

# Facilitators and barriers of pre-employment transition services implementation: Preliminary findings and recommendations

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## Abstract.

**BACKGROUND:** Employment rates for people with disabilities have only slightly changed since the passage of WIOA. As possible reauthorization nears, it is necessary to reassess the provision and coordination of pre-employment transition services (Pre-ETS) to increase employment outcomes for students with disabilities.

**OBJECTIVE:** This article identifies facilitators and barriers to Pre-ETS implementation and provides practical recommendations to align with the original intent of WIOA.

**METHOD:** Researchers used independent samples *t*-tests to analyze 56 students' pre and post-test quiz scores following Pre-ETS lessons. Researchers then employed qualitative thematic analysis of research artifacts collected during one phase of a three-year study to gather data on instructors' experiences of facilitating Pre-ETS services.

**RESULTS:** Results reveal higher student quiz scores reported with a small effect demonstrating increased student knowledge in job exploration ( $d=0.312$ ) and workplace readiness ( $d=0.275$ ). In addition, five qualitative themes emerged including silos, performative technology, career alienation, absenteeism, and instructional autonomy.

**CONCLUSION:** Findings show increased student knowledge in job exploration and workplace readiness. The study also identifies 1) family engagement, interagency collaboration, and technology as possible barriers to Pre-ETS implementation while 2) instructor autonomy acted as a potential facilitator. Recommendations suggest personnel preparation and training of educators and VR professionals to support improved collaboration.

Keywords: Pre-employment transition services, WIOA, implementation, barriers, recommendations

## 1. Introduction

The Workforce Innovation and Opportunity Act of 2014 (WIOA) seeks to fulfill the promise of successful employment for students with disabilities by promoting early transition activities to increase post-school outcomes (WIOA, 2014). While research supports vocational education, job training, and work

experiences as key predictors of employment for students with disabilities (Mazzotti et al., 2016, 2021), many still experience lower rates of employment than students without disabilities. In 2021, only 19.1% of individuals with disabilities were employed, compared to an employment rate of 63.7% for individuals without disabilities (Bureau of Labor, 2023). This demonstrates little change from the employment rate of 17.1% for people with disabilities in 2014 before WIOA took effect (Bureau of Labor, 2015). Moreover, many agency and school professionals believe

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students need better preparation and support, noting that lacking employment skills is often considered a barrier to employment (Awsumb et al., 2020; Bromley et al., 2022). In another survey of 164 agency providers, 99.4% rated the lack of employment skills as a barrier to youth employment (Awsumb et al., 2020). School professionals, in partnership with vocational rehabilitation (VR), can facilitate pre-employment transition services (Pre-ETS) earlier to increase student skills, access, and participation in these experiences.

### *1.1. Policy overview of WIOA and Pre-ETS*

With mandates to support student transition to competitive integrated employment, WIOA outlines funding, interagency collaboration, and transition services as means to serve youth and students with disabilities (WIOA, 2014). This federal policy seeks to strengthen and align workforce and educational law to support a collective vision for school-to-work transition through Pre-ETS, a workforce initiative for state VR agencies to expand transition services through early engagement with students prior to leaving school (WIOA, 2014). To achieve this goal, WIOA mandates each state dedicate 15% of its federal funding for Pre-ETS, including the five required activities selected to support career development and transition to employment: 1) job exploration counseling, 2) work-based learning experiences, 3) counseling on postsecondary education and comprehensive transition programs, 4) workplace readiness skills training, and 5) self-advocacy instruction (WINTAC, 2017). Additionally, WIOA requires interagency collaboration between VR and schools through a formal agreement that details stakeholder roles and responsibilities (WIOA, 2014). Interagency collaboration is deemed integral to the expansion of Pre-ETS and is a known component of effective transition planning (Kohler, 1996; Noonan et al., 2008; Oertle et al., 2013).

Thus, VR counselors and educators must understand and adopt evidence-based practices relevant to the required Pre-ETS activities. To implement effective practices and fully collaborate, partnering agencies must comprehend and value the needs and practices of each other. Furthermore, as potential reauthorization approaches, it is imperative to revisit the original intent of WIOA in an effort to understand and better assess the coordinated provision and implementation of Pre-ETS to support students in obtaining the skills and experiences needed for employment.

### *1.2. Purpose*

As we approach the 10th anniversary of the passage of WIOA, the purpose of this paper is to evaluate the implementation of Pre-ETS in Virginia and Kentucky through the lens of a research study focused on Pre-ETS for students 14–16 years of age with significant disabilities. The overarching aim of the study is to employ knowledge translation methods for creating and delivering a toolkit to facilitate job exploration lessons, workplace readiness lessons, and a community-based work experience with students with significant disabilities between 14–16 years old. This toolkit is intended to aid VR counselors and others who provide Pre-ETS to students aged 14 to 16 with significant disabilities. The study defines significant disabilities based on the Rehabilitation Act of 1973 definition as individuals with impairments seriously limiting functional capacities relevant to employment, requiring long-term supports for competitive integrated employment (Rehabilitation Act, 1973).

This paper will share preliminary outcomes and qualitative themes that have emerged from the facilitation of Pre-ETS for younger students with significant disabilities through this study. The hope is that by identifying facilitators and barriers to Pre-ETS implementation, authors will be able to provide insight and recommendations for ways to move the practice of Pre-ETS closer to the original intent and goals of WIOA.

## **2. Methods**

### *2.1. Study design*

The three-phase study involves gathering information from key stakeholders to develop an instructional toolkit. Phase 1 focused on collecting insights from pre-employment counselors, family members/students, and educators in Virginia and Kentucky. It included interviews with 10 pre-employment counselors in each state regarding barriers and facilitators of providing Pre-ETS, as well as interviews with 10 family members and their children (participation of children in family interviews was optional), and 10 special education teachers, about barriers and facilitators of receiving Pre-ETS, as outlined in Lambert et al. (2023).

In Phase 2, the Rehabilitation Research and Training Center (RRTC) on Employment of Transition-

Age Youth with Disabilities staff in both states initiated the provision of Pre-ETS services. This phase involved the referral of five students in coordination with schools and VR in urban, suburban, and rural school systems to participate in 12 hours of Pre-ETS. These services encompassed job exploration (3 one-hour lessons), workplace readiness (6 one-hour lessons), and a community work-based experience (up to 3 hours). Student-completed workbook pages and lesson reports were shared with families, VR counselors, and educators post-instruction.

## 2.2. *Participants and data collection*

A total of 56 students were enrolled in Phase 2 over the second and third years of the study. Pre and post-tests consisting of four or five items were administered before and after each one-hour lesson to assess the increase in knowledge and skills. Responses, framed in a dichotomous format (true/false or yes/no), also included two or three open-ended questions. We employed an independent samples *t*-test and a measure of magnitude to identify differences in knowledge levels before and after each training session. Throughout this phase, we conducted interviews with the family members of students enrolled in the courses. We also solicited feedback from teachers and Pre-ETS counselors. However, our response rate for all groups was very low and data saturation was quickly reached. Very few respondents had substantial feedback, and none of the families appeared to have continued sustained conversations with educators or VR outside of planned Individualized Education Program (IEP) meetings.

## 2.3. *Analysis*

The content of this paper focuses on the preliminary outcomes of Phase 2. This includes pre and post-test outcomes and qualitative data gleaned from a thematic analysis of research artifacts such as post-lesson interviews, emails, instructor notes, and reflective conversations between study staff using an Accidental Ethnography methodology (Fuji, 2015; Levitan et al., 2020). Here, the methodology as described by Fuji (2015) utilizes data collected for this study that was not identified in the original research design, but whose qualitative value and contributions to the findings add a nuanced understanding of Pre-ETS facilitation and instruction. For example, instructor notes that were originally col-

lected to guide Phase 3 toolkit development were repurposed to inform the experience of facilitating Pre-ETS. Using this approach allowed research staff the opportunity to contextualize outcome data within their experience of facilitating and instructing Pre-ETS. For example, analysis of the post-instruction interview responses, despite low response rates, could be examined alongside instructor notes rather than in isolation. All relevant materials were collected and coded by research staff using a thematic analysis approach (Braun & Clarke, 2012). Artifacts were coded until data saturation was reached. The expanded accidental ethnography methodology of Levitan et al. (2020) was used to include research data such as post-instruction interviews and authors' previous practitioner experiences. Often these experiences are not considered reportable data if not incorporated into the research design. However, these experiences can contribute to research knowledge. Researchers integrated previous practitioner experiences through reflexive and recursive conversations and memos. Previous practitioner experiences were used to establish the reliability of codes and themes developed. Furthermore, the themes developed from Phase 2 analysis corroborated themes developed in Phase 1 analysis of stakeholder interviews, demonstrating triangulation of data. Namely, the themes of career awareness and collaboration from Phase 1 (Lambert et al., 2023) were underscored in facilitator experiences and reflections during Phase 2. Because states retain the authority to decide how to implement Pre-ETS (WIOA, 2014), and the authors of this paper had practitioner experiences in Virginia, the thematic analysis of Phase 2 was limited to Virginia and does not include analysis of Kentucky's extant data.

## 3. Results

Table 1 shows the results from the pre and post-tests. The study team used the percentage scores, and scores could range from zero to 100. The data were analyzed using IBM SPSS Statistics for Windows version 28.0 to calculate the *t*-test and Cohen's *d* statistic. The Cohen's *d* statistic is a measure of magnitude (Cohen, 1988). Cohen indicates that 0.2 to 0.4 is a small effect, 0.5 to 0.7 indicates a medium effect, and 0.8 or higher is a large effect, and values can be larger than 1. The results supported our hypothesis that scores on the post-test would be higher than scores on the pre-test. The Cohen's *d* for Job Explo-

Table 1

Job exploration and workplace readiness skills: pre- and post-test paired samples *t*-test results

Variable	n**	M	SD	Two-sided <i>p</i>
Job exploration pre-test	105	68.82	32.39	0.023*
Job exploration post-test	111	78.23	27.92	
Workplace readiness pre-test	230	77.13	30.41	0.004*
Workplace readiness post-test	220	85.14	27.80	

\* $p < 0.05$ ; \*\*The *n* for job exploration is smaller than for workplace readiness because there were only 3 job exploration lessons and 6 workplace readiness lessons.

ration was  $d = 0.312$  and  $d = 0.275$  for Workplace Readiness, indicating a small effect for both sets of lessons.

Five qualitative themes emerged from Phase 2. They were: silos, performative technology, career alienation, absenteeism, and instructional autonomy. The following is a brief description of each theme.

### 3.1. Silos

The theme of silos emerged from instructor notes, family interviews, and reflexive conversations between research staff and authors of this paper. A key concept of the theme of silos was how difficult it was to bridge and connect concepts of careers and work across home, school, community, and VR. In fact, the lack of shared definitions between schools and VR was noted and frequently discussed in reflexive conversations. For example, the definition of significant disabilities in the study was based on the Rehabilitation Act (1973) and familiar to VR. When discussing eligible students for the study, research staff had to redefine 'significantly disabled' to educators as students who were in self-contained classrooms, or on track to earn a certificate of completion versus a standard high school diploma. This lack of a shared understanding underscores the divide between the two systems.

The theme of silos was also found in how Pre-ETS instruction was often not carried over into classroom instruction, IEPs, or the home environment. In fact, because of the low participation of students in extension activities designed to occur at home, one instructor suggested that the extension activities occur at school in the instructor case notes. While completing extension activities in school would be a pragmatic approach to increasing student and educator participation, it would not help connect transition activities to the home environment. For example, one family indicated in their interview that their child had an interest in working at a library because they

enjoyed reading manga (Japanese comics). Through Pre-ETS instruction and feedback from the transition coordinator, the facilitator learned that the student was also a talented artist with a high engagement in their art classes. Bridging the silo between home, school, and work would bring into focus the potential for this student to investigate career opportunities related to art which would align with both interest and skills.

Within this theme, the concept of time as a barrier was also relevant. When asked in post-instructional interviews if key concepts from the Pre-ETS lessons had been shared with educators or families, the lack of time to communicate was frequently cited. In more than one case, it was shared that parents and educators had not communicated because of lack of time. One parent stated that they were waiting for the next IEP meeting to do so, inhibiting the timely impact, reinforcement, and growth upon lessons learned.

### 3.2. Performative technology

Another theme that emerged was performative technology. This theme describes the lack of real access to or use of technology on the part of student participants. For example, while every student had access to technology, usually in the form of a Chromebook, researchers observed a consistent pattern in which students were either unable to use their technology or lacked the skills required to use their provided technology. In some instances, data was coded in both performative technology and silos, emphasizing how technology further isolated students into specific silos rather than being a unifying tool. For example, this was the case when instructors were not able to email students relevant links for Pre-ETS instruction because of school firewalls. Here, the technology actually prevented communication with community providers and agencies. Another example is one in which students were not able to complete home extension assignments because they were not allowed to take their Chromebooks home, thereby limiting their technology access at home.

### 3.3. Career alienation

Career alienation emerged as a significant theme present in all data qualitatively analyzed. This theme represents the lack of awareness and understanding many students had about the concept of work, let alone careers or career development. Here, the

concept of a career was very abstract to students and did not connect with school academics, chores at home, or jobs observed in the community. During instruction, students were able to name jobs, but they were often limited to jobs that they had either observed (e.g., server at a restaurant) or jobs that someone they knew had (i.e., parent or teacher). The concept of careers beyond discrete jobs and pathways to attain those positions was very limited and difficult for students to grasp. Some data from instructor notes and family interviews demonstrated that hands-on experiences such as community-based work experiences provided students with more concrete examples to expand their understanding of employment and career opportunities.

### 3.4. Absenteeism

The theme of absenteeism became apparent when reviewing instructor case notes, especially workplace readiness skills that spanned six lessons. It was commonly noted that students had frequent absences that required a review of previous materials. However, it should be noted that absences were not limited to illness but were frequently the result of conflicting schedules or policies. For example, one student's Pre-ETS lessons conflicted with other therapies provided by the school, and they were frequently pulled from class for those services. Other times, the absences were the result of behavioral challenges that would result in the student losing transportation or other rights that prevented them from attending class. Sometimes, transportation itself was the reason a student could not attend. Though researchers attempted to use technology to allow student participation via video conferencing, the barriers discussed in the theme of performative technology prevented full participation (i.e., lack of access to links, email, or student technology skills). Finally, another observation that fell into the theme of absenteeism was the frequent absence of direct support staff for the students. As described in the instructor case notes, though a student was present in class, their instructional support may not be in attendance. This meant that the instructor was frequently providing both class instruction and individual support for various students. While some of these factors are potentially unavoidable, effective coordination, particularly in the provision of supplementary services and staffing would provide students the opportunity to fully engage with the Pre-ETS lessons and avoid disruption in instruction.

### 3.5. Instructional autonomy

Though the other themes that emerged from the content analysis focused on barriers to Pre-ETS facilitation, the theme of instructional autonomy demonstrated useful techniques used to overcome those barriers. For example, when faced with technological gaps, instructors made either in-the-moment decisions or used pre-planned activities to bridge those gaps and ensure that all students were able to participate. Examples included having a variety of materials in both print and online formats to meet students at their individual level or recording students' responses on paper and submitting them electronically later.

Instructors also weaved in specific interests stated by students to modify instructional examples to make the material more relevant and concrete for students. For example, in one teamwork lesson activity, the instructor decided to eschew the designed icebreaker and designed one based on drawing parts of a car as a group. This decision was made because all students had voiced an interest in automobiles, and though the activity was different from the original one in the lesson plan, it still fulfilled the same objectives while engaging the students through interest-based activities.

The ability to individualize instruction allowed instructors to make the concept of work more concrete for students, and bridge silos by connecting interests and academics to each other and to work. Furthermore, instructional autonomy was not limited to the Pre-ETS facilitators. In educator interviews, educators shared ways in which they were using more employment-related vocabulary in their day-to-day instruction to intentionally bridge this gap. In some family interviews, families also shared how they were starting to connect interests and chores to potential employment opportunities.

## 4. Discussion

The statistical analysis of pre and post-test scores demonstrates student learning from before the lessons to after the lessons. While the analysis revealed a statistically significant gain in knowledge from the pre to the post-test, the Cohen's *d* indicated a small effect. This small effect triangulates the qualitative findings related to absenteeism. This was particularly apparent in the Workplace Readiness lessons, due to the number of lessons spanning across several weeks.

Because some of the lessons built upon the others, absences could have an effect on a student's ability to learn.

Though our results focused on job exploration and workplace readiness outcomes, it should be noted that there is an emphasis and interest in work-based learning in Pre-ETS. An analysis of state Pre-ETS policies reveals that 37 state policies specifically address work-based learning experiences in their plans while 22 states include specific language requiring student work experiences within integrated settings to the maximum extent possible (Carlson et al., 2020). Additionally, a survey of over 229 State VR professionals and 92 Community-based rehabilitation agencies indicates work-based learning as the greatest training need under Pre-ETS (Zhang et al., 2023). However, there is ample evidence of the positive connection between work experiences and post-school outcomes (Leucking, 2009; Mazzotti et al., 2016, 2021; Test et al., 2009; Wehman et al., 2018). The field would benefit most not from research on the efficacy of work-based learning, but rather best practices for implementation.

While the quantitative outcomes indicate that participation in Pre-ETS can have a benefit for younger students with significant disabilities, the qualitative data reveals areas in which current policies and practices limit the full potential of Pre-ETS. Engaging in collaborative Pre-ETS while focusing on bridging silos, ensuring technology access, and expanding and prioritizing career exploration could bring Pre-ETS implementation closer to the original intent of WIOA.

#### *4.1. Family engagement and interagency collaboration*

For example, bridging the silos between home, school, and community is necessary to increasing family engagement, a vital component of collaboration. Research demonstrates that students with disabilities who have high parental expectations and whose parents attend IEP meetings tend to have better post-school employment and education participation (Hirano et al., 2016; Test et al., 2009). Pre-ETS and transition services usually start in the school but when there is no family engagement, educators and VR counselors could be missing out on important insights. Bringing all stakeholders together allows for opportunities to create a more person-centered transition approach that considers abilities and skills in multiple areas. Furthermore, educators and VR staff

need to consider what methods are being used to engage families, and if they are an effective means of communication. In one post-instruction interview, a parent commented that text was the preferred form of communication. Family dynamics should also be considered regarding communication. Families with working parents may have limited ability to communicate during traditional working hours. Agencies and schools should consider forms of communication that do not alienate such families. The temporal divide revealed in the analysis also shows a shortcoming in waiting for IEP meetings to bring stakeholders together. Significant time and potential collaboration are lost when there are not regular lines of communication. Special attention should be paid to how families can be engaged frequently and consistently before, during, and after Pre-ETS.

Reflexive conversations detailed the difficulty authors struggled with as practitioners when attempting to find time to meet with students. Often, barriers were the result of differing regulations, expectations, and professional development. Their experiences demonstrated that the quality of Pre-ETS varied dramatically depending on the strength of the collaborative team, and whether individuals were able to break out of silos bounded by differing definitions and protocols. Underscoring this theme were the experiences of the authors who also acted as Pre-ETS facilitators and instructors as part of the study. As detailed in Lau & McKelvey (2023), research staff discuss the importance of their role as facilitators to initiate Pre-ETS. Despite educators' and VR eagerness, access to students, space, time, and resources were often limiting factors that had to be overcome. Related to differing priorities within each silo, absenteeism was another theme that resonated with previous practitioners' experiences. Authors recounted times when they and educators would go to retrieve a student as planned only to find out that the student was absent or unable to participate.

An interagency collaborative approach that prioritizes career planning with clearly assigned roles and responsibilities could go a long way toward the successful implementation of Pre-ETS. This approach would include all parties sharing a definition of potentially eligible students, prioritizing individualized career planning, and recognizing the importance of early and consistent exposure to career opportunities along with high expectations. An increased emphasis on working collaboratively could also overcome and address differences in professional training. Educators receive unique and tailored training that prepares

them for the classroom whereas VR professionals receive varying levels and types of training, depending on agency hiring standards, areas of specialty, and onboarding practices. Despite both professionals receiving continual and intensive training, it is important to note that there is little overlap in their training. This means that a successful collaborative interagency team must first establish common ground and understanding. From different definitions of the same terms, the lack of explanation of internal policies, and a general lack of understanding of each other's processes and role, school personnel and VR professionals are at a disadvantage from the very beginning of their partnership.

This lack of understanding is the cornerstone of the separate silos that plague Pre-ETS provision. When different professionals have different focuses, goals, and processes, it is easy to see how communication would be impacted. Learning the school's procedures, transition process, and identifying the right people to get things done was the most impactful use of one author's time as a practitioner. Once these tasks were accomplished, as practitioners, they were able to sift through their knowledge of VR services and practices to streamline effective services for individual students. This relationship also encouraged relationship development and rapport building with the educational team, student, and their families. When done properly, students were less likely to assume they were in trouble when pulled for activities. However, it should be noted that authors shared that in addition to student time constraints related to their schedules, the burden of planning with each teacher and following up with every case manager became a full-time job in and of itself. These constraints should be carefully considered when planning and implementing a collaborative approach towards Pre-ETS to ensure that responsibilities are equitably distributed and appropriately assigned.

#### *4.2. Instructional autonomy and technology*

One of the identified themes was instructional autonomy, which describes the importance of allowing teachers to prepare and modify lessons to not only meet the needs of their students, but also to make the material more relevant and concrete. Often, the modifications were done to make the concept of work less abstract and connect employment terms to conduct expected in school. As described in Lau & McKelvey (2023), making connections to specific

student interests was vital to successful instruction. However, instructional autonomy also underscores the authors' previous point that professional training differs between educators and VR counselors. When faced with the need to adapt curriculum, VR professionals may find the task challenging or daunting. In a collaborative approach, clearly identifying roles and responsibilities could address who is responsible for instructional modification. In addition, bringing all stakeholders together would lead to better planning of instruction.

Included in this planning approach, issues related to technology access and skills could also be addressed. Though the level of technology skill attainment may vary between students, it is vital that all students be exposed to technology when preparing for employment, especially in a post-COVID world (Lambert et al., 2022). Considering ways to increase technology exposure and practice is especially important when students with disabilities are not expected to meet the same technology standards as their nondisabled peers, as is the case in Virginia for students earning an applied studies diploma (Virginia Department of Education, n.d.).

#### *4.3. Recommendations and considerations for practice*

Authors with practitioner experience describe early implementation of Pre-ETS as an experiment in patience, creativity, and perseverance. They noted that as state VR counselors, they witnessed how WIOA brought about changes for counselors in their performance measures. Specifically, WIOA increased assessment of the long-term impact of services and held counselors to a higher standard by focusing on achieved educational outcomes, long-term success in a career placement, and career advancement. These quality measures were used to gauge performance rather than the number of quick and often temporary placements (Anderson et al., 2021). While this is a major change and turning point in VR services, it did not specifically address Pre-ETS delivery in Virginia. Therefore, going forward, states should consider adding, if not already included, quality measures to Pre-ETS to ensure effective communication, coordination, and collaboration between schools and VR. The importance of interagency collaboration has been stressed throughout this paper, along with the many limiting factors observed and experienced by its authors. Effective implementation will require statewide coordination through many

agencies to prevent competing interests and priorities, and to bridge the silos discussed in this paper.

#### 4.4. *Limitations and future directions*

A limitation of the findings presented in this paper is that the data qualitatively analyzed were limited to Virginia. Appropriate next steps would be to conduct a similar analysis of extant data in Kentucky using a similar accidental ethnographer methodology that includes the perspectives of past or current VR counselors in Kentucky. Additionally, the emphasis of this paper focused on Pre-ETS implementation. The outcome data demonstrated the positive impact Pre-ETS can have on early job exploration and workplace readiness skills, but the data do not address the potential impacts of community work experience beyond preliminary qualitative analysis. Though additional research is needed to continue to address how Pre-ETS can be implemented to effectively prepare students with disabilities for post-school outcomes, attention should also be paid to best practices for the implementation of all of the five required Pre-ETS. Continual research and focus on improving implementation should address how states can successfully incorporate not only job exploration and workplace readiness, but also work-based learning, counseling on post-secondary education, and instruction in self-advocacy to move Pre-ETS from a policy ideal to an actual reality for transition-age students.

## 5. Conclusion

The objective of this article was to provide an analysis of Pre-ETS implementation within the framework of a research study focused on Pre-ETS for younger students with significant disabilities. What the preliminary outcomes demonstrate is that Pre-ETS can have a positive impact on career awareness and workplace readiness skills for younger students, but that there are significant barriers to effective implementation. In order to overcome these barriers, future policies require an emphasis on how to constructively encourage state agencies to work together, and how families can be better and consistently incorporated into transition planning. Although few studies have examined the impact of Pre-ETS, several speak to the need for personnel preparation and training for educators and VR professionals to support successful delivery and implementation (Bishop et al., 2022; Taylor et al., 2019). The qualita-

tive analysis of Phase 2 data supports these findings and underscores the importance of better preparation as necessary for improved collaboration.

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## Conflict of interest

The authors report no conflict of interest.

## Ethics statement

The study protocol was approved by the Institutional Review Boards of Virginia Commonwealth University (approval number IRB HM20018178, date 5/29/2020) by expedited review according to 45 CFR 46.110 by VCU IRB Panel A.

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## Informed consent

Informed consent was obtained from all individual participants involved in this study.

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