A Nominal Group Technique Study Identifying Evidence-Based and Promising Practices: Taxonomy for Postsecondary Comprehensive Transition Programs

Paula Kohler, Professor Emerita
Western Michigan University

June Gothberg, Ph.D.
Yang-Tan Institute, ILR School
Cornell University

Alycia Sterenberg Mahon
Western Michigan University

W. Drew Andrews, Ph.D.
Janice Seabrooks-Blackmore, Ph.D.
Florida Center for Students with Unique Abilities
University of Central Florida

Abstract

As more institutions of higher education offer comprehensive transition and postsecondary programs for students with intellectual disabilities, a systematic process for strategically planning their postsecondary programs is needed. Guiding principles and an organizational taxonomy are available for program development. However, a mechanism that combines existing literature and research to specifically address program development for students with intellectual disabilities is missing. A nominal group technique approach identified strategies and practices to frame existing categories from a well-researched postsecondary taxonomy. How those categories were incorporated into a planning tool used to assist institutions in developing comprehensive transition and postsecondary programs is presented.

Keywords: postsecondary education, strategic planning, intellectual disability, comprehensive transition and postsecondary programs

Plain Language Summary

- As more colleges and universities offer postsecondary programs for students with intellectual disabilities, a tool for planning those programs is needed.
- Currently, some guidelines and a taxonomy are available for program development. However, a mechanism that combines existing literature and research that specifically addresses program development for postsecondary programs for students with intellectual disabilities is missing.

- **What we did in this study:** A nominal group technique study was used to identify and categorize practices for postsecondary education program development focusing on students with intellectual disabilities.
- **Findings:** Through this approach, identified strategies and practices were framed.
- **Conclusion:** This article presents how categories were incorporated into a planning tool that is now being used to assist colleges and universities in developing postsecondary programs across the state of Florida.

The transition from adolescence into adult roles of postsecondary education, employment, and independent life is a vulnerable period, when youth take their first definitive steps toward independence (Rosenberg, 2016). This transition can be challenging for any adolescent, but it is especially so for youth with disabilities transitioning out of special education services, and particularly for those with intellectual disabilities (ID). Although outcomes for adults with disabilities, including those with ID, are improving, many still do not experience the quality of life experienced by their peers without disabilities; many adults with disabilities are unemployed, underemployed, have frequent job changes, and may not enjoy friendships or social interactions (Webb et al., 2014). As with any parent, the expectation of families of youth with ID is that their child should have a real job in the community for real pay and benefits (Wehman et al., 2018). The majority of students with ID still exit high school without a diploma, GED, or skills needed for paid work (Hussar et al., 2020). Despite this, nearly 50% of high school students with ID in the United States aspire to have some form of postsecondary education experience (Lipscomb et al., 2017). Recognizing that postsecondary education is a viable pathway for a youth with ID to transition into employment, youth with ID are seeking enrollment in higher education to engage in further learning, prepare for independent living, and develop skills they can use to gain competitive employment (Grigal & Hart, 2010).

In 2019–20, the number of students ages 3–21 who received special education services under the Individuals with Disabilities Education and Improvement Act (IDEA, 2004) in the United States was 7.3 million, or 14% of all public-school students, with 6% of these categorized as students with ID (National Center for Education Statistics, 2021). The IDEA (2004) *entitles* students with disabilities (SWD) to educational supports and services. When a youth transitions out of high school into adulthood, they move from a system of *entitlement*, where adults help to guide them, to systems of *eligibility*, where they must navigate, request, and reestablish the services they need, often on their own (Peterson et al., 2013). Blacher et al. (2010) found that adolescents categorized as having severe disabilities, including ID, and their families, struggle more than most with the transition to adulthood. In particular, they struggle with matriculating into postsecondary education settings (Peterson et al., 2013).

Postsecondary education is highly correlated with employment, lower rates of unemployment, and higher earning (U. S. Bureau of Labor Statistics, 2020 Vilorio, 2016). The emergence of postsecondary programs for individuals with ID has shown that college experiences increase the chances of gaining competitive employment and higher wages

for these individuals (Cimera et al., 2018; Grigal et al., 2011; Grigal et al., 2015; Moore & Schelling, 2015; Ross et al., 2013). Yet, "programs supporting students with ID on college campuses are relatively new, most have developed since 2008" (Schoenfeld, 2020, p. 23). Federal legislation created policies to help address these gaps. The passage of the Higher Education Opportunity Act (HEOA, 2008) extended access for SWD, including those with ID, to postsecondary education. This was the first mandate in the history of U.S. higher education that contained provisions to support students with ID to access institutions of higher education, including technical and state colleges and universities (Grigal et al., 2015). Since the provision was made, more than 280 entities have become listed as potential postsecondary programs for students with ID, indicating the willingness of institutions of higher education (IHEs) to consider this as a student group (Suk, 2020). Some of the most substantial changes in the law for students with ID are modifications to Title IV of the HEOA addressing student financial aid (Cavanagh, 2013).

Prior to this, it was difficult for a student with ID to be eligible for any type of federal financial aid because of the required regular high school diploma or GED. If a student with ID did meet the criteria, they often failed the Title IV requirement to make satisfactory academic progress (SAP) as a full-time student in a degree-granting program. HEOA (2008) allows the Secretary of Education the authority to waive restrictions on eligibility for federal financial aid for students with ID if they meet two general criteria: The student must be enrolled in an approved comprehensive transition and postsecondary (CTP) program at an institution of higher education, and they must maintain satisfactory progress as determined by the institution. HEOA (2008) defines a CTP for students with ID as a program that is:

> (A) offered by an institution of higher education; (B) designed to support students with intellectual disabilities who are seeking to continue academic, career and technical, and independent living instruction at an institution of higher education in order to prepare for gainful employment; (C) includes an advising and curriculum structure; and (D) requires students with intellectual disabilities to participate on not less than a half-time basis, as determined by the institution, with such participation focusing on academic components and occurring through one or more of the following activities: (i) regular enrollment in credit-bearing courses with nondisabled students offered by the institution, (ii) auditing or participating in courses with nondisabled students offered by the institution for which the student does not receive regular academic credit, (iii) enrollment in noncredit-bearing, non-degree courses with nondisabled students, and (iv) participation in internships or work-based training in settings with nondisabled individuals (20 USC §1140).

While the policy supports postsecondary education for students with ID, until this reauthorization, there was a gap in funding. To help address this gap, HEOA (2008) authorized the creation of model CTPs for students with ID. On a competitive basis, IHEs can apply for federal matching grants to support CTPs for up to five years. The funding support is important but only provides for a limited number of students with ID. In 2010, the first round of grants funded 27 IHEs (Grigal et al., 2013).

To complement the limited federal funding opportunities, in late 2015, Florida Senator Gaetz filed SB 672 to appropriate funds to Florida IHEs to create CTPs. On January 21, 2016, Florida's governor signed into law the Florida Postsecondary Comprehensive Transition Program Act and Florida Center for Students with Unique Abilities (FS §1004.6495) at the University of Central Florida (the Center). The short title is Florida Postsecondary Comprehensive Transition Program Act (the Act). As part of the Act, the Center is charged with managing the Florida Postsecondary Comprehensive Transition Program (FPCTP) application and approval process. The Act also established criteria for FPCTP approval, scholarship awards for eligible students to attend approved programs, grant awards to promote new program development and existing program enhancements, and accountability requirements associated with these opportunities. As stated in the legislation, the purpose of the Act is to:

> increase independent living, inclusive and experiential postsecondary education, and employment opportunities for students with intellectual disabilities through degree, certificate, or nondegree programs; and to establish statewide coordination of the dissemination of information regarding programs and services for students with disabilities. It is the intent of the Legislature that students with intellectual disabilities and students with disabilities have access to meaningful postsecondary education credentials and be afforded the opportunity to have a meaningful campus experience (FS §1004.6495).

Today, the Center is working with IHEs across Florida to support implementation of the Act in three primary ways, to: (a) facilitate application and approval of their program that serves students with ID as an FPCTP, (b) provide scholarship awards to students attending an institution's approved FPCTP, and (c) provide grant funding to foster starting up new and/or enhancing existing programs. These three components of the Center's work aim directly at achieving the purpose of the Act.

An FPCTP is a Florida approved program at IHEs that wishes to implement a CTP, specifically for students with ID, that meets the requirements of the Florida Postsecondary Comprehensive Transition Program Act (2016). Students enrolled in an FPCTP may receive financial aid through student scholarships administered by FCSUA. The FCSUA is also authorized to award competitive start-up and enhancement grants for inclusive postsecondary education programs which are approved FPCTPs. The combined funding opportunities on the program and student side are hypothesized to address the policy-to-practice gap and encourage mass scale-up of CTPs across the state.

The Center aims to ensure that the students served under the Florida funding have the greatest potential for successful adult outcomes, in particular competitive integrated employment (CIE) as defined by the law. The Workforce Innovation and Opportunity Act (WIOA) of 2014, Public Law 113–128 (29 USC 3101), defines competitive integrated employment as work that is performed on a full-time or part-time basis (including self-employment) for which:

> an individual is compensated at a rate that shall be not less than the higher of the rate specified in section 6(a)(1) of the Fair Labor Standards Act of 1938 (29 U.S.C.

206(a)(1)) or the rate specified in the applicable State or local minimum wage law. (I)(aa)

Even though most of the students accepted into FPCTPs will not be awarded a standard degree, such as an associate's or bachelor's degree, the focus is that students exit an FPCTP with meaningful credentials or industry certifications that lead to competitive integrated employment. Albrecht and Janisin (2020) stated "jobs must be at the beginning, middle, and end of any education or training program" (p. 74). A recent study of Florida labor data showed that earning a credential is correlated with higher wages for workers (Walsh et al., 2019). Thus, the Center encourages FPCTPs to implement programs that award meaningful credentials for current and life-long employment.

A challenge the Center faced was to assist FPCTPs to plan postsecondary programs backed by research and shown to lead to successful outcomes for students with ID. The gap in translating research-to-practice and validating what works has been a persistent challenge, both at the secondary and postsecondary level (Shaw & Dukes, 2013; Test et al., 2009). Several researchers have attempted to identify a comprehensive taxonomy of PSE for individuals with ID, but in part due to the low numbers of students with ID and limited availability of outcome data, the focus has been more on current practices rather than determining what the research-based practices are (i.e., McEathron et al., 2013). In 2016, Kohler et al.'s *Taxonomy for Transition Programming 2.0 (Taxonomy)* was updated to include three decades of transition research on the evidence-based and promising practices (EBPPs) for all SWD, including those with ID in *secondary* schools; however, empirical evidence is sparse for individuals with ID in the postsecondary setting. Findings show that many of the practices in Kohler et al.'s (2016) *Taxonomy* are critical in the postsecondary environment, including self-determination, having programs of study based on student's strengths, needs, and preferences, promoting independent living skills, etc. (e.g., Field & Parker, 2016; Getzel, 2014; Gillispie-Lynch et al., 2017; Ipsen et al., 2019; Shaw & Dukes, 2013;), there was a need to identify additional practices specific for the postsecondary environment. The Center determined that conducting a nominal group technique (NGT) study was needed to build a framework of postsecondary EBPPs for FPCTPs to use when strategically planning their postsecondary programs for individuals with ID.

Method

The NGT is an approach that was first used in the 1960s as a procedure to facilitate effective group decision-making in social psychological research (Delbecq & van de Ven, 1971). It evolved over the decades into a method used to help identify evidence-based practices in several fields, including the creation of standardized guidelines in clinical research settings across the world (e.g., Murphy et al., 1998; Potter et al., 2004; Ringdal et al., 2008; Sunde et al., 2018). The Center felt that this would be a powerful method to bridge and braid the broad array of existing EBPPs in the fields of disability, higher education, transition education and services, and vocational rehabilitation, to create a framework for the use of planning scientifically-based postsecondary education programs for students with ID.

Group Consensus Methods

The NGT is one type of approach from a broader set of group consensus methods (Harvey & Holmes, 2012; Humphrey-Murto et al., 2017). In general, group consensus approaches involve gathering a group of experts within the field to generate ideas (Jones, 2004) to solve a problem through a series of systematic and structured phases (Humphrey-Murto et al., 2017). The method provides opportunities for ideas to be expanded upon through discussion as new ideas enter the conversation (Wiggins et al., 2020). Through each phase, the method allows experts to work toward a mutual agreement by generating ideas, discussion, and voting. The expert responses shift as each phase is completed, based on the information brought forth by expert participants. This circular process allows participants multiple opportunities to add to the discussion, bring new points to the surface, and refine the decisions (Hasson et al., 2000). McPherson et al. (2018) shared that because group consensus methods are rooted within a qualitative framework, researchers can establish trustworthiness by evaluating the credibility, dependability, transferability, and confirmability of the results. Specifically, the use of a face-to-face consensus group method allows space for member checking throughout, thus increasing the credibility of the method.

The Center used NGT for the process of identifying and categorizing EBPPs for postsecondary education programs to use. Typically, NGT is structured in five phases: (a) silent generation, (b) round robin, (c) discussion and clarification, (d) consensus, and (e) final discussion; but it can be adapted for different settings (Foth et al., 2016; Jones, 2004). This method allowed the Center to host live discussions with content experts to produce more ideas, allow input from various perspectives, and provide opportunities for these ideas to be discussed and reassessed in real time until group consensus was reached. The use of the face-to-face facilitated approach increased participation and response rates, as well as allowed participants to dedicate time to commit and complete the process (Hasson et al., 2000; McKenna, 1994).

Participants did not need to prepare for the meeting and the process used minimal resources during the meeting (i.e., a venue, one facilitator, and paper and pens to jot ideas down; Jones, 2004). To minimize the known limitations of this method, where certain participants can overpower the group (Foth et al., 2016 and others need encouragement to share ideas and discuss openly (Jones, 2004), a facilitator trained in group methods was employed. Using the lessons learned from facilitator trainings, the facilitator remained mindful of group and power dynamics (Sterenberg et al., 2019).

Participants

The NGT method relies on a panel of experts from which discussions are built (McKenna, 1994). NGTs “yield a substantive output” and “are particularly useful in groups of experts where the experts generally value hearing each other's ideas, whilst jostling for power within the group is essentially negated” (Sutton & Arnold, 2013, p. 83). Though the use of the term experts has been debated (Hasson et al., 2000), many agree that the definition is not as important as identifying participants who both have knowledge of the field and are willing to dedicate time to be a part of the process (Sumsion, 1998). The Center

developed a set of inclusion criteria to use in recruiting a group of content experts. Participants were informed of the process that would be used and assured that they would be compensated for their time and travel.

Using this purposive sampling technique, a total of 13 content experts were selected; 10 external experts and three internal experts. Participants spent two days working through the NGT process to identify and define core strategies and practices that postsecondary programs would need to establish for students to experience successful outcomes for educational attainment and employment. Represented were the Association on Higher Education and Disability (AHEAD), the Career Connection Research Center at Western Michigan University (CCRC), Division on Career Development and Transition (DCDT), the National Technical Assistance Center on Transition (NTACT), the Nisonger Center at The Ohio State University, Postsecondary Education Programs Network (PEPNet2), Think College, and individuals representing Florida postsecondary institutions of higher education from the Florida Department of Education, Santa Fe College, the University of Central Florida, the University of North Florida, and the University of South Florida, St. Petersburg. In addition, the Center felt it was important to include a diverse set of content experts; thus, several experts were from minority populations, including Black, Hispanic, Native American, and English as an additional language. Three were individuals with documented disabilities, including a person who was Deaf/Hard of Hearing, one with dyslexia, and one with a specific learning disability.

Phases

Phase 1

During the initial year of establishment, the Center gathered evidence of the practices from postsecondary programs across the country that were successfully exiting students with ID into competitive integrated employment, documented research-based practices from the literature, and worked with technical assistance centers and other experts in the field to identify policies, programs, and practices to serve as the foundation for Florida postsecondary programs to follow.

Phase 2

The Center established the need to conduct an NGT. They developed the criteria for the purposive sampling of content experts and sent out invitations. From the acceptances, the Center selected a diverse sample of experts who were knowledgeable of EBPPs in transition education, higher education programs for students with ID, vocational rehabilitation, and program structures. The individuals who accepted were invited to participate in a two-day face-to-face NGT.

Phase 3

On the first day of the NGT, the Center staff, along with the facilitator, introduced the NGT process and set expectations for the day's tasks. They clarified questions and began the NGT process with a review of the Center's work, the legislative mandates, and the

capacity building model. They then presented and asked the experts to silently consider the current known EBPPs for SWD and CTPs.

Phase 4

The experts were given several hours to silently review and then discuss the available EBPPs in small groups. In addition, they were given documentation of the mandates for which the Center was required to run. The Center had a priori drafted policies and procedures along with tools for the structured approach to program development, technical assistance, and collaboration and partnerships. All these documents were provided in hard-copy and the Center also used two projectors to show them on screens. The experts were asked to use paper and sticky notes to capture and prioritize ideas and prepare for group discussion in Phase 5. This exhaustive process was needed to help identify and select the most appropriate practices for developing an EBPP strategic planning tool. During this time, the experts were given a 30-minute break for lunch.

Phase 5

The whole group convened to come to consensus on the EBPPs to use for the framing an FCTCP and determine any modifications needed to the draft structure. A facilitator ran the discussion, making sure all voices were heard. The group met consensus on a framework for potential FPTCPs to use for strategically planning a program grounded in EBPPs. After eight hours of work, the group was excused from the NGT with instructions to relax and to prepare for the next day and to spend time thinking deeply about the decisions made during Day 1. The Center staff spent another 2–3 hours aggregating the data from Day 1 into a comprehensive tool to examine the next day.

Phase 5 Continued

On Day 2, the experts convened again to discuss the previous day's decisions and determine next steps. During the second day, Phases 3, 4, and 5 were repeated again until the group reached a full consensus. During the latter part of the day, the NGT process successfully concluded with an agreed-upon framework of EBPPs to use in developing FPTCPs.

Within each phase, the group relied heavily on the *Taxonomy* (Kohler et al., 2016), the federal guidelines for Model Comprehensive Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSID) programs, and the practices put forward from the *Think College Standards, Quality Indicators, and Benchmarks for Inclusive Higher Education* (Grigal et al., 2012). The group defined consensus as "A decision in which everyone participates and with which everyone can live and support" (Sterenberg et al., 2019, p. 27). Over the two-day NGT process, consensus was managed at the micro individual practice level and the macro level of overall EBPPs. Approximately 30 rounds of consensus were conducted at the micro-level followed with two macro-level rounds before identifying a total of 26 strategies and practices for framing an FPTCP. In addition, the NGT group came to consensus that these strategies and practices would be best

framed using the categories from Dukes et al.'s (2017) *Postsecondary Access and Student Success (PASS)* taxonomy.

Dukes and colleagues have two decades of publications focused on establishing standards, identifying practices, and developing indicators that support SWD to successfully enter, navigate, and exit postsecondary education programs (e.g., Dukes, 2001; Dukes, 2006; Dukes et al., 2007; Dukes et al., 2009; Dukes et al., 2017; Dukes & Shaw, 1998, 1999, 2004, & 2011). Further, Dukes' work provided the framework of four categorical areas that FCSUA uses to guide postsecondary program development: (a) student-focused, (b) faculty and staff-focused, (c) program and institution-focused, and (d) concepts and systems development (Dukes et al., 2017).

An initial strategic planning tool was created to assist Florida postsecondary institutions to conduct a needs assessment, identify EBPPs to use in their programs, and create a logic model with short-term and long-term outcomes. *The Logic Model Development Guide* served as the foundation for the Center's postsecondary strategic planning tool (W.K. Kellogg Foundation, 2004). *Strategic Planning Tool: Postsecondary Education* (2019) was designed for use by all types of IHEs including universities, state colleges, and technical colleges. Strategic planning is meant to be a team-driven process for relevant stakeholders. Most teams include higher education administrators, faculty, staff, related service providers, and students and their families. Teams gather to review current practices and outcomes to establish next steps for goals and related activities. The *Tool* serves as a team-based step-by-step guide through the strategic planning process. Initially, this tool was created in a paper format and field-tested with eight teams over two years. After two years, the Center finalized the benchmarks, strategies, and practices and created the online *Strategic Planning Tool: Postsecondary Education (Tool*) for inclusive postsecondary education (Strategic Planning Tool, 2019). The online Tool is a planning system designed with a framework through which data are used to reflect on current practice and outcomes. Teams identify strengths and needs, and subsequently develop a plan to address their needs and evaluate associated outcomes. Using a process of knowledge translation (Test et al., 2009) and consensus, the NGT group identified, categorized, and themed all the relevant EBPPs shown in the Think College standards (Grigal et al., 2012), the *Taxonomy* (Kohler et al., 2016), Dukes et al., (2017), and in the relevant literature on successful postsecondary practices for students with ID. Dukes et al. (2017) found that in the corpus of data there were very few evidence-based practices in postsecondary education and disability literature, but there are promising practices. Thus, the NGT group focused on EBPPs in the process for identifying the benchmarks. This led to 26 benchmarks grouped under each of the four PASS categories (see Table 1).

Findings

Student-Focused Benchmarks (SFB)

The student-focused domain "addresses the experiences and perceptions at the level or unit of analysis of students with disabilities in higher education" (Dukes et al., 2017, p. 114) and has the most robust research. There are eight benchmarks identified from the

evidence on inclusive programs at the secondary, postsecondary, and community level. Inclusive academic programs and sustained opportunities for social involvement with peers are linked to students with ID learning the skills needed for successful employment (Grigal et al., 2015; Prohn et al., 2018; Thoma, 2013). Students also have access to a greater array of course content, exposure to college peers with and without disabilities, and the potential to earn college credits (Papay et al., 2018). Additionally, college peers report benefits from inclusive classrooms (Griffin et al., 2012; May, 2012; Westling et al., 2013) and attitudinal, behavioral and political shifts result in campus communities that meet the needs of all learners, including those with ID (Prohn et al., 2018). "As future employers, coworkers, congregation members, community leaders, and neighbors of people with disabilities, the long-term influence of this impact on peers can be substantial" (Bethune-Dix et al., 2020, p. 310).

SFB 1.1 emphasizes that programs of studies (PoS) need to be inclusive and based on student personal, academic, and career goals that are established through a person-centered planning (PCP) and assessment process. PCP are used in medical, professional, and educational settings and build upon the strengths, interests, and abilities of the individual, rather than on weaknesses or remediation (Administration for Community Living, 2017). PCP "involves a systematic process that focuses on an understanding of the needs of the person with disabilities and not the system that serves them" (Seabrooks-Blackmore & Williams, 2012, p 91). It assists students with disabilities who are transitioning into postsecondary programs to have the opportunity to plan their own future with the support and encouragement of other adults in their lives (Hayes & Muldoon, 2013).

For SFB 1.2, research indicates that PoS need to include the development and application of self-determination skills. Self-determination is known as conscious actions or behaviors made purposefully by an individual, also known as a causal agent (Wehmeyer & Shogren, 2017). It refers to the capacity and need to engage in an activity freely, with a full sense of choice, volition, and personal endorsement (Ryan & Deci, 2018). Self-determined individuals know themselves, know their context, value themselves, plan, act, experience outcomes, and learn (Field & Hoffman, 2015). They make decisions and intentionally behave in ways that promote independence and self-sufficiency (Chou et al., 2017). High levels of self-determination are linked to improved goal attainment, enhanced access to the general education curriculum (Shogren et al., 2012), self-control (Parker et al., 2012), more positive adult outcomes (Shogren et al., 2015), and higher satisfaction. (Lachapelle et al., 2005). Students who are self-determined are better equipped to control their own destinies (Seabrooks-Blackmore & Williams, 2012).

The third benchmark, SFB 1.3, expands the evidence-based research on paid work experiences to aligning those work experiences to the students' career goals and interests. One of the strategies with the highest effect sizes for predicting successful adult employment is paid work experiences while in school (Carter et al., 2012; Southward & Kyzar, 2017; Test et al., 2009). Paid employment has been empirically associated with successful long-term outcomes for SWD for over 30 years (Benz et al., 2000; Kohler, 1993, 1996; Kohler et al., 1994; Kohler et al., 2016, 2017; Kohler & Field, 2003). Provided access to employment, supports, and training, students with ID have long-term potential

for securing competitive integrated employment and living independently (Papay et al., 2018; Siperstein et al., 2014; Wehman et al., 2014).

SFB 1.4, knowing, requesting, and using accommodations as needed for full participation, is the next benchmark. The provision of reasonable accommodations mandated through federal law is a critical component of access for SWD to higher education (Ehlinger & Ropers, 2020). Despite both federal and state mandates requiring the provision of appropriate accommodations, studies revealed that college SWD are apprehensive about requesting them and faculty are often untrained (Lindsay et al., 2018). Disability disclosure is affected by a student's knowledge of how to access services and accommodations, awareness of eligibility for accommodations, access to documentation, understanding of their responsibility to disclose and seek services, willingness to disclose, perceptions of negative social reactions from disclosure, fear of being singled out, or being resented by their peers (Dorfman, 2019; Getzel & Thoma, 2008; Marshak et al., 2010; Thompson-Ebanks & Jarman, 2018). Many students want to erase their disability and start fresh in college (Abes & Wallace, 2018). Knowing, requesting, and using accommodations is critical across all stages and settings in life for SWD. "It is important we begin viewing transition as a lifelong process … and discuss key evidence-based practices that are linked to successful adult outcomes and span from birth to adulthood" (Gothberg et al., 2017, p. 129). Wong et al. (2021) reported that one of the most significant barriers for employers in providing job accommodations is the lack of knowledge regarding accommodations themselves.

The use of technology, including assistive technology, SFB 1.5, has been critical for academic, employment, social, and personal inclusive experiences (Kohler et al., 2017; Test et al., 2009). Further, assistive products in general have shown to improve daily functioning, community living, and inclusion in society (Owuor et al., 2017). It can also enhance independence, education, employment, social activities, and improve overall quality of life (Boot et al., 2018). Postsecondary institutions play a critical role in helping students with ID know and access technology that can assist them in their learning journey and into their adult lives.

SFB 1.6, knowing one's rights and responsibilities, is shown to improve students' experiences. Peterson et al. (2013) explain:

> Once students graduate from high school … [they] must transition from the world of *entitlement* services … to a world of services that is girded by *eligibility* criteria required by Section 504 and the ADA. These eligibility criteria mandate that services be available only when an individual with a disability self-identifies as having a disability. (p. 100)

A SWD must navigate the world of rights and responsibilities. Research shows knowing these rights and responsibilities improves adult outcomes for SWD (Kohler et al., 2016).

SFB 1.7, using financial aid to support enrollment, has long been shown as an evidence-based predictor for attendance and completion of postsecondary education for all

students (see Denning, 2019; Goldrick-Rab et al, 2016). Seminally, Stodden & Whelley (2004) shared:

> college is expensive for every student and the financial burden is often greater for students with intellectual disabilities and their families… work-study opportunities may be limited due to the need to focus on finding, coordinating and using accommodations in daily living and studies… college financial aid officers are often unaware of the unique and compounding issues [for these students]. (p. 12)

This can be due to expenses incurred for extra fees for students with ID to attend, services and supports needed, and other out-of-pocket costs. In recent years, due to modifications in existing federal legislation, students with ID who exit high school without a standard diploma or GED can now access federal financial aid. In Florida, students with ID are also eligible for scholarships to attend FPCTPs (FS §1004.6495). Scholarships of $7,000 are available annually. Students and their families are not always aware of these options for financial aid or how to access them.

Finally, SFB 1.8 acknowledges that students should have the option to determine how family members are engaged in their postsecondary educational experience. Once a youth with ID reaches the age of 18, they have attained the right to make decisions for themselves if they are their own guardian. As such, they have the right to determine who and how others are engaged in their educational experience. For those who are not their own guardians, students with the best college experiences and greater independent skills after exiting are those that were allowed to make their own educational choices (Grigal & Hart, 2010; Kohler et al., 2017).

Faculty and Staff-Focused Benchmarks (FSB)

The faculty and staff-focused domain "addresses the knowledge, attitudes, and beliefs of faculty and non-disability services personnel (e.g., student affairs generalists) to enhance access to higher education for students with disabilities" (Dukes et al., 2017, p. 115). For students with ID to have successful and inclusive postsecondary experiences, faculty and staff must be prepared. Research identified four critical factors that are reflected in the *Tool's* benchmarks. The first, FSB 2.1, is that faculty must engage in professional development aimed at learning how to adapt teaching practices to meet the needs of all learners. Seabrooks-Blackmore and Patterson (2015) identified teaching strategies and interventions that are inexpensive, easy to use, and have proven to be successful for SWD that "work in a variety of settings, for the majority of learners" (p. 301). The second benchmark, FSB 2.2, of ensuring accessible service, learning, social, and academic environments is not only grounded in research, but also required by the Americans with Disabilities Act Amendments Act of 2008 (ADAAA, 2008). An example of professional development needed in FSB 2.1 that may be needed for FSB 2.2 is increasing faculty knowledge of Universal Design for Learning (UDL; HEOA, 2008) and how to apply it in their courses.

For students with ID, Grigal and Hart (2010) found that "part of campus life, taking classes, and learning to navigate a world of high expectations lead to the development of skills

needed for successful adult life" (p. 71). FSB 2.3 focuses on campuswide modeling of high expectations (Test et al., 2009; Wehman et al., 2018) and respect for all which is supported by research and the Office of Civil Rights. Finally, FSB 2.4, of engaging program staff to enhance key college and university services, has shown to not only improve programs, but also increase completion rates for individuals with disabilities (Behling & Linder, 2017).

Program and Institution-Focused Benchmarks (PIB)

Program and institution-focused refers to "service provision by the SDS in a higher education institution and also includes institutional policies and procedures that pertain to college students with disabilities" (Dukes et al., 2017, p. 115). There are seven EBPPs represented in the PIB. The first benchmark, PIB 3.1, is the need for policies and procedures to support student recruitment, enrollment, advising, and completion of programs (Behling & Linder, 2017; Grigal & Hart, 2010). PIB 3.2 expands the first benchmark to include campuswide service support with the addition of transition to employment. Research shows that students with ID need this extra support to move from postsecondary education to employment (Bethune-Dix et al., 2020).

Postsecondary students are typically awarded a credential in the form of a diploma, certificate, or degree that provides verification of qualification or competency (Grigal & Papay, 2018). Legislation mandates, industry, and the literature posit that IHEs need to provide programs with *meaningful* credentials that are industry-related for all graduates. Industry-recognized credentials help convey career readiness by validating the knowledge and skills required for success (Levesque & Sigelman, 2019; Shanley et al., 2014). A credential awarded by a postsecondary provider raises expectations of employers and others that individuals have attained or mastered a certain level of competence (Ganzglass et al., 2011). A meaningful credential enables the student to enter the workforce with enough value that employers are willing to pay a good deal more than to someone who does not have the credential. In a recent study, Papay et al. (2018) found that earning a credential from an IHE almost doubled the odds of having paid employment at exit. Thus, PIB 3.3 addresses the need to offer programs where students complete meaningful credentials that lead to integrated competitive employment as defined by WIOA (2014).

The fourth benchmark, PIB 3.4, is closely aligned with SFB 1.3. This benchmark encourages the FPCTP to provide a range of on- and off-campus work experiences that align with the student's career goals and interest and targeted credentials. Research has shown that students who participate in internships, apprenticeships, and other forms of work experience are much more likely to be employed after completing their education (Daston et al., 2012; Muller & VanGilder, 2014; Test at al., 2009; Test et al., 2014). To succeed while in the program, sufficient personnel, materials, and fiscal resources are needed (Grigal & Hart, 2010). This is reflected in PIB 3.5. The sixth benchmark, PIB 3.6, reflects the laws for adult SWD to ensure that student recruitment, enrollment, engagement, completion, and transition to employment are Family Educational Rights and Privacy Act aligned (FERPA; 20 U.S.C. 1232§). Finally, the last benchmark, PIB 3.7,

is grounded in the research that shows ongoing program evaluation needed and used to inform the development and improvement of FPCTPs (W. K. Kellogg Foundation, 2004).

Concept and Systems Development Benchmarks (CSB)

The domain of concept and systems development "addresses the development, evaluation, or validation of a variable" (Dukes et al., 2017, p. 115). There are seven CSBs. The first benchmark, CSB 4.1, focuses on alignment of the program with the mission of the institution. Research states that when planning successful programs, organizations need to align their programs with the mission of the organization in order to be successful (Kohler et al., 2016). Current literature and events focus on diversity and inclusion issues. Thus, CSB 4.2 focuses on the need for IHEs to demonstrate their commitment to diversity and inclusion in institutional communications, strategic plans, mission statements, leadership messages, and system reviews (Leake & Stodden, 2014; Scheef et al., 2020). One of the recommendations for successful inclusive IHE programs is reflected in CSB 4.3, where the IHE uses an agreed upon framework for overall service delivery, including disability services for accommodations, modifications, and academic support (Dukes et al., 2017). In addition, CSB 4.4 is the need for an agreed upon framework for assessment and instruction that addresses the needs of all learners (Dukes et al., 2017; Scheef et al., 2020). The fifth benchmark, CSB 4.5, shares the need to agree upon standards of practice to meet the needs of all learners. Universal Design for Learning can be important to addressing both the fourth and fifth CSB benchmarks. UDL is mandated in the Higher Education Opportunity Act (HEOA; 2008), highlighting it as an important practice. Through the passage of the HEOA, UDL has provided students with ID a pathway to college and eventually community employment (Love et al., 2019. CSB 4.6 reflects the importance of agreeing upon the metrics and measures used to evaluate the outcomes of all learners as part of the strategic planning and accreditation processes (Dukes et al., 2017; Kohler et al., 2017). The final benchmark in this area, CSB 4.7 reflects the importance of engaging with the community. Engaging students in the community can lead to increased independent living and increased roles in civil activities such as leisure activities, voting, and volunteering (Dukes et al., 2017; Grigal & Hart, 2010; Kohler et al., 2016).

Discussion

The purpose of this paper was to share the development and process for identifying content of the *Taxonomy for Postsecondary Comprehensive Transition Programs (TPCTP*; see Figure 1) used in the online *Strategic Planning Tool: Postsecondary Education* component to support the development of inclusive postsecondary programs in Florida. After reviewing current literature and discussions, a nominal group technique revealed four domains comprised of corresponding benchmarks. The content and domains were established using three research-based frameworks on transition and postsecondary education for SWD: Dukes et al., 2017, Kohler et al., 2016, and Grigal et al., 2012. Building from this work, the Center identified a model to assist IHEs in Florida to develop inclusive postsecondary education programs for students with ID. Using the TPCTP as the guiding framework in the *Tool* provides a system that represents implementation science through which change is planned, implemented, and evaluated. This comprehensive taxonomy now serves as part of a capacity building model that helps

expand inclusive PSEs across the state of Florida and can be used to support other programs throughout the country.

Now entering its fourth year of implementation, the TPCTP has been used in the Tool to develop 19 inclusive postsecondary education programs across the state of Florida. As part of becoming an approved program, IHEs use the strategic planning information to incorporate in their state program application. Once becoming an approved FPCTP, programs are required to apply for federal CTP program status. As mentioned earlier, this is required in order to increase financial aid opportunities for students in their programs. Currently, the programs are offered on 24 campuses, with current programs planning to expand to additional locations. A major benefit of using the TPCTP in tandem with *The Logic Model Development Guide* (W.K. Kellogg Foundation, 2004) is that a systematic process and platform are now available that can scientifically determine what works for students with ID in inclusive postsecondary education programs in Florida.

Implications for Practice

Using the NGT provided a process that established the TPCTP. The domains and benchmarks provide implications for practice, particularly for IHEs interested in offering an inclusive postsecondary education program on their campus. Using the TPCTP as a foundation for strategic planning will assist IHEs in developing high-quality programs that include the latest research and EBPPs for students with ID. Participants target key components in annual plans to maintain a continuous improvement process and secure sustainability within their institution. IHEs can use the TPCTP as a foundation of their strategic planning to heighten community awareness of their commitment to diversity, equity, and access for all community members in their areas. To appropriately address the call for more inclusive postsecondary education programs for students with ID across the country, the TPCTP provides a viable framework which all IHEs can use to build capacity in offering CTPs on their campuses. More importantly, the TPCTP translates research into practice, and adds to the field of transition what works in inclusive postsecondary education programs for individuals with ID.

Limitations

The development of the TPCTP used content from three research-based frameworks on transition and postsecondary education for SWD. Participants were experts in the field of transition and postsecondary education, who were purposefully selected to establish content validity. The five-phase process was used to ensure consensus among participants that the TPCTP captured the best use of available research and EBPPs that could be used for all types of IHEs, including career and technical colleges, state colleges, and universities. Since its development, more research and EBPPs may be available and need to be included in the taxonomy.

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Workforce Innovation and Opportunity Act (WIOA) of 2014, Pub. L. 113-128, 29 U.S.C. §§ 3101 et seq.

Table 1

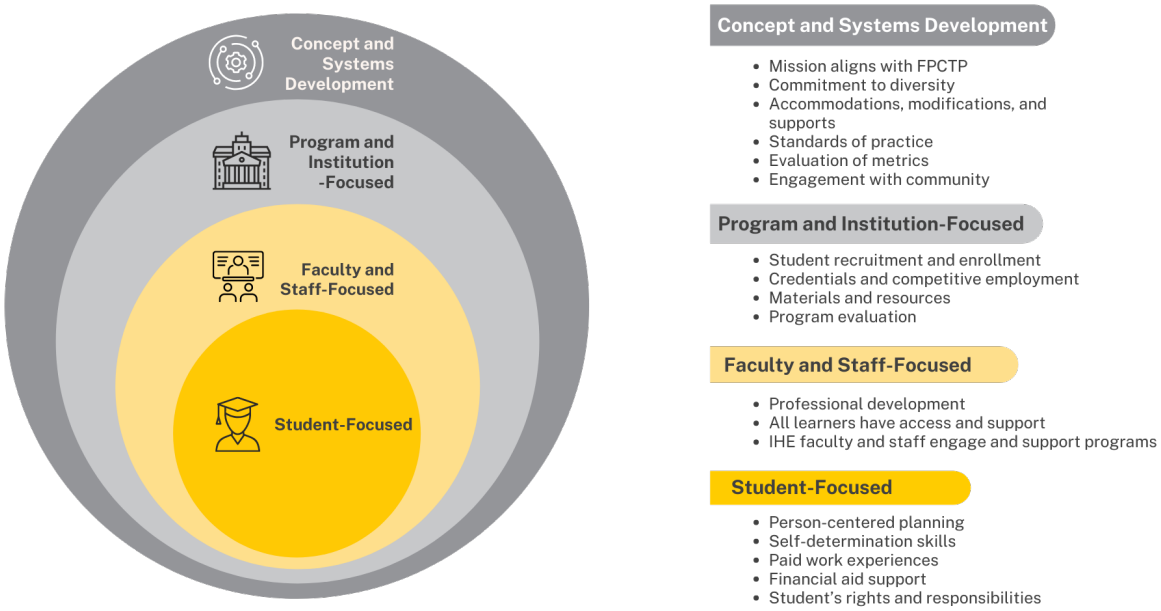
Strategic Planning Tool: Postsecondary Education Benchmarks

Student-focused	
	1.1 Students pursue an inclusive program of study that aligns with their personal, academic, and career goals and interests as established through person-centered planning that includes the use of existing and or new, relevant assessments
	1.2 Students' programs of study include development and application of self-determination skills
	1.3 Students engage in integrated, paid work experiences aligned with career goals and interests
	1.4 Students know, request, and use accommodations necessary for full participation
	1.5 Students use technology (e.g., general and assistive technology) to support their engagement in academic, employment, social, and personal environments
	1.6 Students understand their postsecondary rights and responsibilities as reflected in the IHE's code of conduct
	1.7 Students use financial aid as needed to support their enrollment and participation
	1.8 Students determine how parents and family members are engaged in their postsecondary education experience
Faculty and Staff-focused	
	2.1 Faculty engage in professional development to adapt teaching practices that meet the needs of all learners
	2.2 Faculty and staff ensure service, learning, social, and academic environments are accessible to support all learners
	2.3 Faculty and staff across campus environments model high expectations and respect for all students
	2.4 Faculty and staff engage with program staff to enhance key college and university services
Program and Institution-focused	
	3.1 Policies and procedures (IHE, program-specific, K-12 outreach) support student recruitment, enrollment, advising, and completion of the FPCTP
	3.2 All campus services support student recruitment, enrollment, engagement, completion, and transition to employment
	3.3 The IHE provides a meaningful credential upon completion of the program that leads to integrated, competitive employment
	3.4 The FPCTP provides a range of work experiences on and off campus, relevant to the student's target credential and aligned with the student's career goals and interests (e.g., internships, apprenticeships and other forms of work experience)
	3.5 Sufficient personnel, material, and fiscal resources are provided to support students' completion of their postsecondary education programming
	3.6 FERPA-aligned family outreach and engagement strategies support student recruitment, enrollment, engagement, completion, and transition to employment

	3.7 Program evaluation is ongoing and used to inform FPCTP development and improvement
Concept and Systems Development	
	4.1 The FPCTP aligns with and or extends the IHE's mission
	4.2 The IHE's value for and commitment to a diverse campus community, including students with intellectual disabilities, is demonstrated in institutional communications, strategic plan, mission statement, leadership's messages, and system reviews
	4.3 The IHE uses an agreed upon framework for overall service delivery, including disability services (e.g., accommodations, modifications, academic support)
	4.4 The IHE uses an agreed upon framework for assessment and instruction that addresses the needs of all learners
	4.5 The IHE follows agreed upon standards of practice to meet the needs of all learners
	4.6 As part of strategic planning and accreditation, the IHE uses agreed upon metrics or methods to evaluate the outcomes of all learners
	4.7 The IHE engages with the community

Figure 1

Taxonomy for Postsecondary Comprehensive Transition Programs



Note: This model shows the four domains and general content areas used in the online *Strategic Planning Tool: Postsecondary Education* component for supporting program development of inclusive postsecondary programs in Florida.