

1-2020

The Impact of an Inclusive Post-Secondary Course on Pre-Service Teachers

Andrew R. Scheef Ph.D.
University of Idaho

Bishal Thapa
University of Idaho

Ellie Lerum
University of Idaho

Marcus I. Poppen
Washington State University

Follow this and additional works at: <https://scholarworks.lib.csusb.edu/josea>



Part of the [Special Education and Teaching Commons](#)

Recommended Citation

Scheef, Andrew R. Ph.D.; Thapa, Bishal; Lerum, Ellie; and Poppen, Marcus I. (2020) "The Impact of an Inclusive Post-Secondary Course on Pre-Service Teachers," *The Journal of Special Education Apprenticeship*: Vol. 9 : No. 1 , Article 8.

Available at: <https://scholarworks.lib.csusb.edu/josea/vol9/iss1/8>

This Article is brought to you for free and open access by CSUSB ScholarWorks. It has been accepted for inclusion in The Journal of Special Education Apprenticeship by an authorized editor of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.

The Impact of an Inclusive Post-Secondary Course on Pre-Service Teachers

Andrew R. Scheef, Ph.D.

Bishal Thapa

Ellie Lerum

University of Idaho

Marcus I. Poppen

Washington State University

Opportunities for inclusive postsecondary education for students with intellectual and developmental disabilities are becoming increasingly common at institutions of higher education in the United States. Although inclusive postsecondary opportunities benefit the entire campus, this may be especially true for students enrolled in teacher education programs. This research used qualitative methods to better understand how participation in an inclusive postsecondary course impacts pre-service teachers. Four primary themes emerged from the data, including (a) *Self-Efficacy in Teaching*, (b) *Comfort with People with Disabilities*, (c) *Inclusion*, and (d) *Acceptance*. Implications for practice and research are discussed.

Keywords: inclusive postsecondary education, intellectual and developmental disabilities, teacher education

The Individuals with Disabilities Education Act (IDEA, 2004) supports the practice of classroom inclusion for students with disabilities through the provision of least restrictive environment (LRE). Even with this mandate, only 63% of students receiving special education services are served in the general education setting for 80% or more of their school day (U.S. Department of Education, 2018). The percentages for low-incidence disability groups learning in a more restrictive environment suggest an even higher-level

of classroom segregation. Thirty-nine percent of students with autism, 17% of students with intellectual disability, and 14% of students with multiple disabilities receive 80% or more of their schooling in a general education setting. A primary factor impacting the extent to which classrooms are inclusive involves the attitudes and perceptions of teachers (DeBoer, Pijl, & Minnaert, 2011), who, like the general public, may be reluctant to interact with people with disabilities due to anxiety and discomfort (Scior, 2011).

To increase teacher comfort with inclusion, it is beneficial to provide authentic experiences for pre-service teachers to engage with people with disabilities. The notion that increased contact with people with disabilities has a positive impact on attitudes and perceptions of individuals without disabilities is well-supported in the literature (e.g., Garcia, Diaz, & Rodriguez, 2009; Morin, Rivard, Crocker, Boursier, & Caron, J, 2013; Ouelette-Kuntz, Burge, Brown, & Arsenault, 2010). Phillips, Fortney, and Swafford (2018) found that higher levels of interactions between people with intellectual and developmental disabilities (IDD) and university students resulted in lower levels of pity experienced by the students without IDD. In addition, students acknowledged a greater likelihood of future interactions.

Interactions may result in a better understanding of personal bias, greater cultural competence, and increased self-awareness (Jones, Gallus, & Cothorn, 2016). Phillips, Fortney, and Swafford (2018) found that higher levels of interactions between people with intellectual and developmental disabilities (IDD) and university students resulted in lower levels of pity and a greater likelihood of future interactions.

Although the quantity of interactions may effect perceptions, the quality may play a more significant role in changing perceptions. Keith, Bennett, and Rogge (2015) found that high-quality interactions with people with IDD resulted in: (a) reduced prejudice, (b) more positive views relating to the autonomy and inclusion of people with IDD, (c) lower negative attitudes and higher disability-related associations, and (d) less anxiety resulting from social interactions with people with IDD.

Experiences with people with IDD may lead to more favorable views of inclusive learning environments (Westling, Kelley, Cain, & Prohn, 2013). As such, providing opportunities for pre-service teachers to engage with this population may lead to more open-mindedness regarding inclusivity in the classroom. Such an opportunity to promote high-quality interactions may exist in institutes of higher education (IHEs) that also provide opportunities for students with IDD to enroll in an inclusive post-secondary education (IPSE). Opportunities for IPSE are becoming increasingly common at colleges and universities in the U.S. (Grigal, Hart, & Papay, 2019). These opportunities are designed to provide individuals with IDD, who may not be able to meet standard admission criteria, with access to higher education. This study sought to better understand how direct contact with a student with IDD participating in an inclusive teacher preparation course impacted the perceptions of pre-service teachers.

Inclusive Post-Secondary Education

IPSE is rooted in social justice in that it provides postsecondary opportunities for a segment of the population that has been excluded from colleges and universities (Uditsky & Hughson, 2012); individuals with IDD have not traditionally been offered opportunities to participate and learn at IHEs. Opportunities for IPSE can be traced back to the 1970s (Neubert, Moon, Grigal, & Redd, 2001) and are now available at over 260 colleges and universities in the U.S. (Think College, n.d.). There is a great difference amongst IPSE designs, which may include variations in the extent to which students participate in general education courses, program-specific courses, campus activities, residential services, and

employment opportunities (Grigal, Hart, & Weir, 2012).

Impact of IPSE on Peers

Understanding the impact of IPSE on peers is essential because the involvement of the study body is a key component to its success (Grigal, Hart, & Weir, 2011). Students on college and university campuses are generally supportive of efforts supporting IPSE (Westling et al., 2013) and participation in an inclusive class with a peer with IDD may lead to even more positive attitudes towards inclusive IPSE (Griffin, Summer, McMillan, Day, & Hodapp, 2012). Izzo and Shuman (2013) found that students on-campus are accepting of peers with IDD and that this level of comfort and acceptance may increase with additional opportunities for interaction. Although students surveyed by Gibbons, Cihak, Mynatt, and Wilhoit (2015) generally believed that typical college students would not feel uncomfortable with the inclusion of students with IDD in their courses, faculty responses were more mixed.

Impact on skills and perceptions.

The benefits of IPSE go well beyond impacting students with IDD and have been shown to have a positive influence on the broader campus community (Westling et al., 2013). Students surveyed by Gibbons et al. (2015) strongly agreed with the notion that including students with IDD on campus has a positive impact on their ability to interact with people with disabilities. Farley, Gibbons, & Cihak (2014) found that peer mentors who supported IPSE experienced positive personal outcomes, including (a) increased self-esteem, (b) greater understanding of and compassion towards people with IDD, (c) friendship development, and (d) increased personal satisfaction. In addition, students who participate in IPSE courses may have more

positive attitudes towards diversity, and as such acceptance of peers with a range of differences (May 2012). Experiences with peers with IDD may also impact student career goals. Students surveyed by Farley et al. (2014) found that their experiences working alongside students with IDD allowed them to further explore their career interests, or contemplate working in a field that they had not previously considered. Izzo and Shuman (2013) also found that engagement in IPSE may impact or affirm the career goals of students who support peers with IDD.

Impact on pre-service teachers.

Although the impact of service-learning involving students with disabilities for pre-service teachers has been detailed in existing literature (e.g., Santos, Ruppard, & Jeans, 2012; Melekoglu, 2013; Leytham, Dawson, & Rasmussen, 2018), research focusing on the impact of inclusive pre-service teacher education courses is scarce.

Carroll, Petroff, and Blumberg (2009) interviewed 12 pre-service teachers who attended an inclusive course designed to provide academic collaboration and engagement between students with and without IDD. Findings indicated that pre-service teachers: (a) thoroughly enjoyed the opportunities to interact with peers with IDD, (b) appreciated the opportunity to use information learned from other teacher education courses in an applied setting, (c) benefitted from the opportunity to work with faculty in lesson planning without feeling as though they were being formally evaluated, (d) felt as though their teaching skills improved by increasing their capacity to deliver hand-on activities, (e) generally had improved views of inclusion, although some noted that the context in the K-12 setting would add complications, (f) found increased comfort around people with IDD,

and (g) gained recognition that students with IDD are each unique and cannot be defined by their disability label.

Wintle (2012) observed and interviewed five pre-service teachers enrolled in a course that included a student with IDD. Pre-service teachers enrolled in the course learned alongside a student with IDD and served as a peer rather than a teacher. These pre-service teachers found increased comfort as the semester progressed and were able to identify both personal and professional benefits as a result of the experience. As future teachers, the students in the course described increased confidence in their ability to lead an inclusive classroom due to first-hand opportunities afforded by the class structure. In addition, the pre-service teachers also described the personal benefits associated with having a friend who happens to have IDD.

The literature describing the benefits of IPSE for pre-service teachers is limited. To further develop this body of literature, the present study sought to answer the following question: How does engagement in an IPSE course impact pre-service teachers?

Methods

Participants

The participants in this study were 10 students enrolled in a one-semester special education course designed to prepare pre-service general education teachers to work with students with disabilities to lead an inclusive classroom. The course included a combination of undergraduate students, enrolled in early childhood, elementary, and secondary teaching programs. Although there were 30 students enrolled in the course, written or oral information from 10 students were analyzed due to their inclusion of

information related to students with IDD in a course assignment. All students in the course were made aware of the study, which was approved by the university's Institutional Review Board.

Setting

Participants were enrolled in a university with 10,500 students in the northwestern United States. The special education course was delivered face-to-face and twice weekly over the 15-week semester. The course included two students with IDD who participated in a community-based 18-21 program in the local school district. At the beginning of the semester, the university students enrolled in this section were provided information about IPSE, a description of the arrangement, and an explanation of roles and expectations. As the university did not have formalized opportunities for students with IDD, the purpose of the student placement in the teacher education course was somewhat varied. The two students with IDD served in multiple roles within the structure of the course; they served as both a teacher assistant (e.g., taking attendance) and a student in the course (e.g., participating in-class activities). Their roles varied depending on the content and goals of each particular lesson.

Materials

Students enrolled in the course were tasked with completing a reflection at the end of the semester. Students had the option of answering reflective questions in a written paper or meeting face-to-face with the instructor to provide an oral response. Neither option specifically requested information regarding the involvement of students with IDD in the course. Although asking these direct questions would have perhaps yielded additional responses about the impact of

the students with IDD, it was decided that allowing these thoughts to emerge organically would add credibility to the findings. The specific questions asked for both the written and oral reflection included: (1) How specifically has this course made you better prepared to teach students with disabilities? (2) How will you promote inclusion in your classroom? (3) What were the most interesting components of the course? (4) What perspectives have changed through engaging with the course materials? Permission was requested to audio record students who completed their reflection assignment orally. These interviews were transcribed verbatim and information relating to the students with IDD were extracted for analysis. The complete qualitative data set contained relevant information from both the written and oral reflections from participants.

Data analysis

The qualitative analysis was completed by three researchers, with the lead having expertise in qualitative research methods. Collaborative analysis increased the credibility of the results through investigator triangulation (Brantlinger, Jimenez, Klingner, Pugach, & Richardson, 2005). The process was completed using thematic analysis, following the steps provided by Braun and Clark (2006). The data were first individually coded by three

researchers using descriptive coding. After the individual coding was complete, the three researchers met to review the individual analyses and develop a consensus regarding the coding. The coded text was then grouped into themes by the research team, followed by a review of the contents of each theme for appropriateness.

Results

Qualitative data were collected to better understand how the experience of an inclusive post-secondary classroom impacts the perceptions of pre-service teachers. All 30 students in the teacher education course completed their end-of-semester reflections. Thirteen students submitted a written reflection and 17 students elected to complete a face-to-face interview. Although students were not asked specifically about their experiences with the students with ID in the course, 10 included mention of the inclusive classroom (five written papers and five interviews). A description of these students is included in Table 1. Four of the students noted that the experience of the inclusive classroom was valuable because they had attended schools that offered limited opportunities for students with IDD to engage with peers. One student explained, "I think realistically, [this course] was the first major experience I had interacting with students with disabilities."

Table 1
Qualitative data sources

Respondent	Year in School	Major
Paper Author 1	Sophomore	Elementary Education
Paper Author 2	Sophomore	Secondary Education (English)
Paper Author 3	Junior	Secondary Education (English)
Paper Author 4	Sophomore	Elementary Education
Paper Author 5	Junior	Career and Technical Education
Interviewee 1	Junior	Elementary Education
Interviewee 2	Sophomore	Elementary Education
Interviewee 3	Sophomore	Elementary Education
Interviewee 4	Junior	Agricultural Education
Interviewee 5	Sophomore	Secondary Education (Social Studies)

Student responses were coded individually and then as a group by three researchers. Four codes emerged from raw data, including: (a) *Self-Efficacy in Teaching*, (b) *Comfort with People with Disabilities*, (c) *Inclusion*, and (d) *Acceptance*. Each theme is described below.

Self-efficacy in teaching. Although many students enrolled in the course described an increase in their confidence to teach students with disabilities, five participants made an explicit connection to how the inclusive classroom strengthened their teaching skills. Because students were able to engage in an inclusive educational environment in real-time, they were provided with an authentic and immersive opportunity that may mimic elements of their own future classrooms. One student appreciated “understanding why and how we [foster inclusion]” and another was grateful to have “real examples of how to deal with certain situations that may arise.” Another explained that the experience allowed them to “know what I’m getting into before I get into it.” It is important to note that for one student, the experience perhaps had a negative impact on their self-efficacy in teaching or career interests.

Although they had originally planned to seek a special education teaching endorsement, the experience with students with IDD made them alter their career goals so that she focused solely on her primary endorsement area (non-special education).

Comfort with people with disabilities. Four students made comments relating to increased comfort around people with disabilities. One student explained, “the thing [in the course] that has made me the most comfortable and prepared is surrounding myself with students with disabilities.” Another explained her increased comfort interacting with people with IDD and described the following situation:

“One day I was upset and talking on the phone to my Mom and must have been looking upset because [peer with IDD] saw me and said “I think you need a hug” and then just hugged me and I hugged him back without even thinking about it. Before this class, I would have been like “What are you doing? Get out of my space?” And now I am like “OK.. this is OK” and I thought that it was very interesting that like in one semester I was more comfortable interacting.”

Inclusion. A more positive view of inclusion through the experience of learning alongside students with IDD was described by three participants. They described the benefits of “being intentionally inclusive” and “[seeing] how to have [students with IDD] involved.” Students also described having a better understanding of the desires of students with IDD to be in an inclusive classroom. Through interactions during class sessions, one participant explained they are able to “see that they are students wanting to be involved in normal classes.”

Acceptance. Three students made comments relating to a more informed understanding of disability. For example, one student realized that students with IDD “are normal people, too...they just operate differently.” Statements included in the theme *Acceptance* also included items that demonstrate a realization that individuals with IDD have the same wants and needs as people without disabilities. One student explained, “[the students with IDD] are just like any other students wanting to get along and do activities with other students.”

Discussion

A qualitative study was conducted to better understand how the inclusion of students with IDD in a university-level teacher education course impacts pre-service teachers. Four primary themes emerged from the data, including (a) *Self-Efficacy in Teaching*, (b) *Comfort with People with Disabilities*, (c) *Inclusion*, and (d) *Acceptance*.

Aligned with the findings of Wintle (2012), results from this study suggest the experience of having a student with IDD as a peer had a positive impact on self-perception of teaching abilities; the theme *Self-Efficacy in Teaching* had the greatest number of student responses. From a

course design perspective, this finding is especially noteworthy. As the course is designed to prepare general education teachers to lead an inclusive classroom, knowing that the inclusion of students with IDD increased the self-efficacy of the students is valuable. Had the classroom not been inclusive, students would have likely felt less prepared to support students with disabilities in their own classrooms.

Participants noted increased comfort with people with disabilities as a result of the inclusion of students with IDD in their teacher education course. This is well-aligned with the findings of previous studies (e.g., Carroll et al., 2009; Izzo & Shuman, 2013; Keith et al., 2015). As many students with IDD have limited opportunities to learn the general education setting (U.S. Department of Education, 2018), pre-service teachers may have also attended schools that had limited opportunities for inclusive learning. Exposure to inclusive educational environments may have a positive impact on teacher attitudes towards inclusion (DeBoer et al., 2011), and as such, experiences with individuals with IDD in the postsecondary setting may be particularly important for those pre-service teachers who did not have these experiences in their K-12 schools.

Inclusion and *Acceptance* themes support the notion that experiences learning alongside a student with IDD can impact the perceptions and beliefs the future teachers have regarding individuals with IDD. Although some other studies that explored arranged experiences between people with IDD and individuals without IDD mentioned the development of friendship (e.g., Farley et al., 2014; Wintle, 2012), this did not emerge as a theme from this data. The friendships described in the

aforementioned studies are perhaps the result of opportunities for one-on-one experiences; in the present study, opportunities to interact with students with IDD were allowed to happen organically. Providing arranged opportunities for interaction may increase the extent to which students develop friendships.

Previous literature suggests that undergraduate service-learning experiences with individuals with IDD may impact the career goals of those involved (Farley et al., 2014; Izzo & Shuman, 2013; Jones et al., 2016). A similar theme did not emerge from this present study. In fact, the only mention of an impact on career plans was made by a student who specifically noted that the experience in the inclusive classroom has steered her away from her interest in becoming a special education teacher. Jones et al. (2016) included a specific item asking about how the service-learning experience impacted professional goals. A similar query in the present research may have yielded similar results.

Implications for Practice

IHE faculty and staff who support IPSE offerings should consider focusing on opportunities in teacher education courses. Because it is possible to make these arrangements in an informal manner, it may be an especially valuable option for IHEs without full-fledged opportunities for IPSE who are looking to develop a more robust program. These first-hand experiences may lead to more positive perceptions of inclusion, which can have a direct benefit to the school communities in which the pre-service teacher will be working. Facilitating direct experiences within these courses may lead to an impact on a greater number of students. In addition, as experiences in IPSE may result in increased comfort with people with IDD, program support staff may

consider recommending that students enroll in other courses that prepare students to work with this population (e.g., business management, counseling, entrepreneurship). However, it is also important for IPSE program staff to prioritize the strengths, needs, and interests of individual students when selecting a course of study; students with IDD should not enroll in a specific course primarily to benefit the other students enrolled in that class.

Limitations

The findings could have been strengthened with a larger number of participants. As with all qualitative research, the data represent the views and perspectives of select individuals, which should be taken into consideration when looking to generalize findings. It is important to note that participants were not directly asked about the impact of the students with IDD in the course; this was an intentional decision made to increase the credibility of the responses. Although asking this question directly would have increased the number of responses, students may have felt pressured to provide positive responses related to the involvement of students with IDD. Another limitation involved the varied role of the students with IDD. Although it would have been ideal to have had students with IDD who were interested in education-related careers, this was not the case. As such, the role of the students with IDD in each class session was inconsistent.

Implications for Future Research

In order to support the findings of this manuscript, future research should include larger-scale studies involving the impact of inclusive post-secondary experiences on pre-service teachers. In addition, research that includes in-service

teachers who experienced IPSE as a pre-service teacher may provide additional information. It is possible that the participants in the current study were not fully aware of the personal and professional impact the experience had on them. Future research should also include students with IDD. As they are at the core of IPSE, their voices should be represented in the literature.

Conclusion

IPSE offerings provide students with IDD increased opportunities at colleges and universities in the U.S. These offerings benefit students with IDD, the general

student body, as well as the entire campus community. This study included students enrolled in a teacher education program who learned alongside students with IDD in an inclusive classroom. Pre-service teachers described benefits of the experience, including perceived increases in their ability to teach, increased comfort with people with disabilities, more positive views of inclusion, and greater acceptance of people with IDD. These benefits may lay the foundation for increased inclusion in schools, a benefit that extends well beyond the individual.

References

- Brantlinger, E., Jimenez, R., Klingner, J., Pugach, M., & Richardson, V. (2005). Qualitative studies in special education. *Exceptional Children, 71*(2), 195–207.
- Carroll, S. Z., Petroff, J. G., & Blumberg, R. (2009). The impact of a college course where pre-service teachers and peers with intellectual disabilities study together. *Teacher Education and Special Education, 32*(4), 351–364.
- DeBoer, A., Pijl, S. J., & Minnaert, A. (2011). Regular primary schoolteachers' attitudes towards inclusive education: A review of the literature. *International Journal of Inclusive Education, 15*, 331–353.
- Edoram F., Mello, D., Lee, S., & Johnson, L. (2018). Part B indicator data display wizard. *IDEA Data Center*. Retrieved from <https://ideadata.org/resources/resource/1881/part-b-indicator-data-display-wizard>
- Farley, J. A., Gibbons, M. M., & Cihak, D. F. (2014). Peer mentors in a postsecondary education program for students with intellectual disabilities. *College Student Journal, 48*(4), 651–660.
- Garcia, M. A., Diaz, A. L., & Rodriguez, M. A. (2009). A review and analysis of programmes promoting changes in attitudes towards people with disabilities. *Annuary of Clinical and Health Psychology, 5*, 81–94.
- Gibbons, M. M., Cihak, D. F., Mynatt, B., & Wilhoit, B. E. (2015). Faculty and student attitudes toward postsecondary education for students with intellectual disabilities and autism. *Journal of Postsecondary Education and Disability, 28*(2), 149–162.
- Griffin, M. M., Summer, A. H., McMillan, E. D., Day, T. L., & Hodapp, R. M. (2012). Attitudes toward including students with intellectual disabilities at college. *Journal of Policy and Practice in Intellectual Disabilities, 9*(4), 234–239.
- Grigal, M., Hart, D., & Papay, C. (2019). Inclusive higher education for people with intellectual disability in the United States: An overview of policy, practice, and outcomes. In P. O'Brien, M. L. Bonati, F. Gadow, & R. Slee (Eds.), *People with intellectual disability*

- experiencing university life: Theoretical underpinnings, evidence and lived experience* (pp. 69-97). Leiden, The Netherlands: Brill.
- Grigal, M., Hart, D., & Weir, C. (2011). *Think College standards quality indicators, and benchmarks for inclusive higher education*. Boston, MA: University of Massachusetts Boston, Institute for Community Inclusion.
- Grigal, M., Hart, D., & Weir, C. (2012). A survey of postsecondary education programs for students with intellectual disabilities in the United States. *Journal of Policy and Practice in Intellectual Disabilities, 9*(4), 223-233.
- Individuals with Disabilities Education Improvement Act of 2004 (IDEA). Pub.L.No.108-446, 118 Stat. 2647 (2004) [Amending 20 U.S.C. §§ 1400 et seq.]
- Izzo, M. V., & Shuman, A. (2013). Impact of inclusive college programs serving students with intellectual disabilities on disability studies interns and typically enrolled students. *Journal of Postsecondary Education and Disability, 26*(4), 321-335.
- Jones, J. L., Gallus, K. L., & Cothorn, A. S. (2016). Breaking down barriers to community inclusion through service-learning: A qualitative exploration. *Inclusion, 4*(4), 215-225.
- Keith, J. M., Bennetto, L., & Rogge, R. D. (2015). The relationship between contact and attitudes: Reducing prejudice toward individuals with intellectual and developmental disabilities. *Research in Developmental Disabilities, 47*, 14-26.
- Leytham, P. A., Dawson, S., & Rasmussen, C. L. (2018). Changing perceptions of pre-service educators through service-learning. *Journal of the International Society for Teacher Education, 22*(2), 23-35.
- May, C. (2012). An investigation of attitude change in inclusive college classes including young adults with an intellectual disability. *Journal of Policy and Practice in Intellectual Disabilities, 9*(4), 240-246.
- Melekoglu, M.C. (2013). Examining the impact of interaction project with students with special needs on development of positive attitude and awareness of general education teachers towards inclusion. *Educational Sciences: Theory and Practice, 13*(2), 1067-1077.
- Morin, D., Rivard, M., Crocker, A. G., Boursier, C. P., & Caron, J. (2013). Public attitudes towards intellectual disability: A multidimensional perspective. *Journal of Intellectual Disability Research, 57*, 279-292.
- Neubert, D. A., Moon, M. S., Grigal, M., & Redd, V. (2001). Post-secondary educational practices for individuals with mental retardation and other significant disabilities: A review of the literature. *Journal of Vocational Rehabilitation, 16*(3), 155-168.
- Novak, J., Murray, M., Scheuermann, A., & Curran, E. (2009). Enhancing the preparation of special educators through service learning: Evidence from two preservice courses. *International Journal of Special Education, 24*(1), 32-44.
- Ouellette-Kuntz, H., Burge, P., Brown, H. K., & Arsenault, E. (2010). Public attitudes towards individuals with intellectual disability as measured by the concept of social distance. *Journal of Applied Research in Intellectual Disabilities, 23*, 132-142.

- Phillips, B. A., Fortney, S., & Swafford, L. (2018). College students' social perceptions toward individuals with intellectual disability. *Journal of Disability Policy Studies*, 1044207318788891.
- Santos, R.M., Ruppap, A.L., & Jeans, L.M. (2012). Immersing students in the culture of disability through service learning. *Teacher Education and Special Education*, 35(1), 49-63.
- Scior, K. (2011). Public awareness, attitudes and beliefs regarding intellectual disability: A systematic review. *Research in Developmental Disabilities*, 32(6), 2164-2182.
- Siperstein, G. N., Parker, R. C., Bardon, J. N., & Widaman, K. F. (2007). A national study of youth attitudes toward the inclusion of students with intellectual disabilities. *Exceptional Children*, 73(4), 435-455.
- Think College. (n.d.). *Find a college*. Retrieved from <http://www.thinkcollege.net/databases/programs-database>
- Uditsky, B., & Hughson, E. (2012). Inclusive postsecondary education- An evidence-based moral imperative. *Journal of Policy and Practice in Intellectual Disabilities*, 9(4), 298-302.
- U.S. Department of Education, Office of Special Education and Rehabilitative Services, Office of Special Education Programs. (2018). *40th annual report to Congress on the implementation of the Individuals with Disabilities Education Act, 2018*. Washington, DC: Author.
- Westling, D. L., Kelley, K. R., Cain, B., & Prohn, S. (2013). College students' attitudes about an inclusive postsecondary education program for individuals with intellectual disability. *Education and Training in Autism and Developmental Disabilities*, 48(3), 306-319.
- Wintle, J. (2012). A multiple perspective case study of a young adult with intellectual disabilities participating in a pre-service teacher education class. *Exceptionality Education International*, 22(1), 37-54.