

# The Use of a Coaching Model to Support the Academic Success and Social Inclusion of Students with Intellectual Disabilities in Community and Technical College Settings

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## Abstract

The enrollment of students with intellectual disabilities in postsecondary education has increased steadily over the past three decades. This growth has been catalyzed by federal legislation (i.e., the Higher Education Opportunity Act of 2008), advocacy, public acknowledgment that individuals with intellectual disabilities have the capacity to successfully participate in postsecondary education programs, and changing parental expectations. Although many colleges and universities have mentoring programs, few studies have explored the influence of a formal mentoring approach utilizing paid professional staff as coaches. This paper presents findings from qualitative interviews with 39 students with intellectual disabilities who participated in a five-year demonstration project entitled Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSID). This project, rooted in the Check & Connect mentoring model, was conducted in partnership with the Disability Services offices of two community and technical colleges in the Upper Midwest. Students considered the two most valuable components of the coaching program to be the development of a positive student-coach relationship and the “open door” policy in which students could drop in on their coaches without an appointment. This flexibility in scheduling fostered rapport building between students and their coaches and allowed students to receive individualized supports as needed. According to the students, the positive aspects of the program included their improved academic success and increased academic motivation and engagement. Several recommendations with implications for future coaching models and strategies are also provided.

*Keywords: Coaching, intellectual disability, postsecondary education*

The nature of work in our society is undergoing dramatic changes. For students with and without disabilities, obtaining a college degree or an industry-recognized credential is necessary to obtain employment that affords the individual future career advancement and a livable wage (National Research Center for Career and Technical Education, n.d.). It is estimated that by 2020, 65% of all jobs will require some postsecondary education (PSE) and training, up from 28% in 1973 (Carnevale, Smith, & Strohl, 2013). Education and healthcare, some of the fastest growing occupations, have the highest demand for postsecondary education, with over 80% of their workers currently required to have formal PSE and training for their positions.

PSE institutions are ideal places to provide students with intellectual disabilities (ID) with oppor-

tunities to develop skills needed in the competitive job market (Grigal, Weir, Hart, & Opsal, 2013; Smith, Grigal, & Sulewski, 2012). Migliore, Butterworth, and Hart (2009) found that youth who participated in both PSE and received vocational rehabilitation (VR) services were 26% more likely to exit PSE with paid jobs than those who only received VR services. PSE is linked not only to improved employment opportunities but also to better health outcomes, better social networking skills, increased independence, and improved self-advocacy skills (Hart, Grigal, Sax, Martinez, & Will, 2006; Thoma et al., 2011). One possible explanation as to why PSE improves employment outcomes for students with ID is that college experiences expand students' social networks, which often leads to increased employment opportunities (Hart et al., 2006; Hughson, Moodie, & Uditsky, 2006).

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Over the past two decades, there has been growing interest in connecting students with ID to PSE opportunities. A 2010 study revealed that the number of students with ID who reported ever having enrolled in PSE increased 20% over fifteen years, from 8% in 1990 to 28% in 2005 (Newman, Wagner, Cameo, Knokey, & Shaver, 2010). The increasing enrollment of students with ID in PSE has been attributed to many factors: increased professional and public awareness and advocacy regarding the benefits of PSE for students with ID participating in PSE; greater acceptance that students with ID have the capacity to successfully participate in PSE programs; the influence of federal legislation (e.g., Americans with Disabilities Act, Higher Education Opportunity Act) which supports students access to and participation in PSE; and raised expectations from parents for their child's participation in PSE (Hart et al., 2006; Thoma et al., 2011). Despite increased enrollment, students with ID continue to experience some of the poorest PSE outcomes and the majority of students with ID do not complete their degrees (Sanford et al., 2011).

### **Challenges Faced by Students with Intellectual Disabilities in College**

Although increasing numbers of individuals with ID are enrolling in PSE, the extent to which they access regular academic courses, participate in social activities and events on campus with students without disabilities, and successfully complete programs of study and graduate with a meaningful exit credential (i.e., degree or certificate) are not as well understood. When students with ID transition from high school to college, they are shifting from an environment in which services and supports are organized and managed by schools on behalf of students to an environment in which students must assume the responsibility for their success by seeking out the services and supports they need on their own. Students with ID are often unprepared for this dramatic change. As a result, they may experience significant academic difficulty, failure, and social isolation in college, often resulting in them dropping out. In one study, Cherif, Adams, Movahedzadeh, Martyn, and Dunning (2014) interviewed 190 faculty members from two- and four-year colleges about why students with and without disabilities fail courses or drop out of college. Students' lack of basic foundational academic skills (e.g., mathematics, writing, reading comprehension), inability to manage their academic workload and maintain effective study habits, and inability to meet deadlines were cited as the primary reasons that students dropped out.

Additionally, many students with ID may lack specific skills essential for navigating the PSE environment, such as social, communication, and decision-making skills. These skills are often referred to as self-determination (SD) skills. Wehmeyer and Little (2005) defined SD behavior as "volitional actions that enable one to act as the primary causal agent in one's life and to maintain or improve one's quality of life" (p. 117). This contemporary view of self-determination has evolved from earlier research and theory development on motivation and self-determination (Deci & Ryan, 1985, 1987). This research stresses that individuals strive to develop a sense of autonomy and control over their lives and this is realized through the choices and decisions one has control over to self-direct their life experiences. This view also recognizes that there are social, cultural, and environmental factors that undermine an individual's autonomy and control thus, inhibiting their sense of initiative, competence, and confidence in acting on their own volition (Deci & Ryan, 1987). Historically, individuals with ID have been viewed as limited in their capacity to exercise choice and control over their lives. Consequently, throughout their lives parents, teachers and other professionals have assumed the role of making choices and decisions on their behalf. Postsecondary education environments, however, require that all students, including students with ID assume primary responsibility for self-directing their college experience. One of the goals of the TPSID project was to have the coaches work with the students in assuming higher levels of autonomy in making decisions and choices regarding their academic programs, types of social engagement at the colleges, community living arrangements, and other aspects of college life.

Examples of SD-related skills are goal-setting, problem solving, self-regulation, and self-advocacy. Research has shown that these skills are associated with positive post-school outcomes but are often lacking in students with disabilities (Chambers et al., 2007; Shogren, Wehmeyer, Palmer, Rifenshark, & Little, 2015; Wehmeyer & Palmer, 2003). Such skills are key to ensuring that students receive the services and supports they need to successfully participate in their programs of study and attain a degree or certificate (Izzo & Lamb, 2002; Shogren & Plotner, 2012). Without these SD-related skills, the requirements and demands of the PSE environment challenge students with disabilities' ability successfully manage and complete their programs of study.

Many students with ID not only face academic challenges when enrolled at PSE institutions, but also face administrative and systemic barriers. Thoma (2013) gathered information from program coordina-

tors who managed PSE programs for students with ID. In her research, program coordinators and staff described challenges in navigating university policies and the different organizational and cultural environments of the systems that support students with ID. Other barriers identified included: PSE programs for students with ID tend to be located in remote and isolated areas on campus; PSE programs for students with ID are difficult to sustain; and PSE administrators generally fail to buy into the value of these programs and to officially recognize students with ID as traditional students (Thoma, 2013). Researchers also noted the difficulty of providing holistic services that meet the diverse needs and capacities of each student (Hart et al., 2006; Thoma, 2013). Many of these systems-level barriers prevent students with ID from accessing PSE resources and integrating successfully into the campus community.

### **Coaching and Mentoring Programs in Postsecondary Settings**

Despite limited research on the use of coaches (also referred to as mentors in some studies) to support students with disabilities in PSE settings, coaching has been a common support service strategy for students with and without disabilities in college and university settings (Ryan, 2014). Previous studies have revealed that mentoring programs for students with disabilities in community and technical college settings are associated with a variety of benefits (Blumberg & Daley, 2009; Dillon, 2007; Jones & Goble, 2012; Quaye & Harper, 2014). For example, the Career and Community Studies program at the College of New Jersey supplemented program staffing with peer coaches who provided social and academic support for students with ID. Coaches were recruited from student associations (e.g., Best Buddies, sororities, Sports Club) and undergraduate and graduate classes, who attended classes and social activities alongside their peer student mentees with ID (Blumberg & Daley, 2009).

Studies have documented benefits of mentoring programs for both mentors and mentees. Baier, Markman, and Pernice-Duca (2016) found that freshmen perceived mentoring as supportive and positively associated with their intent to finish college. Although participants in this study were students without disabilities, it is likely that providing mentoring to students with ID will also increase retention and academic/social inclusion. Many mentors supporting students with ID in PSE settings have experienced satisfying relationships with and an increased belief in the capabilities of their mentees (Blumberg & Daley, 2009). Jones and Goble (2012) identified the

following strategies for creating effective mentoring programs on university campuses for students with ID: (1) develop effective systems for communication among support services offices, faculty members, mentors, and students; (2) maintain high expectations for students; (3) encourage student independence; and (4) prioritize students' social participation.

### **The Study Context and Goals**

The present study was conducted as part of a five-year, federally-funded Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSID) demonstration project. Primary objectives of this project included increasing student participation in regular college courses as well as certificate and degree programs (U.S. Department of Education, 2011).

The current demonstration project was conducted in partnership with the Disability Service (DS) offices on two rural community and technical colleges in the Upper Midwest. Each college is located in a community of approximately 20,000 individuals. Both sites offer a broad range of 2-year associate degrees and certificate programs in technical fields such as manufacturing, construction, healthcare, automotive, and other trades. In addition, both colleges offer extracurricular activities. Neither school offers on-campus housing. The enrollment at each college is approximately 6,000 students, including students with and without disabilities. Roughly half of the students at each college enroll full-time. Students of color comprise 10%-13% of the student population at each college. Both colleges have more than twenty years of experience providing educational and vocational training opportunities for students with ID. Since the mid-1980s, both colleges have operated Occupational Skills Programs, which are nine-month programs that provide an opportunity for students with ID to participate in technical education programs, learn functional adult living skills, and engage in community-based employment opportunities.

The DS office at each of the community and technical college settings served as the first point of contact for students with ID. While it was not the responsibility of the DS offices to operate the coaching project, DS professionals served a key role in consulting with project coaches on institutional policies and procedures concerning project implementation, and in working with the coaches in determining how students can access accommodations and other resources of their office. Students most often received DS assistance in determining specific accommodations when attending classes (e.g., recording lectures, allowing additional time to complete in class assign-

ments, opting for oral exams, etc.) and receiving DS services outside of class (e.g., academic tutoring, preparing course materials in alternate formats, testing in a room with limited distractions, etc.).

### **Check and Connect Mentoring Model**

The Check and Connect (C&C) mentoring model was the primary intervention implemented in this TP-SID project. The underlying theory and strategies of this model are consistent with an individual support model and person-centered planning (Grigal, Dwyre, & Davis, 2006; Kaehne & Beyer, 2014), in which services are based on students' individual needs. C&C is a relationship-based, data-driven mentoring program designed to assist students with and without disabilities with relationship building, problem-solving, and capacity building, rooted in the resilience framework (Christenson, Stout, & Pohl, 2012). The primary role of the C&C mentor is to regularly "check" on student progress and, as needed, "connect" them with needed support services and assistance. Each C&C coach worked with a caseload of 25-30 students concurrently. C&C met the evidence criteria of the U.S. Department of Education's What Works Clearinghouse as a mentoring intervention that positively affects high school students' persistence in school (What works Clearing House, 2006, 2015). Several efficacy trials of C&C for high school students have shown positive effects on student attendance, academic performance, and persistence in school (Maynard, Kjellstrand, & Thompson, 2014; Sinclair, Christenson, Evelo, & Hurley, 1998; Sinclair, Christenson, & Thurlow, 2005). C&C has been widely adopted across the country at the state and local levels.

Recently, C&C has been implemented in several postsecondary settings. A recent program implemented by Regional Opportunity Initiatives (2016) in collaboration with Ivy Tech Community College in Bloomington, Indiana used C&C coaches from a community college to support at-risk students and prepare them for pathways into technical certifications, associate degrees, and other PSE programs. In another study, Johnson and Stout (2011) implemented the C&C model in two community and technical colleges in Minnesota and Kentucky. Participants in this study were students with disabilities and other students identified as being at risk of not completing their two-year program. Results of the study found that students who received the C&C intervention passed more courses, maintained a higher GPA, and experienced better retention than students in the comparison group.

Coaches in the project were three full-time, paid professional staff, funded by the TPSID grant. These

coaches received training on the theories underlying C&C, the concept of student engagement, how to implement C&C, and how to align the project coaching services with DS at the two community and technical colleges. Trainers from the University of Minnesota provided guidance on how to use the C&C monitoring form to track student progress. They also instructed coaches on how to develop an individualized program plan with problem-solving strategies based on data collected from the student's data monitoring form. The data monitoring form is used in all C&C applications to track and record students' class attendance, academic progress, challenges they are experiencing academically and socially, and specific intervention plans to address the challenges). Trainers embedded the principles of universal design (Scott, McGuire, & Foley, 2003), SD (Chambers et al., 2007) and person-centered planning (Neubert & Redd, 2008; O'Brien & O'Brien, 2000) into the program. Although students' needs varied, overall, the services focused on the following: participation in regular courses, social inclusion, independent living, and career exploration and post-program employment (Johnson & Echternacht, 2016). Two supervisors, one on each campus, provided ongoing supervision for the coaches.

### **Purpose of the Present Study**

Most studies of the experiences of students with disabilities in PSE settings have used data from surveys and interviews with PSE faculty, staff, and administrators instead of data gathered from students directly (Thoma et al., 2011). This qualitative study, based on interviews with students with ID, presents student perceptions of how mentoring influenced their PSE experiences. Specifically, it addressed the following questions:

1. What were the key components of the mentoring services received?
2. What program characteristics were valued the most by the students?
3. What were the perceived benefits of the coaching services?

### **Method**

This was a phenomenological qualitative study based on interviews of students with ID enrolled in two community and technical colleges. The phenomenological research aims to understand a phenomenon as it is experienced by those most directly involved (Creswell, 2009). In this study, the phenomenon of interest is the experiences of PSE students with ID who participated in a coaching program.

## Participants

The TPSID model demonstration project limited participation to students with an intellectual disability (ID), including students with Autism Spectrum Disorders (ASD). The American Association on Intellectual and Developmental Disabilities (AAIDD) defined intellectual disability as characterized by significant limitations in both intellectual functioning and in adaptive behavior, which covers many everyday social and practical skills, and originates before the age of 18 (Schalock et al., 2010). Documentation of the disability was obtained through prior school records, referral from a community service agency that has completed a disability determination (e.g., vocational rehabilitation Social Security Administration), or documented intellectual disability by a doctor or psychologist. A total of 39 students with ID and ASD from the two community and technical colleges sites participated in the study (19 males, 20 females). The average age of the study participants was 21 years. Participants in the present study were primarily certificate-seeking students with ID, with approximately 10 students (26%) who were enrolled in degree programs, with over 90% being Caucasian. All participants lived off campus since neither college provided on-campus living.

These students worked with their coaches for an average of nine months, with student-coach relationships ranging from 2-30 months in duration. Each coach had extensive experience working with individuals with disabilities: one had previously helped individuals transition from prison to communities, one had been a vocational rehabilitation counselor, and one had worked as a social worker.

The recruitment process for the interviews about the TPSID program had two phases. First, the researchers contacted three C&C coaches and explained the purpose of the study. Second, three C&C coaches shared information about the study with their mentees. Approximately 100 students who were enrolled in the TPSID project and were asked to participate. Students were told that researchers from a university were interested in learning about their experiences in the C&C program and those who were interested volunteered for the study. Two researchers traveled to the colleges and interviewed the students. A total of 39 students in the TPSID program at the time of the interview (2013) volunteered to participate in the interviews.

## Data Collection

Two researchers with a background in qualitative research conducted the student interviews. An interview protocol was developed that included seven sections:

1. Background (e.g., “How long have you been at this college?”);
2. Experience with coaches (e.g., “What do you do with your coach?”);
3. Academic (e.g., “How are you doing in your classes?”);
4. Independent living (“Where are you currently living?”);
5. Social engagement (e.g., “Do you participate in social activities on campus?”);
6. Vocational (“Where would you like to work when you finish with school?”); and
7. Conclusion (“Do you have any other comments about your experience in C&C?”).

All interviews were recorded and later transcribed.

## Data Analysis Procedure

To assess student experiences with the program, the researchers engaged in an inductive analysis process, moving from open coding to axial coding and then selective coding (Gilbert, 2008). Interviews were coded and discussed by the researchers. The first and second author coded 80% of the interviews side-by-side and discussed discrepancies as they arose until a consensus was reached. During open coding, transcribed texts were categorized into: (1) background information about students, and (2) student experiences with the mentoring program. Then, axial coding across data was conducted and sub-categories were identified based on the transcriptions (e.g., “quality of relationship,” “program features”). Finally, themes were developed based on the sub-categories and some categories were merged. For example, the categories “multi-tiered services” and “individualized services” were combined since both involved tailoring services to meet students’ unique needs. Through this selective coding process, relationships across datasets were identified and refined into themed concepts.

## Results

### Question 1: What Were the Key Components of the Coaching Services Received?

Students were asked what they discussed with their coaches during their coaching sessions. Analysis of the student interviews revealed several themes including academic support, social participation, career guidance, community living, and other supports. Table 1 summarizes the results, showing the most common types of support provided by the coaches. “Number of students” refers to the number of students who reported receiving specific types of services, and “Number of times mentioned” refers to how many

times a service area was coded. More quotes from students supporting all themes were summarized in Table 2.

**Academic support.** Table 1 shows that academic support was mentioned by 31 students (79%) and coded 82 times. Thus, it was by far the most common topic that students discussed with their coaches. Most significantly, several students indicated that their coaches worked with them to help them avoid dropping classes when they were overwhelmed with their assignments, improve their grades, and manage their academic workloads. For example, Adam met with his coach every other week for support and was enrolled in the degree program. He was receiving a scholarship to attend college, was renting an apartment with his brother, and worked part-time to make ends meet. Pursuing a career as a teacher, he recalled: “I had a problem once when I wasn’t doing too well in class, and she [coach] helped me work with an instructor to pull my grade back up...and I passed.”

Many students noted that their coaches taught them study and test-taking strategies and explained complicated or confusing assignments. The coaches often consulted with DS staff to identify specific accommodations and supports that would benefit individual students. Students also shared that their coaches helped them focus and stay on track with their schoolwork, provided constructive feedback, and held them accountable for completing their work. Several students mentioned that their coaches taught them how to check their grades online and stay up-to-date with their class assignments.

**Social participation.** Students frequently mentioned that meetings with their coaches focused on their social participation at the college. Several students indicated that their C&C coaches helped them expand their social networks and friendships across campus. Mark, a student in the degree program who lived at home with his parents, aspired to pursue a career in music. He said: “Check and Connect actually has gotten me into different types of organizations. They’ve gotten me into TRIO [a student support program on campus]...Then also again with the help of Check and Connect they have helped me become a member of Phi Theta Kappa.”

Many students reported that the TPSID Club was their primary or only social outlet on campus. The TPSID Club was part of the demonstration project in which weekly events, such as movies or game nights, were organized by students and/or coaches. It provided additional opportunities for students with ID to socialize outside of their classes. Several students indicated that the club allowed them to foster friendships and/or that it promoted confidence and

leadership skills. Mary, a student who was living with her parents while attending the certificate program, said that her goal was to eventually move into a more independent living situation with a friend. She shared that in the TPSID Club: “You make a lot of friends and find friends that like what you like to do.” Students also reported that their coaches helped them become involved in social and recreational activities at the college with students without disabilities (see Table 2).

**Career guidance.** Students varied in the amount of career guidance they received from their coaches. Some students mentioned that their coaches checked in with them about their current employment and future career plans, but other students indicated that their coaches provided little to no career guidance because VR staff provided that support. Other students were encouraged by their coaches to seek career planning advice from college career guidance and counseling staff.

**Community living.** Since both of the community and technical college sites did not provide housing on campus, most students lived at home with their parents or lived in independent or supervised living arrangements near campus. Students discussed various aspects of community living with their coaches. Several students worked with their coaches to set up a community-based living situation during or after their participation in the program. Others counted on their coaches to help them resolve conflicts with their roommates, property owners, or for help to manage other community living-related issues. Nancy, a student in the degree program who is a certificate program graduate, said that she has three roommates and has been living with them for several years. She shared: “There were a couple of times where me and my roommates were having a fight, and then I went to [coach] and she helped take care of that.”

**Other supports.** Students received supports from their C&C coaches on a variety of other topics as well, including navigating registration, financial aid, and email access, and for a few students, dealing with anxiety, depression, or anger issues. For example, Peter, a student participating in the certificate program, lived with his father who was ill and commuted one hour to campus. He confided:

I talked to [coach] about my depression, because I have some thoughts of things that I wasn’t really happy about...She helped me out and got me into counseling again just to deal with it. She really helped me out a lot... I’ve been doing way better.

In addition to academic strategies and supports, stu-

dents relayed that their coaches taught them time management skills, organization skills, budgeting and financial literacy, and problem-solving skills, referred to in Table 1 as “soft skills.” Jeff is a student from out of state who was pursuing two degrees at the college. With financial support from his parents, he lived independently in an apartment near campus. He reflected on how his coach supported him:

She [coach] tries to make sure I’m organized, which is an ever present battle. I have ADHD and dyslexia and organization is not my strong suit. She’s trying to make sure I’m doing my homework. I don’t really need someone to do that part, but you know but someone on my butt does occasionally help. She makes sure I’m not getting overwhelmed that’s a help. Sometimes she just listens to me vent, that’s a help. Then sometimes she give constructive criticism, which annoys me, but it’s a help.

A few students needed extra support for the transition into college, so the coaches provided a welcoming space for them to acclimate to the new environment as they struggled to separate from their parents and begin living on their own. Several parents were, however, actively involved with their adult child with ID during the full course of their participation in college. Student consent for parental involvement was promoted by the coaches, and for some students this provided an important level of encouragement as well as support to meet their financial and housing needs.

### **Research Question 2: What Program Characteristics were Valued the Most by Students?**

Students were asked to identify and discuss the specific TPSID program characteristics and components that they most valued during their PSE experience. Students stated that (1) the flexible meeting times and open-door policy and (2) the relationship-based approach were the most valuable components of the program.

#### **Flexible meeting times and open-door policy.**

Approximately 45% of the students indicated that they sought out their coaches for support when they needed help. Although students in the program typically had a scheduled weekly or biweekly meeting time with their coaches, many students accessed their coaches on an as-needed or informal, drop-in basis. The coaches’ “open door” policy was considered an asset by many of the students in the program. Eva, a student in the certificate program, was an English Language Learner who was working to gain citizenship in the United States during her time in the pro-

gram. She was also pursuing her Certified Nursing Assistant license, and explained the value of the flexible meeting schedule:

My favorite part of Check and Connect is when my coach tutors me when I have a hard time understanding questions. I just stop by his office because he has office hours anytime. He is not like regular teachers that has a class. I could just stop by anytime, and he would just help me with my question. If he does not understand the question, he looks for someone else to help me. He is a great guy.

**Relationship-based approach.** Forty percent of the students interviewed shared positive feedback about their relationship with their coach. The majority of the student comments focused on their coaches’ accessibility and responsiveness. Students also noted that their coaches would go out of their way to answer questions and help them understand challenging or confusing academic material and assignments. Several students commented that they felt safe and comfortable with their coach and that they considered them a trustworthy support on campus. Hayley, a student in the accounting degree program who aspired to be a bookkeeper, lives with her son and husband and explained how her coach provided her the necessary support to stay connected to the school while she juggled many responsibilities:

She was able to calm me down and keep me from dropping some classes when I panicked. Turns out I was getting a high C in them anyways even with the lack of turning some of the first few things in because I had no idea what was going on. I would not have come here if it weren’t for this program. I did not know it existed before. It may have, but if I did not have a place to go that I felt safe or to ask questions where people understood that I am a little bit different from everybody else, I would not be here.

### **Research Question 3: What did Students Report as the Overall Benefits of the Program?**

Students were also asked in what ways the help they received from their coaches changed their lives. Students shared how their academic engagement and other areas of their lives were improved by their relationship with their coach.

**Improved academic performance.** The greatest outcome of the PSE program, according to the students, was the improvement in their academic performance. Lilly, a student in the degree program, has

two children and shared how difficult it can be as a parent to find time to focus on her schoolwork. She shared: “Being able to sit down and work on things and think it through and be able to have someone to bounce those ideas off of and get feedback helped everything go so much more smoothly.” Several students noted that their coaches helped them to avoid failing their classes. Other students stated that their school workloads were more manageable and easier to understand after they began working with their coaches. One student mentioned that her coach helped her be successful in a class that she had been planning to drop. Another student claimed that she would have dropped out of school if she had not had the support of the program and her coach.

**Increased motivation and engagement.** Several students explained that their coaches motivated them to work harder in school and retain interest in college. One student explained that his coach connected him with tutoring resources and that his positive experiences working with his tutors inspired him to want to become a tutor or a C&C coach himself.

**Other benefits.** The students not only benefited directly from program resources, but they also shared how their C&C coaches connected them with broader resources to help them navigate the college on their own. Ashley, a student in the degree program with a focus on children’s psychology, lives independently with her boyfriend. She mentioned:

I like that I have somebody that I can go to if I’m frustrated. Before when I was at the college, I had nobody to help me, and I felt like I was always going in a circle. I didn’t feel like the college really set up a whole lot of things for students with disabilities to be successful. It’s nice to have that change.

## Discussion

Our findings show that students most often engaged their coaches in relation to: seeking academic support and guidance, looking for opportunities to participate in social events with students with and without disabilities, discussing future career goals and identifying community service agency staff (e.g., VR counselors) who could assist them in achieving those goals, and getting assistance to resolve community living challenges and difficulties. The two most valuable components of the coaching program as perceived by these students with ID were the flexible meeting schedule and “open door” policy in which students could drop in on their coaches without an appointment, and the development of a positive

student-coach relationship. Positive outcomes of the coaching program included improved academic achievement and increased academic motivation and engagement.

## Academic Supports Provided to Students with ID

Academic support was the most frequently identified need discussed by the students during their coaching sessions, with 80% of students listing academic support as one of the topics discussed during their meetings with their coaches. The academic challenge has been identified by previous studies as one of the major barriers to college degree completion among students with ID (Cherif et al., 2014). Thus, one role of the coaches is to help students be prepared for classes by teaching them effective study habits and helping them understand faculty expectations regarding meeting course requirements.

College and university academic support services offered through DS offices are made available to students with a documented disability. However, students with ID may not have self-advocacy skills to seek out these services without assistance. Many faculty members interviewed in Cherif and colleagues’ study (2014) noted that many students did not ask for help from their instructors or advisors and did not use available resources such as tutoring services on campus. Based on the interviews, most of the students reported being unaware of how to access DS support services, how to approach faculty to ask questions about course assignments and requirements, and how to independently problem solve other challenges encountered in the college setting.

Self-Determination skills have been consistently shown to be associated with academic success and desired employment outcomes (Wehmeyer & Palmer, 2003). However, students with ID often lack these skills (Grigal et al., 2006; Izzo & Lamb, 2002; National Collaborative on Workforce and Disability for Youth, 2015; Shogren et al., 2015). It is important that everyone involved with the student with ID play a role in coaching, teaching, and reinforcing the student to develop SD skills (Shogren, et al., 2015). This can include paid coaches, peer mentors, DS staff, academic advisers, faculty, and parents. Coaching strategies like C&C can complement existing disability services on campus. Having a current DS and/or other college staff member or volunteer mentor provide a basic “check-in” on the student can help to avert difficulties the student may be experiencing.



### **Social Supports Provided to Students with ID**

Social participation is another topic mentioned by most students when we asked them what they discussed with their coaches. Coaches used different strategies to help students engage socially, such as encouraging students to participate in organized campus events or working with students to organize a movie night and invite their peers without disabilities to participate.

Participating in campus events and making friends are very important for students with disabilities in PSE institutions because one's social network is a marker of social capital (i.e., the resources an individual has access to through a network of social relations), which is associated with higher rates of employment in the general population (Alder & Kwon, 2002). Yet, research has shown that people with ID have smaller, less diverse social networks than their peers without disabilities (Eisenman, Farley-Ripple, Culnane, & Freedman, 2013). In a companion study using quantitative data collected by this demonstration project, we found that students with ID who participated in campus events were four times more likely to have paid employment while attending college (Qian, Johnson, Smith, & Papay, 2018). Although social participation is important, it has received much less scholarly and programmatic attention compared to providing academic support for students with ID. We argue that providing services that foster social inclusion in the PSE setting needs to be viewed as a priority for PSE programs and that mentoring programs may be one way to reach this goal.

### **Relationship as an Essential Feature of the Coaching Program**

Students considered the trusting relationship they had with their coaches to be the most valuable component of the C&C mentoring program. Based on our interviews, students seemed very comfortable sharing their struggles and successes with their coaches. They believed that their coach was genuinely interested in them and was committed to providing support.

Building a nurturing and supporting relationship based on mutual trust is arguably an essential component of C&C. The developers of the C&C mentoring model used resilience research as one of its theoretical frameworks (Christenson et al., 2012). Three decades of resilience research have clearly shown that a strong bond to a caring adult is the most robust and pervasive protective factor associated with resilience (Masten, Cutuli, Herbers, & Reed, 2009). The findings from the current study provide evidence that students with ID recognized the importance of such relationships to their resilience in the PSE setting.

The "open-door" policy in which students could drop in on their coaches without an appointment created opportunities for students and their coaches to develop a trusting relationship. Many students in our study reported that they would just drop in and say hi to their coach. Some of them would stop by if they needed someone to brainstorm some strategies with them. All these "quick meetings" provided many opportunities for students and their coaches to interact and get to know each other

### **Mentoring and Coaching are Common Strategies for Supporting Students in PSE Settings**

Although very few empirical studies have investigated the effectiveness of using coaching and mentoring programs to support students with ID in PSE settings, many colleges and universities have adopted this practice (Griffin, Wendel, Day, & McMillan, 2016; Jones & Goble, 2012). In this study, the C&C coaching services complemented the DS support. Students were coached on how to request DS support services, ask appropriate questions of faculty, and manage their academic course schedule. One issue reported by several students is related to feelings of anxiety and stress due to academic and social pressures. For example, one student reported that she experienced anxiousness and had periodic meltdowns concerning her interactions with her academic program. Knowing that she could meet her coach at any time throughout the school day provided tremendous emotional support and a safe place for the student to talk about her needs. The case described by the coach is common. Epidemiological studies have shown that mental health problems are prevalent among college students (Blanco et al., 2008) and in part, this may be due to the increase in academic requirement and increase in social connectedness (Twenge, 2000). Similar to the general student population, students with ID may experience emotional and mental health related challenges. In these situations, coaches provided referrals and communicated their concerns to the DS office to identify appropriate services for the student.

### **Limitations**

Several limitations of this study need to be acknowledged. First, although all TPSID students were informed about this study, only half of the students enrolled in the program at the time of the study signed up for the interview. Thus, results from this study are based on a convenience sample and may not represent the opinions of all program participants. Hence, results from this study may not generalize to other TPSID programs. There were also limitations on the extent to which project staff could gather information

on the student's level of intellectual disability or the specific special education services students received in high school. Project staff were not involved in the disability determination and selection of student participants. Given the importance of student's development of SD skills and behaviors it would be useful to use a formal scale to measure student's SD skills (e.g., Arc's Self-Determination Scale, Wehmeyer & Kelchner, 1995). This is viewed as a limitation of the present study requiring project researchers to rely on students self-perceptions of their SD skills during the interviews. Finally, the current study did not document the actual time that each student received coaching. It is important that future study designs account for the frequency, length, as well as the content of coaching sessions. This detailed documentation is necessary to develop a better understanding of the coach's role and the actual level of support required by students with ID.

### **Implications for Practice and Research**

Nationally, the number of students with ID that are entering two-year and four-year colleges and universities has been increasing over the past several years. DS offices play a critical role in supporting these students. DS staff are skilled in determining the types of support services and accommodations that will facilitate the student's academic and social inclusion experiences on campus. This is not to suggest there are not additional considerations and challenges involved in extending support to students with ID. In the TPSID project, a coach was employed to follow, monitor, and engage students in their academic and social involvements on campus. The interviews conducted in this study revealed several important findings that provide insights into the value coaching plays in supporting students with ID in PSE settings. The C&C coaches provided students with ID the additional assistance they needed to become included and involved in the full array of college experiences.

There is an obvious need for further research and evaluation to better understand how such a "specialized" coaching approach fits within DS support provided to students with disabilities on college and university campuses. Aligning specialized services for students with ID with typical college processes is viewed as essential to enabling these students to participate more fully in campus life characterized by an authentic, inclusive college education experience (Grigal, Hart, & Weir, 2012; Jones & Goble, 2012). Questions concerning how coaching, designed for students with ID, can be more broadly extended to any student who could benefit from relationship-based support also needs to be more formally investigated.

Strategies such as universal design, which emphasize the development of services that benefit all students, rather than developing specialized services for a few students also holds promise. The C&C intervention model is based, in part, on the principles of universal design. It is based on the fundamental understanding that developing a trusting relationship between a coach and student and engaging in the process of "checking" and "connecting" is not a practice exclusive to students with ID. Rather, it has much broader applications to potentially any student, with or without a disability, who may benefit from some level of follow-along support. In addition to paid professional coaches, there are other ways to implement the basic strategies of "checking" and "connecting" within college and university settings. Disability Services or other student support offices can use volunteer mentors in this role, student mentors from the PSE setting, and requesting faculty to support 1-2 students (Hart et al., 2006; Johnson & Stout, 2011).

The literature on the need for self-determination skills in higher education continues to grow as we look at new populations entering college and barriers to the use of disability services and accommodations (Briel & Getzel, 2014; Marshak, Wieren, Ferrell, Swiss, & Dugan, 2010). Based on the present study, further research is needed to better understand the role of the coach in working with students with ID to develop their self-advocacy and self-determination skills. Skills such as setting goals, making choices, solving problems, advocating for one's own needs for support, and following through on plans are skills that all students need to develop and demonstrate within the college environment. However, students with ID may not have developed such skills in high school. Determining what specific strategies coaches can use to help students develop the skills necessary to independently navigate the college environment is essential. For example, studies to date have found that having students with disabilities practice goal setting during mentoring sessions have helped them to meet academic course requirements (Finn, Getzel, & McManus, 2008). Coaches could also play a role in helping students to: develop an understanding of their disability in relation to accommodations they need to successfully participate in academic courses, learn how to communicate effectively with college faculty to understand course requirements and/or resolve potential conflicts, and access support services on their own. Research on these and other roles a mentor can play in PSE is sparse. Research is needed to determine the efficacy of these strategies.

Of further importance is the need for research to better understand who should serve as coaches and

what background, knowledge, and experience they need to bring to this position to effectively work with students with ID. Related to this is the type and level of professional development colleges and universities should invest in and make available to those who seek mentor positions. Research on the overall mentoring process in terms of its institutional responsibilities and level of authority to act on behalf of students is needed. Should the role be that of an advocate, counselor, teacher, friend, and/or frontline mental health professional? Central to the mentor's role is developing a positive relationship with the student to support and act on their behalf. As Brown, Takahashi, and Roberts (2010) found in their review of the literature on mentoring in postsecondary settings, while mentoring is viewed as a beneficial practice to support students with disabilities, the evidence-based research on it is extremely limited.

### Conclusion

Given the influence of increased professional and public awareness, raised parent expectations, and supporting federal and state legislation, PSE opportunities for students with ID have increased nationwide. The complexity of conceptualizing and implementing PSE programs for students with ID requires an understanding of the university program development process as well as the various rules and regulations of the university based on law and common practice (Thoma, 2013). In this TPSID project, students with ID at two community and technical colleges were provided Check & Connect coaching services. The process of engaging students with ID in these settings was multifaceted and required buy-in and involvement from administration, faculty, and support service and DS staff. It began with a commitment from leadership at the top; involved a campus-wide discussion with all faculty, support services staff, and administration to develop an understanding of the implications of moving forward and gain consensus; a strategic planning process led by the DS offices to identify and work through potential barriers and challenges to implementation; staff development focused on understanding the educational needs, capabilities, and accommodation strategies for students with ID; and an evaluation process to provide regular and continuous feedback to administration and project implementers. There are clearly many policy and system-level, administrative, and programmatic challenges that will need to be overcome to ensure all students with ID have an opportunity to participate in inclusive PSE experiences. The present study highlighted the importance of providing academic, social, and career planning support to students with ID with

support of the DS offices on the two campuses and by engaging a coach to facilitate the student's development of self-determination and self-advocacy skills to have the student assume a leadership role over their academic program involvements and participation in college social activities. Mentoring relationships can have a profound impact on those involved in them as well as those around them. The inclusion of students with ID into the mainstream academic and social environment of campus life was a major goal of the demonstration project. The coach played a valued and important role in creating opportunities for students with ID to be included and to be successful.

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Table 1

*Types of Support Provided by Coaches (N=39)*

<b>Content</b>	<b>Number of Students (percentage)</b>	<b>Number of Times Mentioned</b>
Academic	31 (80%)	82
Social Participation	21 (54%)	30
Career Guidance	17 (44%)	20
Community Living	11 (28%)	13
Registration	7 (18%)	8
Mental Health and Well-Being	6 (15%)	7
Soft Skills (e.g., problem solving, time management)	6 (15%)	7
Transition to PSE	4 (10%)	5
Financial Literacy Skills	4 (10%)	4

Table 2

*Main Themes and Supporting Quotes*

Theme	Student Quotes
<b>Key Component of Check and Connect</b>	
Academic support	I have a challenging time trying to remember things. I am good with concepts and studying, but when it comes to the tests I just go completely blank and forget everything. I've been working with (mentor name) on finding different strategies of how to overcome that challenge, studying and retaining the information (Lilly).
Social participation	When we do Check and Connect, sometimes we go out to places. That's normally like the social type stuff or we come here for game nights or we go out to see a movie. (Greg)
Career Guidance	[Coach] knows what I'm shooting for. I'm hoping really just to be a bookkeeper. I'm not looking for a tax accountant. I do have a diploma, so I can do payroll if I want to. This is kind of open ended. I'm not sure if I'm going to be able to function in a work place, but I try not to focus on that part. I just try to focus on using the school not just for learning but as practice, trying to get used to people and stuff. (Hayley)
Community Living	My favorite part is that [coach] is very understanding about the stuff you go to her about. If you ever have a problem with anything like at the apartments I live at or anything, she will help you with it. She will explain it to you and stuff. She is very understanding. (Jeremy)
<b>Program Characteristics Valued by Students</b>	
Flexible Meetings & Open Door Policy	I try not to go to [coach] all the time when I am struggling, but if I'm really struggling on something I'll go to her. Some weeks I don't go to her at all and other weeks I might go there once or twice. (Julie)
Relationship Based Approach	When I first came here, it was really hard for me to say goodbye to my parents. Probably every day I would start crying, because I felt like my mom would leave me there. I would just get really scared and sad when I think of that. I knew it had to be that way. [Coach] is a person if you need help with something, or if you are having a difficulty she's there, and you can go to her and she'll help you. She takes the time to get to know you. (Carly)
<b>Overall Benefits</b>	
Improved academic performance	I love that program [TPSID program]. I think it is very beneficial, not just to me but to everybody who uses it. I would very hate to see it not be here for future years. From my perspective it has helped me abundantly succeed in school. Without it I don't think I would have succeeded as much as I have. (Dylan)
Increased motivation & engagement	[Coach] was a big help. When I talked about when I was in a slump. It helped. It actually got me back interested in college. (Zach)