR-specific tool for studying

collaboration, and validates research in the peer-reviewed literature. Limitations of the study are also discussed. In addition, recommendations for further research that are grounded in strengths and limitations of this study are described as is the potential impact for positive social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this multicase study was to explore the implementation of WIOA (2014) by federal-state VR programs through collaboration with state education officials to deliver pre-ETS to students with disabilities. The research method was qualitative in nature and in alignment with a qualitative constructivist approach that aligns with my personal and philosophical methodological assumption, where for case study research, cases are selected based on the research question and purpose and where data collection and analysis are organized, rigorous, credible, and applicable (Merriam, 2009). The phenomenon of collaboration between state VR and education agencies to provide pre-ETS to students with disabilities was studied. The research question was as follows: How have VR programs collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities.

Data analysis revealed that coordination, specifically, local level coordination was overwhelmingly the most common way state VR programs collaborated with state education agencies to implement WIOA and provide pre-ETS to students with disabilities (Table 4). Thus, the concise answer to the research question is that VR programs coordinate with state education officials at the local level to implement WIOA and provide pre-ETS to students with disabilities. Local level coordination involves VR staff liaisons or VR counselors employed at the state level and assigned to high schools where they work closely with state employees deployed at the local level and local education staff on a routine basis (Appendix D).

Collaboration, and specifically making a commitment to collaborate was the second most common way VR programs collaborated with state education officials (Table 3; Table 4). Making a commitment to collaborate involves agency leadership who made a commitment with each other to provide pre-ETS to students with disabilities and is on the higher end of collaboration (Appendix D). Communication, and specifically communicating to others what VR does, was the third most common way VR state agencies collaborated with state education officials to deliver pre-ETS to students with disabilities. Communication is the lowest level of collaboration (Appendix D). One could also argue that communicating what VR does and the services they provide to the public and the state education agency do not involve active coordination or collaboration.

Coordination with multiple state agencies was less frequently observed than coordination with only the state education agency (8.9% vs. 44.8%, respectively; Table 3). Collaboration with multiple state agencies was also less frequently observed than collaboration with only the state education agency (5.7% vs. 20.3%, respectively) (Table 3). At 4.2% of all VR programs combined, coordinated community response, the desired state of collaboration based on the Integration Continuum (Burt & Spellman, 2007), was the least frequently observed way VR state agencies collaborated with state education officials to implement WIOA and provide pre-ETS to students with disabilities. Data analysis also revealed that collaboration with only state education officials occurred four times more frequently than collaboration with education officials and other state agencies and community partners (Table 3).

Interpretation of the Findings

Roux et al. (2019) analyzed WIOA state plans from all 50 states and the District of Columbia to characterize the prevalence and types of autism-specific references across state plans. WIOA state plans were also used as secondary data for this study and findings from this multicase qualitative study confirm that WIOA state plans are a valid source of data for exploring the implementation of WIOA. State plans are a reliable source of information because they are required by the Department of Education and the Department of Labor every 4 years with a required update every 2 years. State plans are also a reliable source of information because VR programs are required to use a standardized template and respond to questions that are predefined by the Department of Labor and the Department of Education (Department of Labor, n.d.). Thus, this study validates research where WIOA state plans were used as the source of information to study the implementation of WIOA by state VR programs.

Findings from this study also confirmed that the Integration Continuum (Burt & Spellman, 2007) is a valid conceptual framework for studying collaboration. Results from this study expanded the Integration Continuum by incorporating the level of effort to collaborate, who VR collaborates with, and the intended impact of that collaboration. However, findings from the study neither confirmed nor disconfirmed other research reviewed in Chapter 2 because the research question, phenomenon under study, and level of study (e.g., individual level vs. organizational level) were different from this study. Nonetheless, findings from this study adds new information to the literature on

collaboration by state VR and education officials to implement WIOA and provide pre-ETS to students with disabilities.

Study Findings Add New Knowledge to Research on Collaboration

Overwhelmingly, the most common way state VR agencies collaborate with state education agencies is coordination at the local level (Table 3; Table 4). Also, state VR agencies collaborate with state education agencies four times more frequently than they collaborate with education agencies and other state agencies (Table 3). In addition, VR programs are equally likely to collaborate as they are to communicate with education officials. The difference between collaboration and communication is that whereas collaboration requires a high degree of effort by the VR program to collaborate (e.g., joint planning, development of shared goals, cross agency initiatives) communication, one-way communication in particular does not (e.g., VR agency communicates what they do). Moreover, while a coordinated community response is desired and needed to achieve systems change and to end a social problem (Burt & Spellman, 2007), like the employment disparity between students with and without disabilities, multi-agency collaboration and a coordinated community response were substantively less likely to have been planned or employed by state VR programs.

Burt and Spellman (2007) defined coordination as staff from different agencies working together on a case-by-case basis, and staff who "merely agree not to get in each other's way and agree to offer the services they have available when appropriate" (p. 2-7). They also reported that coordination "does not entail any significant rethinking of agency goals or approaches" (p. 2-7). Collaboration, on the other hand, "adds the element

of joint analysis, planning, and accommodation…toward the end of systems integration" (p. 2-7). In addition, the researchers reported that "collaboration differs from communication and coordination in that it cannot happen without the commitment of the powers-that-be" (p. 2-7). In short, the higher up on the Integration Continuum one travels, the greater the degree of effort required to collaborate and the greater the number of partners an organization must partner with to work on a social problem. Results from the study indicate that the higher the degree of collaboration required and the greater the number of partners required for collaboration (i.e., organizational partners besides the state education agency), the less likely it was to be described in the state VR programs in the study.

Coordinated community response, the highest and most aspirational state of collaboration was the least likely method of collaboration and was rarely observed (Table 3).

> Coordinated community response involves all of the critical and most of the desirable systems and actors in a community…with the long-range goal of ending homelessness from collaboration among two or three agencies… Coordinated community response is systems change and integration" that goes beyond collaboration. (Burt & Spellman, 2007, p. 2-7)

Interpretation of Findings in the Context of the Conceptual Framework

Findings from the study confirmed that the Integration Continuum (Burt & Spellman, 2007) is a valid conceptual framework for exploring collaboration. The conceptual framework spans the entire range of ways collaboration occurs from no

communication to a coordinated community response that involves the state VR agency, state education agency, other state agencies, city, county, and other community partners. The Integration Continuum permitted a concise answer to the research question and mitigated biases unintentionally introduced by agency staff who prepared the state plans and me.

Findings from the study not only confirmed validity of the Integration Continuum (Burt & Spellman, 2007) as a valid conceptual framework for studying collaboration, the results expanded on the framework through incorporation of themes derived from categorizing and reducing the data from five state VR programs. Using two overarching themes derived from analysis of a combined multicase dataset, the Effort-Impact Matrix was created and accounted for the degree of effort VR expended to collaborate, who they collaborated with, and the intended impact of that collaboration. By incorporating the Effort-Impact Matrix into the Integration Continuum, the Integration Continuum was expanded and a VR-specific tool researchers can use to study collaboration between state VR and education agencies and other partners at the service delivery level, agency level, multi-agency level, or systems level was created.

Limitations of the Study

A comparison of WIOA state plans for 2016, 2018, 2020, and 2022 revealed that the plans were not substantively different. Therefore, the 2022 program year state plan was analyzed for each VR program. The rationale for using the latest period was that the plan was the most mature in terms of planning and programming since WIOA passed in 2014. Therefore, a limitation to trustworthiness of the study findings was that

triangulation across multiple program years within and between cases was not done. However, triangulation across five state plans for a single year was done, thereby achieving triangulation of data sources. The other limitation is that I have not yet shared results from the study with the state VR programs in the study. Sharing results from the study will increase credibility and therefore trustworthiness of the findings. I plan to share the results with the Wisconsin, Alabama, Ohio, Oklahoma, and California VR program administrators.

Recommendations

Four recommendations are suggested based on strengths and limitations of the current study as well as the research by Roux et al. (2019) and Burt and Spellman (2007). The first recommendation is that future researchers consider WIOA state plans a valid source of secondary data to study collaboration between a state VR agency and education officials, other state agencies, city, county, and other community partners (e.g., a state workforce development system). WIOA state plans are not only a valid source of secondary data, they also standardize information VR programs must provide.

The second recommendation is that further research on collaboration between a state VR agency and state education officials and other organizational partners use the Effort-Impact conceptual framework that expands the Integration Continuum (Burt & Spellman, 2007). The Effort-Impact conceptual framework is VR-specific and accounts for collaboration with multiple collaborators, includes definitions of collaboration based on the work by Burt and Spellman, and adds the intended impact of the collaborative effort (service level, agency level, multi-agency level, and systems level). The refined

conceptual framework also includes definitions for 28 distinct definitions that account for the level of collaboration (isolation, communication, coordination, communication, coordinated community response) and degree to which collaboration occurs from an analysis of five state VR programs by a qualitative study that reached saturation.

The third recommendation is that the WIOA State Plan Information Collection Request template (Department of Labor, n.d.) be modified and require VR Programs to use standardized definitions of collaboration, like those provided in the refined Integration Continuum that incorporates the Effort-Impact definitions. A modified template could assist policymakers with gauging the level of collaboration within workforce development systems, including between VR and education agencies, as policymakers envisioned. Policymakers could also use the Effort-Impact conceptual framework to define the degree of collaboration between state VR and education agencies (e.g., case-by-case work vs. joint planning which requires a higher level and degree of collaboration). Using standardized definitions will assist public policymakers, federal oversight agencies, and state agencies with gauging the current level of collaboration and examine whether higher degrees collaboration (i.e., collaboration with multiple state agencies and organizations, and a coordinated community response) improve employment and postsecondary outcomes for students with disabilities.

The fourth recommendation is that public policymakers analyze WIOA State Plans to better understand whether systems change to “strengthen the United States workforce development system through innovation in, and alignment and improvement of employment, training, and education programs” (WIOA, 2014) is occurring.

Specifically, the recommendation is to explore whether work at the two highest levels of the Effort-Impact conceptual framework (multi-agency collaboration and a coordinated community response) is occurring. By understanding whether collaboration is occurring at the systems level, policymakers can develop public policies to achieve the intent of WIOA by bringing workforce, education, and other partners together, and ultimately, to end, not just manage the disparity in employment and postsecondary outcomes between students with and without disabilities.

Implications

The National Alliance to End Homelessness developed a plan to shift the orientation and emphasis from managing homelessness to ending it (NAEH, 2000). Burt and Spellman (2007) have argued that a coordinated community response is needed to end homelessness, not just manage it. Analysis of data from five state VR programs revealed that a coordinated community response was rarely reported (Table 3). Findings from this study also showed that the higher up one travels on the Integration Continuum (Burt & Spellman, 2007) and the greater the number of collaborator groups recommended to work on a public problem, the less likely collaboration was observed (i.e., state VR programs were more likely to collaborate with education agencies only and at lower degrees of collaboration).

Results from this study showed that local level coordination between the VR and education agency where VR staff liaisons or VR counselors employed at the state level and assigned to high schools worked with education staff at the local level was overwhelmingly, the most frequent way state VR and education agencies collaborated to

provide pre-ETS to students with disabilities. The second most frequent way state VR and education agencies collaborated was a commitment to collaborate with each other by agency leadership to provide pre-ETS to students with disabilities. The third most frequent way state VR and education agencies collaborated was that VR programs communicated what they do (i.e., services they provide) to the public and the state education agency. However, communicating services the VR agency provides is not a form of coordination or collaboration because it does not involve active engagement by educational officials or staff at the local level. Therefore, state VR agencies have implemented WIOA and provided pre-ETS to students with disabilities by coordinating with education officials at the local level, which is a step above communication and a degree below coordination with multiple state agencies, not just the state education agency. Nonetheless, this study has the potential for positive social change at the organizational level, specifically, the state VR and education agency level because findings from this study provide these organizations with information about the current state and future desired state of collaboration (i.e., work with multiple state agencies through a coordinated community response). If state agencies understand what the future desired state of collaboration is and what the current state of collaboration is, then they may move towards a higher degree and level of collaboration to achieve the intent of WIOA and end the employment and postsecondary disparity between students with and without disabilities. The social change implication, then is to achieve the intent of WIOA by moving from coordination to collaboration and ending the disparity in employment

outcomes by moving from collaboration to a coordinated community response to achieve systems change for students with disabilities.

A notable implication of this study is the expansion of the Integration Continuum (Burt & Spellman, 2007) by the addition of the degree of effort to collaborate (e.g., collaboration that involves joint planning and analysis), who state VR programs collaborate with (i.e., state education agency only or state education agency and other state agency and organizational partners), and the intended impact of the collaboration. The Effort-Impact conceptual framework expands the Integration Continuum and offers researchers a VR-specific tool that can be used to build a theory of collaboration or to inform future quantitative studies aimed at examining cause and effect relationships (e.g., higher degrees of collaboration result in increased employment and postsecondary outcomes). The conceptual framework also mitigates bias introduced by the researcher and state agency programs.

WINTAC encouraged state VR agencies to use the Integration Continuum (Burt & Spellman, 2007) (Figure 2) to gauge their level of collaboration within their workforce development system (WINTAC, 2016-b). Based on findings from this study, state VR programs are advised to use the Effort-Impact conceptual framework to gauge their level of collaboration within their workforce development system and with state education officials. The Effort-Impact conceptual framework expands the Integration Continuum and offers a VR-specific model that incorporates the effort expended to collaborate, who collaborators are at the organizational level, and the intended impact of the collaboration. The Effort-Impact conceptual framework is based on the Integration Continuum and

standardizes the way collaborative work is defined which mitigates bias introduced by the researcher or collaborators, so that collaboration within and between VR programs can be fairly assessed.

Conclusion

Members of Congress passed WIOA (2014) with the intent to align and improve employment, training, and education programs in the U.S. and to support students with disabilities as they transition from school to competitive integrated employment or postsecondary education. The intent of WIOA is to create a seamless customer-focused one-stop delivery system that integrates service delivery across partner programs and entities that are jointly responsible for workforce and economic development, educational, and other human resource programs through collaboration (Rehabilitation Services Administration, 2015, p. 3). WIOA State Plans have utility for multiple audiences. For federal oversight agencies, WIOA State Plans describe proposed plans to address federal requirements. For internal and external stakeholder groups and for research purposes, WIOA State Plans tend to describe *what* VR Programs plan to do but may not explain *how* they plan to do it. Also, what one state considers collaboration, another state may consider coordination, a less aspirational level of collaboration and one that is further away from systems change.

Using the Integration Continuum (Burt & Spellman, 2007) as the conceptual framework and themes from analysis of the data to create an Effort-Impact Matrix, the conceptual framework was refined, definitions from that framework were applied to the multicase dataset, and results showed that coordination at the local level was

overwhelmingly the most frequent way VR programs collaborated with state education agencies to provide pre-ETS to students with disabilities. Findings from the study also revealed that the higher up the Integration Continuum one travels, the less likely the aspirational level of collaboration was observed within and across five WIOA state plans. Burt and Spellman (2007) have argued that a coordinated community response, the highest and most aspirational level of collaboration is needed to end homelessness, not just manage it. Based on findings from this study, coordination between state VR and education agencies at the local level is taking place. However, to achieve service delivery integration, and create systems change to address a social problem, state VR programs must at minimum coordinate with multiple state agencies and expend effort to integrate their processes to provide employment and related services to students with disabilities. Results from this study showed that state VR programs were four times more likely to coordinate or collaborate with only state education officials and not with multiple state agencies and organizational and community partners. Results also showed that collaboration with multiple state agencies was less than six percent for all five VR programs combined. A coordinated community response was the least frequent way state VR programs reported collaborating with education officials to provide pre-ETS to students with disabilities.

To achieve the intent of WIOA (2014), state VR programs must travel higher up on the Integration Continuum (Burt & Spellman, 2007) by working with state education officials and other organizational and community partners more often than they work only with state education officials. State VR programs must also collaborate more

frequently than they coordinate with their partners. To end the disparity in employment and postsecondary outcomes between students with and without disabilities, not just manage it, state VR programs will need to join with the state education agency, other state agencies, city, county, and other community partners in a coordinated community response. Findings from this study showed that a coordinated community response is rare. Therefore, in the future desired state of collaboration, the intent of WIOA will be achieved when VR programs collaborate more than they coordinate and the end of the employment disparity between students with and without disabilities will be achieved when VR programs collaborate with multiple agencies and community partners to achieve a coordinated community response and create systems change. If not, then the disparity in employment and postsecondary outcomes between students with and without disabilities will continue to be managed, not ended.

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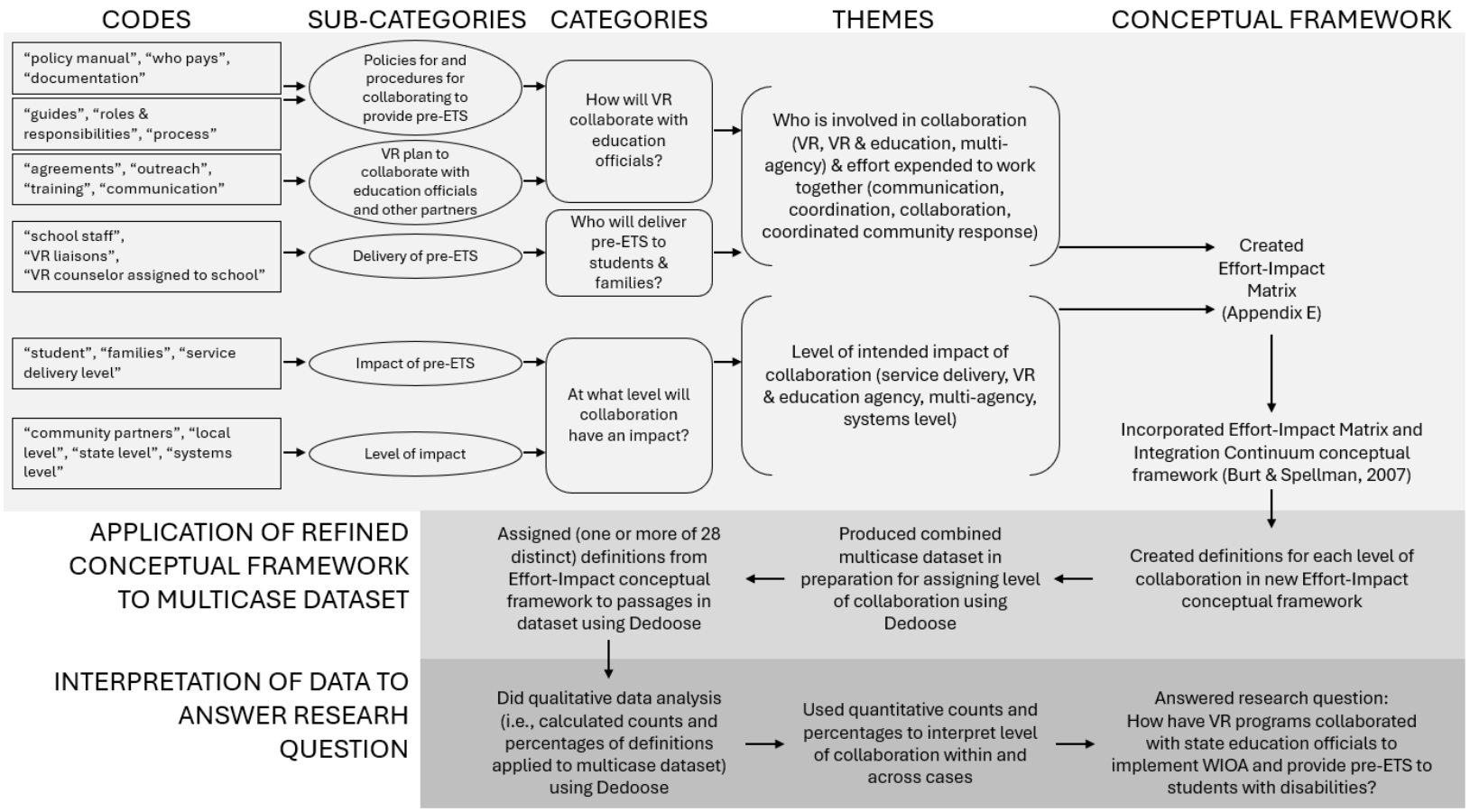
Appendix A: Number of Students who Received Work-Based Learning Experience, Program Year 2019

State VR Program	Number of students who received work-based learning experience
Wisconsin	2,388
Alabama	889
Ohio	849
Oklahoma	722
California	705
Pennsylvania	531
West Virginia	516
Nevada	507
Illinois	477
Louisiana	375
Mississippi	300
Maryland	256
Kentucky	250
Georgia	250
Colorado	220
Hawaii	174
Texas	163
Tennessee	134
Arizona	110
Indiana	85
Utah	76
New Hampshire	71
North Dakota	52
Kansas	32
Montana	27
Rhode Island	18
Wyoming	18
Alaska	14

Appendix B: Data Analysis Codebook Template

Data source and description from WIOA State Plan	Narrative from WIOA State Plan	Inductive, open coding	Axial coding	Categories and themes	Analytic memoing
VI.D.1 State VR's plan to coordinate with education officials					
PY 2016					
PY 2018					
PY 2020					
PY 2022					
VI.D.2.A Consultation and technical assistance to assist in transition planning from school to post-school activities					
PY 2016					
PY 2018					
PY 2020					
PY 2022					
VI.D.2.B Development and implementation of individualized education programs					
PY 2016					
PY 2018					
PY 2020					
PY 2022					
VI.D.2.C Roles and responsibilities					
PY 2016					
PY 2018					
PY 2020					
PY 2022					
VI.D.2.D Procedures for outreach					
PY 2016					
PY 2018					
PY 2020					
PY 2022					

Appendix C: The Process for Moving from Codes to Themes to Answering Research Question



Appendix D: Definitions of Degree of Collaboration by Level of Collaboration Based on Effort-Impact Conceptual Framework

Level of collaboration	Degree of collaboration (Burt & Spellman, 2007)
1.0 Isolation VR state agency effort: Communication by VR state agency observed in WIOA State Plans	1.1 No communication: VR agency made no attempt to communicate with state agency education officials about providing pre-employment transition services to students with disabilities. 1.2 Hostile communication: VR agency had hostile communications, suspicion, or distrust of state agency education officials regarding pre-employment transition services for students with disabilities.
2.0 Communication State VR and education agency effort: Communication by VR state agency and state education agency as observed in WIOA State Plans	2.1 Agency level communication: VR agency leadership communicated with education agency leadership about providing pre-employment transition services to students with disabilities. 2.2 Middle level communication: VR agency's middle management communicated with state education agency leadership, management, or staff about providing pre-employment transition services to students with disabilities. 2.3 Frontline communication: VR agency's frontline staff communicated with state education agency frontline staff to provide pre-employment transition services to students with disabilities. 2.4 VR agency communicates what they do: VR agency communicated about services they provide for students with disabilities to the public and the state education agency. 2.5 VR and education agency listen to each other: state VR and education agency leadership, management, and staff listen to each other.
3.0 Coordination State VR and education agency effort: Coordination by VR state agency and state education agency as observed in WIOA State Plans	3.1 Case-by-case work: VR and state education agency frontline staff work together with students with disabilities and their families on a case-by-case basis. 3.2 Cross agency training: VR and education agency staff are cross trained, so staff from one agency know what staff from the other agency do. 3.3 Clear roles and responsibilities: VR and education agency staff have clearly defined roles and responsibilities for providing pre-employment transition services to students with disabilities. 3.4 Agency level policy commitments: VR and education agency committed to work together on policy and/or procedures, and may have shared overarching priorities, but there is no significant rethinking of goals or approaches by either agency to provide pre-employment transition services to students with disabilities. 3.5 Local level coordination: VR staff liaisons or VR counselors employed at the state level and are assigned to high schools where they work closely with state employees deployed at the local level and local education staff on a routine basis. May also involve cooperative agreement between VR and local education agency or schools. 3.6 State level coordination: VR and education agency have an interagency agreement to work together, but each agency has their own eligibility requirements, rules and regulations, and processes for providing services to students with disabilities.

Level of collaboration	Degree of collaboration (Burt & Spellman, 2007)
3.0 Coordination Multi-state agency effort: Coordination by VR, education, and other state agencies as observed in WIOA State Plans	3.3 Clear roles and responsibilities: VR, education, and other state agency staff have clearly defined roles and responsibilities for providing pre-employment transition services to students with disabilities. 3.5 Local level coordination: VR staff liaisons or VR counselors employed at the state level are assigned to high schools where they work closely with state employees deployed at the local level and local level education staff and community partners on a routine basis. 3.7 Systems level coordination: VR, education, and other state agency (e.g., human services) have an interagency agreement, but each agency has their own eligibility requirements, rules and regulations, and processes for providing services to students with disabilities Staff, management, or leadership from VR, education, and other state agencies coordinate their work to provide employment and related services to students with disabilities. 3.8 Services integration: VR, education, and other state agencies have integrated their processes to provide employment and related services to students with disabilities.
4.0 Collaboration State VR and education agency effort: Collaboration by VR state agency and state education agency as observed in WIOA State Plans, where "collaboration adds the element of joint analysis, planning and accommodation to communication and coordination, toward the end of systems integration" (Burt & Spellman, 2007, p. 2-7)	4.1 Joint planning: VR and education agency did joint analysis and planning to provide pre-employment transition services to students with disabilities. 4.2 VR and education agencies have developed shared goals: VR and education agencies developed shared goals to provide pre-employment transition services to students with disabilities. 4.4 Agency leadership on board: VR and education agency leadership are on board with plans to collaborate to provide pre-employment transition services to students with disabilities. 4.5 Organizational commitment to collaborate: VR and education agency leadership made agency-level commitment to collaborate with each other to provide pre-employment transition services to students with disabilities. 4.6 Cross agency initiatives: VR and education agency have created or plan to create cross agency initiatives to provide pre-employment transition services to students with disabilities.
4.0 Collaboration Multi-state agency effort: Collaboration by VR, education, and other state agencies as observed in WIOA State Plans where "collaboration adds the element of joint analysis, planning and accommodation to communication and coordination, toward the end of systems integration" (Burt & Spellman, 2007, p. 2-7)	4.1 Joint planning: VR, education, and other state agencies did joint analysis and planning to provide pre-employment transition services to students with disabilities. 4.2 Agencies developed shared goals: VR, education, and other state agencies developed shared goals to provide pre-employment transition services to students with disabilities. 4.3 More than just VR and education agencies collaborate: VR and education agencies were joined by other state agencies to collaborate and provide pre-employment transition services to students with disabilities. 4.4 Agency leadership on board: VR, education, and other state agency leadership are on board with plans to collaborate to provide pre-employment transition services to students with disabilities. 4.5 Organizational commitment to collaborate: VR, education, and other state agency leadership made an agency-level commitment to collaborate to provide pre-employment transition services to students with disabilities. 4.6 Cross agency initiatives: VR, education, other state agencies, and community partners have created or plan to create cross agency initiatives to provide pre-employment transition services to students with disabilities.

Level of collaboration	Degree of collaboration (Burt & Spellman, 2007)
5.0 Coordinated Community Response Multi-state agency effort: Coordinated community response by state VR agency, state education agency, other state agencies, city, county, and other community partners as observed in WIOA State Plans	5.1 Coordination involves more than just VR and education agencies: VR and state education agencies are joined by other state agencies in a coordinated response to provide pre-employment, transition, and other services to students with disabilities. 5.2 Response involves systems in a community: Multi-state agency, government, and non-government organization collaboration to provide pre-employment, transition, and other services to students with disabilities that involves systems in a community (e.g., workforce development boards, transportation, faith organizations, disability advocacy organizations, healthcare). 5.3 Response includes a system to improve outcomes: Multi-state agency, government, and non-government organization collaboration that includes a system to improve employment outcomes for students with disabilities. 5.4 Response includes a mechanism for continuous improvement: Multi-state agency, government, and non-government collaboration that includes a mechanism to continuously improve the way the organizations provide pre-employment, transition, and other services for students with disabilities. 5.5 Response involves shared decision making: Collaboration to provide pre-employment, transition, and other services to students with disabilities that involves shared decision making by the state VR agency, state education agency, and other government and non-governmental organizations. 5.6 Response includes paid coordinator: Collaboration by multiple state agencies, including the state VR and education agencies to provide pre-employment, transition, and other services for students with disabilities that includes a paid coordinator to sustain the systems' level collaboration. 5.7 Response involves commitment to continuous improvement at the systems level: Collaboration by multiple state agencies, including the state VR and education agencies, and other state agencies, government organizations, and non-governmental organizations that includes continuous improvement activities to serve pre-employment, transition, and other services to students with disabilities.

Appendix E: Effort-Impact Conceptual Framework

Effort to collaborate organized by level of collaboration from Integration Continuum	Impact at the service delivery level	Impact at the state VR and education agency level	Impact at the multi-state agency level	Impact at the systems level
Isolation VR state agency effort: Communication by VR state agency observed in WIOA State Plans		1.1 No communication 1.2 Hostile communication		
Communication VR state agency effort: Communication by VR state agency observed in WIOA State Plans	2.4 VR communicates what they do	2.1 Agency level communication 2.2 Middle level communication 2.3 Frontline communication 2.4 VR communicates what they do 2.5 State agencies listen to each other		
Coordination State VR and education agency effort: Coordination by VR state agency and state education agency as observed in WIOA State Plans	3.1 Case-by-case work 3.5 Local level coordination	3.1 Case-by-case work 3.2 Cross agency training 3.3 Clear roles and responsibilities 3.4 Agency level policy commitments 3.5 Local level coordination 3.6 State level coordination		
Coordination Multi-state agency effort: Coordination by VR, education, and other state agencies as observed in WIOA State Plans	3.8 Services integration		3.3 Clear roles and responsibilities 3.5 Local level coordination 3.7 Systems level coordination 3.8 Services integration	
Collaboration State VR and education agency effort: Collaboration by VR state agency and state education agency as observed in WIOA State Plans, where “collaboration adds the element of		4.1 Joint planning 4.2 Agencies have shared goals 4.4 Agency leadership on board		

Effort to collaborate organized by level of collaboration from Integration Continuum	Impact at the service delivery level	Impact at the state VR and education agency level	Impact at the multi-state agency level	Impact at the systems level
joint analysis, planning and accommodation to communication and coordination, toward the end of systems integration" (Burt & Spellman, 2007, p. 2-7)		4.5 Commitment to collaborate 4.6 Cross agency initiatives		
Collaboration Multi-state agency effort: Collaboration by VR, education, and other state agencies as observed in WIOA State Plans where "collaboration adds the element of joint analysis, planning and accommodation to communication and coordination, toward the end of systems integration" (Burt & Spellman, 2007, p. 2-7)			4.1 Joint planning 4.2 Agencies have shared goals 4.3 VR, education, & others collaborate 4.4 Agency leadership on board 4.5 Commitment to collaborate 4.6 Cross agency initiatives	
Coordinated Community Response Multi-state agency effort: Coordinated community response by state VR agency, state education agency, other state agencies, city, county, and other community partners as observed in WIOA State Plans			5.1 VR, education, & other agencies 5.2 Systems in the community 5.3 System to improve outcomes 5.4 Mechanism for improvement 5.5 Shared decision making 5.6 Paid coordinator 5.7 Systems level continuous improvement	5.1 VR, education, & other agencies 5.2 Systems in the community 5.3 System to improve outcomes 5.4 Mechanism for improvement 5.5 Shared decision making 5.6 Paid coordinator 5.7 Systems level continuous improvement

Note. Definitions of codes applied to the data to assign a degree of effort to collaborate is provided in Appendix D.

Impact at the service delivery level means that the provision of pre-ETS by a VR program was intended to affect students with disabilities and their families. Impact at the service delivery level may involve other government and non-government

organizations, and members of the community who also provide services to students with disabilities and their families. Impact at the state VR and education agency level means that the delivery of pre-ETS by a VR program would have an affect on staff, management, and leadership at both the VR and state education agencies. Impact at the multi-state agency level means that the provision of pre-ETS by a VR program would have an affect on staff, management, and leadership from VR, state education, and other state agencies. Impact at the systems level means that the provision of pre-ETS by a VR program would have an affect on the VR state agency, state education agency, other state agencies (e.g., state Medicaid agency), and other government and non-governmental organizations at the state or local level. Impact at the systems level also means that the intended impact was to remove systemic barriers to employment for people with disabilities (e.g., transportation).