

Progressive Education: Early Intervention Strategy to Improve Postsecondary Outcomes for Youth with Disabilities

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Abstract

Youth and adults with disabilities, particularly youth receiving Supplemental Security Income (SSI), are far less likely than their peers without disabilities to participate in or complete postsecondary education and training. As a result, they face a major disadvantage in entering higher-wage, higher-quality employment over their life span. Progressive education is a comprehensive model for public vocational rehabilitation programs that is designed to increase participation in postsecondary education and training among youth with disabilities. Progressive education builds on the premise that maximizing the experience of postsecondary opportunities for students with disabilities during high school leads to higher participation rates in postsecondary education and training programs. These supports might be particularly useful for youth receiving SSI, given their additional needs and barriers to transition.

The progressive education model offers a graduated series of activities for students with disabilities to experience postsecondary opportunities well before they exit high school. These activities include campus tours and informational interviews, career assessments, auditing classes, work-based learning experiences linked to credentials, dual high school and college enrollment, contracted college classes that focus on college and career preparation, pre-apprenticeship programming, and enrollment in career and technical education courses. Progressive education also provides a menu of supports to promote youth's success in postsecondary programming, such as coaching or tutoring, collaborations with school staff and agency partners, and access to assistive technology. For youth receiving SSI, these supports also include benefits planning to leverage work incentives that support postsecondary education.

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I. Introduction

People with disabilities work less, earn less, and have lower educational attainment than people without disabilities. The labor force participation rate for 16- to 19-year-olds with disabilities was 25 percent in July 2020 (compared with 37 percent for those without a disability) and 44 percent for 20- to 24-year-olds with disabilities (compared with 71 percent for those without a disability; Office of Disability Employment Policy n.d.). Youth with disabilities are more than twice as likely as those without disabilities to drop out of high school (Loprest and Wittenburg 2007). For child Supplemental Security Income (SSI) beneficiaries, one-third drop out of school before they reach the age of 18 (Hemmeter, Kauff, and Wittenburg 2009). Dropping out not only impedes youth's ability to continue their education and training but also excludes them from opportunities to explore careers and determine what might be a good match for both their skills and their interests.

It is rare for students with disabilities to participate in or complete postsecondary education and training (PSET). Nationally, 1 in 10 students with disabilities reported that it was likely that they would attend PSET (Wagner et al. 2007). In Vermont, there is a clear discrepancy in dual-enrollment participation between students who have individualized education programs (IEPs) and those who do not. According to the Vermont Agency of Education (VT AOE), only 3 percent of students accessing dual enrollment (taking a college course while in high school) had an IEP (Bouchey 2017). Although low socioeconomic status may impact this data, it does not account for all of this discrepancy.

We believe the different rates of PSET participation are a function not simply of the youth's disability but also of systemic barriers to accessing PSET. For example, high school students with disabilities are far less likely than their nondisabled peers to participate in PSET preparation activities as part of vocational rehabilitation (VR) in Vermont. These VR activities may include visiting college campuses, attending college fairs, or participating in introductory college courses to learn more about academic PSET expectations. Also, reports from VR youth practitioners indicate that students may underestimate their ability to prepare for and pursue PSET. Some students and families have internalized the belief that because of the students' disability, PSET is not an option. As a result, students face barriers to postsecondary opportunities beyond the functional barriers related to their disability.

The goal of progressive education (PEd) is to overcome these systemic barriers by providing graduated opportunities to explore PSET. PEd is designed to be an intentional, planned approach to providing youth with hands-on exposure to PSET, different from traditional VR pre-employment transition services. The intentional aspect of this approach involves students getting a greater amount of both opportunity and support to engage in these activities to ensure that they truly consider their PSET options. Reports from counselors indicate that students need support not only around accessing information about opportunities, but assistance in engaging in these activities to ensure to a positive, beneficial learning experience. Our working hypothesis is that incremental exposure to PSET early in students' high school careers increases the likelihood that those students will build the skills, experiences, and confidence to succeed. Although earlier exposure in middle school (or even before) would be beneficial, the target population for PEd is youth and young adults

with disabilities starting at age 14, continuing into their postgraduation plans. This age aligns with the provision of pre-employment transition services provided by VR.¹







PEd employs the following basic principles:




- Every student is ready for some type of experience related to postsecondary exploration.
- Students would benefit from a series of graduated options based on their interest, experience, and grade level.
- PEd helps to satisfy the requirement to provide exposure to postsecondary opportunities through pre-employment transition services.

PEd provides postsecondary exploration and engagement activities early and often, with targeted support and outreach to ensure that individuals with disabilities access these opportunities. Figure 1 shows the varied activities that would be provided in this model, including definitions for each activity and in which grade levels it would be offered.

¹ Pre-employment transition services include career exploration, postsecondary counseling and exploration, self-advocacy and workplace readiness training, and work-based learning experiences.

Figure 1. Career and college readiness progression

| CAREER & COLLEGE READINESS PROGRESSION: Progressive Education – Grade Levels | | | | | | | |
|--|---|---|---|----|----|----|------------------|
| | 7 | 8 | 9 | 10 | 11 | 12 | Post High School |
| Progressive Education Activities |  Career Guest Speaker Presentations by employers for students to learn first-hand about the skills required in various occupations or career areas, the career paths taken by those in the field, the tools, materials and equipment used, and the work environment and expectations for performance in various occupations. | | | | | | |
| |  Career Fair: Career awareness experiences for larger groups of students that may be organized by schools and/or employers to introduce students to opportunities within their businesses or career fields. Career fairs bring together representatives from a variety of careers to share information about their company, their job, and what education, skills, and knowledge are required for success in their fields. | | | | | | |
| |  Career Assessment: Tools that are designed to help individuals understand how a variety of personal attributes (<i>i.e., values, preferences, motivations, aptitudes, and skills</i>) impact their potential success and satisfaction with different career options and work environments. | | | | | | |
| |  Informational interview: A telephone or in-person interview to learn about the real-life experience of someone working in a field or company of interest. It may include exploration of job opportunities in a given career area or occupation, the skills and education required for entry and success, the long-term growth potential, and, often, the career path leading to his/her current position. | | | | | | |
| |  College Campus Tour: An individual or group visit to a college campus designed to gain a sense of college life including activities, costs, housing, financial aid, academics, and other aspects of enrolling in the college. | | | | | | |
| |  Course Audit or Workshop: Attendance in or completion of a <i>course or workshop</i> for which no assessment of the performance of the student is made nor grade awarded. Auditing is generally an option at institutions of higher learning such as <i>colleges</i> and <i>universities</i> . | | | | | | |
| |  Dual Enrollment in College Courses: Allows high school students to take college classes, which count for both high school and college credit, while they are still enrolled in high school. High school students who complete dual-enrollment classes generally take fewer classes in college and save money on total college costs. These may include contracted courses which are arranged and offered by a college to meet the needs of a specific group of students. | | | | | | |

| CAREER & COLLEGE READINESS PROGRESSION: Progressive Education – Grade Levels | | | | | | | |
|--|---|---|---|----|---|----|---|
| | 7 | 8 | 9 | 10 | 11 | 12 | Post High School |
| Progressive Education Activities | | | | |  CTE Program Enrollment: Refers to courses and programs that prepare students for careers in current or emerging professions. At the high school level, CTE provides students with opportunities to explore a career theme of interest while learning a set of technical and employability skills that integrate into or complement their academic studies. | | |
| | | | | | | |  Related Instruction for Apprenticeship: Employer-driven model that combines on-the-job learning with related classroom instruction that increases an apprentice’s skill level and wages related to entering a specific occupation. The instruction is often developed and provided by a technical education school or college. |
| | | | | | | |  Post-Secondary Program Enrollment Refers to an individual taking the formal steps to become a student in a program at a college, university, or other post-high school institution. Vermont vr has already begun to implement the ped model, and this paper will present more information about the model and Vermont vr’s experiences with its implementation. |

CTE = career and technical education; VR = vocational rehabilitation.

II. Background

A. Need for systemic change in how youth with disabilities are introduced to postsecondary and career opportunities

Youth with disabilities do not engage in or complete PSET at rates anywhere near their peers without disabilities. As mentioned above, the VT AOE reported that only 83 individuals with IEPs across the state accessed dual-enrollment courses in 2017, a very small percentage of the 2,660 total students who participated in the courses that year (Newton, Pendlebury, and Tulikangas 2018). The VT AOE also indicated that 77 percent of students who participated in dual enrollment went on to enroll in postsecondary programs (Bouchey 2017, fall 2014 data). These data suggest that if more students with disabilities engaged in dual enrollment, students with disabilities might have higher enrollment in postsecondary programs. There are no specific data related to students with disabilities enrolling in college after participating in dual enrollment. However, there are correlations with other populations, such as disadvantaged students, that suggest the positive benefits of additional education supports. For example, the U.S. Department of Education's TRIO programs encourage postsecondary enrollment and completion for disadvantaged students, such as those from low-income households and first-generation college students. Its Upward Bound programs offer a variety of education supports, such as tutoring, academic instruction, and financial literacy, and exposure to postsecondary education options to high school students, and more than 80 percent of participants enroll in postsecondary education and more than half of them obtain a degree (Student Service 2016). The National Center for Education Statistics (2018) indicated that only 15 percent of individuals with disabilities participated in some type of PSET up to eight years after graduating from high school. Of those individuals, only 48 percent had graduated from any type of postsecondary program in 2010. Only 16 percent of individuals with disabilities ages 25 or older had obtained bachelor's degrees, which is less than half of the rate among those without disabilities (35 percent; U.S. Bureau of Labor Statistics 2015).

A review of the literature suggests that much of the focus of preparation for postsecondary programs is on teaching both self-advocacy and student rights under the Americans with Disabilities Act in relation to college accommodations (Eckes and Ochoa 2005; Gil 2007). There is no question that these are vital components of being ready for the college experience. However, students cannot self-advocate if they do not even know they want to consider postsecondary options. Exposure to real experiences so that students may make an informed choice is the critical first step. As Cavendish and others (2019) described, "research that highlights students' voices related to the transition process has been limited" (p. 2). Many college activities, such as trips to potential universities, were out of reach to students with disabilities because they were not financially feasible or were for seniors only, even though exposing students to college activities as early as middle school can be important. One program, College Student for a Day, involves activity-based learning and mentoring opportunities for low-income freshmen with disabilities (Novakovic and Ross 2015). This program represents many positive opportunities for youth, but it selects students based on their expressed interest in going to college. An important barrier is that students might not consider the possibility of postsecondary education if it is not discussed with them or offered as an option to explore.

Students with disabilities cannot ask for and engage in activities when they do not even know that they are a possibility.

A significant percentage of youth with disabilities leave high school without being employed or connected to PSET. The VT AOE compiles data for Indicator 14, which includes information on the percentage of youth who are no longer in secondary school, had IEPs at the time they left school, and were enrolled in higher education, competitively employed, or in a training program within one year of leaving high school. Individuals who were either enrolled in higher education or competitively employed within one year of leaving high school represented 70 percent of the population (VT AOE 2017). Thus, 30 percent of individuals who had graduated were not working or going to school. A substantial number of such individuals are not able to work toward a greater level of self-sufficiency, which could lead to dependence on public benefits such as SSI.

Studies show that early work and career exploration positively affects post-school outcomes. Luecking and Luecking (2015) report that students who have a competitive integrated employment experience and are connected to postsecondary support services before graduation have more successful transition outcomes. Mamun and others (2018) found that having an early work experience increased the chance that youth were employed two years later by 17 percentage points (which could result in reduced SSI benefits throughout their lives). Integration of work experiences within a successful program is imperative so that not only are students learning about the requirements, rigor, and skills needed to succeed in PSET, but these skills also align with being valued and effective workers in careers of their choice. How school staff and VR counselors perceive a student's potential is a significant factor in what they share with students and families about opportunities for exploration and pursuit of postsecondary options. However, an assessment of a student's potential is subjective. Considerations include the student's social experience in high school, how much the student has been challenged and supported academically, and that a disability diagnosis does not mean the same thing for every student with that diagnosis. When a professional decides that a student is not college material, it does a disservice to the student, limiting the student's growth and evolution. The belief that all students are ready for something, both work and career related, empowers youth to imagine career possibilities.

Despite several ways in which students with disabilities may hear about postsecondary options, this information may not reach them. Information sources include guidance/school counselors, special educators, family members, community providers, and VR counselors. However, many students are not directly involved in early or frequent postsecondary exploration and planning. The current dual-enrollment guidance provided by the VT AOE for students with IEPs does not include any recommendations or alternative opportunities for students and IEP teams to prepare for dual-enrollment courses (VT AOE 2019). Furthermore, if a student is struggling emotionally, academically, or socially at the time of his or her annual IEP meeting, then the topic of dual enrollment may be pushed aside. It could be another year before the discussion occurs again, and the student will have lost a year of opportunities to explore career and PSET possibilities. The rationale that the student is struggling with high school and therefore cannot handle any additional responsibilities is a limiting one. As a result of this belief, students do not hear about available options and so cannot make an informed choice. Rather, adults determine for them what is best and

what they can manage. This rationale is faulty and results in many students not even being aware of programs such as introductory college classes, Early College, career days at colleges, or dual enrollment.

Although agencies, schools, and community partners work hard to provide services collaboratively in the best interest of students and their families, interagency collaboration is still a challenge. Several mechanisms in Vermont, including the Core Transition Teams, exist to foster this collaboration. However, professionals have competing priorities and time commitments, which limits their opportunity to communicate with others about students. As a result, students may not receive all of the information from the professionals with whom they interact about available postsecondary programs that might meet their unique needs or services that help prepare students to be successful in these programs.

Students with a disability who are not offered the supports needed to be successful in their lives after high school have an increased probability of unemployment or underemployment. Loprest and Wittenburg (2007) note that one-third of those who were no longer on SSI after redetermination were below the poverty level: “It is possible that, in the long run, deterioration of health and inability to sustain family support will lead some of these young people to again obtain SSI” (p. 606). Youth with disabilities are more likely to report that they are not sure whether they will have a job that will allow them to be financially independent (Wagner et al. 2007). Families can also be at a disadvantage, as the adult services world can be a challenge to navigate even for those who are well informed.

Additionally, students with disabilities who do not receive the supports needed to be successful in PSET are likely to either drop out or not return because of poor performance. This is based on counselors’ reports of working with youth whose families often refer them to VR one to three years after graduation because they are not working or going to school. The PEd model provides opportunities for students to learn about what is necessary to be successful in PSET and how to access the supports that are available on college campuses. The model allows students to learn early about PSET and make informed choices about what is most appropriate for their career interests and learning styles.

Another argument for increasing PSET for youth and young adults relates to the Workforce Innovation and Opportunity Act (WIOA). The passage of the WIOA in 2014 required VR programs to implement substantial programmatic changes. The WIOA has driven VR program restructuring in two significant ways. First, the new pre-employment transition services mandate required VR programs to reserve at least 15 percent of the Title I VR award to serve exclusively high school students with a disability. (VR agencies received no new funds to implement these services, so in most cases, they had to shift resources from the adult program to serve high school students.) As a result, VR programs serve substantially more students and youth than they did before the WIOA. For the program years 2010 through 2014 (immediately before the passage of the WIOA), the VR national caseload of participants was 35 percent students and youth up to age 24. In program year 2018, this percentage increased to 51 percent (Rehabilitation Services Administration 2020).

The second major change that the WIOA brought to the VR program is a focus on credential attainment and measurable gains in skills, especially in postsecondary programs. Before the WIOA, VR performance was measured simply in terms of employment outcomes for participants (the number employed, their hourly and weekly earnings, etc.). Most of the measures were point-in-time measures at case close. The WIOA's common performance measures placed a much greater emphasis on long-term career outcomes. These outcomes include measurable skills gains and credential attainment in PSET programs. To meet these new measures, VR programs have had to rethink their service design. It is no longer acceptable to simply place consumers into jobs and support them in achieving entry-level employment. VR programs must assist individuals' move to higher-level employment that often requires credentials. Therefore, agencies have had to restructure and redesign services so that more participants enter into and succeed in credentialed programs.

Vermont VR worked hard to determine the best way to provide the services mandated by the WIOA. VR transition counselors working in schools to provide transition services had often discussed postsecondary planning and worked collaboratively with schools and community partners to assist students in exploring options. However, counselors found that they would either be introduced to students too late to make a real impact on their planning or would encounter students who had already chosen a path but may not have considered all the options they had the potential to achieve. Furthermore, students would report to counselors that they "were not college material" or had been told somewhere along their academic career that PSET was not an option for them.

Not only are just over 50 percent of those served by VR agencies annually under the age of 25 (Rehabilitation Services Administration 2020), one of the required services for pre-employment transition services is to provide postsecondary exploration opportunities (Workforce Innovation Technical Assistance Center n.d.). According to data from the Rehabilitation Services Administration (2020), counseling on enrollment opportunities for higher education was the least common of the five required pre-employment transition services in 2018, representing only 16.1 percent of services provided. Therefore, VR agencies nationwide could benefit from strategies and models to increase PSET participation for youth. We propose that PEd is a model to help address this need.

B. The origins and evolution of the progressive education model

In October 2016, Vermont VR was awarded one of five state Disability Innovation Fund five-year grants by the Rehabilitative Services Administration at the U.S. Department of Education. The primary purpose of these awards was to expand work-based learning (WBL) opportunities for high-school-aged youth with disabilities and assess the impact of designed interventions over the course of the grant period. Vermont VR proposed to go further with its project, titled Linking Learning to Careers (LLC), by incorporating significant elements of postsecondary exploration and engagement of students enrolled in the project.

LLC, now in its fourth year, enrolled 800 high school students with disabilities. Half of these students were randomly assigned to a treatment group and received additional WBL, postsecondary exploration, and assistive technology supports. The remainder were assigned to a control group and

received standard VR and other services available in the community, including pre-employment transition services. The randomization took place at student enrollment into the program and was managed by Vermont VR's evaluation partner, Mathematica, through their selection assignment platform.

LLC students who are interested in PSET can attend informational sessions and college tours, receive educational counseling to learn about college courses, and participate in a module on accessibility under the Americans with Disabilities Act. LLC also piloted a mentoring program with a small group of LLC students. The mentors were Community College of Vermont (CCV) work-study students who shared their personal experiences transitioning to PSET, discussed career goals, and helped LLC students navigate their WBL and college exploration experiences. According to LLC staff, these services can demystify the college process for students and make PSET seem more accessible and attainable. (Students receiving usual VR services can access CCV information sessions and resources on their own but do not participate in the mentoring program.) Also, as part of its enhanced services, LLC offers students the opportunity to participate in four dual-enrollment courses, exclusive contracted college courses at CCV, and a pre-course module on self-advocacy skills. These services may be particularly valuable to LLC students who had not considered college as an option before their involvement in the project.

Box 1. Example of LLC's impact

A student in the LLC program indicated that she was not the student she could be in high school (barely getting by and trying to be anonymous) and therefore was never introduced to postsecondary options. It was not until LLC offered her possibilities and the supports to succeed that she engaged in PEd opportunities, including completing four dual-enrollment courses, earning a Licensed Nursing Assistant certificate, and pursuing a career in the health care field. With exposure to these opportunities, she made a different choice than she otherwise would have, a story that is similar to those of other LLC students that counselors have shared.

The PEd model originates from much of what is being learned from Vermont's LLC demonstration project. Though the long-term impacts of this increased access to PSET experiences (such as taking an Introduction to College and Careers [ICC] course or other dual-enrollment or contracted courses) are yet to be measured, VR youth staff report significantly higher levels of interest and engagement in pursuing PSET directly linked to career pathways among those in the treatment group having these experiences. Through July 2020, there was a fivefold increase in engagement in such postsecondary activities (20 percent of students in the LLC intervention group versus 4 percent of those in the control group). As another point of comparison, 64 percent of students in the LLC intervention group received counseling on postsecondary options, compared with 38 percent in the control group. Although LLC youth were encouraged to consider PSET exploration and engagement activities, their actual participation in these activities was completely voluntary.

At this time, overall student outcomes from participating in LLC are being assessed through an impact study conducted by Mathematica. It will include analyses of follow-up surveys with students and their parents or guardians at 24 months after enrollment and of administrative data on actual

participation in services and outcomes collected throughout the program’s implementation. The impact report will likely be completed by summer 2021.

Through experience with LLC, we have seen how even relatively low-intervention exploratory activities can open youth up to new possibilities. For example, a tour of a community college campus may encourage a student to consider a dual-enrollment class while in high school. A tour of a modern manufacturing facility may prompt a student to think about a pre-apprenticeship or registered apprenticeship program. The LLC experience suggests that hands-on experiences have a profound impact on some students’ perceptions of themselves and their potential.

III. Description and Application of the Progressive Education Model

A. Program overview

The PEd intervention would provide a greater level of support than students typically receive in both exploring and experiencing postsecondary activities as part of their VR experience. PEd activities are more substantial in number and intensity and involve more team-based coordination relative to the usual VR services available to students. Table 1 describes how services related to postsecondary exploration are currently being provided at Vermont VR compared with how PEd would enhance and increase the services available.

Table 1. PEd compared with current Vermont VR services

| Current Vermont VR services | Vermont VR services with PEd implementation |
|---|--|
| Exploration of postsecondary options is driven by the student’s interest and family support but may be a potential service as part of pre-employment transition services. | Every student is considered for exploratory postsecondary activities. The VR counselor makes assertive efforts to engage the youth and family in exploring postsecondary options. |
| The VR counselor provides standard counseling and guidance for students related to PSET. Participation in exploratory activities are largely driven by the student. | The VR counselor role is redesigned to provide ready access to a variety of program tools for the student to explore postsecondary options, including the following: <ol style="list-style-type: none"> 1. Campus tours and informational interviews 2. Opportunities to audit college classes. 3. Contracted courses with CCV focused on career preparation and WBL experiences 4. College Compass supports for students in dual-enrollment courses at several Vermont state colleges 5. WBL experiences linked to potential credentials 6. Pre-apprenticeship experiences for students 7. Enrollment in CTE programs |
| The VR counselor has no specific role in dual enrollment. This role is left to school guidance staff. | The VR counselor assertively promotes dual enrollment in postsecondary classes while the student is still in high school. |
| The VR counselor has limited options to support students and youth in postsecondary programs. | The VR counselor has a menu of supports to promote youth’s success, including coaching and tutoring, peer mentor supports, and access to assistive technology. |

| Current Vermont VR services | Vermont VR services with PEEd implementation |
|--|--|
| Referral to benefits counseling is ad hoc and not necessarily linked to postsecondary options. | The VR counselor links all students receiving SSI with a benefits counselor, who provides intentional benefits planning information on work incentives that support PSET, such as the Plan to Achieve Self-Support or the Student Earned Income Exclusion. |

CCV = Community College of Vermont; CTE = career and technical education; PSET = postsecondary education and training; SSI = Supplemental Security Income; VR = vocational rehabilitation; PEEd = progressive education, WBL = work-based learning.

A core premise of PEEd is that VR supports all enrolled youth in considering their options for postsecondary training and education, including those with the most significant disabilities and those participating in supported employment programs. This expectation essentially reorients the counseling process to default to exploration of PSET options. It is our hypothesis that this inclusive approach will eventually increase the proportion of youth who both participate in and complete PSET programs.

B. Services available to youth

A youth participating in PEEd would expect to hear about PSET opportunities during the VR referral process, when VR transition counselors begin to discuss services. Referrals may come from the school, family, or a community provider. (About 30 percent of youth on the VR caseload receive SSI.) As with any new referral, VR transition counselors spend much of the first few meetings establishing a relationship with the student and reviewing services that could aid in the student’s current and future career success. An important aspect of this model is also offering a menu of options from which students can choose based on their interest and knowledge about postsecondary opportunities. These initial meetings in which the counselor learns about the student are pivotal to reinforce multiple options, not just one, to determine the right path. The student chooses when and where to engage these PEEd options.

Services available in the PEEd model would be on a continuum (as described in Figure 1). Students could enter at any point for which they are prepared and do not necessarily participate in the entire progression. The intention is that the students’ interests and needs would be the determining factor for which activities to consider. These activities—which could include campus tours, informational interviews with college staff, audited classes, or introductory, noncredit college courses or credited dual-enrollment classes—would be offered potentially as early as age 14 to ensure ample opportunity for students to access all of the activities they are interested in. Additional courses could be available for students through a contract with CCV or other state colleges.

PSET comprises a range of options. More traditional options include taking college courses, matriculating into a two- or four-year college program, enrolling in technical education or training programs, and participating in pre-apprenticeships, apprenticeships, or other “earn while you learn” options that align with the student’s area of interest. Therefore, some of the available contracted courses include an integrated work experience or internship. WBL activities matched with postsecondary coursework provide both academic exposure and hands-on experience to help students make informed choices about the best next steps after graduation.

For many VR students, securing financial aid resources to support PSET is essential. Connecting students and families with the information, counseling, and financial assistance needed to work toward career and postsecondary goals is an important element of an effective PEd system.

Another integral part of the PEd model is ensuring that students and families eligible to receive benefits have access to benefits counseling. The Vermont VR program has benefits counselors on staff to provide both a helpline and individualized services for students and families. VR transition counselors report that students under the age of 18 who receive SSI or other public benefits may not know that they have those benefits; instead, a family member or guardian who receives the SSI checks may be the only one with knowledge of the benefits and associated processes. Providing benefits planning for youth receiving SSI is important so that they take advantage of work incentives that support PSET, such as Plan to Achieve Self-Support or the Student Earned Income Exclusion. This information needs to be provided both before and after redetermination for those receiving SSI so that they understand the implications of the continuation, reduction, or elimination of benefits. Benefits counseling before redetermination could also help families understand Section 301, if they do not continue to receive SSI, through accessing VR services.

Effective PEd services require interagency collaboration among VR, high schools and CTE centers, postsecondary institutions, and other community partners supporting youth with planning and determining their career path. Adult professionals involved in PSET planning need to create systems for coordinating their communications and activities with students and families that ultimately support making informed decisions. In Vermont, VR has taken the lead with establishing Core Transition Teams in every district of the state (as well as a state-level team) that serve precisely this purpose.

C. Definition of target population and recruitment

The PEd model is intended for all youth with disabilities, regardless of their career goals or past experiences. The intervention acknowledges that many youth (and their families) do not know what choices are out there, which could leave many students behind. The PEd philosophy is that all students are ready for some type of experience related to PSET. The target population for this intervention comprises students and youth with disabilities, including SSI recipients, between the ages of 14 and 25. The spread in ages allows the program to support both those who are early on in their process of determining postsecondary possibilities and those who may have already been missed but still deserve the same opportunities. This population includes individuals who dropped out of school and high school graduates whose postsecondary plan was never formulated or was not successful.

The eligibility definition used for the PEd model aligns with the definition of a student with a disability used for delivering pre-employment transition services.² Specifically, a student with a

² In Vermont, there are currently more than 5,000 high school students who are eligible for pre-employment transition services, according to unpublished suppressed data reports on numbers of students, grades 9 to 12, on IEPs and 504 plans from the VT AOE.

disability is defined as an individual with a disability in a secondary, postsecondary, or other recognized education program who:

- is not younger than the earliest age for the provision of transition services;
- is not older than 21;
- is eligible for and receives special education or related services under Part B of the Individuals with Disabilities Education Act; or
- is an individual with a disability, for purposes of Section 504 (Workforce Innovation Technical Assistance Center n.d.).

For the most effective implementation, students would begin PEd activities as early as ninth grade to build on learned experiences that will help inform their next step in exposure to PSET. Referrals would be primarily from school staff or designated agencies already assisting families through developmental services or mental health services. Currently, most referrals for pre-employment transition services are from professionals who have discussions with and provide support to students to determine a career path and postsecondary plan, such as school staff (special educators, WBL coordinators, employment coordinators, or guidance/school counselors). As a crucial part of this model, school staff and VR transition counselors need to collaborate to support participating students. IEP teams ultimately need to give their approval for a student to participate in dual-enrollment opportunities.

Although all students could benefit from PEd opportunities, some may need more targeted outreach to help them become engaged in these opportunities. One type of student that reflects this idea is someone who has not identified any path of interest. Despite being asked regularly what they want to do for a career, such students may not respond or may show ambivalence regarding next steps. As WBL opportunities can expose students to career possibilities, PEd can offer similar exposure to help students envision where they might fit in. VR transition counselors in the field have noted the significant impact, for example, of going to visit a college campus to demystify any assumptions about what a typical student looks like.

Special considerations for recruiting youth SSI recipients. Individuals who are currently on SSI, either before or after the age-18 redetermination, are an important part of the target population. About 30 percent of youth served by the Vermont Division of Vocational Rehabilitation (DVR) receive SSI, and they are unlikely to have conditions that are so severe that they cannot work. Most youth on SSI in Vermont have severe special health care needs but have been able to participate in modified PSET programs. However, without an understanding of SSI, a family may not plan for the student to have any career or employment pursuits after the redetermination process. Furthermore, families who have relied on SSI for their income before redetermination may be hesitant to have their child begin working out of fear that it could affect benefits (Loprest and Wittenburg 2007). This situation can result in poor outcomes for youth who have not been supported in experiencing work and PSET opportunities before redetermination and are then found ineligible. Whether or not they receive SSI as adults, the students are at a disadvantage. There is no opportunity for the youth to explore postsecondary options, and without an educator or counselor to support and navigate the

process with the student and family, the student is already going to struggle, leading to increased likelihood of dependence on benefits and/or public assistance.

In practice, it is difficult to engage youth receiving SSI for participation in PEd because this information may not be available to schools or VR. Students who are on SSI may not know what benefits they or their families receive. When parents fill out the application for VR services, they may not share information about the student's SSI receipt because they fear that any state agency knowing this information may negatively impact their benefits. To provide outreach to families who receive SSI, interagency collaboration is an essential component of this model. It is important for agency partners to share how students and families could benefit from the opportunity to engage with VR services and access benefits counseling through knowledge from the school staff or partner agencies that may be aware of the families' benefits status.

Given the above, when recruiting SSI youth specifically for PEd, we would recommend the following strategies:

- **Pair the benefits counselor with the VR counselor when conducting outreach.** Youth and their families will often have major concerns about the effects of employment and PSET on their benefits. This includes all benefits received by the family, not just the youth's SSI. Having a skilled and knowledgeable benefits counselor to address concerns with accurate information is essential to building trust.
- **Focus primarily on the family and building their support for the youth's career ambitions.** Often the youth's SSI benefit is an essential component of the family budget. The VR counselor and benefits counselor must take the family's concerns to heart and align with both the youth and the family. For example, they could point out incentives such as the Student Earned Income Exclusion that can financially benefit the youth and family.
- **Develop materials specific to the needs of youth receiving SSI.** These materials should be designed to explain in accessible ways the opportunities and risks involved in supporting a youth's career paths.
- **Work with partner agencies to engage youth on SSI.** Often youth receiving SSI are engaged in other service systems, such as developmental disability programs, community mental health programs, and health care programs. These programs often have long and well-established relationships with youth and their families and can be allies in supporting youth in engaging in their career paths.

D. Implementation

A statewide infrastructure is required to support youth and young adults for the successful implementation of PEd. This infrastructure comprises multiple components and involves several agencies.

School-based VR transition counselors. VR transition counselors work directly with high schools and community partners to provide pre-employment transition services to potentially eligible

students starting at age 14. These services are connected to the PEd model through WBL, work readiness skills, self-advocacy, career exploration, and postsecondary exploration. VR transition counselors provide postsecondary exploration activities as required by the WIOA. Implementing this model successfully would require that VR counselors provide targeted outreach and support efforts for students starting early in their high school career.

Because VR transition counselors work directly in schools, their relationships with students and awareness of those who might qualify for U.S. Department of Labor (DOL) services could assist in connecting students to services. Connecting students and school programs to their local DOL offices increases the likelihood that students will access those services. Contracted courses can also be provided with DOL support of pre-apprenticeships and apprenticeships for students. Not every student will benefit from or want to attend college; other career paths that require an apprenticeship in industry sectors with significant job opportunities can be an option.

VR transition counselors also need to consider the past school experience of both youth and young adults. For some individuals, school has been not a positive experience but one in which they felt frustrated and did not get the assistance that they needed to be successful. It is important to ensure that VR transition counselors are aware of these experiences and that beginning exploration aligns with the individual's readiness. Further, some students may benefit from PEd but are not referred by the school staff or are in a situation where a referral through another community partner or through the family would be better. Collaboration with community partners and families working with youth and young adults who would benefit from participating in PEd is also important in this model.

Strong relationships with IEP and 504 teams. Solid interagency relationships are integral to ensuring that students hear about PEd options and receive support to participate in them. Without a strong partnership, students could hear differing information about options based on what each organization believes to be a good fit. This causes confusion and frustration for everyone involved, especially the student. Therefore, IEP and 504 teams need to work together, with the VR transition counselor also at the table, to support the student and clarify what role each member of the team has in this process.

VR transition counselors are integral to informing students and IEP/transition teams about PEd options. They can also provide reminders about the importance of having conversations regarding PEd opportunities early and often in team meetings, individual student meetings, and family meetings. VR staff can partner with school staff to engage students in opportunities and connect them to events outside of the school, some of which may meet requirements for credit or proficiency-based graduation. VR counselors also have the benefit of being outside of potential conflicts between the school and family. Having members of the team who believe in a student's potential when the student may not can be a critical support.

Dual enrollment and contracted classes. A strong working relationship with the state college system is inherent in the PEd model, including the postsecondary transition programs for students who qualify for developmental services. Early implementation of support programs for students looking to attend state colleges may make the transition into college successful through providing

academic, social, and career supports. One of the components of the PEd model includes auditing a course or taking an introductory college course that offers career and postsecondary exploration and information. One example is the ICC course, which is currently being offered regularly by CCV. Since the beginning of the pandemic, VR has collaborated with CCV to offer the course virtually statewide to increase the number of students in the course and support their ability to participate.

Job coaching and tutoring support. Coaching and tutoring supports have proved to be valuable to assist students' successful participation in introductory college courses and dual-enrollment classes. The Vermont VR has learned this directly from ICC classes run recently through CCV. As students attempt to figure out the application and registration process, log in to the online platform, and access and complete required assignments, assistance can ensure a strong start to this course experience. The students' VR counselors help them determine the level of support needed and make referrals for assistive technology assessments.

Support through benefits counseling. Ensuring that students and families eligible to receive benefits access VR benefits counselors is an important element of PEd. Benefits counselors can provide essential information to youth and their families to make sure that they can take advantage of all supports for which they may be eligible, including work incentives that support PSET.

Cost of implementing PEd. It is difficult to estimate the cost of the PEd intervention because of its individualized approach. The cost related to youth depends on individual consumers' support needs and their potential postsecondary choices. For example, a youth receiving SSI who needs extensive tutoring and benefits counseling may cost more to serve than another youth who does not need those supports. Generally speaking, the PEd intervention is designed for public VR programs that are already funded to offer these services through pre-employment transition services and standard VR services. Our goal with PEd is to implement a more effective approach to using these resources within the national VR program. The PEd intervention would also require program costs related to infrastructure, such as developing management and implementation teams for the VR agency and for the state, training staff on the PEd model, and ensuring that program staff have time to collaborate with their peers from other programs.

E. Challenges to implementation

Our experience with statewide LLC service delivery points to potential challenges to full implementation of the PEd model. LLC career consultants expressed challenges and frustration with changing the perceptions of students, family members, and special educators about the students' exploration or pursuit of postsecondary options. Many participating youth with disabilities had been led to believe, over time, by school personnel or parents or guardians (often through school reports and IEP meetings) that they were not college material. These beliefs led to students' having little or no exposure to exploration of postsecondary options.

Another specific challenge evident in a rural environment like Vermont is transportation to college campuses and other training program sites. (LLC provides funding for transportation to these as well as WBL sites for enrolled students). Many communities have no available public transportation options, and paying for private transportation is not a viable option for students with limited

resources. In addition, some students encounter access issues because of their disabilities. Interestingly, this challenge has been mitigated to a degree during the current pandemic as all learning has moved to a virtual environment. Still, access to needed technology and reliable Internet connections to take advantage of virtual learning remains a barrier for many.

PSET costs for youth can be prohibitive, especially if families are not provided with supports to access programs through grants or other entities that assist with the costs. VR transition counselors report that students may decide not to pursue additional training because of affordability issues. It is only through support from school counselors, VR, or other postsecondary entities (including the Vermont Student Assistance Corporation) that students and families can navigate requirements such as the Free Application for Federal Student Aid. Enrolling in free dual-enrollment courses or other subsidized training programs in high school can significantly reduce the potential debt from pursuing training and education after graduation.

F. Relationships between interventions and outcomes (theory and evidence)

By maximizing the chance for students with disabilities to experience direct postsecondary opportunities in high school, PEEd will encourage access to PSET programs. This access will lead to improved long-term educational attainment and better career outcomes for participating youth over their lives. PEEd also offers, by the nature of the activities and support that is provided, skill building for future success in postsecondary programs. Ultimately, we want every youth engaged with VR to have access to a series of PSET opportunities and have hands-on exposure to postsecondary options *while still in high school or soon after high school exit*. Our working hypothesis is that, just as early WBL experiences for youth with disabilities have been shown to increase postsecondary employment, early PSET experiences will increase educational attainment and, ultimately, economic success.

However, we know that students with disabilities are far less likely to participate in PSET activities or preparatory activities while in high school. On the basis of field experience, we believe there are multiple, interrelated reasons for this deficiency. These barriers are listed in the left column of Table 2. We hypothesize that the PEEd model is sufficient to address each of these barriers in a comprehensive and coordinated way. Because PEEd consists of a series of activities incorporated into a holistic model, it is flexible enough to apply to students with a variety of strengths and needs. It also addresses some of the systemic barriers that may further reduce the participation of youth with disabilities in PSET, as shown in the right column of Table 2.

Table 2. Barriers addressed by PEd

| Barrier | How the barrier is addressed by PEd |
|---|--|
| Youth do not consider PSET as an option because they have had little exposure to the college experience. | Vermont’s experience with the LLC project shows that relatively low-risk exploratory activities can introduce youth to PSET possibilities. For example, a tour of a community college campus may open a student up to a dual-enrollment class while in high school. A tour of a modern manufacturing facility may open a student up to a pre-apprenticeship or registered apprenticeship program. Evidence from LLC suggested that hands-on experiences had a profound impact on some students’ perceptions of themselves and their potential. Based on this experience, PEd provides very low-risk, graduated options to systematically expose youth to postsecondary opportunities through real experiences. |
| Youth come from family backgrounds in which PSET is not encouraged or expected. | Just as youth do not see themselves going to college, often neither do their family members. Offering graduated low-risk options to explore PSET gives family members an opportunity to see the student in a different way. It reduces family concerns about the youth failing at the experience, costs, impact on SSI benefits, and other issues that may otherwise undermine the youth’s efforts. |
| In high school, youth are systematically not included in college preparation or postsecondary exploration activities. | The PEd model requires the VR counselor to take an assertive role in supporting students to take advantage of college preparation or postsecondary exploration activities. Under PEd, part of the VR counselor’s role is to ensure that students on their caseloads are given these opportunities through the school or directly through VR. |
| Professionals across systems (such as VR, high school, and community rehabilitation providers) do not have postsecondary expectations for many youth with disabilities. | PEd starts with the premise that every high school student with a disability can benefit from some PSET. PEd reorients the VR counseling approach to assume the student can be successful. By offering graduated low-risk options, PEd offers an on-ramp for students to, at a minimum, try out PSET options despite others’ low expectations. |
| Even if youth are engaged with VR, VR staff often lack the practice framework to engage youth in meaningful exploration of potential options. | PEd provides a practice framework and tools for VR counselors to provide a graduated series of opportunities. Although the individual elements of PEd are not new, the systemic way they are delivered under PEd is a new model. PEd offers a clear and easy-to-follow menu of supports for the VR counselor to maximize opportunities for a student. |
| Youth with disabilities initially need more support than their peers without disabilities to succeed in postsecondary settings. | PEd offers a menu of supports to assist youth’s success, including coaching/tutoring, peer mentor supports, and access to AT. Many youth with disabilities need such supports to be successful in postsecondary programs. For example, a well-designed AT intervention can make a big difference in a student’s success or failure in a dual-enrollment class, and a tutor can provide the academic support for the student to complete related instruction for a pre-apprenticeship program. |
| Youth receiving SSI face additional issues pursuing PSET opportunities related to their benefits. | PEd includes benefits planning for youth receiving SSI to access work incentives. Benefits issues can be deal breakers for youth receiving SSI and their families. Although education and work incentives are beneficial for students, fear and lack of information may prevent a youth receiving SSI from moving forward. |

AT = assistive technology; LLC = Linked Learning to Careers; SSI = Supplemental Security Income; PEd = progressive education; PSET = postsecondary education and training; VR = vocational rehabilitation.

G. Considerations for testing and evaluating the effectiveness of the progressive education model

At this point, PEd is still in development, though Vermont VR has piloted significant elements of the approach through the LLC project. PEd is based on some of the promising practices and anecdotal successes from LLC. Any rigorous evaluation of the PEd model would require the following two steps:

- **Complete a descriptive process evaluation detailing all aspects of the model.** As noted, the approach is currently under development, and staff and managers are still refining practices. A process evaluation could fully document and describe the intervention as it is deployed in the field. Because PEd is intended to be implemented within a standard VR program, it will be critical to differentiate how the approach differs from usual services and document counselors' specific practices. For example, it will be important to document how the counselor elicits family support for PSET so those practices can be replicated for evaluation.
- **Develop a fidelity tool based on the process evaluation.** The development of a fidelity tool will be essential for replication and evaluation of the effectiveness of PEd. Such a tool will allow an assessment of how the model is followed and help VR practitioners understand how the approach differs from usual VR services.

A broader evaluation challenge for PEd and any VR-focused intervention is implementing a rigorous evaluation within a public VR program. Many, and perhaps most, staff in public VR programs have significant reservations about implementing a randomized controlled trial (RCT) evaluation design within their agencies. The challenge is to provide different or enhanced services within the context of a public VR program operating under federal WIOA regulations. It would probably not be allowable to use Title I VR funds to provide one set of youth enhanced services while providing the usual services to other youth in the same location. These regulatory issues would need to be resolved before an RCT could be implemented. This issue is by no means insurmountable; Vermont VR has implemented two such studies in recent years using non-VR grant funding for the enhanced services. Larger states might have enough district offices to allow for randomization of sites for a study, an approach that might be more palatable for VR agencies. It also might resolve issues of PEd practices contaminating comparison group participants within a site.

Any evaluation should consider a range of socioeconomic characteristics of participants in addition to disability status to assess the effectiveness of PEd. These characteristics include race/ethnicity, economic status and poverty, and status as a first-generation college student, refugee, or English language learner. Vermont DVR is fortunate to have access to multiple state administrative data systems in addition to VR case records to incorporate these variables into any evaluation. For example, DVR has access to the Vermont social welfare data system, which would provide extensive and reliable data on the economic status and poverty rate of participants. Our hope is that PEd will be effective in supporting youth who are poor, are first-generation college students, or are otherwise disadvantaged, which has been our anecdotal experience to date. It remains to be seen if this will be borne out in a more rigorous evaluation.

H. Potential for replicability, scalability, and sustainability

As noted in earlier sections, VR programs have increased their focus on youth and are serving more students at earlier ages. At the same time, VR programs must meet the performance requirement of increasing the percentage of consumers achieving credentials and measurable gains in skills. This situation forces VR agencies toward a largely youth-oriented program with a strong mandate to promote PSET. This shift changes the mandate and the type of work for VR programs and staff, whose training and orientation were based on the pre-WIOA program.

It was in this context that Vermont VR developed the PEd model. Vermont VR believes that state VR programs nationwide struggle with the same broad issues and look for model practices to approach this new challenge. It will take a systemic response by VR agencies to redesign their programs to meet the new mandate. The PEd model is intended to provide a systematic approach to address this challenge, one that VR programs can adapt and replicate in their respective state environments. Vermont VR and other state VR programs operate under the same federal regulations and have the same basic structure and mandates. The components of PEd do not depend on any conditions unique to Vermont. Although the scale might be different in larger and more urban states, many states could replicate some or all model components. Therefore, we believe the model has significant potential for replication.

Under the WIOA pre-employment transition services requirement, all VR programs must spend 15 percent or more of their federal VR Title I award on services for high school students. Because these services are part of the core requirement for state VR programs, the funding for and sustainability of PEd do not depend on any new state or federal funding, but might require a reallocation of resources or staff within the VR program. If any other state VR agency chose to replicate the model, it could do so within the existing funding structure.

IV. Conclusion

PEd is a comprehensive model for public VR programs that is designed to increase the proportion of youth with disabilities entering PSET programs. The basic premise of PEd is that if we maximize opportunities for youth with disabilities to directly experience postsecondary opportunities in high school, they will be far more likely to go on to PSET programs. The PEd model is designed to provide a graduated series of opportunities for students with disabilities to experience postsecondary opportunities well before high school exit.

A core principle of PEd is that VR will support *all* customers to consider their options for PSET. This expectation essentially reorients the counseling process toward exploration of PSET options. It is our hypothesis that this inclusive approach will increase the eventual proportion of youth who both participate in and complete PSET programs.

At this point, PEd is still in the development phase and is not ready for rigorous evaluation. Vermont would need to complete a process evaluation of the model to fully describe and refine the intervention before conducting any impact evaluation. Such an approach would include fidelity tools to measure adherence to the model.

PEd has substantial policy relevance for VR programs attempting to meet the new mandates under the WIOA. This is because PEd provides VR programs with a programmatic solution to two of the major new requirements implemented by Congress under the WIOA. First, the WIOA reoriented the program funding to increase services for high school students with disabilities. Fifteen percent of the VR Title I award must be reserved for pre-employment transition services, which are aimed at high school students. Second, for the first time, it made VR programs accountable for secondary and postsecondary credential progression and attainment under the common performance measures. The common performance measures require VR agencies to report both measurable gains in skills (such as progression in a college program) and credential attainment in postsecondary programs. Failure to meet the goals under the measures can result in sanctions for the state.

PEd provides a replicable and sustainable model for other states to follow to meet these new requirements. Because of the pre-employment transition services mandate, VR agencies nationally have shifted resources to serving students and youth. Nationally, 50 percent of VR program participants are under 25 years of age. Agencies are actively looking for best-practice models on how to serve this population. In particular, they are looking for models to help students and youth enter and succeed in postsecondary programs. As a result, we expect PEd to generate strong interest from VR programs nationally.

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