Academic Enabling Behaviors of Students with an Intellectual Disability in Inclusive Postsecondary Education Programs: An Exploratory Literature Review

Katherine E. McLendon, Ph.D.
Andrew T. Roach, Ph.D.
Department of Counseling and Psychological Services
Georgia State University

Daniel B. Crimmins, Ph.D.
Center for Leadership and Disability
Georgia State University

Abstract

Initial research suggests inclusive postsecondary education (IPSE) programs benefit students and families. Little is known, however, about IPSE students' classroom-related, non-academic thoughts, attitudes, and behaviors, sometimes referred to as academic enabling behaviors. These academic enablers include interpersonal skills, motivation, academic engagement, and study skills. The purpose of this paper is to present the results of an exploratory literature review examining the academic enabling behaviors of students with an intellectual disability (ID) who participate in IPSE programs. Findings suggest that a lack of scope and depth exists in the literature, that there is little empirical evidence assessing the effectiveness of supports/intervention, and that those participating in IPSEs perceive to be receiving benefits.

Keywords: inclusive postsecondary education (IPSE), interpersonal skills, academic engagement, motivation, study skills

Plain Language Summary

- More students with an intellectual disability are attending inclusive postsecondary programs than ever before.
- It is important to know how to support these students as they work towards increasing academic competence.
- Little is known about four primary areas that support academic competence: interpersonal skills, academic engagement, motivation, and study skills, also known as academic enabling behaviors.
- **What we did in this study:** We did a literature review to learn more about academic enabling behaviors of students with an intellectual disability in postsecondary education programs.
- **Findings:** We learned that there has not been a lot of research about each of the four academic enabling behaviors.
- We also learned that academic enabling behaviors are important, that peer mentors are essential, and that interventions may be helpful.

Initial research on inclusive postsecondary programs (IPSE) indicated that students with intellectual disabilities (ID) and those they interact with (e.g., faculty, classmates, and families) benefit from these programs. Students who participated in IPSE programs experienced better outcomes across a variety of domains: employment (Grigal et al., 2019), daily living (Ross et al., 2013), social (Sheppard-Jones et al., 2018), physical well-being (Roberts et al., 2018; Sheppard-Jones et al., 2018), and learning (Kelley & Westling, 2019). Faculty who interacted with students with ID noted their enthusiastic participation in class activities (O'Connor et al., 2012). Moreover, other students reported that the inclusion of students with ID improved their college experience (Carroll et al., 2009). Parents and guardians also appreciated the independence their young adults achieved during IPSE program participation (Miller et al., 2018).

It is also known that students with ID in IPSE programs value academics and learning opportunities available in college and benefit from support in academic-related areas. For instance, Qian et al. (2018) conducted a qualitative study on the experiences of IPSE students who participated in an academic coaching program. Qian and colleagues asked IPSE students about their experiences with coaches, academics, independent living, social engagement, and vocational goals. Based on how frequently students talked about academics and the content of their comments, it was evident that IPSE student participants learned and benefited from having access to academic support.

The first IPSE program opened in Canada in 1987 (Wintle, 2015). Following their lead, other colleges and universities established their own IPSE programs; however, their reach was small and there were many barriers to access (e.g., financial support). In 2008, access to IPSEs expanded with the reauthorization of the Higher Education Act (Lee et al., 2018). Between 2010, the initial year, and 2019, Transition and Postsecondary Programs for Students with Intellectual Disabilities (TPSIDs; grant-funded model demonstration IPSE programs) have supported almost 4,000 individuals with ID in 31 states on more than 100 campuses (Grigal et al., 2020). In a recent TPSID cohort, 981 students with an ID participated in 59 programs on 57 college and university campuses to date (Grigal et al., 2020).

More than three decades later, the empirical literature base for students with an ID in IPSE programs has broadened, but there are still many gaps that need to be filled. One of these gaps is learning more about IPSE students' academic enabling behaviors (i.e., interpersonal skills, academic engagement, motivation, and study skills). Academic enabling behaviors help students learn course content. Given that a student's program of study is based on the knowledge and skills necessary for their future employment, learning course content is imperative. Thus, skills that facilitate academic learning are also important. Further, there may be a benefit in developing an academic enabling behavior as an end in itself, since some academic enabling behaviors are required not just for coursework but across a variety of contexts (e.g., interpersonal skills).

There are direct and indirect benefits for IPSE students as they seek to develop their academic enabling behaviors, so creating a body of research that helps individuals and programs facilitate the development of these behaviors is necessary. To help facilitate progress, this paper will summarize the history and construct of academic

enabling behaviors and review the peer-reviewed qualitative and quantitative studies (e.g., group, single subject) on academic enabling behaviors of students with ID who participate in IPSEs.

Academic Enabling Behaviors: The Construct

The idea of academic enabling behaviors was born from a need to define and assess academic competence. In the late 1990s, DiPerna and Elliott wanted to better understand students' academic competence; at the time, academic competence was discussed as an educational outcome in research, yet it was not consistently operationalized and measured. Their initial work aimed to "clarify and advance the definition of the construct academic competence" (DiPerna & Elliott, 1999, p. 208). Based on a review of empirical research, DiPerna and Elliott hypothesized that there were five learner-controlled components that contribute to academic competence. Their exploratory factor analysis and subsequent research suggested that the areas contributing to academic competence were academic skills, interpersonal skills, academic engagement, motivation, and study skills. Only one of these areas was directly related to academic achievement: academic skills. The remaining four areas—interpersonal skills, academic engagement, academic motivation, and study skills—were collectively called academic enablers. Academic enablers consist of "skills, attitudes, and behaviors that are related to academic achievement but are not academic skills" (DiPerna & Elliott, 1999, p. 223).

This construct of academic competence, which includes academic enabling behaviors, was further explored using structural equation modeling with both reading/language arts and mathematics outcomes in primary and intermediate grade students (DiPerna et al., 2002 & 2005). Diperna et al. (2002) investigated the relationship between reading and language arts achievement and the factors of academic competence. They surveyed 104 teachers who taught 394 students in kindergarten through sixth grades across 21 schools in the northeastern United States. They divided students into two groups based on grade. Students in kindergarten through second grade formed one group (192 students), and students in third through sixth grades were in the other group (202 students). Eleven percent of the students in the younger group and 15% in the older group had a disability. For each student, the respective teacher completed the Academic Competence Evaluation Scales-Teacher Form (ACES-Teacher), a rating scale based on DiPerna and Elliott's (1999) model of academic competence. Results suggest there was a relationship between reading and academic enabling behaviors. For the primary grades sample, engagement and motivation demonstrated the largest effects on reading achievement, and study skills and interpersonal skills demonstrated smaller effects. In the intermediate grades sample, results suggested that motivation had the largest effect on reading achievement, and interpersonal skills had the smallest effect.

DiPerna et al. (2005) conducted a similar study exploring the relationship between their model of academic competence and mathematics outcomes. Their sample also included two groups of students, 192 kindergarten through second grade students and 202 third through fifth grade students. In addition, they surveyed 104 teachers who completed the ACES-Teacher rating scale on up to five students each. The results of this analysis provided partial support for the fit of the younger grades sample and somewhat

better support for the older grades sample. Engagement and motivation yielded the largest effect on mathematics achievement for the younger grades group, while interpersonal and study skills had smaller effects. In the older grades group, motivation and study skills had the largest effects on mathematics achievement, and interpersonal skills and engagement demonstrated smaller effects.

As explained, DiPerna and Elliott's model of academic competencies exhibited a reasonable fit for primary and intermediate students in both reading/language arts and math (DiPerna et al., 2002; DiPerna et al., 2005). Although these initial studies included individuals with disabilities, the type and impact of disabilities were not reported. It is unknown whether the influence of each academic enabling area differentially impacted individuals with disabilities. As DiPerna et al. (2005) suggested, it may be that different enablers (e.g., study skills) demonstrate stronger relationships for those who require more explicit instruction. Consequently, there is a gap in the literature regarding understanding academic enabling behaviors in students with disabilities.

DiPerna and Elliott (2001) subsequently applied the conceptual foundations underlying the construct of academic enabling behaviors to the postsecondary setting. A Principal Component Analysis (PCA) was conducted with a pilot group of 40 students to determine the factors that explain the relationships between items on the ACES-College, a measure used to assess the frequency and importance of academic enabling behaviors among college students. The results were consistent with the aforementioned factor analytic findings among elementary school samples and suggested a 4-factor solution.

Although there is evidence to suggest the construct of academic enabling behaviors is viable for college students, the available research support is minimal. Furthermore, there is an even smaller body of literature about academic enablers and college students with ID. Based on a study by Hendrickson and colleagues (2015), students in IPSE programs perform similarly in academic engagement and study skills compared to typically matriculating students. This suggests that academic enabling behaviors may also be relevant to students in IPSE programs. Further, even if future research indicates that this construct does not apply to students who participate in IPSE programs, each of the four academic enablers is in and of themselves important for success. Thus, each domain of enablers may have value as a unique skill set or characteristic related to academic performance.

As one might expect, no available literature review examining academic enablers and students with ID exists. The remainder of this manuscript describes each domain of academic enabling behaviors and what is known about the academic enabling behaviors of students with ID in IPSE programs. The author reviewed quantitative (e.g., group, single-subject) and qualitative research that addressed the intersection of academic enabling behavior and academics for college students with ID.

Method

Search Procedures

An exploratory review was conducted to learn more about the academic enabling behaviors (i.e., interpersonal skills, academic engagement, motivation, and study skills) of students with an ID in IPSE programs. According to Fredrickson et al. (2018), an exploratory review is appropriate to get an initial accounting of the breadth and size of the research on a specific topic. To complete this exploratory review, a Boolean search was conducted using Academic Search Complete, APA PsychInfo, and ERIC via EBSCOhost. To maximize the utility of all three databases, each database was searched separately, and the same search procedures were used for each search in each database. The search phrases paired the terms intellectual disability, developmental disability, post-secondary, postsecondary, college, and university with each academic enabling behavior: study skills, academic engagement, motivation, and interpersonal skills. If available, thesaurus search features for a database were used to generate database-specific synonyms for the academic enabler. There were 618 studies available for review that related to study skills, 406 for academic engagement, 325 for motivation, and 534 for interpersonal skills. No year limits were used in the search.

Only qualitative or quantitative peer-reviewed articles written in English were considered for inclusion. The search yielded many articles unrelated to the topic at hand. Consequently, if the title suggested that the study's topic was unrelated to the research question, the article was immediately dismissed from consideration. Furthermore, at times the title suggested that an article met the criterion, but whether the article actually met it was uncertain. For these articles, the abstract was reviewed. If based on reading the abstract, it was apparent that the article did not meet inclusionary criteria (e.g., it was not an empirical study), the review for that article was stopped. The remaining articles were read and reviewed. Articles that did not meet the inclusionary criteria were disregarded.

To meet the criteria for the study, participants must have been about IPSE students with an ID or about students with characteristics of an ID (i.e., intelligence quotients and adaptive skills below a standard score of 75) who participate in IPSEs. Furthermore, quantitative studies were required to have an outcome measure related to at least one academic enabler, and qualitative studies were required to have at least one theme primarily about at least one academic enabler. Quality indicators were not considered during the review process.

Results

The search confirmed that there is a dearth of research about students with ID in IPSE programs. There was a total of seven articles that addressed at least one academic enabling behavior in IPSE students, and four studies addressed more than one. In all, two studies addressed interpersonal skills, three addressed academic engagement, two addressed motivation, and six addressed study skills. Regarding research methodology, four articles were qualitative studies, two were single-subject

studies that investigated the effectiveness of an intervention, and one was a quantitative study that employed a regression-based group design (see Table 1).

Interpersonal Skills

In the context of academic enabling behaviors, interpersonal skills refer to the skills necessary for communicating and interacting with others in the academic setting (DiPerna & Elliott, 1999). Interpersonal skills include initiating communication, requesting help, and offering compliments (DiPerna, 2006). There is evidence suggesting that interpersonal skills influence achievement in kindergarten through 12th grade (DiPerna & Elliott, 1999; Elliott et al., 2004). In our review, two articles were identified that addressed topics related to interpersonal skills in students with ID in IPSE programs, and both were qualitative studies (Kubiak, 2015; Rillotta et al., 2020).

The two studies that addressed interpersonal skills utilized semi-structured interviews (Kubiak, 2015; Rillotta et al., 2020). One study only interviewed students with an ID in IPSE programs (Rillotta et al., 2020), while the other study interviewed students in IPSE programs and their peer mentors. Together, the articles addressed learning and factors associated with IPSE programs (e.g., goal setting and inclusive practices).

Kubiak (2015) conducted a qualitative study with college students with ID who participated in a postsecondary education program in Ireland. Eighteen students were shown a visual stimulus as a catalyst for a semi-structured interview exploring their learning experiences. One theme identified in interviewee responses was described as collective meaning-making. This theme addressed how students leveraged interpersonal relationships to participate in learning. In addition to the coursework IPSE students completed independently, they also engaged in learning-related discussions with their peers, family, and support personnel. For example, one IPSE student spoke of engaging in debates in the classroom, and another explained the necessity of working with classmates on coursework outside the confines of the classroom. One student said her family is a support, while another described speaking with a mentor about the different ways of learning and resolving coursework-related struggles.

Rillotta et al. (2020) conducted a qualitative study using semi-structured interviews with IPSE students and peer mentors at the beginning and end of the semester. Mentors and mentees were asked about inclusive practices, goal attainment, skill development, and mentorship experience. Two themes related to interpersonal skills emerged. The first theme was developing relationships with others, including classmates; only one of the four IPSE students interviewed mentioned knowing and talking to peers in class. The second theme related to interpersonal skills was being included by peers in class. Mentors reported positive and negative interactions between the IPSE students and peers in class. Even when there were some negative interactions, however, both IPSE students and peers reported positive overall experiences.

Although both studies investigated interpersonal skills, they reported IPSE students as experiencing different levels of interpersonal acceptance and engagement. Whereas the theme in Kubiak (2015) indicated that IPSE students were included and

participated in cooperative learning experiences, the IPSE students in Rillotta et al. (2020) seemed to make fewer connections with their classmates. In addition, although the IPSE students' overall experience was positive, there were some negative interactions (Rillotta et al., 2020). Thus, the two studies suggest that the quality of interpersonal relationships varies, but students' overall interpersonal skill experiences were positive.

Academic Engagement

Academic engagement is a composite of classroom behaviors (Greenwood et al., 2002) related to how a student engages in and attends to lessons and activities in the classroom environment. According to the ACES-College (2001), academic engagement is "a student's level of active participation in class." It impacts academic responding, which impacts academic outcomes (DiPerna & Elliott, 1999). It includes specific, task-oriented behaviors (e.g., hand raising, talking about academics, asking questions) and more global behaviors (e.g., sustaining attention; Cobb, 1972; Greenwood et al., 2002).

Three articles were identified that addressed topics related to academic engagement in students with ID in IPSE programs. The identified studies all differed in methodology: One study was qualitative, and two used quantitative methods. Of the two quantitative studies, one used a regression-based approach and the other utilized single-subject methodology. Study topics ranged from exploring IPSE student experiences relative to their typically matriculating peers to an intervention study focused on teaching appropriate classroom behavior.

Hendrickson et al. (2015) compared the engagement of two different cohorts of first year students with ID in IPSE programs to four groups of first-year college students based on the presence or absence of a disability and students' ACT scores. Each cohort of IPSE students was compared to each of the four comparison groups of first-year students without ID. A benchmark scale was given to survey the extent of students' class participation, including information about collaboration with other students in and out of class, tutoring, and participation in community projects. Students responded to questions about their contribution to class discussions, making class presentations, working with others on assignments outside of class, and discussing ideas with others outside of class. Several other measures unrelated to academic enabling behaviors were used in the study, and the authors conducted different forms of regression-based analyses of covariances based on the characteristics of the data and the measures. Results suggested that IPSE students in this sample experienced their first year of college similarly to their undergraduate peers without ID.

Kubiak (2017) conducted another qualitative study, in addition to the one previously discussed, with college students with ID who participated in a full-time postsecondary program in Ireland. Qualitative interviews with IPSE students suggested that a supportive learning environment encouraged academic engagement. Students who were more comfortable in their learning environment reported that they were more likely to ask questions and participate in class discussions. Course instructors played a powerful role in constructing a supportive learning environment and thereby influencing academic engagement. For example, one interviewee mentioned that having a safe

classroom space meant she felt comfortable asking questions and sharing her ideas. Another student said a key feature of the learning environment that bolstered academic engagement was having less advanced material; this made him feel comfortable asking for help without being judged by his peers.

Lipscomb et al. (2018) conducted an intervention study with students with an ID in a postsecondary classroom. Although some courses in the IPSE were integrated, the class where the intervention occurred was not. Intervention participants were seven male, first-year students with an ID. All participants demonstrated inappropriate vocalizations (i.e., interrupting someone else or answering a question without the instructor's permission) and/or off-task behaviors (i.e., engaging in a conversation unrelated to the task at hand). These behaviors impeded academic engagement. The researchers used an alternating treatment design to measure the effect of using immediate individual feedback about behavior (i.e., Class Dojo) and group-based intervention focusing on prosocial behaviors (i.e., Tootling). Visual analysis suggested a functional relation between the intervention and behavior.

These results indicate that there are both facilitators and barriers to academic engagement. The primary facilitator was creating safe learning environments. The barrier was students engaging in inappropriate academic engagement behaviors (e.g., interrupting classmates). This research suggests that factors that influence academic engagement are malleable, as instructors establish the tone of the learning environment and students can participate in an intervention to learn appropriate behaviors.

Motivation

Motivation is a multifaceted construct, with multiple theoretical frameworks that can be challenging to unpack. In a School Psychology Review special edition issue devoted exclusively to academic enabling behaviors, Linnenbrink and Pintrich (2002) outlined four key components of student motivation as an enabler for academic success. These four components were self-efficacy, adaptive attributions, intrinsic motivation, and achievement goals. (See Table 3 for more information about each component.) On the ACES-College, motivation is characterized as the student's "initiative and persistence regarding academic subjects; it includes items that reflect responsibility, preference for challenging tasks, and goal-directed behaviors" (p. 6).

As was true with the previously discussed academically enabling behaviors, there is a scarcity of research about the academic motivations of students with ID in IPSE settings. Only two articles were found that addressed motivation-related topics—a qualitative study that interviewed IPSE students and their mentors (Rillotta et al., 2020) and a qualitative study that investigated IPSE students' understanding of their learning (Kubiak, 2015). One study, however, included two themes related to motivation (Rillotta et al., 2020).

The qualitative component of the previously described Rillotta et al. (2020) study included semi-structured interviews with IPSE students and peer mentors. Two themes emerged relating to motivation: the confidence to work towards goal attainment and

increased independence as well as the desire to develop topic-specific knowledge. Students in IPSE programs indicated that they were initially overwhelmed by the new demands. Still, they remained motivated and attained their goals as their confidence increased. One student alluded to the importance of motivation and understood that reaching goals sometimes involves meeting smaller goals or "stepping stones" (p.108).

The other theme in Rillotta et al. (2020) related to motivation was being driven to develop specialized knowledge. IPSE students could learn more about a topic that interested them and attend additional lectures and tutorials on the chosen topic. Their interest in the subject leads to new skill development (e.g., computer skills) and new knowledge. One IPSE student shared that she liked learning new things, and mentors noted that IPSE students wanted to complete all the affiliated assignments and quizzes. As Rillotta et al. (2020) explained, students enjoyed learning and strove to learn beyond coursework expectations.

As previously discussed, Kubiak's (2015) qualitative study, which explored IPSE students' experiences with learning, also addressed motivation. The motivation-related theme identified via qualitative analysis focused on self-regulation and learning. This theme highlighted components of students' learning process, including the self-motivation necessary for engaging in learning activities. IPSE students shared that they were motivated to participate in coursework because they wanted to achieve personal goals; these goals ranged from avoiding boredom to passing a course to secure a job. One student shared that she was motivated by reflecting on her learning. She maintained a reflection journal which helped her evaluate her performance. She also used the journal to think about what she could have done differently, which motivated her to do a better job in the future.

IPSE students in both studies shared that establishing and meeting goals is motivating and that they are resolved to meet short- and long-term goals. Furthermore, students are encouraged to continue towards their goals as they gain confidence. IPSE students also develop strategies (e.g., reflection) to help them reach their goals.

Study Skills

Study skills facilitate learning new material in the classroom (e.g., taking notes, remaining organized, and preparing for class; DiPerna & Elliott, 1999). Gettinger and Seibert (2002) provided a theoretical understanding of study skills as an academic enabler. They explained that study skills require coordinating various other skills, including acquiring, organizing, synthesizing, remembering, and using knowledge. Development of these skills necessitates training and practice, requiring intentional efforts, as opposed to relying on incidental understandings. Study skills are also personal and self-regulatory, requiring initiation, persistence, and goal setting (Gettinger & Seibert, 2002).

Six articles addressed topics related to study skills were identified in this review (Giust & Valle-Riestra, 2017; Hendrickson et al.; 2015; Kubiak, 2015; Reed et al., 2016; Rillotta et al., 2020). Four of the six studies addressed at least one other domain of

academic enabling behavior. Two studies used quantitative methodology; one was regression-based and the other was a single-subject intervention study. The remaining four were qualitative studies. Three qualitative studies used semi-structured interviews, and the fourth analyzed open-ended questions from a survey. The qualitative studies included students in IPSE programs and peer mentors. The studies ranged from measuring the effectiveness of a note-taking intervention to interviewing students about the effectiveness of interventions to asking, in general, about the IPSE program experience.

The previously summarized article by Hendrickson et al. (2015) compared the engagement of two cohorts of first year students with ID in IPSE programs to four groups of first-year college students. The results suggested that students with ID and their peers utilized study skills supports similarly to their typically matriculating peers.

Reed et al. (2016) conducted a multiple baseline study with three participants with autism who participated in an IPSE program. This study investigated the effects of a note-taking intervention. The participants learned how to use a split-page note-taking procedure, where they wrote the name of a subtopic from the lecture on the left side of a piece of paper and recorded notes about the subtopic on the right. Results suggested a functional relation between the note-taking intervention and improved note-taking quality.

Kubiak's (2015) qualitative study, discussed in previous sections, addressed interpersonal behaviors as part of its exploration of IPSE students' experiences with learning. Four themes emerged describing the students' learning experiences, and one related to study skills. Students discussed various aspects of learning: Learning includes memorization, learning increases knowledge and understanding, and learning requires applying knowledge. Students used study skills to engage in the learning process. For instance, one student reported that he limits how much information he tries to learn at once because trying to learn too much information at one time negatively impacts memory retention. Another student mentioned that becoming well-versed in using computers facilitated learning because she could use computers to look up information she needed.

In another previously mentioned article, Kubiak (2017) conducted a qualitative study with college students with ID who participated in a full-time postsecondary program in Ireland. As a program component, students learned self-regulation strategies to facilitate learning. This included using these strategies before, during, and after learning. For instance, during learning, students were taught to regulate their learning using brainstorming, concept mapping, mnemonics, and chunking. One student said she used brainstorming to learn novel information and concept mapping to organize her thoughts and ideas. Another student mentioned that chunking was a helpful strategy.

Giust and Valle-Riestra (2017) conducted a qualitative study examining strategies that peer mentors working with IPSE students used during their weekly mentor-mentee meetings. The authors wanted to ascertain how to better support peer mentors' efforts and engagement. Peer mentors completed a survey, including three open-ended questions that asked for general feedback, as well as their favorite and least favorite parts about working with their mentees. One theme the authors identified was academic skills,

which included comments related to study skills. For example, one mentor shared some strategies she used with her mentee, including that the mentee typed class notes independently and worked with the mentor to understand the content. This same mentor also asked the mentee to highlight important details while completing assigned readings. Overall results from the academic skills data indicated that mentors used multiple study strategies with their mentees and saw positive impacts that resulted in improved academic outcomes.

As previously discussed, Rillotta et al. (2020) conducted a qualitative study using semi-structured interviews with IPSE students and peer mentors at the beginning and end of the semester. Mentors and mentees were asked about inclusive practices, goal attainment, skill development, and mentorship experience. One theme identified via qualitative analyses was related to study skills: observing and adopting university norms. As IPSE students adapted to the university setting, they better understood what was required for success. This included developing and using study skills such as note-taking, including electronic note-taking, during lectures, and using library resources.

Three articles about study skills included studies where interviewees discussed students being explicitly taught study skill strategies, and one study suggested a potential functional relation between a note-taking intervention and note-taking skills. In other studies, students and peer mentors explained how study skills instruction helped IPSE students learn and remember information (Giust & Valle-Riestra, 2017; Kubiak, 2017; Reed et al., 2016). This preliminary evidence suggests that IPSE students may benefit from explicit study skills instruction embedded in their coursework.

Discussion

The construct of academic enabling behaviors has been explored with primary and intermediate grade samples, including students with disabilities (DiPerna et al., 2002; DiPerna et al., 2005). There is reason to believe that this construct is also important to college students, including college students with ID in IPSE programs. One way to learn about a construct is to review literature pertinent to the concepts and population of interest. Thus, this exploratory review surveyed peer-reviewed research on the four domains of academic enabling behavior among students with ID in IPSE programs.

Unsurprisingly, there was little research about academic enabling behaviors and students with ID in IPSE programs. Only seven articles met inclusion criteria, and four of the studies addressed more than one academic enabling behavior. All the studies in our review addressed academic enabling behaviors and many talked about these skills and behaviors in connection to learning. Some studies addressed IPSE students' learning of new information (Rillotta et al., 2020), while others focused on various learning strategies (e.g., different study methods; Giust & Valle-Riestra, 2017) or practices associated with learning (e.g., reflection and metacognition; Kubiak, 2017). Another article discussed behaviors related to being and succeeding in the college classroom setting (e.g., impulse control; Lipscomb et al., 2018). In general, these studies focused on the experiences and perceptions of ISPE students and other stakeholders. Only two of the reviewed articles quantitatively measured the effectiveness of some type of IPSE program support (e.g.,

note-taking). However, across studies, interviewees' responses suggest that IPSE students were utilizing academic enabling behaviors as they progressed in their coursework and were experiencing success.

Despite the relative lack of empirical evidence, this initial search suggests that IPSE students and those who work with IPSE programs see the benefit in providing supports that facilitate the development of and use of academic enabling behaviors. The study of IPSE students' academic enabling behaviors, however, should not end here. Without additional, more rigorous studies on the effectiveness of academic supports, IPSE programs may fall into the trap of focusing on access and inclusion at the expense of academic outcomes (Becht et al., 2020). As such, there is a pressing need for additional studies about academic enabling behaviors and IPSE students using single-case and quasi-experimental designs.

Implications for Research

As previously discussed, there were few studies about academic enabling behaviors and students with ID in IPSE programs. Furthermore, the existing studies primarily used the same general research methodology (i.e., qualitative methods). One of the inclusion criteria for qualitative studies in our review was that the study needed to include a theme related to an academic enabling behavior. However, the research question(s) in these studies did not have to be explicitly about an enabling behavior. Consequently, a study may have primarily focused on a topic (only loosely) related to academic enabling behaviors, and one of the academic enabling behaviors emerged as a theme in the subsequent analyses. Still, investigating the enabling behavior was not at the heart of most studies' research questions. Therefore, more research should be conducted that directly examines each of the four domains of enablers, and this research should employ a broader range of methodologies.

There is still a lot to learn about the academic enabling behavior construct as applied to students with an ID in IPSEs. Because of the unique needs of students with an ID in IPSE programs, there may be other non-academic thoughts, attitudes, and behaviors that are not reflected in DiPerna and Elliott's (2019) framework. Consequently, it would be beneficial to investigate whether any other domains of behaviors should be included in the academic enabling behavior framework when it is applied to students in IPSE programs.

Although there needs to be additional research into the overall academic enabling behaviors framework with IPSE students, each individual enabling behavior may be important in and of itself. Furthermore, for each academic enabling behavior, students may need access to a set of supports that varies in intensity. These supports may exist across a continuum, from least intensive (e.g., accommodations, periodic consultation) to most intensive (e.g., intervention in a non-inclusive setting). Despite the benefits that this continuum of supports may provide, little is known about matching students with appropriate academic enabling behavior supports. The gaps that need to be filled include learning more about what students and faculty think about IPSE students' academic enabling behavior abilities (e.g., strengths and weaknesses), the supports that already

exist, other supports that may be needed in addition to the existing supports, and how effective the supports are.

Implications for Practice

As evident by this study, little is known about academic enabling behaviors and students with an ID in IPSE programs. This search only yielded two intervention studies. One study taught IPSE students a note-taking procedure (Reed et al., 2016), and the other taught students how to interact and participate in class (Lipscomb et al., 2018). The results from both studies suggested a functional relation between the intervention and the outcome. When students exhibit significant deficits in an area that impede their progress in their studies, programs can implement specific interventions to help develop the area of weakness.

Furthermore, many of the qualitative studies interviewed IPSE students. IPSE students discussed their areas for growth and the strategies, supports, and/or tools they found helpful. Individual IPSE programs could have discussions with their students, asking them about academic enabling behaviors they find helpful, which supports are useful, and what supports students wish they had. This feedback could then be used to help students as they work with IPSE program staff to improve individual learning plans. This student feedback could also be incorporated into improving programmatic plans and supports. Lastly, since little is known about the effectiveness of supports, programs could also develop systems for assessing the effectiveness of these plans.

Limitations

The perspectives included in the studies were limited, primarily focusing on the perspectives and experiences of students with ID and their peer mentors. While individuals with ID in IPSE programs must have a voice in research, it is also essential that those who design and implement IPSE programming have the opportunity to contribute to our understanding of the academic enabling behavior framework.

Another limitation is that the vast majority of research uses qualitative methods. While qualitative methods provide valuable descriptive information, the literature base could be enhanced by conducting more studies employing other research methodologies. Given that this study was primarily interested in peer-reviewed literature, unpublished studies were not reviewed. Reviewing gray literature could yield additional empirical studies not considered in this study. Furthermore, although a review of the quality of the literature was not included, many articles did not employ a methodology that would meet best practice guidelines. Ensuring the quality of research in future studies will also enhance the literature base.

Students who participate in IPSE programs experience better life outcomes across a variety of domains. Even though three decades have passed since the inception of IPSE programs, there is still much to learn. Topics ripe for study include IPSE students' interpersonal skills, academic engagement, motivation, and study skills (i.e., academic enabling behaviors). Learning more about IPSE students' academic

enabling behaviors and how to successfully encourage these behaviors has the potential to impact students during their IPSE programs, as academic enabling behaviors help students develop the skills needed for learning (e.g., academic engagement and study skills). Knowing and utilizing methods for learning facilitates knowledge acquisition, and both knowing how to learn and having a relevant knowledge base are necessary for employment. Academic enabling behaviors also have the potential to impact students beyond the IPSE program and employment, as they set life goals (i.e., motivation) and establish and maintain work and personal relationships (i.e., interpersonal skills) throughout life.

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Tables

Table 1
Summary of Articles by Enabler and Methodology

	Academic Enabling Behavior Addressed				Methodology		
Authors	Interpersonal Skills	Academic Engagement	Motivation	Study Skills	Group Design	Single Subject	Qualitative
Giust, A. M., & Valle-Riestra, D. M., 2017				x			x
Hendrickson et al., 2015		x		x	x		
Kubiak, J., 2015	x		x	x			x
Kubiak, J., 2017		x		x			x
Lipscomb, A. H., Anderson, M., & Gadke, D. L., 2018		x				x	
Reed, D. K., Hallett, A., & Rimel, H., 2016				x		x	
Rillotta, F., Arthur, J., Hutchinson, C., & Raghavendra, P., 2020	x		x	x			x