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From the Editor

The lead article in this issue of the *Journal of Postsecondary Education and Disability* examined quantifying difficulties of university students with disabilities (SWDs). The authors, Alan Safer, Lesley Farmer, and Brian Song (California State University, Long Beach), using 10 years of data containing more than 2,500 SWDs, identified specific factors that are predictive of reduced school retention and graduation rates in SWDs. Among their findings were that demographic variables, such as ethnicity, gender, parents’ education, had an impact on school outcomes for the students with disabilities, and that SWDs success in the first semester was very important. In the next article, Susan Grimes, Erica Southgate, Jill Scevak, and Rachel Buchanan (University of Newcastle) addressed university student experiences of disability and the influence of stigma on institutional non-disclosure and learning. The researchers found that internalized stigma is most common for students living with mental health issues who anticipate discrimination and prejudice should disclosure be made. Students in this study described stigma as having affected learning through poorer academic outcomes, reduced social support, and academic help-seeking, and a perception that future professional identities excluded those living with mental health issues. Non-disclosure was perceived by students to be necessary to protect them from being discredited within their learning environment and, for some, in future employment.

In the third article, perspectives on person-first language were addressed. Holly Hoffman (Central Michigan University), Marie Hengesbach (Union Elementary School District) and Shana Trotter (Littleton Education School District) gathered the perceptions, awareness levels, and use of person-first language across the university campus environment. They found that university students shared their familiarity exposure to person-first language, as well as the level of support or opposition of utilizing person-first language. In the next article, Andrew Sheef (University of Idaho), Cyndi Caniglia (Whitworth University), and Brenda Barrio (Washington State University), explored disability as diversity in institutions of Higher Education (IHEs) in the United States. When reviewing mission statements and diversity materials of four-year college and university websites, they found that most of the randomly selected four-year IHEs did not include disability within in their mission or diversity statements.

In the fifth article, inclusive postsecondary education programs of study for students with intellectual disability were studied. Kathleen Becht, Adam Meyer (University of Central Florida), L. Danielle Meyer (University of South Florida St. Petersburg), Denise Giarrusso, and Ethel Still-Richardson (Florida State College at Jacksonville) explored 11 of Florida’s inclusive postsecondary education programs (IPSE) for individuals with intellectual disability (ID). The researchers explored, through ethnographic inquiry, the nature of academic access as well as the programs of study available to students with ID within Florida’s IPSE programs. In the next article, Brett Nachman (University of Wisconsin–Madison) provided a literature review on enhancing transition programming for college students with autism. The author provided implications for practice that include offering early exposure to college, redesigning programs to include more awareness of students’ other identities, embedding more content on career development, and accounting for community college students’ and transfer students’ unique pathways.

This issue concludes with two practice briefs. The first practice brief described what students with Autism Spectrum Disorder (ASD) may need to be successful in higher education. Tara Rowe, Tyler Charles, and Henry DuBose, (University of North Florida) explained how a supplemental support program within a public university was developed to provide social, career development, and independent living skills to matriculating students with ASD. In the second practice brief, Elizabeth Thomson (University of Illinois at Chicago) described audio description (AD) as a collaborative and reflexive tool, and encouraged the reader to envision AD being used by college artists, AD practitioners, blind communities, and gallery curators.

The editorial team and review boards associated with the *Journal of Postsecondary Education and Disability* are pleased to provide this issue with contributions to the literature to enhance the college student disability literature.

Roger D. Wessel, Ph.D.
Executive Editor
Quantifying Difficulties of University Students with Disabilities

Alan Safer¹
Lesley Farmer¹
Brian Song¹

Abstract

Students with disabilities experience more than the usual number of challenges in their postsecondary education experiences. Students with disabilities typically receive support services from an administrative unit assigned to assist them. But these assigned administrators and their staff often have difficulty identifying the factors that are most useful to support the academic and adjustment success of students with disabilities. This research project aimed to identify the specific factors that are predictive of reduced school retention and graduation rates in students with disabilities. To this end, the researchers used ten years of data (2004-2013) from a large urban university. The data set contained 2,578 students of disabilities with relevant individual school-linked variables which were analyzed using quantitative statistical tests. The type of recorded observations included those from the research literature which were deemed most likely to answer the important research questions.

Keywords: disabilities, postsecondary, predictors, graduation, grade point average

A major aim of higher education in postsecondary academic institutions is for all students to succeed, including students with disabilities. Colleges and universities have a distinct responsibility to optimize the learning experiences of students with disabilities. Such students experience more than the usual number of challenges, some of which pertain to their specific disabilities. Students with disabilities typically receive support services from an administrative unit assigned to assist them. But these assigned administrators and their staff often have difficulty identifying the factors that are most useful to support the academic and adjustment success of students with disabilities.

This research project aimed to identify the specific factors that are predictive of reduced school retention and graduation rates in students with disabilities. To this end, the researchers used ten years of data (2004-2013) from a large urban university. The data set contained 2,578 students of disabilities with relevant individual school-linked variables which were analyzed using quantitative statistical tests. The type of recorded observations included those from the research literature which were deemed most likely to answer the important research questions. It is hoped that such answers could then be used to develop a possible model for prediction and for future intervention.

Literature Review

To understand past research about the college experience of students with disabilities, the literature review examined research indexed in ERIC, PsycInfo, Web of Science, Academic Search Complete, ProQuest Dissertations and Abstracts, and national databases with information on college students with disabilities. Research was drawn from 2009-2018 with a few older seminal studies included. Key words were students with disabilities, disability-related terms, postsecondary terms, retention, and graduation rate. Most assessed studies used qualitative research methods. Most focused on either one disability or one cluster of factors (e.g., impaired socialization). Furthermore, most studies had a limited sample or did recording during a short time frame. To fill this research gap, studies are needed that provide a longitudinal perspective, a university-wide scope, and a quantitative research methodology.

Increasingly, more students with disabilities attend postsecondary institutions. Yet their rate of

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postsecondary institutional enrollment lags behind those students without reported disabilities (Hudson, 2013; Joshi & Bouck, 2017; Kilpatrick et al., 2017; McGinty, 2017). A 2011 national survey reported on their types of disabilities. These included: learning disabilities 31%, ADHD 18%, mental-related 15%, and health-related 11% (Raue & Lewis, 2011). Among those students who received special education services in high school, 59% enrolled in postsecondary institutions, as compared to 72% of students without reported disabilities. Of those students with disabilities enrolled in four-year institutions, 45% of them earned a degree or post-bachelor credentials, compared with 37% who enrolled in two-year institutions (Hinz, Arbeit, & Bentz, 2017). For students without disabilities the percentage of bachelor degree completion was higher. It was 65% for four-year public institutions 76% for four-year private institutions, and 38% in two-year institutions (Shapiro et al., 2017). However, the picture is far more complex.

In terms of external factors, students with disabilities identified the following areas of challenge: registration, academic rigor, faculty treatment, poor support services, and finances. Factors for college success included use of university support services (especially during the first year) and using arranged accommodations (e.g., notetaking aids, extended time for testing), personalized registration process (selecting courses and faculty), and family support.

Challenges Facing Students with Disabilities

Students with disabilities have to deal with the same kinds of challenges as other college students, such as academic rigor, social connections, finances, and unexpected situations. However, students with disabilities often need extra help because of their physical, mental, or developmental differences. At the same time, they might not want to disclose their disability because it could negatively affect those universal factors, such as social connections.

Hong (2015) analyzed the “reflective journals” of students with disabilities to identify the writers’ daily barriers and frustrations in higher education. Four major themes emerged: faculty perception of students with disabilities, advisors’ mismatch, college stressors, and the quality of support services. Kilpatrick et al.‘s 2017 study also mentioned the mismatch of needed and received services, as well as staff training gaps, and a one-size-fits-all approach. Howe (2013) echoed Hong’s findings that students with disabilities faced academic difficulties in part because of the poor quality of support services.

Thompson-Ebanks (2012) discovered a dynamic interaction between individual factors (e.g., feelings of adequacy, sense of belonging, expectations and perceptions of college) and environmental factors (e.g., expectations of family, college and community systems). For example, if a student felt adequate but college expectations were higher, students might not seek the accommodations they needed (Weatherton, Mayes, & Villanueva-Perez, 2017). Thurston, Shuman, Middendorf, and Johnson (2017) noted that academic personnel lacked knowledge and understanding of students with disabilities, and sometimes held negative stereotypes. Weatherton et al. (2017) also found that engineering and law faculty were less willing than other faculty to provide accommodations; their negative attitudes led to a climate that was counter to inclusivity. Another example of this dynamic interaction was identified by Waale (2017); students with financial challenges had to balance the time demands of work versus studying, especially if they had to complete remedial courses prior to earning college-bearing credits.

Students with visible disabilities had an easier time adjusting to college than students with invisible disabilities; students with emotional or behavioral disorders had the most difficulty with both adjusting to college and gaining help-seeking skills (Bueno, 2017; Ping O’Neill, Markward & French, 2012). Jorgensen, Budd, Fichten, Nguyen, and Havel (2018) and King (2014) found that students with mental health disabilities were less likely to be retained or to graduate than students with learning disabilities. Jorgensen et al. (2018) also noticed that the former group tended to be older, more likely to be female, have worse personal circumstances, and felt more socially isolated on campus; they were also less likely to register for support services for students with disabilities.

Students with Autism Spectrum Disorder (ASD) faced academic, organizational, social, emotional, communication, and self-advocacy challenges (Howe, 2013). Furthermore, they sometimes needed support services for registration, testing, transportation, and housing (Cox et al., 2017; Cullen, 2015; Hillier et al., 2018). At the same time, students with ASD experienced a tension between self-disclosure of their disorder or asking for accommodations as they were developing their internal identity. They were aware and were influenced by others’ perceptions so might not have wanted to embrace ASD as part of their public persona (Cox et al., 2017).

Students with Attention Deficit Hyperactivity Disorder (ADHD) and/or learning disabilities struggled with poor time management, organization, study habits, and social skills (Singley, 2018). In a study by Gleckman (1992), students with learning disabilities
(LD) showed more psychological distress than others. Those most at risk had more academic, personal, and family problems in the past, and tended to be diagnosed later than well-functioning LD students so had fewer opportunities for support services.

Students with disabilities were less likely to major in STEM because of lack of academic preparation and counseling (Groah et al., 2017). However, military veteran students tended to major in STEM because of prior experience, and they were less likely than other students with disabilities to request services either because of lack of awareness or feared the stigma of a self-disclosure label.

Factors for College Success of Students with Disabilities

As with challenges, predictive factors for college success included both internal and external factors. In some cases, the student’s own behaviors impact their success, which they can probably work on. They might also have characteristics that they cannot change, such as ethnicity or parents’ education. Internal factors also apply to a higher education institution, such as services, which could be changed. External factors can consist of external funding sources, legal and political regulations, or community demographics.

As an example of an internal factor, Pingry O’Neill et al. (2012) found that female students were 1.5 times as likely than males to graduate, controlling for personal characteristics and disability services. Koehler (2013) found that higher reading achievement was positively significantly correlated with college attendance. Similarly, higher math achievement was positively significantly correlated with the number of credits successfully taken per term.

Use of university support services contributed significantly to the academic success of students with disabilities (Howe, 2013; McGregor et al., 2016). National statistics about support services (Raue & Lewis, 2011) reported the following typical offerings: extra exam time 93%, notetaker 77%, faculty-provided notes 72%, study skills 72%, alternative exam formats 71%, and assistive technology 70%. It should be noted that support services for students with disabilities requires students to self-disclose their disability, unlike in K-12 settings. In a study of 14,000 undergraduate students at a large research university, Hudson (2013) discovered that students who disclosed their disabilities within the first year of enrollment had higher graduation rates than students who self-disclosed later to the extent that for every year that a student delayed disclosing a disability, the length of time to graduate increased by almost half a year. Students with cognitive disabilities and males took longer to graduate.

Impactful Interventions

In identifying factors that predict student attrition, Davidson, Beck and Milligan (2009) found institutional commitment to be the best single predictor for student retention. Several studies emphasized the need for institutional integrated, comprehensive services that are both inclusive as well as provide overall disability and disability-specific support. Furthermore, such support services should connect with outside agencies (Kilpatrick et al., 2017). Studying a similar approach, Hodge (2017) reported how students with disabilities who received student support services had higher GPAs, retention, and graduation rates than students with disabilities who did not receive these services. In several studies, students cited a number of reasons that they did not use support services for students with disabilities: lack of awareness, lack of knowledge as to the physical location of the services, felt stigma of self-disclosing their disability (Groah et al., 2017; Jorgensen et al., 2018; Thurston et al., 2017).

Another popular intervention was academic coaching (Singley, 2018). This intervention significantly increased academic engagement, knowledge and use of learning and study skills, self-efficacy, and academic success of students with learning disabilities or ADHD. Similarly, peer mentoring can impact student success (Siew, Mazzucchelli, Rooney, and Girdler 2017). Students with ASD who enrolled in a peer mentoring program gained social support, lessened their apprehension of communicating, and helped them manage their academic work. The mentoring motivated the students and provided practice group and emotional support. Deaf students from minority communities were paired with a mentor who was either deaf or familiar with the deaf community. Mentoring was successful when it involved deaf community social capital, asking for accommodations, and communication access. Mentors should also get cultural competency training (Braun, Gormally, & Clark, 2017).

In sum, many studies demonstrated the positive significant difference that campus support services and their resources for students with disabilities had on those students’ academic success, especially if started the first year (Hillier et al., 2018; Hodge, 2017; Hudson, 2013) and continued throughout the students’ lifecycle (Kilpatrick et al., 2017). Because so many students do not know about these services, or their location, support services need to pro-actively reach out to the entire academic community and
feeder schools to publicize their services (Kilpatrick et al., 2017; Thurston et al., 2017). They also need to minimize the fear of stigmatization and focus on students' needs rather than their diagnosis (Cox et al., 2017; Jorgensen et al., 2018). Furthermore, while providing support services is a necessary condition, it is not sufficient; those services should be comprehensive, coordinated, inclusive, and of high quality (Cox et al., 2017; Hong, 2015; Howe, 2013; Seale, 2006). Not only should all support staff be well trained, but disability-specific experts are also needed (Kilpatrick et al., 2017). Furthermore, the services themselves should be monitored regularly to insure sustained quality and improvement. These efforts also require university support (Moriña, López-Gavira & Morgado, 2017) through allocation of human and material resources, funding, and supportive policies and practices (Seale, 2006).

Methodology

This research project aimed to identify the specific factors that are predictive of reduced school retention and graduation rates in students with disabilities. To this end, the main research question was: What variables significantly relate to the duration of enrollment in good standing and the graduation rate of students with disabilities as a group? A secondary question was: What variables significantly relate to the reduced school retention and lower graduation rate of college students in relation to their specific disabilities?

Data

To answer the research questions, the researchers obtained two data sets from a large urban comprehensive university, with IRB approval. The number of students with reported disabilities rose from 467 (out of 31,342 total student enrollment) in 2004, reflecting 1.5%, to 1,575 (out of 38,310 total student enrollment) in 2013, reflecting 3.46%. The two data sets included more than 200,000 observations of all undergraduate students who entered as first-time freshmen, enrolled between fall 2004 and fall 2013. Both data sets captured information about the same students, but one data set had mainly demographic student information that didn’t vary over time, and the other data set had mainly non-demographic student information that varied over time each semester of the students’ academic career. The variables associated with each student thus formed the basis for analysis: that is, demographics, academic status, and parents’ education.

From the merged data set, a subset of only the students with reported disabilities was used, which consisted of 2,578 observations. The data set factors included more than thirty variables. These included demographics, parent education, majors, type(s) of disabilities, disability services used, financial aid (yes or no), veteran status, number of units taken, GPA, and academic status (continuing, discontinued, academic withdrawal, graduated). The data sets were merged, cleaned, and aggregated. In most cases where variable values were missing, the statistical analysis did not include that case. For financial aid and veteran status, it was assumed that if the student did not answer the question, the status was no.

Statistical Analysis

Once the data set was ready for analysis, quantitative statistical tests (e.g., chi-square test of independence and binary logistic regression) were used to identify significant predictor variables related to the duration of satisfactory academic enrollment and the graduation rate of students with disabilities. Multiple two-sided proportional comparison tests of categorical variables (e.g., gender, parents’ education, major departments, types of disability, types of services, ethnicity) were employed and were accounted for using a Bonferroni adjustment. Consequently, the p values were adjusted to take this into account. In addition, binary logistic regression analysis was done to model the relationship between predictor variables and the binary dependent variable.

Findings

The university’s data set provided a rich picture about students with disabilities over the time period of 2004 to 2013. Findings showed the types of disabilities that students self-reported and the types of services that they received. Data also indicated demographics, parents’ education, and academic status of students with disabilities. Details about these findings and associated statistics follow.

An average of about 3% of the university’s population identified themselves as having one or more disabilities (average over the ten years, rising from 1.49% in 2004 to 3.95% in 2013). Over the decade, the leading disability reported was learning (25%), followed by ADHD (21%), hearing (13%), psychological (13%), and mobility (10%) (Table 1).

It should be noted that the state’s data collection agency refined the categorization of disabilities in 2010 such that the term “other” disabilities, was dropped, replaced by the specific addition of ADHD, ASD, brain injury, communications disabilities, and psychological disabilities. In that respect, the decade totals underrepresent ADHD, and psychological dis-
orders. As Figure 1 shows, the number of students reported having ADHD increased in numbers more than the other reported disabilities from 2010 to 2013. The number of students who self-reported psychological disorders also increased in number during the same years. The number of students who reported other disabilities remained stable over the decade. In the final year, 2013, the number of students with reported disabilities ranked in order as follows: ADHD (highest number), learning disability, psychological disorders, hearing impairment, mobility limitations, other functional limitations, ASD, visual limitations, brain injuries, and communications disabilities.

Over the 10-year span, the most frequent services for students with disabilities consisted of counseling, testing accommodations, registration help, and interpretative services. As Figure 2 shows, testing increased threefold, interpretative services remained stable, and registration help and counseling significantly decreased.

In terms of ethnicity, the relative percentages of students with disabilities and their types of disabilities are shown in Table 2. White students are over-represented in terms of the percentage of students with reported disabilities, constituting 51% of that population while representing only 23% of the total student body. Almost a quarter of white students reported having a learning disability (the most frequently reported disability for them). Asian students were slightly underrepresented among students with disabilities, constituting 7% of that population while presenting 11% of the total student body. A third of them reported a hearing impairment (the most frequently reported disability for them). African Americans with disabilities, who constituted 7% of the total number of students with disabilities, reported having a learning disability. Only 1% of the total student body – and 1% of students with disabilities – were Native American/Pacific Islanders; about a third of them reported having ADHD and a quarter of them reported having a learning disability.

Table 3 details the final grade point average (GPA) and graduation rate of students with disabilities, linked to various variables. Several variables were tested with chi-square statistics. For instance, the table reveals the importance of the first semester for students with disabilities. Students who stayed beyond that first term were much more likely to graduate ($p<.01$); past that first term, the fall-off rate was much less. Similarly, students who took 6 or fewer units their first and last semesters were significantly less likely to graduate ($p<.01$). More specifically, students with hearing impairments were much more likely to leave after one semester, 27%, than students with other disabilities; the second highest percentage was 10% discontinuance by students with Autism Spectrum Disorder (ASD). While the overall percentage of students with disabilities who graduated was 64%, cumulative GPA and graduation rates were significantly lower for students with ASD (2.37 cumulative GPA and 43% graduation rate) or hearing impairments (2.31 cumulative GPA and 46% graduation rate) even after controlling for the first semester drop outs. Multiple proportion chi-square statistical analysis found that students with these two disabilities graduated at a significantly lower rate than students with any other specific disability ($p<.01$ for hearing impairment and $p<.01$ for ASD).

Table 3 also shows that for the first semester, students using interpreter services (for hearing impairment) had a significantly lower GPA than other services ($p<.01$), although that difference disappeared if students did not drop out during the first semester. Students who received registration help were more likely to have a lower cumulative GPA and to discontinue ($p<.01$) (which might mean they needed more help in general). By the end of their program, students who did not use services took more units and had a cumulative GPA that was significantly higher ($p<.01$) than students who did use services. On the other hand, students who used two or more services were significantly more likely to graduate ($p<.05$) than students using just one service. Students who used notetaking services ($n=42$) had significantly higher cumulative GPAs and were more likely to graduate.

There were some differences by gender shown using chi-squared test analysis in Table 3. Males and females did not differ significantly in terms of having a disability or not, but they had proportionately different disabilities: males were five times as likely to have ASD; females were twice as likely to have psychological disabilities, hearing and mobility disabilities. Females were 50% more likely to have learning disabilities, and males were 50% more likely to have ADHD. On the other hand, females consistently used more services than males ($p<.01$). Mother’s education level was significantly negatively correlated with students’ cumulative GPA ($p=.013$); father’s education level was not significantly correlated with students’ cumulative GPA. However, gender was not a significant factor relative to number of units per semester or cumulative GPA, except for the first semester in which females had a slightly higher cumulative GPA than males. A binary logistic regression
analysis did not reveal any statistically significance for the variables associated with gender of the students or their parents.

One aspect of finances is EOP (Educational Opportunity Program), which provides supplemental financial assistance to students from low socio-economic backgrounds who are educationally disadvantaged. These recipients tend to be first-generation, minority college students. EOP also provides tutoring, academic advising and training, and peer mentoring. Table 3 shows that only 7% of students with disabilities had EOP status, and their cumulative GPA and graduation rates did not differ significantly from students not in that program (see Table 3). Hispanics constituted 37% and African Americans constituted 24% of the EOP students with disabilities. Hispanics in EOP were more likely to graduate than Hispanics who were not in EOP. However, African Americans in EOP were less likely to graduate than African Americans who were not in the program. The differences between the two ethnic groups’ outcomes was significant (p<.05), based on chi square statistical analysis; this finding was not significant when all the variables were accounted for in a logistic regression analysis.

In Table 3 several findings related to majors. Students with disabilities were less likely to major in hard sciences (6% science/math, 6% computer/engineering) and more likely to major in social/behavioral science, across ethnicities. The number of semesters or cumulative GPAs did not differ significantly by major. Graduation rates differed significantly by major: 73% for arts/communication to 52% in computers/engineering and 46% in science/math; only a handful of undeclared graduated. Students with no majors (64%) or majored in hard sciences (science/math 29% and computer/engineering 28%) were most likely to withdraw from the university. Testing accommodations were provided for an average of 44% of students across majors, but significantly less for education majors. Similar findings related to majors were discovered using binary logistic regression analysis (Table 4).

A binary logistic regression (Table 4) revealed several other significant factors that predicted graduation for students with reported disabilities. Students who entered the university more recently were more likely to graduate (4.1% more for each additional year later), the reference year being 2004. Asians were 73.6% more likely than White students to graduate (p<.05). Students with ADHD (the reference disability category) were 121.2% more likely than students with ASD to graduate (p<.05), 89.3% more likely to graduate than those with hearing impairments (p<.01), and 49.7% more likely than other unclassified functional limitations (p<.05) to graduate. Students who received financial aid their second to last semester were significantly more likely than those without financial aid, 254.9%, to graduate (p<.01).

Discussion

The demographic variables, such as ethnicity, gender, and parents’ education, had an impact on school outcome for the students with disabilities. For instance, males did not perform as well, which echoes the findings of Pingry O’Neill et al. (2012). Other factors such as major also impacted the success of students with disabilities. Many of the findings reinforce earlier research. The emphasis that follows is on actionable factors such as improving services to support students with disabilities.

Overall, first semester’s experience was significant: students with declared majors persisted more than undeclared students, regardless of disability status. Students with disabilities who used support services targeted to them were more likely to perceive and perform better, especially if they used services the first semester. For example, for students attending at least two semesters, those with hearing impairments graduated only slightly less than students with other types of disabilities, unlike the first semester outcomes which were significantly worse. This finding reflects the conclusions of Hillier et al. (2018), Hudson (2013), Hodge (2017), and Rause and Lewis (2011), who all emphasized the importance of the first semester in laying out the basis for future academic success. Students with hearing impairments had lower GPAs and interpretative services did not seem to help. Students with ASD were also more at risk. Therefore, these students seem to need more attention than students with other disabilities, which reflected the conclusions of Singley (2018) and Gleckman (1992).

Students in the hard sciences experienced more academic difficulties and were less likely to graduate, as found in the research of Weatherton et al. (2017) and Groah et al. (2017). That situation should be examined more closely to determine the underlying reasons (e.g., remediation courses needed, academic rigor, faculty and student perceptions, social reasons, lack of specific services geared to the major such as use of symbols, etc.); it should be noted, however, that in the general population students in these majors also experienced more academic difficulties than in other majors, so disabilities were not likely to be the distinguishing factor.

Other data revealed more at-risk factors rather than success factors for student enrollment reten-
tion and graduation rate. However, such information is very useful for support services for students with disabilities as it helps services to target their areas of improvement. As noted in the literature review, many studies had limited samplings or narrow foci. The following findings had not been reported in the available literature so they add to the research picture.

- White students were over-represented compared to other ethnicities in terms of having disabilities; this finding should be examined to determine the reason (e.g., awareness of services, issues of stigma, self-advocacy skill, etc.).
- Native American, African American, and Hispanic students did not do as well as White or Asian students. Culturally-responsive instruction could help mitigate the differences.
- EOP seemed to help Hispanics but negatively impacted African Americans in terms of graduating; EOP services and possible culture-sensitivity need investigation.
- Males used fewer services, so might need more encouragement. Males also earned slightly lower grades and were slightly less likely to graduate than females.

Limitations

The data sets reflected the population of one university, although it is a large and diverse urban institution, so the findings may or may not be generalizable to all kinds of postsecondary institutions such as small liberal arts colleges. The findings were based on the provided data sets, which were only as good as the data entered or calculated. Some of the variables were miscoded when the two data sets were merged, so the original data had to be reviewed and recoded. For a couple of variables dealing with remediation waivers, the existing explanation for coding could not be deciphered, so those variables could not be used for analysis. To minimize data errors, data frequencies were checked before other analyses to see if they were reasonable. For students who indicated that they were two or more races (15% of the population), data were not captured about the composite races.

Additional factors would have also been useful to know, such as the number of students who did not report that they had a disability, but in fact did have disabilities, in order to determine predictive factors for their retention and graduate rate in comparison to students who identified their disability to the campus services for students with disabilities. In addition, other studies examined the impact of coaching, mentoring, and socialization, which were not within the scope of this study. These added factors are usually not captured in institutional data but can be significant in understanding the needs and responsive services for students with disabilities.

Next Steps and Further Research

The next step will compare the retention and graduation rate of students who did not report having a disability with those students who did indicate a disability. The current data set does have comparable variable values for students without reported disabilities. Then the two populations can be compared to reveal possible differences in retention and graduate rates related to demographic and academic variables.

A further step will consist of using the findings and literature review to identify feasible interventions that management practice can implement to improve student success. To this end, Six Sigma steps will be applied to identify areas for improvement in management practice, and then implement changes to improve such practice to facilitate student success. Six Sigma is a set of management techniques used to improve organizational processes by reducing and controlling process failures or variations.

In terms of further research, other institutions in the same higher education system or other institutions with comparable demographics can be analyzed to determine possible generalizability – or to determine that findings are site-specific. Likewise, community colleges and post-graduate institutions can also be analyzed for possible generalizability or significant differences. Few studies investigate the educational trajectory of students once they leave the institution; additional information about their next steps, such as transferring to a different campus at the same level or different level of education such as a junior college, would be useful data to explore.

Additional factors such as SAT and ACT test results or the number of breaks in enrollment might be significant factors. Follow-up surveys of students who did not graduate might reveal other educational pathways, which might inform staff of services for this population in terms of academic counseling.

The study did not touch upon the social aspects of services, which merits attention. Since several studies mentioned internal factors of self-efficacy and self-advocacy, so continued investigation is needed, especially in terms of the effectiveness of teaching these attitudes and skills to increase students’ academic success. Additionally, data could be gathered about complementary applicable services such as writing assistance centers, crisis center counseling, or outside services from public or private agencies.
Conclusions

Based on the literature review and the data analysis, the researchers identified predictive factors for academic success (GPA and graduation rate) as well as enrollment risk factors for students with reported disabilities. An obvious positive factor is attending more than half time and maintaining a high GPA. Students who continue after the first semester are more likely to graduate. Therefore, services for students with disabilities need to make a concerted effort to publicize their services even before students enroll and make those services easy to find and use the first semester (Hillier et al., 2018; Hodge, 2017; Hudson, 2013; Thurston et al., 2017). Students who declare their majors from the start are also more likely to succeed. Students who used two or more services also fared better, which points to the need for comprehensive and well-coordinated services (Cox et al., 2017; Hong, 2015; Howe, 2013; Seale, 2006).

Several factors were identified as risk factors. In most of these cases, the factor itself cannot be changed, but identifying at-risk students can help target efforts: students with hearing impairments, students with ASD, males, Native Americans, African American, Hispanics. Service effectiveness varied, but students who used registration assistance or interpreter services fared less well than students using other services, indicating that services for students with disabilities need to be monitored to optimize their effectiveness (Kilpatrick et al., 2017).

All students, including students with disabilities, who are admitted into a postsecondary institution constitute an investment by that institution in those individuals’ trajectory of success. Therefore, such institutions need to provide a comprehensive and cohesive system of services based on students’ needs. To that end, that system of services needs to collect, analyze and act upon a rich collection of a wide range of data points. This system requires university-side support of human, material and fiscal resources (Seale, 2006). The human return on the investment is worth it.

References


About the Authors

Alan Safer received his B.S. degree in Mathematics from Syracuse University and his Ph.D. in Statistics from the University of Wyoming. He developed a M.S. in Applied Statistics and a consulting center at California State University, Long Beach. He is currently a professor in the Department of Mathematics and Statistics at California State University, Long Beach. His research interests include interdisciplinary applications in data science, marketing analytics and quality control. He can be reached by email at: alan.safer@csulb.edu.
Dr. Lesley Farmer coordinates California State University (CSU) Long Beach Teacher Librarianship program, and manages the CSU Information and Communication Technology Literacy Project. She also directed the Applied Disabilities Studies Certificate Program. Dr. Farmer earned her M.S. Library Science from UNC Chapel Hill and her Adult Education doctorate from Temple University. Dr. Farmer chaired IFLA’s School Libraries Section, and is a Fulbright scholar, and has garnered several professional awards. She frequently presents and writes for the profession. She can be reached by email at: lesley.farmer@csulb.edu.

Brian Song received his B.S. degree in Applied Mathematics from University of California, Irvine and his M.S. degree in Applied Statistics from California State University, Long Beach. His research projects also include analysis for the California State University Graduation Initiative. Brian is currently an Associate Data Scientist at Internet Brands. He can be reached by email at: songbm524@gmail.com.

Table 1

Leading Disabilities and Associated Services

<table>
<thead>
<tr>
<th>Type of Disability</th>
<th>Registration Help (%)</th>
<th>Testing Help (%)</th>
<th>Interpretation (%)</th>
<th>More than One Disability Services Used (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning (n=649, 25%)</td>
<td>49</td>
<td>33</td>
<td>0</td>
<td>17</td>
</tr>
<tr>
<td>ADHD (n=541, 21%)</td>
<td>34</td>
<td>61</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Hearing (n=342, 13%)</td>
<td>0</td>
<td>0</td>
<td>99</td>
<td>0</td>
</tr>
<tr>
<td>Psychological (n=331, 13%)</td>
<td>21</td>
<td>72</td>
<td>0</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Mobility (n=252, 10%)</td>
<td>41</td>
<td>37</td>
<td>0</td>
<td>15</td>
</tr>
</tbody>
</table>

Note. Boldfaced numbers indicate the type of service most often used.
### Table 2

**Students with Disabilities by Ethnicity**

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Disability Type</th>
<th>ADHD (%)</th>
<th>Autism Spectrum Disorder (%)</th>
<th>Learning Disability (%)</th>
<th>Hearing (%)</th>
<th>Visual (%)</th>
<th>Psychological (%)</th>
<th>Mobility (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>White ((n=1,326, 51% \text{ of students with disabilities, 23% of total student body}))</td>
<td></td>
<td>7</td>
<td>3</td>
<td>23</td>
<td>13</td>
<td>3</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Hispanic ((n=507, 20%, 46%))</td>
<td></td>
<td>14</td>
<td>2</td>
<td>30</td>
<td>14</td>
<td>4</td>
<td>18</td>
<td>9</td>
</tr>
<tr>
<td>Mixed race ethnicity ((n=378, 14%, 17%))</td>
<td></td>
<td>23</td>
<td>2</td>
<td>28</td>
<td>7</td>
<td>4</td>
<td>14</td>
<td>13</td>
</tr>
<tr>
<td>Asian ((n=170, 7%, 11%))</td>
<td></td>
<td>26</td>
<td>4</td>
<td>9</td>
<td>32</td>
<td>4</td>
<td>17</td>
<td>9</td>
</tr>
<tr>
<td>African American ((n=172, 7%, 5%))</td>
<td></td>
<td>12</td>
<td>2</td>
<td>36</td>
<td>3</td>
<td>3</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Native American or Pacific Islander ((n=25, 1%, 1%))</td>
<td></td>
<td>32</td>
<td>0</td>
<td>28</td>
<td>4</td>
<td>8</td>
<td>16</td>
<td>8</td>
</tr>
</tbody>
</table>
Table 3

Final GPA and Graduation Rate of Students with Disabilities According to Various Variables

<table>
<thead>
<tr>
<th></th>
<th>Sample Size (total n=2,578)</th>
<th>% of Students with Disabilities</th>
<th>Cumulative Final GPA (std. deviation)</th>
<th>% within this Group that Graduated (62.8% overall students with disabilities who graduated)</th>
<th>X² (p: see note)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>1,337</td>
<td>56.1</td>
<td>2.84 (0.94)</td>
<td>63.8</td>
<td>1.48 (NS)</td>
</tr>
<tr>
<td>Male</td>
<td>1,131</td>
<td>43.9</td>
<td>2.67 (0.92)</td>
<td>61.5</td>
<td></td>
</tr>
<tr>
<td><strong>Father's Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18.87 (p&lt;0.05)</td>
</tr>
<tr>
<td>≤ High School Diploma</td>
<td>763</td>
<td>29.6</td>
<td>2.76 (0.92)</td>
<td>63.8</td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>542</td>
<td>21.0</td>
<td>2.82 (0.82)</td>
<td>64.4</td>
<td></td>
</tr>
<tr>
<td>2-Year Degree</td>
<td>495</td>
<td>19.2</td>
<td>2.75 (0.96)</td>
<td>65.5</td>
<td></td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>410</td>
<td>15.9</td>
<td>2.74 (0.97)</td>
<td>64.4</td>
<td></td>
</tr>
<tr>
<td>Post-Graduate</td>
<td>368</td>
<td>14.3</td>
<td>2.71 (1.00)</td>
<td>52.7</td>
<td></td>
</tr>
<tr>
<td><strong>Mother's Education</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26.65 (p=0.05)</td>
</tr>
<tr>
<td>≤ High School Diploma</td>
<td>759</td>
<td>29.4</td>
<td>2.81 (0.87)</td>
<td>63.8</td>
<td></td>
</tr>
<tr>
<td>Some College</td>
<td>629</td>
<td>24.4</td>
<td>2.86 (0.80)</td>
<td>68.5</td>
<td></td>
</tr>
<tr>
<td>2-Year Degree</td>
<td>505</td>
<td>19.6</td>
<td>2.65 (1.03)</td>
<td>63.8</td>
<td></td>
</tr>
<tr>
<td>Bachelor's Degree</td>
<td>366</td>
<td>14.2</td>
<td>2.69 (1.04)</td>
<td>58.2</td>
<td></td>
</tr>
<tr>
<td>Post-Graduate</td>
<td>319</td>
<td>12.4</td>
<td>2.75 (0.99)</td>
<td>52.7</td>
<td></td>
</tr>
<tr>
<td><strong>Department</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>222.46 (p&lt;0.05)</td>
</tr>
<tr>
<td>Arts, Media, Communication</td>
<td>371</td>
<td>14.4</td>
<td>2.85 (0.79)</td>
<td>73.0</td>
<td></td>
</tr>
<tr>
<td>Business</td>
<td>311</td>
<td>12.1</td>
<td>2.75 (0.75)</td>
<td>63.7</td>
<td></td>
</tr>
<tr>
<td>Computers, Engineering</td>
<td>151</td>
<td>5.9</td>
<td>2.61 (0.94)</td>
<td>52.3</td>
<td></td>
</tr>
<tr>
<td>Education</td>
<td>237</td>
<td>9.2</td>
<td>3.06 (0.91)</td>
<td>65.0</td>
<td></td>
</tr>
<tr>
<td>Health &amp; Human Services</td>
<td>350</td>
<td>13.6</td>
<td>2.76 (1.01)</td>
<td>67.1</td>
<td></td>
</tr>
<tr>
<td>Liberal Studies</td>
<td>291</td>
<td>11.3</td>
<td>2.81 (0.74)</td>
<td>67.0</td>
<td></td>
</tr>
<tr>
<td>Science, Math</td>
<td>156</td>
<td>6.1</td>
<td>2.58 (1.07)</td>
<td>47.4</td>
<td></td>
</tr>
<tr>
<td>Social Sciences</td>
<td>598</td>
<td>23.2</td>
<td>2.92 (0.79)</td>
<td>68.2</td>
<td></td>
</tr>
<tr>
<td>Undeclared</td>
<td>113</td>
<td>4.4</td>
<td>1.44 (1.30)</td>
<td>3.5</td>
<td></td>
</tr>
<tr>
<td><strong>EOP Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.01 (NS)</td>
</tr>
<tr>
<td>No</td>
<td>2,408</td>
<td>93.4</td>
<td>2.77 (0.94)</td>
<td>62.7</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>170</td>
<td>6.6</td>
<td>2.71 (0.79)</td>
<td>62.9</td>
<td></td>
</tr>
</tbody>
</table>
### Sample Size (total \( n = 2,578 \))

<table>
<thead>
<tr>
<th>Patient Type</th>
<th>Sample Size</th>
<th>% of Students with Disabilities</th>
<th>Cumulative Final GPA (std. deviation)</th>
<th>% within this Group that Graduated (62.8% overall students with disabilities who graduated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veteran</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>2,540</td>
<td>98.6</td>
<td>2.77 (0.95)</td>
<td>62.3</td>
</tr>
<tr>
<td>Yes</td>
<td>36</td>
<td>1.4</td>
<td>2.80 (0.85)</td>
<td>66.7</td>
</tr>
<tr>
<td>Disability Types</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ADHD</td>
<td>541</td>
<td>21.0</td>
<td>2.68 (0.86)</td>
<td>66.2</td>
</tr>
<tr>
<td>ASD</td>
<td>65</td>
<td>2.5</td>
<td>2.37 (1.15)</td>
<td>43.1</td>
</tr>
<tr>
<td>Deaf</td>
<td>336</td>
<td>13.0</td>
<td>2.31 (1.32)</td>
<td>45.8</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>638</td>
<td>24.7</td>
<td>2.77 (0.82)</td>
<td>62.5</td>
</tr>
<tr>
<td>Mobility Limitation</td>
<td>246</td>
<td>9.5</td>
<td>3.02 (0.79)</td>
<td>72.8</td>
</tr>
<tr>
<td>Other Functional Limitations</td>
<td>253</td>
<td>9.8</td>
<td>2.93 (0.86)</td>
<td>61.7</td>
</tr>
<tr>
<td>Psychological</td>
<td>327</td>
<td>12.7</td>
<td>2.99 (0.69)</td>
<td>61.7</td>
</tr>
<tr>
<td>Visual Limitation</td>
<td>78</td>
<td>3.0</td>
<td>2.90 (0.94)</td>
<td>65.4</td>
</tr>
<tr>
<td>2 or More Disabilities</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability Services Used</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disability Related Counseling</td>
<td>59</td>
<td>2.3</td>
<td>2.90 (0.82)</td>
<td>66.1</td>
</tr>
<tr>
<td>Interpreter</td>
<td>334</td>
<td>13.0</td>
<td>2.31 (1.32)</td>
<td>45.8</td>
</tr>
<tr>
<td>Registration Assistance</td>
<td>747</td>
<td>29.0</td>
<td>2.71 (0.96)</td>
<td>45.8</td>
</tr>
<tr>
<td>Test Taking Accommodations</td>
<td>1,145</td>
<td>44.4</td>
<td>2.86 (0.76)</td>
<td>68.3</td>
</tr>
<tr>
<td>2 or More Services</td>
<td>249</td>
<td>9.7</td>
<td>2.99 (0.67)</td>
<td>72.3</td>
</tr>
<tr>
<td>None</td>
<td>44</td>
<td>1.7</td>
<td>3.02 (0.67)</td>
<td>79.5</td>
</tr>
<tr>
<td>Number of Services</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>44</td>
<td>1.7</td>
<td>3.02 (0.67)</td>
<td>79.5</td>
</tr>
<tr>
<td>1</td>
<td>2,285</td>
<td>88.6</td>
<td>2.73 (0.95)</td>
<td>61.4</td>
</tr>
<tr>
<td>2</td>
<td>236</td>
<td>9.2</td>
<td>2.99 (0.77)</td>
<td>72.0</td>
</tr>
<tr>
<td>3</td>
<td>13</td>
<td>0.5</td>
<td>2.96 (0.63)</td>
<td>76.9</td>
</tr>
<tr>
<td>Number of Semesters in School</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 Semester Only</td>
<td>186</td>
<td>7.2</td>
<td>1.18 (1.51)</td>
<td>--</td>
</tr>
<tr>
<td>2 or More Semesters</td>
<td>2,392</td>
<td>92.8</td>
<td>2.89 (0.74)</td>
<td>67.6</td>
</tr>
<tr>
<td>Number of Units Enrolled Last Term</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt;7</td>
<td>1,228</td>
<td>47.6</td>
<td>2.41 (1.18)</td>
<td>36.7</td>
</tr>
<tr>
<td>7-11</td>
<td>333</td>
<td>12.9</td>
<td>3.11 (0.45)</td>
<td>85.9</td>
</tr>
<tr>
<td>12-15</td>
<td>817</td>
<td>31.7</td>
<td>3.07 (0.42)</td>
<td>87.3</td>
</tr>
<tr>
<td>&gt;15</td>
<td>200</td>
<td>7.8</td>
<td>3.08 (0.43)</td>
<td>84.0</td>
</tr>
</tbody>
</table>

\( \chi^2 (p:\text{ see note}) \)

- **Veteran** \( \chi^2 (p = .05) \)
- **Disability Types** \( \chi^2 (p<0.05) \)
- **Disability Services Used** \( \chi^2 (p<0.05) \)
- **Number of Services** \( \chi^2 (p=.05) \)
- **Number of Semesters in School** \( \chi^2 (p<.05) \)
- **Number of Units Enrolled Last Term** \( \chi^2 (p<.05) \)
<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Sample Size (total n=2,578)</th>
<th>% of Students with Disabilities</th>
<th>Cumulative Final GPA (std. deviation)</th>
<th>% within this Group that Graduated (62.8% overall students with disabilities who graduated)</th>
<th>X² (p: see note)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native American</td>
<td>25</td>
<td>1.0</td>
<td>2.42 (1.29)</td>
<td>40.0</td>
<td>12.72 (p=0.025)</td>
</tr>
<tr>
<td>Asian</td>
<td>170</td>
<td>6.6</td>
<td>2.60 (0.96)</td>
<td>66.5</td>
<td></td>
</tr>
<tr>
<td>African American</td>
<td>172</td>
<td>6.7</td>
<td>2.55 (0.78)</td>
<td>58.7</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>507</td>
<td>19.7</td>
<td>2.71 (0.90)</td>
<td>60.6</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1,326</td>
<td>51.4</td>
<td>2.82 (0.94)</td>
<td>62.7</td>
<td></td>
</tr>
<tr>
<td>2 or More</td>
<td>378</td>
<td>14.7</td>
<td>2.83 (0.94)</td>
<td>67.7</td>
<td></td>
</tr>
</tbody>
</table>

Note. p is an adjusted p-value controlling for multiple comparisons; NS = not significant; ASD = autistic spectrum disorder; ADHD = attention deficit hyperactivity disorder; EOP = educational opportunity program.
Table 4

Variables in the Binary Logistic Regression Equation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Significance</th>
<th>Odds Ratio</th>
<th>95% C.I. for Odds (Lower, Upper)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Admit Term</td>
<td>.048*</td>
<td>1.041</td>
<td>(1.000, 1.083)</td>
</tr>
<tr>
<td>Number of Semesters</td>
<td>.000**</td>
<td>1.188</td>
<td>(1.150, 1.227)</td>
</tr>
<tr>
<td>Number of Units Enrolled Last Term (ref is &lt;7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7-11</td>
<td>.000**</td>
<td>6.304</td>
<td>(4.384, 9.063)</td>
</tr>
<tr>
<td>12-15</td>
<td>.000**</td>
<td>8.168</td>
<td>(6.187, 10.781)</td>
</tr>
<tr>
<td>More than 15</td>
<td>.000**</td>
<td>6.629</td>
<td>(4.281, 10.265)</td>
</tr>
<tr>
<td>Father’s Education (ref is some college)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High School or less</td>
<td>.689</td>
<td>1.067</td>
<td>(.778, 1.461)</td>
</tr>
<tr>
<td>College degree</td>
<td>.128</td>
<td>1.286</td>
<td>(.930, 1.780)</td>
</tr>
<tr>
<td>Postgrad degree</td>
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<td>1.179</td>
<td>(.827, 1.680)</td>
</tr>
<tr>
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<td>.354</td>
<td>0.731</td>
<td>(.377, 1.418)</td>
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<tr>
<td>Mother’s Education (ref is some college)</td>
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<td></td>
<td></td>
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<tr>
<td>High School or less</td>
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<td>0.883</td>
<td>(.651, 1.198)</td>
</tr>
<tr>
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<td>0.991</td>
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<td>0.762</td>
<td>(.533, 1.088)</td>
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<tr>
<td>Unknown</td>
<td>.318</td>
<td>0.703</td>
<td>(.353, 1.403)</td>
</tr>
<tr>
<td>Gender male compared to female</td>
<td>.439</td>
<td>1.087</td>
<td>(.879, 1.345)</td>
</tr>
<tr>
<td>Cumulative GPA last term</td>
<td>.000**</td>
<td>2.186</td>
<td>(1.892, 2.525)</td>
</tr>
<tr>
<td>EOP Status (has EOP)</td>
<td>.635</td>
<td>1.114</td>
<td>(.712, 1.744)</td>
</tr>
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<td></td>
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<td>0.683</td>
<td>(.466, 1.001)</td>
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<td>.000**</td>
<td>0.416</td>
<td>(.260, .666)</td>
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<td>Education</td>
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<td>0.584</td>
<td>(.381, .893)</td>
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<td>0.768</td>
<td>(.523, 1.127)</td>
</tr>
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<td>.000**</td>
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<td>(.175, .453)</td>
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<td>0.777</td>
<td>(.554, 1.089)</td>
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<td>.000**</td>
<td>0.023</td>
<td>(.007, .079)</td>
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<td>0.452</td>
<td>(.239, .855)</td>
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<tr>
<td>Deaf</td>
<td>.001**</td>
<td>0.528</td>
<td>(.364, .768)</td>
</tr>
<tr>
<td>Learning Disability</td>
<td>.612</td>
<td>0.924</td>
<td>(.682, 1.252)</td>
</tr>
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<td>Mobility Limitation</td>
<td>.459</td>
<td>1.163</td>
<td>(.780, 1.734)</td>
</tr>
<tr>
<td>Other Functional Limitation</td>
<td>.039*</td>
<td>0.668</td>
<td>(.455, .980)</td>
</tr>
<tr>
<td>Psychological</td>
<td>.252</td>
<td>0.815</td>
<td>(.574, 1.157)</td>
</tr>
</tbody>
</table>
Visual Limitation  |  .384  |  .768  |  (.423, 1.392)   
Two or more disabilities  |  .282  |  1.406  |  (.756, 2.612)   
Total services  |  .787  |  0.957  |  (.694, 1.318)   
Financial Aid 2nd to last  |  .000*  |  3.549  |  (2.619, 4.807)   
Ethnic Group (ref is white)  
  Native American Only  |  .052  |  0.398  |  (.157, 1.009)   
  Asian Only  |  .013*  |  1.736  |  (1.125, 2.680)   
  African American Only  |  .559  |  1.135  |  (.742, 1.735)   
  Hispanic Only  |  .427  |  0.893  |  (.677, 1.180)   
  Mixed Races  |  .120  |  1.272  |  (.939, 1.721)   
Constant  |  .044*  |  0.000

*Note. * p<.05; ** p<.01; C.I. = Confidence Interval.
Figure 1

*Number of Students with Disabilities by Type of Disability, From 2004 to 2013*

![Graph showing the number of students with disabilities by type from 2004 to 2013.](image)

Figure 2

*Disabilities Services Used by Proportion of Students between 2004-2013*

![Graph showing the proportion of students using disabilities services from 2004 to 2013.](image)
University Student Experiences of Disability and the Influence of Stigma on Institutional Non-Disclosure and Learning

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Jill Scevak¹
Rachel Buchanan¹

Abstract

A research project at an Australian regional university reframed “disability” by defining the diagnosis of a disability with an impact on learning as a learning challenge. Using the terminology of learning challenge, an anonymous, online survey found there was a significant number of students who chose institutional non-disclosure and excluded themselves from legally mandated support for learning. Using a sample of 111 students from this previously hidden group, qualitative analysis was performed on their stated reasons for non-disclosure using the conceptual lens of stigma mechanisms and theories at individual, situational, and institutional levels. This research found that internalised stigma is most common for students living with mental health issues (n=97), who anticipate discrimination and prejudice should disclosure be made. Further analysis for this group found students described stigma as having effected learning through poorer academic outcomes, reduced social support and academic help-seeking, and a perception that future professional identities excluded those living with mental health issues. Non-disclosure was perceived by students to be necessary to protect them from being discredited within their learning environment and, for some, in future employment. Structural elements of stigma, such as the qualification of disability and process of disclosure, were seen to be barriers. Perceived discrimination and the desire to protect students’ ideal identity (not disabled) were also described. Institutions may find these results useful to develop changes that will result in improved academic outcomes, retention, and completion for students living with disability and stigma.

Keywords: higher education, stigma, disability, learning, disclosure

The numbers of students with disability (SWD) in higher education have increased since the implementation of widening participation policies internationally (Brett, 2016; Kilpatrick et al., 2016; Newman et al., 2011). Success and retention for SWD have consistently been below that of the general student population in the UK (Equity Challenge Unit, 2014), in the US (Gabel, Reid, Pearson, Ruiz, & Hume-Dawson, 2016; Miskovic & Gabel, 2012), and in Australia (Kilpatrick et al., 2016). Given that institutional disclosure is required for students to receive accommodation and support, disclosure of disability is a topic of interest in the sector (Kilpatrick et al., 2016; Riddell & Weedon, 2014). Recent work has identified that significant numbers of students who would qualify for support do not disclose to their institution because they lack knowledge about the process, or make a conscious decision not to disclose (Grimes, Scevak, Southgate, & Buchanan, 2017). Stigma is suspected to play a role in non-disclosure, especially for students living with mental health issues (Grimes, Southgate, Scevak, & Buchanan, 2018; Martin, 2010; Vickerman & Blundell, 2010). Students have been found to conceal their mental health issues due to fear of discrimination (Collins & Mowbray, 2005; Hughes, Corcoran, & Slee, 2016; Martin, 2010) and the perceived threat of stigma from both staff and peers (Vickerman & Blundell, 2010).

This paper begins by considering how stigma is understood for groups of diversity within society and the impacts that result for individuals dealing with stigma. We then consider disability in higher education, reviewing research that deals with SWD, stigma, and higher education. Research on students living

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with mental health issues in higher education is then examined, as this was the largest group identified within this work. The research pathway is detailed in the Method section to contextualise the raising of stigma, by the students themselves, as an influence in their institutional non-disclosure decision; this includes further analysis of comments for impacts on learning as a result of stigma. This research seeks to answer the research question: What is the student experience of disability and stigma, and how does this impact on institutional disclosure and learning?

**Literature Review**

The literature review begins with an overview of the broad conceptual frameworks related to stigma, narrows to review literature focused on disability and stigma in higher education, and then provides a more nuanced analysis of literature most applicable to mental health in higher education.

**Conceptual Stigma Frameworks**

In his seminal work, Goffman (1986) defined a stigma as “an attribute that is deeply discrediting” that leads other people to reduce the person with the stigma “from a whole and usual person to a tainted, discounted one” (p.3). Research since that time has explored the concept and experience of stigma from sociological and psychological perspectives. Overton and Medina (2008) bring together this work to identify three broad theories of stigma. The first, social identity theory, stems directly from Goffman’s idea that stigma has a double perspective; it can be viewed through the experiences of the discredited, those individuals who are known to be physically, morally or socially tainted, or it can be understood through the eyes of the discreditable, individuals who can conceal the stigma and pass (Goffman, 1986). Goffman recognised that the discreditable are vulnerable to increased stress and anxiety around “managing information about his [sic] failing” (p. 42), that is, managing disclosure.

The second broad theory of stigma is internalised or self-stigma (Overton & Medina, 2008). This is the process by which people judge themselves as being worth less than others through identification with the stereotypes associated with their stigma. Self-stigma decreases the willingness of individuals to disclose to those around them (Michaels, Lopez, Rusch, & Corrigan, 2012; Teh, Watson & Liu, 2014), and can result in feelings of shame, embarrassment, and self-loathing (Chaudoir, Earnshaw & Andel 2013). Reduced self-esteem can result in behavioural changes that cause an individual to stop trying to reach personally important goals; this is called the *Why try* effect (Corrigan, Bink, Schmidt, Jones, & Rusch, 2016).

The third broad theory deals with structural stigma, or “the process of stigma throughout a culture and how stigma works as a system” (Overton & Medina, 2008; p.144). This theory recognises the external evaluation of an individual based on societal norms, and stigma as a cultural process; it aligns with Goffman’s (1986) idea of a spoiled collective identity. This perspective seeks to identify the institutional and structural causes of the prejudice and discrimination that results from stigma, and act as barriers for those experiencing stigma. These disadvantages result from a complex interplay of social and institutional processes that involve: the negative labelling of human difference, stereotyping, and the categorisation of people that distinguish us from them. (Link & Phelan, 2001). These processes result in unequal life outcomes for people who are labelled or stereotyped (Corrigan & Watson, 2002).

Social psychology has provided extensive research on the mechanisms for, and effects of, self-stigma. For example, a meta-analysis of 144 studies has identified the impact of stigma on help-seeking (Clement et al., 2014) finding that students with internalised stigma are less likely to seek help from professionals than those without; stigma is a “moderately important barrier” (p.21); and that students with stigma show a preference for non-disclosure. Dissonance between preferred identity and the identity of the disability label, and expectation of negative experiences that would result, were also found to be common across the studies analysed. Work by Chaudoir et al. (2013) is relevant for understanding how individuals experience individual stigma mechanisms and impact of these mechanisms. In their theoretical model, based on substantial empirical research, they explore the impact of concealable stigmatised identities, the discreditable, on health outcomes for those with non-disclosed stigma. They describe three stigma mechanisms that relate to the individual level of stigma: anticipated, enacted and internalised, in the following terms:

Anticipated stigma refers to the degree to which individuals anticipate or expect to be the target of discrimination or social rejection because of their stigma. Enacted stigma refers to the degree to which individuals actually have experienced discrimination in the past. Last, internalized stigma refers to the degree to which individuals feel shame or self-loathing because of their stigma. (Chaudoir et al., 2013, p. 76)
Chaudoir et al. suggested that the effects of these stigma mechanisms are evident in the research literature in terms of poorer health outcomes, both for physical and mental health, for those who continue to conceal their stigma identities.

Disability and Stigma in Higher Education

The experiences of stigma for SWD in higher education has been little explored, although the literature recognises stigma as a barrier to inclusion (Hartrey, Denieffe, & Wells, 2017). Students fear disclosure to their postsecondary institution may damage prospects of future employment (Venville Street & Fossey, 2010). Research identifies multiple barriers to disclosure, the structural elements of stigma, that included the avoidance of perceived negative outcomes (Cole & Cawthon, 2015; Venville, et al., 2014), including being stigmatised by teachers and students (Fuller, Healey, Bradley, & Hall, 2004; Marshak, Van Wieren, Ferrell, Swiss, & Dugan, 2010; Salzer, Wick, & Rogers, 2008); facing an academic crisis (Lightner, Kipps-Vaughan, Schulte, & Trice, 2012); and the lack of academic progression (Mullins & Preyde, 2013). Students discussed the avoidance of stigmatising experiences as being part of their problem with institutional disclosure (Cole & Cawthon, 2015; Marshak et al., 2010; Salzer et al., 2008). Stigma has been found to influence disclose decisions and engagement with support (Mullins & Preyde, 2013).

Where non-disclosing SWD have been included in research, studies have identified a range of potential stigma impacts. These include the finding that non-disclosing students hold negative views of their own disability (Cole & Cawthon, 2015), including acceptance of negative stereotypes where low ability is seen as a defining characteristic (May & Stone, 2010). These two findings illustrate self-stigma as a factor in non-disclosure. The importance of maintaining a typical or normal identity is also a factor in the choice of non-disclosure (Cole & Cawthon, 2015; Grimes et al., 2018; Newman & Madaus, 2015) with rejection of the disability label, despite recognition that support would have improved academic outcomes (Newman & Madaus, 2015). Non-disclosing SWD choose to remain hidden to the institutions in which they learn and their experiences remain largely unknown to their institutions.

Mental Health and Stigma in Higher Education

Mental health issues are recognised as a problem for universities due to the high prevalence in the 16-24 year-old age group (Australian Institute of Health and Welfare, 2014) with diagnoses most common in this age range (Jones, 2013). Data from Higher Education Statistics Agency (HESA) UK shows that university dropouts for mental health reasons tripled from 2009-2010 to 2013-2014 (Marsh, 2017). A recent Australian study shows that mental health issues are one of the major reasons given for discontinuing enrolment (Harvey, Szalkowicz, & Luckman, 2017).

Stigma due to mental health issues is recognised as impacting help-seeking (Clement et al., 2014) as well as self-esteem and self-efficacy (Corrigan & Watson, 2002). Additionally, research suggests that this hidden population risks decreased mental health (Chaudoir et al., 2013) and reduced self-esteem and self-worth (Corrigan & Watson, 2002) with potential detrimental impacts on their academic and personal success. Students believe that mental health issues are handled and perceived differently to physical illnesses, with teaching staff treating these students less sympathetically (Kirsh et al., 2016). They report that their understanding of institutional climate with regards to their perception of support and acceptance was developed from interaction with individuals, rather than a sense of institutional inclusiveness (Hughes et al. k, 2016). Sniatiecki, Perry, and Snell (2015) found that teaching staff were more likely to hold negative attitudes towards those students living with mental health issues and/or learning disabilities than towards students living with physical disabilities. Students fear being stigmatised by both staff and peers (Salzer et al., 2008). Students also identified that having appropriate learning strategies reduces the need for disclosure (Grimes et al., 2018). Students are less likely to seek help from their institutions if they believe that they should be able to deal with their mental health issues on their own (Kirsh et al., 2016).

In this paper we use the conceptual lens of stigma mechanisms, recognised in social psychology and health disciplines, to examine the experiences of discreditable students in higher education; those with nonvisible disabilities who have not disclosed to their institution. We draw on the definitions of Chaudoir et al., (2013) for the stigma mechanisms to develop an understanding of how students describe experiences for each mechanism and the impacts that result. The complexity of stigma is then explored using the interaction between stigma, and the effects and results of stigma, that can be recognised in terms of the structural stigma theory and social stigma theory (Overton & Medina, 2008).

Method

The research reported here is part of a larger study conducted at an Australian regional university with institutional ethics approval entitled Support
for student learning: Challenges to learning. The aim of the survey was to explore the use and perceived importance of institutional supports for students with learning challenges. Participants were offered an anonymous online survey through the university administration. The survey collected both quantitative and qualitative data.

In this research the term learning challenge was used to describe the challenge to learning that resulted from a diagnosis/assessment that impacted learning at university. This focused on learning as the key activity at university. Within the survey there was no use of the term disability in order to encourage students who do not identify with this label to engage with the research.

The Survey

The survey was informed by relevant literature and designed as an exploratory instrument to engage with an acknowledged hidden population. The survey comprised the following items: demographics; university course and length of study; use of support services, both formal and informal, before and while at university; identification of learning challenge, using disability categories and learning impact; disclosure status; reasons for non-disclosure; and open-ended questions on improving learning at university. The non-disclosed learning challenge respondents were asked about their reasons for non-disclosure. The disclosed students with learning challenges were asked questions relating to support plans within the institution. This research reports only on the qualitative analysis of the non-disclosing students’ explanations of their reasons for not reporting their disability to the institution.

Within the survey, participants self-identified their diagnoses/assessments which were then coded according to a modified HESA UK (Higher Education Statistics Agency, 2015) classification system:

- Learning difficulties, e.g., dyslexia, Asperger’s Syndrome, etc. (HESA codes 51 and 53);
- Ongoing medical conditions, e.g., asthma, epilepsy, etc. (HESA code 54);
- Mental health issues e.g., anxiety, clinical depression, etc. (HESA code 55); and
- Physical disabilities, e.g., deafness, blindness, mobility, etc. (HESA code 56, 57, & 58).

Participants were then asked to identify whether their diagnoses/assessments impacted their learning. Those participants who had not disclosed to the institution were asked to give their reasons for non-disclosure. Reasons were collected in the form of a list drawn from the literature (Cole & Cawthon, 2015; Couzens et al., 2015) and included an extension option Other to allow students to identify any new reasons for non-disclosure, as suggested by O’Cathain and Thomas (2004). The following expansion question was then offered to ensure qualitative data could be collected to add both depth and explanation to the reasons given:

Do you have any comments on the reasons for choosing to keep your particular learning challenge to yourself?

It was hoped students would provide detail on the why and how aspects of their reasons for non-disclosure through this question.

Analysis

This research drew on the domestic undergraduate sample (n=2,821) from Support for student learning: Challenges to learning survey, with those students who self-identified diagnoses/assessments of a disability (n=1,234) asked to confirm an impact on learning at university (n=994). The identification of a diagnosis/assessment and an impact on learning was defined as a learning challenge. Those students identifying as living with a learning challenge were then asked about their institutional disclosure status. This research is focused on the non-disclosing students with learning challenges (n=633) who provided comments (n=394). An initial inductive analysis (Patton, 2015) of these comments revealed that experiences of stigma and feeling stigmatised were common. Comments relating to stigma were coded from 28% (111) of the 633 students. This research reports the analysis of these 111 participants whose comments could be coded according to the stigma mechanisms.

A deductive analysis (Patton, 2015) was then completed using the lens of stigma mechanisms drawing on the work of Chaudoir et al. (2013). Each of the 394 participant’s comments were initially coded as: containing one or more of the stigma mechanisms (enacted, anticipated and/or internalised), or no stigma mechanisms able to be coded within the comments. Comments from students with mental health issues (the largest group in the coded sample, n=97) were then further inductively analysed for links to both social identity theory and structural stigma with a view to exploring the reported effects. This process reflects the consistent comparative analysis of Glaser (1965), recommended for exploring complex human contexts and interactions that require sensitivity to issues such as stigma.
The coded comment size varied from one-word explanations (for example: *embarrassment*; and *shame*) through to comments up to 802 words long. Average coded comments were 90 words long. While participants did not always provide extensive explanations, the strength of feeling within the comments and the numbers making comments around stigma precipitated this qualitative analysis.

To check on the credibility of interpretation, an inter-rater reliability (Albers, 2017) exercise was conducted with the research team of four. Seventy-one comments were randomly selected. The first check was for inclusion/exclusion of the comments. Comments were included only if they detailed stigma sufficiently to be coded according to the stigma mechanisms. Inter-rater reliability was calculated at 94.3% for the exclusion of comments. Where comments could be coded according to the stigma mechanisms, the inter-rater reliability of the deductive analysis was coded at 83.3%.

**Results**

**Participants**

Students who chose not to disclose their disability to their university and made a comment about stigma comprised 28% (*n*=111) of the non-disclosure group. Of this group, the vast majority had a mental health diagnosis (Table 1) Students with mental health issues are represented in both MHI only and MHI plus other diagnoses learning challenge groups; it is notable that they have the same stigma mechanism pattern across the three stigma mechanisms. These students made the most comments regarding the three stigma mechanisms and show the highest levels of internalised stigma.

In terms of the largest group, *mental health issues*, the majority of stigma coded comments related to anticipated stigma with internalised stigma second in frequency. Those students living only with *physical disabilities* did not make any comments that could be coded as any of the three stigma mechanisms, and only three of those with only *ongoing medical conditions* made comments that included stigma. This does not necessarily mean that stigma is not an influence on their non-disclosure decisions, only that they did not choose to detail stigma as an issue in their explanations.

**The Student Experience of Stigma Mechanisms**

The stigma mechanisms framework provided a powerful lens through which to understand the student experience of stigma. Excluding those with physical disabilities (no stigma comments), the mechanism of anticipated stigma was most common for all groups, followed by internalised and enacted stigma. Many students provided detailed explanations and personal examples of stigma from these perspectives. There were sub-themes identified within the stigma mechanism coding: enacted stigma was described as experienced before university enrolment or at university; anticipated stigma was expected at university and/or in the future. Internalised stigma was found to be expressed in terms of shame and embarrassment and students’ belief that they were less academically able. Students also described some of the impacts of stigma on their learning though behaviour, academic outcomes and lost learning opportunity.

**Student experience of enacted stigma.** Students describe experiences that have affected them, either in the recent or distant past, as reasons for maintaining their non-disclosed position. These experiences strengthened individual resolve to remain non-disclosed and avoid similar experiences. Past experiences, before enrolment at university, included *prior schooling* experiences as well as the reactions of family/friends/others.

Students describe receiving different treatment in their prior schooling from those around them once their learning challenge was known:

*I have experienced the full range of responses to my disorder by teaching and administrative staff and other positions requiring knowledge of my disorder. [Student living with LD; ID 459]*

This included peers reacting to receipt of accommodations in a manner that conveyed to the individual that they were not entitled to support:

*I find it embarrassing and I found that I received a lot of negativity from the HSC (Higher School Certificate, years 11 and 12), because peers felt that anxiety was not a good enough reason for extra support. [Student living with MHI; ID 169]*

Those with learning difficulties were further isolated by the reactions of those closest to them, their family/friends/others, with impact on their own belief in their ability at school:

*Getting tested for dyslexia not once but twice and being called dumb by close friends and family has had an impact on one ego (sic)...my parents just kept getting too frustrated with my slow learning and would just yell at me.[Student living with LD; ID 293]*
University experiences post-enrolment included reactions of teaching and professional staff to requests for assistance, or attempts to disclose, at a personal or institutional level. These reactions are likely to deter students from future requests, particularly if they occur at the first attempt to seek assistance from teaching staff:

I have had experiences where people are not understanding. I approached my course coordinator this semester, to confide my struggles and her response was, “Every student has problems, do you know how many students have emailed me with their problems?” And stared at me. This happened on 'Are you OK day'. It didn't help me by approaching a University Lecturer, I only felt stupid and embarrassed afterward. [Student living with MHI and OMC; ID 446]

Participants refer to their own, and others,’ experience to describe reactions to their learning challenges. The following student identifies an incident of their own, reinforcing this experience by reference to the experiences of others in similar situations:

From my own experience and others who have shared there's [sic] with me there are few people who work at the university who really care about individual’s situations! I was made to feel extremely uncomfortable and stressed when I tried to approach my lecturer with an issue I had - he was the most unhelpful person I have ever engaged with at the uni and the way he treated me was unacceptable! [Student living with MHI; ID 33]

Students noted that they are treated differently after these personal disclosures:

I told one tutor/lab tech about my ADHD, and they sadly treated me differently after the fact. [Student living with LD and MHI; ID 512]

They also identified that some teaching staff admit to different treatment for actions that participants feel are outside their control:

I’ve had lecturers admit that they are kinder in regards to marking if students attend every lesson, which I understand but really sends a strong shaming message to students like me, who find it difficult to get out of bed sometimes, let alone go into a class of strangers and be expected to contribute every time. [Student living with MHI; ID 538]

There are comments describing attempts to disclose institutionally that resulted in non-disclosure due to the non-empathetic way the process was handled. Students who receive this kind of treatment are unlikely to submit themselves to any future attempts:

I have a neurological disorder that affects my concentration and memory. Because I arrived at my appointment without the forms I needed (which I had completed earlier) I was abruptly dismissed (but not before being informed that the person from whom I sought support [disability support worker] knew "exactly how [I] feel" because their child has the same condition.) Being rendered invisible in that way, does not constitute “assistance.” [Student living with MHI; ID 788]

Access to support that is available to all students, as well as that explicit to those with a disability through disability services units, were also described as disabling, owing to the inertia and attitudes of support personnel and systems/processes:

It can feel like an overwhelming amount of effort is needed to obtain a counselling appointment here at [institution], particularly for those struggling with their mental health (who are naturally those wanting counselling). [Student living with MHI; ID 86]

I attempted to approach the student support staff but was put off by the condescending attitude I received. [Student living with MHI; ID 910]

As has been noted in other research (Chaudoir & Quinn, 2010), past experiences such as those described will impact student perceptions of what might occur in the future. This is evident in the descriptions of anticipated stigma given by students.

**Student experience of anticipated stigma.** Anticipated stigma is those discriminatory experiences that students believe they will experience if they are identified in terms of their learning challenge. Students described their beliefs about what would happen if they chose to disclose to the institution. There are two aspects to this dynamic evident in the student responses: perceived discrimination at university and in the future. These experiences are aligned with enacted stigma, where students have personally experienced discrimination and prejudice in the past or have heard of others with these experiences. Of those students who provided detail of enacted stigma, 65% of these students also provided comments coded as anticipated stigma.
Anticipated reactions included being treated differently by both teaching staff and student peers:

It is not so much a belief as an understanding that it is inevitable that some people have and will treat me differently upon learning of my diagnosis. [Student living with LD; ID 459]

Some students expected that the teaching staff and their peers would treat them as less academically able:

How does one describe ADHD? Considering the stigma around it most people would assume I would be lucky to make it past first year without failing. [Student living with MHI and LD; ID 659]

Some students expressed concern that disclosure with accommodation and support would be perceived as equivalent to cheating by staff, with students also indicating that they feel this a valid perception:

Not wanting to seem like I am using this learning challenge as an excuse. [Student living with MHI; ID 841]

Some students were aware that if they had not sought nor received help outside of the university, the institution would perceive them as being less worthy of assistance, despite participant’s recognition and descriptions of the impact of the various learning challenges:

[I] thought they would think if I’m not doing anything about it outside of uni then it must not be that serious and that I was just trying to take advantage of the system. [Student living with MHI; ID 868]

A number of students were concerned that disclosure of disability might impact on employment prospects. Some students feared that the university would share their private information with potential employers, and that they had had a past experience of the inappropriate sharing of private information:

I don’t want pity marks and it could potentially be passed onto future employers I don’t want them to not select me for the job because of this. [Student living with MHI and OMC; ID 323]

Past experience has taught me to say nothing about any personal issue to any one with the authority to record the comments because those comments might impede job prospects. [Student living with MHI and PD; ID 113]

These comments suggest a lack of trust on the part of the students in terms of how the institution will treat and potentially share sensitive information of a personal nature.

Students commented on the change in perception of them as learners that they believed would result if their learning challenge was known. This included that teachers and others would treat them differently and think differently of them:

I also find there is still quite a significant stigma attached to mental health issues, and as such I often don’t disclose this information for fear of being treated differently. [Student living with MHI; ID 37]

Students believe that both teachers and other students do not perceive mental health in the same manner as physical health disabilities:

There is stigma surrounding mental health issues. It is not treated in the same manner as other disabilities. [Student living with MHI; ID 180]

The majority of comments indicate that the fewer people who know about their learning challenge and the impact it may have on their lives and learning, the better the potential outcome for the individual student. Students who identify with the stigma stereotypes of their learning challenge may show evidence of this as internalised stigma.

**Student experience of internalised stigma.** Internalised stigma, or self-stigma, means that the individual shows belief in the stigma stereotypes expressed by those around them. They react to themselves in the same manner that others would react to them, if their stigmatisable condition was known. This causes students angst in the form of a challenge to their identities: current, developing, and future. Students feel shame and embarrassment and believe that they are academically less able than their peers as a result of their learning challenge.

Students report these feelings of shame and embarrassment resulted in a struggle to make sense of what their diagnoses/assessments meant and how this might impact their identity. Others simply state their understanding of the impact of their learning challenge on their self-perception:
For most of my time at the university, I was far too ashamed to tell anyone, especially the university, and ‘caught up’ in the challenge itself. All I knew that was available to me was the option of applying for an extension of time on assessment items, and student counselling (which I used only once. The other time I tried to use it, when I felt I urgently needed it, I was told I had to wait several days to see someone). [Student living with MHI; ID 86]

Students believed that they are less academically able and describe themselves as ‘stupid’ and ‘an awful student.’ Many of these comments come from students with a diagnosis of learning difficulties, and illustrate the long-term impact of enacted and anticipated stigma as individuals believe in the stereotype of their stigma:

I have always grown up believing I’m dumb. I didn’t want people to know I struggle. I don’t want to be judged I guess. [Student living with LD; ID 441]

All of these issues also tend to lead to a guilt-spiral, where I feel like an awful student and feel like my lecturers and tutors [sic] dislike me/look down on me for not attending/only attending for assessments. [Student living with MHI; ID 538]

The impact of internalised stigma has been found to be reduced self-esteem and confidence, with ongoing impacts on the ability of the individual to fully meet their potential (Livingston & Boyd, 2010). In the case of students in a higher education learning environment, this means that stigma impacts on their ability to effectively learn, and demonstrate this learning, within their institutions.

The Effect of Stigma on Learning for Students Living with Mental Health Issues

This section provides an analysis of the effects of stigma on learning for non-disclosed students with mental health issues; the largest group coded. Comments from this group detailed how stigma affected their ability to learn at university with four main themes emerging. These were: (1) the impact of stigma on academic performance and potential; (2) the effect of stigma on social and peer support for learning; (3) faculty support for learning; and (4) stigma, nondisclosure and professional identity.

The impact of stigma on academic performance and potential. The first theme involved the effects of stigma on the ability of individuals to realise their academic potential. Students recognised that their internalised stigma had prompted them to remain hidden at university and that this resulted in little or no institutional assistance for learning which may have affected their academic results:

Unfortunately it has had a greater impact on my performance than I could have foreseen…It’s deeply embarrassing and I am quite ashamed and I do have regrets over how this has impacted on my behaviour at Uni and has directly affected my results. My GPA was around [above 86%] in 1st year and is now down to [between 65% and 75%]. [Student living with MHI; ID 150]

Very few students identified that they had sought and gained assistance with learning, without identifying where and without institutional disclosure, with improvement in grades achieved:

It affects me greatly as it reduces my motivation to learn, puts a block up that prevents me from understanding things and I felt I could not reach my potential at all. Once I got help everything went uphill and my grades are back on track. [Student living with MHI; ID 929]

Despite descriptions of grades dropping throughout their study, some students were so concerned about the stigma associated with their mental health issues that they persisted in proceeding unsupported, even to the point of failing courses and having to re-complete them:

Depression/anxiety impacted me heavily, coupled with the isolation. I felt I had no-one to help me. I have been learning on my own for large stretches whilst waiting to revisit courses I didn’t pass…failures led to damaging my confidence, which meant I no longer wanted to try for fear of making mistakes. [Student living with MHI; ID 986]

In the case of this student, the vicious circle of failure led to decreased confidence with the result that the student did not want to continue trying. This why try effect has been identified by Corrigan et al. (2016) as a result of stigma and is characterised by “a sense of futility in which people believe they are unworthy or incapable of achieving personal goals because they apply the stereotypes of mental illness to themselves” (p. 11). This loss of confidence and self-esteem was illustrated in very few comments coded in this analysis; most students were remarkably determined to reach their goals despite their own internalised stigma.
The effect of stigma on social support. The second theme illustrated how the stigma of living with a mental health issue impacted students’ willingness and ability to approach other students for assistance. Students recognised that withdrawing from relationships with people at university had impacted their ability to engage with other perspectives on course material:

I was also very embarrassed and confused about it all… I think more guidance and stronger relationships would have led to more opinions and ideas when doing assignments and then would have impacted my own understanding more. [Student living with MHI; ID 986]

This comment recognises that peer relationships are important to developing and progressing academically through the ability to discuss and share developing understanding with peers. The impact of reduced support for learning due to reduced peer and social networks is seen in the first theme where students discuss the impact of stigma on their inability to reach their academic potential and the reduction in grades achieved. Some students explicitly identify the impact of withdrawing from peers in terms of the reduced support for learning:

It also has resulted in a very small to non-existent support group as I find it very difficult to socialise. [Student living with MHI; ID 605]

A few students discussed past educational experience in terms of support; showing that developed support networks improved their learning and outcomes:

I found school felt like a safe haven to me and when I found the confidence to discuss my learning difficulties to others most understood and would try to help me feel comfortable and cater to my needs… My close friends helped me most of the time with these issues [Student living with MHI+LD+PD; ID 294]

Many students were recently diagnosed with mental health issues and would not have had time to work out how to deal with the impacts of their learning challenges within their institution. Being non-disclosed reduced their opportunity to explore availability and effectiveness of peer support.

Faculty support for learning. The third theme to emerge was that of reduced or non-existent help-seeking to support learning from Faculty as a direct result of stigma. Help seeking through the university’s official channels might entail disclosure of disability to gain accommodations such as extensions on assignments, or seeking learning support from Faculty. Stigma affects students’ confidence to ask for academic help:

[I] find it difficult to talk to lecturers/tutors. [Student living with MHI +OMC; ID 678]

This reluctance extends to peer interaction and loss of support, showing an inter-relationship with the third theme found. The following student recognises the impact on their ability to seek help, develop peer groups, and the resultant reduced ability for successful academic progression:

I have trouble reaching out for help re: academics, hesitant to participate in group study, my anxiety prevents me from being able to functions regularly and increases fear/procrastination that consequently causes me to fall behind a lot which further increases my anxiety. [Student living with MHI; ID 442]

The university is not supportive of the episodic impacts of various learning challenges such as depression and anxiety, with some staff not accommodating due to the issue being seen as “an excuse.” In some cases, the learning process is so tightly defined that students are unable to comply, and therefore lose marks as well as the learning opportunity of attendance:

In some cases I have completed weekly assignments but have not attended class due to my chronic major depression. I have not been able to gain marks because you can only hand the work in on that specific day each week…I feel that depression is not a valid reason and I was also daunted that the lecturer/tutor would not accept that as a reasonable excuse. [Student living with MHI; ID 563]

Non-disclosing students are therefore impacted by their reduced confidence to seek academic help from Faculty and their fear of the reaction when, and if, they do seek support. This fear also plays out in terms of the students’ developing professional identities in areas such as education, nursing, and allied health.

Stigma, non-disclosure and professional identity. The fourth theme describes a complex interplay between negative messages about mental health gleaned from university classes and professional placements and the impact this had on staying hid-
den and therefore not being able to seek help for learning. The university and placement learning environments sometimes delivered messages that professional identity did not include people living with mental health issues.

I am in a degree where the role is to advocate for people and make a difference. I’ve been told on many occasions, either in placement or in class, that [it] can sometimes be better to keep those things to yourself as there is still a stigma attached to having anxiety or depression in the profession of the degree I’m completing. [Student living with MHI; ID 710]

Some students suggested that their future prospects would best be served by an ability to remain hidden, as this was perceived appropriate to the professional identity for their chosen career:

As a teacher I won’t be able to expect special privileges because of my “disorder” so I feel that if I can’t make it through my degree unaided then I shouldn’t be teaching. [Student living with MHI; ID 879]

These comments demonstrate the fear of being stigmatised because of an inability to live up to some perceived (and false) professional norms that have been communicated at university and during professional placement. Students were concerned that any disclosure would impact on their careers, as well as their learning.

The inter-play of self-stigma, social identity, and structural stigma (Overton & Medina, 2008) is well illustrated by these students’ comments. Students recognised that their own embarrassment and shame impacted on their ability to engage with academic support, to build their own social support networks, and shaped how they perceived they needed to develop their professional identity. They also recognised that stigma is a barrier to the necessary steps to fulfilling academic potential, but only a very few described supports that improved their learning opportunities and outcomes. They have chosen non-disclosure, remaining discreditable, with good reason. They are concerned about reduced academic outcomes but see few options, given the structural stigma evident within higher education and society, for a resolution of their dilemma.

Discussion

Open-ended responses yielded rich insights into the influence of the stigma mechanisms on institutional non-disclosure. Students’ comments illustrated all three stigma mechanisms and the complexity of the students’ situation in managing both learning and non-disclosure. The high rate of internalised stigma reported by those living with mental health issues, either alone or with other diagnoses, indicates a problem that institutions need to consider and plan to address. This presents institutions with the opportunity to consider support for students more holistically; re-examine provision of information, detail, process, and procedure around disclosure; and work to embrace universal learning design in order to improve the learning environment for inclusivity.

Students identified stigma as a significant influence on their ability to seek and utilise academic support, with resultant impacts of academic achievement and loss of academic potential. Attention should be given to the wider culture within institutions to address staff and students understanding of non-visible diversity represented by the students living with learning challenges in this research.

Stigma Influences Non-disclosure

This research illustrates stigma as a driver in the decision of institutional non-disclosure for students with learning challenges. Students who deal with only one learning challenge of ongoing medical conditions show few signs of internalised stigma (i.e., self-stigma). In contrast, those with mental health issues have greater proportions of internalised stigma than any of the other learning challenge groups. Living with a mental health issue is problematic in terms of stigma and the learning environment of higher education, as these students will not seek support while assignment of stigma by peers and teachers is a possible outcome. This finding is supported by the research of Teh, Watson and Liu (2014) and Michaels et al. (2012) who found that the level of internalised stigma of an individual is related to the willingness to disclose. The findings of Chaudoir and Quinn (2010) highlighted that previous negative disclosure experiences influence future possible disclosure decisions, a finding supported by this research.

Anticipated Stigma: From Experience or Expectation?

Students dealing with diagnoses of learning difficulties anticipate discrimination and feel that they are stigmatised when their learning challenge is known. Most students dealing with learning difficulties have
had experience of academic support prior to university and are more likely to understand the consequences, both positive and negative, in disclosure (Grimes et al., 2018). Students with mental health issues have similar expectations, although they have not necessarily had the experience of support, due to the time of diagnosis, and therefore have not necessarily experienced any discrimination. They are in no doubt, however, that they would have to live with this discrimination if they disclosed. Salzer et al., (2008) research found students dealing with mental health issues identified fear of being stigmatised by teachers and students was a factor in non-help seeking, supporting the results of this current research.

Teaching and Professional Staff Reactions

Results illustrate the negative reactions that are experienced from Faculty and professional staff, particularly for students living with learning difficulties. This supports the work of Sniatecki et al. (2015) who found that staff are more likely to hold negative attitudes to students living with learning difficulties and mental health issues than physical disabilities. The reactions of teaching and professional staff reported in this research highlight the lack of training and information that has been provided to individual staff members and is demonstrated in their handling of diversity within the learning environment. Institutions should consider the role that teaching and professional staff play in both academically supporting and connecting students to support systems. Institutions should ensure that all staff understand the importance of their reactions to students who, if not positively received, may never approach for support again. People are unlikely to attempt disclosure again if their first attempt results in these kinds of experiences (Chaudoir & Quinn, 2010).

Future Employment Prospects

This research shows that students feel their future success and well-being is dependent on them maintaining their silence about their learning challenges. This finding is supported by the work of Venville et al. (2014) whose interviews with students living with mental health issues identified the same fear. Institutions may need to more clearly describe their privacy and data collection rules to ensure students understand how much of this detail is shared, and with whom. The issue of trust needs to be explicitly addressed through better information and process.

Intersection of Individual Stigma Mechanisms and the Institution/culture: Learning Impact

This work highlights the fear of disclosure that results from internalised stigma and the impacts on academic performance and potential that occurs due to isolation, reduced social support, and avoidance of academic help-seeking. Remaining discreditable is preferred over being discredited, with all that is feared to accompany disclosure. It is important to recognise student perception, reinforced by faculty and placement experience, that their developing professional identity should be free of any learning challenge, especially mental health issues. Students living with learning challenges, particularly those with mental health issues, need to be supported in a manner that empowers them to build appropriate strategies and networks for their future working lives. Transparency around the reality of professional identities in terms of diversity of individuals within professions would be an appropriate first step.

For individuals, there is little knowledge nor understanding of the protection that comes from being a part of a recognised group, even when discredited (Corrigan & Watson, 2002). The barriers of institutional process and attitudes of staff have been experienced and/or shared to the extent that students will not risk disclosure. This choice of, and continued, non-disclosure is despite recognition of the significant impact on ability of students to effectively learn and reach their academic potential.

Students’ distrust institutional use of their disclosure of learning challenges. Institutions design, develop, and maintain their learning environment; they should make sure it is “fit for purpose” for all students who enrol. This is not a simple change and requires consideration of the whole institution from policy through to teaching and learning practice and requires explicit staff training. Students could be informed about the normality of dealing with learning challenges within higher education, especially mental health issues, along with the range of services that can support learning. Supports offered need to be critically examined to ensure that they are supporting learning, not merely complying with law around “reasonable adjustment” in a manner that does little for individual learning experience.

For those working in disability services, the results of this research illustrate the problem of communicating and providing these particular support services to students. Non-disclosure for many of these students represents a decision based on experience as well as concern for their future as students and in their careers. Explicit attention to good communication of what is available, how it is made available, and what privacy conditions exist would better inform students of their choice. Choice of non-disclosure, then, would be an agentic decision made for individual reasons,
rather than one due to lack of knowledge of what would be provided, and who would be supported.

Students who are least able to advocate for themselves are currently required by institutions to prove their disability, describe what would support and accommodate them within the learning environment, and then advocate for themselves. Ultimately, institutions should remove the need for students to identify as different, as disabled, in order for them to receive support. Until that time, it is arguable that stigma will continue to thwart disclosure.

**Conclusion**

Recognition of non-disclosed students as an integral part of the diverse student body is imperative to beginning to address the learning challenges that face them. This group is of significant size and represents an important focus for higher education institutions in terms of improving learning and learning outcomes for students with learning challenges. The opportunity exists, in improving learning for this group, to improve learning for all as notions of “normal” are expanded to include multiple types of difference. This research supports suggestions that higher education needs to more effectively embrace universal learning design, with all the attendant detail to support a widening diversity of students, such that all students have access to, and use, learning supports as and when appropriate. Although some students would still need to disclose and receive individualised supports, the majority of students would be accommodated through course and assessment design, and the professional development of staff in inclusive practice principles for all aspects of learning.

To achieve this, institutions need to develop proactive strategies to communicate the academic support required for success by all students; ensure teaching and professional staff have access to training for supporting and connecting students to services when learning challenges arise; provide transparency and explicit detail to students around handling of sensitive information in terms of what is shared with external placement positions and future employers; and begin to address the development of an inclusive learning environment through curriculum and assessment redesign.

**Limitations**

This work was undertaken at one higher education institution. Exploring institutional non-disclosure across a variety of higher education institutions would be beneficial for the sector. Although stigma was not offered as a reason for non-disclosure in the survey for this exploratory research, participants identified stigma as being influential in their non-disclosure decision. Further, and more explicitly, work needs to be undertaken to fully understand non-disclosing students’ experiences of stigma for higher education institutions to better meet the needs of this population.

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### Table 1

**Individual Stigma Mechanisms Count by Learning Challenge Group**

<table>
<thead>
<tr>
<th>Learning Challenge Group</th>
<th>Individual Stigma Mechanisms: Number Coded</th>
<th># Participants Coded</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Anticipated</td>
<td>Enacted</td>
</tr>
<tr>
<td>Learning difficulties only (LD)</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Ongoing medical conditions only (OMC)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Mental health issues only (MHI)</td>
<td>41</td>
<td>15</td>
</tr>
<tr>
<td>Physical disabilities only (PD)</td>
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<td>0</td>
</tr>
<tr>
<td>Mental health issues (MHI) + others¹</td>
<td>19</td>
<td>6</td>
</tr>
<tr>
<td>Number coded</td>
<td>71</td>
<td>26</td>
</tr>
<tr>
<td>% of comments evidencing this stigma mechanism</td>
<td>64.0</td>
<td>23.4</td>
</tr>
</tbody>
</table>

*Note.* ¹Includes students with mental health and at least one other, LD or OMC, diagnosis.
Perspectives on Person-First Language: 
A Focus on College Students

Holly Hoffman¹ 
Marie Hengesbach² 
Shana Trotter³ 

Abstract

Many people believe supportive environments inclusive of all populations are of utmost importance. However, a concern centers on the language used to refer to individuals with disabilities, as some support person-first language, and others oppose this practice that became more popular in the late 1980’s and early 1990’s. Person-first language is the practice of referring to a person before their disability as a form of respect and recognizing them as a person-first and foremost, positioning their disability as secondary. This study of university students gathered the perceptions, awareness levels, and use of person-first language across the university campus environment. Specifically, university students shared the familiarity level and exposure to person-first language, as well as the level of support or opposition of utilizing person-first language. Five hundred ninety five students with a wide variety of academic programs ranked their awareness of person-first language as very familiar (43%) and the university classroom as the most common source of exposure to person-first concepts (45%). Participants rated person-first language as extremely valuable (40%), with some students having no knowledge of the concept (28%), as well as ranking person-first language as having limited or no value (9%). While many study respondents supported person-first language, the majority of those opposed to this concept fell in the age range of 20 years old or younger. Factors influencing the use of person-first language based on age, gender, and academic discipline, including encouragement or opposition of person-first language, are highlighted in detail.

Keywords: person-first language, people-first language, disabilities, university climate

Spoken and written languages are the primary means of communication in today’s society. Through language, humans are able to communicate thoughts and feelings, as well as understand the perspectives of others. Therefore, it is important the language used in society accurately represents all people, including those with disabilities. One’s language may have significant impacts upon those with disabilities and how they are portrayed. “Language empowers, language is instrumental in expressing feelings, perceptions, and attitudes” (Myers, Lindburg, & Nied, 2013, p. 86). One’s emotions and feelings are often transmitted through language, therefore influencing the perceptions of others with regard to their value and status. Through observation of language, the potential to understand one’s wants, needs, and opinions thrive.

The purpose of this study was to recognize the perspectives, awareness levels, and use of person-first language of undergraduate and graduate students on a university campus. Utilizing person-first language is the method of acknowledging a person in spoken and written language, and addressing their disability as secondary (Jensen et al., 2013). Cohen and Avanzino (2010) stated, “language that has been used to describe people with disability is traditionally disempowering and oppressive” (p. 299). Therefore, the intent of person-first language is to give the person with a disability respect and power beyond their disability (Halmari, 2011).

Literature Review

The discussion on language regarding disabilities, especially person-first language, is relevant to all people, with or without disabilities, because the odds of spending at least part of anyone’s lifetime with a
disability are 100% (Titchkosky, 2001). Additionally, Abramo (2012) argued that disability advocates encourage the use of people-first language and “prefer to use what they call a social model of disability, which defines disability not as a limitation of the body or mind but as a social position” (p. 40). Jensen et al. (2013) included “language that does not place the person-first creates a barrier and sets distance between the [caregiver] and the individuals engaged in care, reinforcing the outdated mentality of ‘us versus them’” (p. 149).

Jensen et al. (2013) viewed language as a vehicle for change. In their study, the researchers described the positive impact the adoption of person-first language had on the recovery processes of patients. Nurses were urged to adopt person-first language when working with patients. Ultimately, the nurses found person-first language supported strides in a patient’s recovery. They “caution those in health care to reject stigmatizing language and adopt the language of inclusion in the quest to develop the kind of communities in which we all wish to live” (p. 148). Furthermore, using person-first language in health care and in everyday use may have significant impacts of the mental state of individuals with disabilities. Using labels contributes to negative stereotypes and may devalue the person one attempts to describe. The greatest barrier of full integration of those with disabilities into society is the negative perceptions those without disabilities have of those impacted by disability (Cohen & Avanzino, 2010).

Person-first language is stated clearly into laws with the passage of the Americans with Disabilities Act (ADA) in 1990 and the Individuals with Disabilities Education Act (IDEA) in 1997. The Association for Persons with Severe Handicaps is credited with leading the endorsement of person-first language shortly after ADA was passed (Jensen et al., 2013). Halmari (2011) stated that the name changes of government and state agencies in the United States are reflections of a more compassionate world, or a more sentimental view of humanity. For example, “The President’s Committee on Mental Retardation” was renamed “The President’s Committee for People with Intellectual Disabilities” in July 2013 when President Bush signed an Executive Order (Halmari, 2011). Additionally, some scholarly journals require authors to use person-first language exclusively in their manuscript submissions (McDermott & Turk, 2014).

A considerable amount of research on the treatment of individuals with disabilities in today’s society is focused on language usage. For example, Cohen and Avanzino (2010) reported that adults with physical disabilities have experienced being treated like children by adults without disabilities. Titchkosky (2001) stated it is common for people without disabilities to speak on behalf of what people with disabilities seek, want, or feel. A culture of rejection may be changed through the education of people without disabilities on how to use empowering and inclusive language (Cohen & Avanzino, 2010).

Cohen and Avanzino (2010) attempted to explain some of the powerful attitudinal barriers through a term, “disability spread” (p. 275), which explains the phenomenon of when a “nondisabled person’s assumption that one’s disability is the defining characteristic of the individual and may ‘spread’ to other areas of the body”. For example, if a person uses a wheelchair, an individual who is not impacted by disability may assume that the person using the wheelchair also has a cognitive impairment, and that may not be the case at all. Jensen et al. (2013) stated that “reducing stigma one word at a time through the use of person-first language is a place to start” (p. 143) in changing the perceptions and attitudes toward individuals with disabilities. Many experts have stated that person-first language is an important first step in breaking down barriers in society.

Halmari (2011) asserted, “Anyone who believes that we have finally arrived at the perfect terminology will be proven wrong by history. I am sure that at some future point we will find the phrase ‘intellectual and developmental disabilities’ to be inadequate and demeaning” (p. 839). The author explained that using person-first language is currently the most politically correct approach, as it is the most well intentioned and widely accepted approach. However, person-first language may not be the permanent language choice, and therefore, society must be open to change. She goes on to state that “attitudes towards disadvantaged groups will change if language is reformed” (p. 829). Jensen et al. (2013) noted “ultimately, the hope is that person-first language will form the foundation for recovery-oriented practice and enhanced collaborative treatment environments that foster respect, human dignity, and hope” (p. 150).

The goal of person-first language is to reduce or eliminate the attitudinal barriers in society that create obstacles for those impacted by disability (Jensen et al., 2013). When individuals with disabilities are assimilating into an organization, it is important that they are seen as person-first, and not just a disability so they can become integrated into the organization and society as a whole (Cohen & Avanzino, 2010). Jensen et al. (2013) stated that, “the natural evolution of person-first language serves to carry on the goal of ending discrimination by altering the way we refer to and talk about people with disabilities verbally and in
writing” (p. 147). To reach this goal, however, experts note that society must be educated on the proper language use. A study of teacher-librarians’ knowledge of supporting students with disabilities revealed that even though many teacher-librarians were familiar with the concept of person-first language, they did not place it at a high value in their work (Myhill, Hill, Link, Small, & Bunch, 2012).

Many organizations support the use of person-first language, deeming it to be beneficial and encourage its continued use. The Council for Exceptional Children (CEC), the largest international professional organization dedicated to improving educational outcomes for individuals with exceptionalities, students with disabilities, and/or the gifted, continues to support the use of person-first language. Multiple resources are offered for CEC professional members, including a recent “Tool of the Week” identified as Remember: Person-First!, a document listing suggested phrases to “Say…” and “Do Not Say…” to support person-first language usage (CEC, 2016).

While a significant amount of support for using person-first language exists, some have differing opinions and would prefer not to use this terminology. For example, Titchkosky (2001) presented many opinions in opposition of person-first language. She argued that a person with a disability is just a person with a disability and by utilizing such a complex language style; one is further othering individuals with disabilities. Titchkosky discussed how in an ableist-centered society, “person-first ensures that some clear and certain image of bodily limitation or sensorial lack is re-inscribed only on ‘them’” (p. 130). In other words, if the world was dis-ableist, would each person’s disability be relevant?

One of the Titchkosky’s (2001) main arguments stated that person-first language makes the claim of “resemblance of normalcy can be attained if all people and institutions emphasize, over and over again, that disabled people are indeed ‘people’” (p. 134). Attempts to ensure that people with disabilities are treated as simply people cause their disabilities to be viewed as a negative.

People-first language supports accounting procedures where one can be counted as a ‘person with a disability’ without having any self-understanding as such. Thus, “people with disabilities” are made persons first, i.e., persons who happen to have a measurable condition of limitation or lack, which is regarded as having nothing to do with being a “person.” (p. 129)

Halmari (2011) criticized person-first language due to its “wordy, awkward, sentence structure” that they feel calls more attention to the disability (p. 828). The researcher explained that the proper grammatical structure of person-first language is “head N + PP (PP starting with the preposition with), head N + relative clause (relative clause starting with who), or head N + participial (people having)” (p. 830). For example, one would say a student (noun) with autism (past participle). In other words, the noun or “person” is always stated first. Halmari stated that although person-first language is, “a reflection of humane ideals, it is simultaneously based on linguistically circular reasoning (or lack of it)” (p. 838). She furthers her argument by explaining that person-first language is “based on the idea that post-modification automatically takes the emphasis away from the disability” (p. 839). According to the functional sentence perspective, new information is presented at the end of a sentence and by placing the disability at the end of a sentence, “shines extra light on what it seeks to conceal” (p. 839).

Other authors highlight another perspective regarding the language utilized. For example, Dunn and Andrews (2015) suggested the concept of utilizing identity-first language in tandem with person-first language frameworks. The intent of this approach was to promote respect and dignity for all people. Individuals impacted by disability are able to “claim” their disability status as a fact and highlight this fact as a point of pride when using the identity-first approach. Through this mindset, terms such as “disabled person” are referred to as identify-first and are preferred by some individuals impacted by disability, as well as segments of the general public.

Ladau (2015) also supported the use of identity-first language over person-first language as an individual impacted by disability. This author clearly outlined her disability as a source of pride, and describes it as a fact of life and a state of being. She pronounced the use of person-first language as insinuating that disability is a derogatory or negative term to use in describing individuals. Ladau (2015) asserted that person-first language is used and supported primarily by those that are non-disabled, while identity-first terminology is preferred by many people that have been impacted by disability.

Collier (2012) referred to person-first language as a structural euphemism. This editor stated that language is used to supposedly support those impacted by disabilities, however any positive results will be temporary and short termed. Collier was also opposed to person-first language because it conflicts with strong writing guidelines. Through the inclusion of extra words in the description of individuals im-
impact by disability, the strength of the statement and writing are diminished.

Methods

This manuscript summarizes the results of a study centered on gathering the perspectives of 595 undergraduate and graduate university students from a mid-size Midwestern university in the United States. Data regarding student demographics including age, gender, class standing, race, and academic college were reported by study respondents. Students reported their level of exposure to person-first language, as well as their awareness level and use of the term. In addition, respondents shared their agreement or opposition to the concept of person-first language.

Participants

Five hundred ninety five university students participated in this study as they completed an online survey gathering perceptions and experiences regarding person-first language. More females shared their perspectives, as 482 responded (81.01%), as compared to 109 males (18.32%), and four (0.67%) of the respondents chose not to disclose their gender. With regard to age, nearly half of the respondents were 20 years old or younger, as 292 reported their thoughts (49.08%). Two hundred forty five individuals were between the ages of 21 and 25 years (41.18%). The ages ranged from under 20 years to 60 years of age, with only 9.74% of respondents being 26 years and older.

Of the total 595 university students that completed this survey, 520 were undergraduate students (87.39%) and 75 were enrolled at the university as graduate students (12.61%). Finally, respondents chose between seven different academic colleges to identify their plan of study at the university. Most commonly, students were associated with the College of Education and Human Services, as 191 students were selected (32.1%). The college that the fewest respondents associated with was the College of Medicine with 14 respondents (0.24%). The college of Science and Engineering was associated with was the College of Medicine with 14 respondents (0.24%). The college of Education and Human Services was associated with was the College of Medicine with 14 respondents (0.24%). The college of Science and Engineering was associated with was the College of Medicine with 14 respondents (0.24%). The college of Science and Engineering was associated with was the College of Medicine with 14 respondents (0.24%).

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Procedure

Based on existing research and potential assessment tools focused on person-first language, an original pilot survey was developed by the authors. The survey was first distributed to students enrolled in two University Program courses. The survey was piloted by approximately 80 university students who provided feedback on the initial survey. The final survey incorporated content and wording feedback from the pilot group. The online survey was distributed to graduate and undergraduate students via the online survey tool, SurveyMonkey. The link to the survey was emailed to the student population through the campus listserv, Student News Announcements and remained active for approximately six weeks. Through approval by the Office of Student Activities and Involvement, every student on campus was invited to participate via email. Prior to distribution, the study was approved by the University Institutional Review Board. In addition, recruitment flyers were posted throughout the university campus in common areas such as the University Center and residence halls.

The students self-identified their interest in completing this survey, and were able to complete the survey at their leisure and be as detailed or general as they desired. Respondents did not receive any compensation or course credit for participation in this study. The survey consisted of six demographic questions including gender, age, ethnicity, class standing, number of college semesters completed, and college of study. Demographics were followed by opportunities for student respondents to rate their level of knowledge about the field of special education from no knowledge to extensive knowledge. University students were then asked about their level of familiarity of person-first language, ranging from unfamiliar to very familiar. The next question provided subjects with eight options to select including statements such as, I have a disability, and Someone in my extended family has a disability, followed by options of Someone in my immediate family has a disability, A close friend of mine has a disability, An acquaintance of mine has a disability, A classmate or coworker of mine has a disability, I have met someone with a disability, and I do not know anyone with a disability.
Next, participants were asked to select their level of interaction with individuals impacted by disability, ranging from on a daily basis, regularly, rarely, or never. Students that already had an awareness of person-first language were asked how they learned details about this concept. Seven options for answers included in elementary, middle, or high school classroom settings, interactions in the college classroom setting, work settings, professional development, personal friends and family, independent research, or other: University students were then asked about their perceptions of the value of person-first language with choices of none, limited, moderate, valuable, and extremely valuable; how often they used person-first language, including never, rarely, sometimes, often, and always; and if they had any additional open-ended comments or thoughts to share with the researchers regarding person-first language.

**Data Analysis**

This study employed techniques to analyze both the qualitative and quantitative data collected from university students. After survey collection was complete, the researchers analyzed the quantitative data utilizing the Statistical Package for the Social Sciences (SPSS) to explore the first 14 questions on the survey. The original number of university students that attempted the survey was 675; however, 80 people did not complete the entire survey. A detailed analysis of the data from 595 target surveys took place, including descriptive statistics and percentages utilizing a comparative analysis.

The open-ended question responses that comprised the qualitative data were organized by theme and summarized. The authors began the process of coding the qualitative data by independently reading all comments related to their perceptions, experiences, and use of person-first language among various contexts. The process of memoing assisted with the data analysis. The next step of analysis included dividing the open-ended responses into multiple themes based on the frequency of each response.

**Results**

As stated previously, 520 undergraduates and 75 graduate students participated in this study. Nine percent of the graduate students felt they had extensive academic and practical knowledge of special education, while 31% reported an adequate level of knowledge in this area, 54% had a minimal level of knowledge, and 6% had no knowledge of academic and practical knowledge of special education. Ten percent of undergraduates felt they had extensive academic and practical knowledge of special education, while 36% reported adequate level of knowledge, 43% minimal level of knowledge, and 11% had no knowledge in this area. To the best of their knowledge, 25% of study respondents interacted with one or more people who have a disability on a daily basis, 59% have interacted with individuals with disabilities in the past, 15% interact with an individual with a disability rarely, and two respondents shared they never interacted with anyone with a disability. Additionally, 31% of the graduate students participating in the study reported having no knowledge of person-first language prior to completing this survey, as opposed to 27% of undergraduates. Furthermore, 37% of the graduate students who were familiar with person-first language prior to taking the survey found it extremely valuable, as did 41% of the undergraduates.

The respondents who felt they had no or minimal knowledge in the practical and academic knowledge of special education was 35.98% in the disciplines of education and human services, 53.93% in health professions, 61.84% in humanities and social and behavioral sciences, 64.29% in medicine, 66.67% in communication and fine arts, 71.29% in science and technology, and 71.67% in business administration. On the contrary, respondents who felt they had extensive knowledge in practical and academic knowledge in special education reported their levels at 0% in the science and technology, 1.75% in communications and fine arts, 3.95% in humanities, social and behavioral sciences, 6.67% in business administration, 6.74% in health professions, 7.14% in medicine, and 21.16% in education and human services.

Of the respondents exposed to person-first language prior to this survey, those 20 years old or younger primarily learned about person-first language from experiences in their elementary, middle school, or high school educational experiences. For other age groups, the exposure varied among different settings. For example, respondents between the age of 21 and 25 years received the most information about person-first language in the university classroom, those 26 to 30 years old were exposed through their employment, and 31 to 35-year-olds learned about person-first language equitably from their education background, university classroom, and friends and family. Forty-one to 45-year-old respondents also gathered knowledge about person-first language equally among the university classroom, employment background, professional development opportunities, as well as friends and family. Professional development was the most common informant for those 46-50 years old, and friends and family provided insight for those respondents ranging in age from 51.
to 55 years old. Participants in the study older than 56 did not have knowledge of person-first language prior to this study.

Of the students who had been previously exposed to person-first language, the portion who never or rarely used person-first language reported at 2.63% form disciplines in humanities, social, and behavioral sciences, 2.65% in education and human services, 7.14% in medicine, 10% in business administration, 10.52% in communication and fine arts, 12.36% in health professions, and 13.86% in science and technology. Of those who had been previously exposed to person-first language, the portion who often or always used person-first language are as follows: 20% in business administration, 23.6% in health professions, 26.73% in science and technology, 36.85% in communication and fine arts, 44.73% in humanities, social, and behavioral sciences, 50% in medicine, and 72.31% in education and human services.

With regard to those who felt person-first language has limited or no value, the students from science and technology (19.3%) and medicine (21.43%) rated this concept as having the lowest rates of limited or no value. Additionally, students from the academic disciplines of health professions (44.32%) and education and human services (61.08%) are the two disciplines that rated person-first language with the highest level of value.

The goal of this study was to assess the perspectives, use, and awareness levels of person-first language on the university campus. Overall, 43% of the respondents that completed this survey were very familiar with person-first language prior to taking this survey. Additionally, of all the respondents, 39.58% felt that person-first language was extremely valuable. Overall, the data revealed that 48.14% of respondents often or always use person-first language when interacting with or speaking about people with disabilities. Based on this data, we can conclude that a large portion of the campus population is familiar with the concept of person-first language and believes that it has extreme value. Of all the respondents, 28.81% were unfamiliar with the concept of person-first language. These numbers revealed a higher knowledge level than anticipated prior to this study.

It was predicted that students in fields of education and human services would have increased awareness levels and place a higher value on person-first language. The data strongly confirmed this prediction as 66.84% of respondents from these academic disciplines answered that they were very familiar with the concept of person-first language. This is over 10% higher than the students from health professions in which 55.06% answered that they were very familiar. Both of these are significantly higher than the average portion of respondents (19.99%) from the other universities who answered that they were very familiar. This aligns with what is to be expected, as the most common careers that may use person-first language are often education, human services, and health professions.

Another prediction centered on many of the respondents would be exposed to person-first language in a university classroom. The results confirmed this as 44.63% of the respondents answered that they had been first exposed to the concept in interactions in a university classroom setting. The next two common responses were interactions in an elementary, middle, or high school classroom setting (36.29%) and personal friends and family (36.12%). Several respondents who selected other as a response also answered that they had been exposed to person-first language through other programs on campus such as Residence Life, Alternative Breaks, Leadership Safari, and the David Garcia Project. These results display that the university is making positive strides in heightening the awareness of person-first language on campus.

Themes

Examining the data for details with potential to highlight the perceptions of university students of their support or opposition of person-first language resulted in several different themes. Perspectives and insights were divided into four broad themes to describe the view of university students regarding the use of person-first language. These themes include opposition to person-first language, support of person-first language, expansion of person-first language to more broad perspectives, and individualization of language to support individuals with disabilities.

**Theme 1: Opposition to person-first language.**

Approximately 10% of the university students participating in this study presented strong views against the use of person-first language. In the majority of cases, the viewpoints against person-first language were from university students 20 years old or younger. In some cases, their stance against person-first language was a result of knowing individuals with specific disabilities that did not want to be referred to using person-first language. For example, one participant shared, “I know many Deaf people who take pride in what others would consider a disability… So person-first would not be applicable...Actually should definitely not be used in such a situation.” Another respondent shared his or her own person journey, “while I have bipolar disorder, person-first language doesn’t mean too much to me. It doesn’t bother me to be identified as the bipolar guy or anything similar – it’s just who I am.”
Other examples of concerns centered on the use of grammar in speaking or writing. For example, some believe person-first language requires extra words that are not necessary. One participant responded by explaining, “I feel as though it almost puts more emphasis on the disability as instead of using just one adjective (autistic) the sentence now has [two] words describing the person (with autism).” Another student shared frustration through his/her response, “that’s idiotic. It is changing the way the English language is constructed because people are too sensitive. You would not say a truck that is big and red; you would say a big, red truck. There is no need to be so overly PC that you restructure an entire language’s grammar.” One study participant also described impact on grammar as, “I feel it causes one to use extraneous words when making a sentence that make it sound less grammatically correct, just to be politically correct. Also, I feel as though it almost puts more emphasis on the disability instead of using just one adjective (autistic), the sentence now has two words describing the person (with autism).”

Theme 2: Support of person-first language. Approximately 62% of respondents held firm opinions in support of the use of person-first language in all environments. Respondents aged 26 years old and younger offered words of support regarding the use of person-first language. For example, one respondent stated, “inclusive language and person-first language in particular, are so essential in creating a more accepting, positive environment for all people.” Other respondents shared, “value the person-first, not the perceived limitations,” and “all communication can be lost if someone in the conversation gets hurt.” Another participant shared their level of frustration about not using person-first language when discussing individuals, “we never say ‘broken-leg Sue.’ Why on earth would we say ‘wheelchair bound’ or ‘autistic boy’ baffles me!”

Other examples of supportive comments included ideas to support long-term usage of person-first language. For example, “we need to change the language in order to change the perceptions and assumptions that people make about people who have disabilities. Too much of our thought processes are automatic. Changing the language will over time change the thought processes, empathy, [and] acceptance levels.” Other respondents felt that disability is not a person’s most important characteristic and commented more generally, “it is important for a person not to be identified by his/her disability. It does not and should not define them.” Yet another respondent noted, “I believe person-first language is very valuable because people are likely to encounter a person with a disability at some point if they haven’t already and people should understand this so they don’t say something that may offend someone else.” Additionally, “I strongly believe that individuals need to be respected and given equal treatment no matter any differences,” stated another respondent in support of person-first language. Some individuals shared perspectives based on their personal experiences. For example, one person shared, “Having a friend who is a Paralympian, it was clear that he was an athlete in a wheelchair – athlete first, then wheelchair. It just makes sense.”

Theme 3: Expansion of person-first language to more broad perspectives. Several study respondents made comments centered on expanding the use of person-first language beyond the field of disability studies, and into other areas such as race, medical settings, and learning environments. Most of the individuals making these suggestions range in age from 26-30 years. For example, one person shared, “we could think about this when it comes to race too. We always say white person or black person, not person of African American descent.” Another respondent shared, “person-first language goes beyond application to persons with disabilities. It applies to any time you describe a person: a person with asthma or hypertension, or any other disease in the medical setting, describing people and their socio-economic status, employment status, gender, sexual preference, race, etc. I have confronted professors who discuss research respondents (e.g., dyslexic) and asked them to use the phrase people with dyslexia instead and to remember person-first language when writing their own research papers.” Additionally, another example is “I think it’s very, very important. I think it is important not just for disabilities, but other areas too. Speaking about people with varying sexual orientations and gender identities.”

Theme 4: Individualization of language to support individuals with disabilities. The concept of using language that is individualized and specific towards each person and situation emerged as a theme among the study responses. These comments were provided by students in the age range of 21-25 and shared a consistent message of individualization. For example, one respondent wrote: “from the viewpoint of someone who is within the disabled community, it ALWAYS depends on the person. As a default, you should never use person-first. Many disabled people find it offensive because of intricate experiences with ableism prevalent in society.” Another study participant reported, “I haven’t thought much about using person-first language because I usually refer to people with disabilities by their name.”
Discussion

As more students with disabilities are likely to enroll in higher education, and more conversations are taking place across university campuses regarding disability, increasing disability awareness and education is imperative. Results of the study discussed in this manuscript provide information useful for thinking about perceptions of undergraduate and graduate university students about person-first language, as well as strategies that may assist those in university environments to increase knowledge and experiences.

Several of the findings highlighted throughout this study align with previous research in the field of person-first language exploration. Jensen et al. (2013) emphasized the importance of respect when referring to individuals with disabilities, as well as the need to address attitudinal barriers. Similarly, respondents of this current study echoed a focus on respect. As one respondent stated, “Person-first language is a common courtesy and an easy way to show respect for persons with disabilities.” Another response mirrors this viewpoint, “I think you’re just being picky on wording when it comes down to it. Most people don’t mean it as offensive.” Another individual from the university setting described the use of person-first language as “idiotic.” These viewpoints also align with Titchkosky (2001) that argued against the use of person-first language in our society.

Examining the resources, opportunities for support, and perceptions similar to those discussed above is an important next step in working to support students with disabilities across the university setting and beyond. Increased awareness and opportunities to exchange ideas of the most appropriate language to discuss or address individuals with disabilities, based on individual preferences are important strategies to consider, “I would never speak with someone without knowing what they are okay being called. I would ask or get to know them enough to ask what offends them.”

Limitations

Several factors contributed to the limitations of this study. First, 595 university students participated in this project, which is significantly lower than the number of university students attending this particular mid-size Midwestern University. Other perceptions and awareness levels of person-first language may not be represented in the data collected and therefore conclusions cannot be drawn about the perceptions and awareness level of person-first language of the student body as a whole, but only about the survey respondents.

The study was also limited in the fact that many of the demographics of the population represented one demographic much more heavily than the others. For example, 81.01% of the survey respondents were female, whereas only 56.38% of university students are female across the United States (U.S. Department of Education, 2016). Additionally, 507 or 85.21% of students self-identified as White/Caucasian when asked about their ethnicity. This demographic does not represent the 58% of university students identified as White/Caucasian in the United States.

The most common area of study of survey respondents was identified as academic fields of education and human services (32.1%). This may skew the results because students who associate with these disciplines may be more likely to receive instruction and exposure to person-first language through their program of study, therefore they may be more knowledgeable than students who associate with other disciplines. Specifically, only 2.35% of the survey respondents identified medicine as their area of study, so the perceptions and awareness levels of
person-first language may not be well represented from this discipline. In order for the data to be more representative, more responses from students in other academic fields are needed.

Directions for Future Research

Throughout this study, several topics arose as possible future areas of in-depth research that would assist in building the knowledge base regarding person-first language. One area centers on the factors that influence the exposure to person-first language students experience on a university campus. In this particular research, extracurricular programs such as Alternative Breaks, Leadership Camp, Leadership Safari, and David Garcia Project were mentioned as experiences in which the respondents learned of person-first language. Perhaps an in-depth analysis may be completed of the success from these programs in order to understand how to best educate students, staff, and faculty in the academic areas of business administration, science, and technology, as these academic domains represented individuals less aware of person-first language. This analysis may be shared with others across campus in order to raise their awareness levels consistency throughout the learning environment.

Additionally, to increase the students’ values of person-first language from the colleges that had lower values of person-first language, faculty and staff could discuss person-first language in the classroom setting. The data suggests that students in the academic areas of education, human services, humanities, social and behavioral science, and health professionals have the most knowledge regarding person-first language. Studies facilitated to evaluate the inclusion of person-first language in university program course options could be required for all students across campus as part of their undergraduate program have the possibility of adding vital components to the research base. Although university students may not realize it, they may consistently interact with persons with disabilities in their fields and it is important that each individual is made aware of the concept of person-first language. Exposure to person-first language through modeling, reading materials, assignments, and classroom interactions, has the potential of positively influencing the lives of individuals with disabilities, as well as learning communities as a whole. Perhaps increased awareness levels and familiarity will encourage higher values and respect for utilizing person-first language, therefore individuals impacted by disabilities.

Additional research is necessary to determine how persons with disabilities perceive person-first language. Of the respondents in this study, only 7.39% had a disability. One must recognize that that number may not be accurate, as many individuals may not feel comfortable enough to self-disclose their disability. Of those that did identify as having a disability, 34.09% placed a high value on the use of person-first language. One respondent stated, “I would like to see some data on how the person-first language helps people with disabilities feel included. Do they appreciate it? Do their families' appreciate it? Or is it something people without disabilities decided was important and now it's the 'acceptable' thing?” Further investigation into these topics has the potential to add valuable insights, as discovering answers to questions posed by individuals with disabilities and their advocates contribute additional resources and increases the knowledge base of person-first language. Additionally, further research is also necessary to determine how the concept of person-first language could apply to other social identities such as race or sexual orientation, if applicable.

Conclusion

Based on a comprehensive literature review and analysis of perceptions from 595 university students, it may be concluded that person-first language is the most favorable practice when interacting with or speaking about people with disabilities for these study respondents. As stated previously, one participant summarized their thoughts succinctly, “We never say ‘broken-leg Sue.’ Why on earth we would say ‘wheelchair bound’ or ‘autistic boy?’ baffles me!”

Sharing different views of the person-first language concept often lead to rich discussion, exchange of perceptions, and identification of challenges, as new viewpoints and approaches are examined. Although person-first language was reported as the most appropriate and widely accepted practice in this study, we must recognize the alternate approaches of using identity-first, competency-oriented, other models of language that may emerge. It is imperative to treat each individual in the way he or she prefers to be treated. As one respondent summarized it, “it’s all about respect, which everyone deserves.”

Several strong components of the person-first language debate have been identified, as well as areas for improvement to increase awareness. Significant suggestions have been made regarding approaches and opportunities to increase awareness about appropriate language with regard to individuals with disabilities. Building heightened knowledge and experiences will benefit not only university students, as well as communities as a whole. Through meaningful
learning opportunities, individuals with disabilities, as well as their friends and advocates, are empowered using ability appropriate language, perhaps leading to perceptions that are supportive and more accurate.

References


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Disability as Diversity: Perspectives of Institutions of Higher Education in the U.S.

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Abstract

Institutions of higher education (IHEs) in the U.S. have implemented policy and practices to support on-campus diversity initiatives. Experiences with diverse populations are particularly relevant to young adults, who are developing their worldview by evaluating their perspectives and the perspectives of others. Because most of the conversations about diversity involve dimensions such as race, gender, and ethnicity, disability or ability is often omitted from such discussions. This study sought to review mission statements and diversity materials of four-year college and university websites in order to understand the extent to which disability is included as a dimension of diversity. As these materials provide the tone and values of the IHE, it may be possible to understand how these schools view disability in relation to diversity. Mixed methods were used to explore the extent to which IHEs include disability in their mission or diversity statements as a way to expand on the notion of diversity within their student body, staff, or faculty. Findings show that most of the randomly selected four-year IHEs ($n = 300$) do not include disability within their mission or diversity statements. Those who do are often found to include statements that describe campus cultures that are inclusive of students with disabilities and more likely to consider a diverse campus, inclusive of disability, an enriched community. Implications for further research and practice provide recommendations based on the literature on how to improve their inclusiveness of students with disabilities in IHEs.

Keywords: disability, diversity, institutions of higher education, inclusive models

Institutions of higher education (IHEs) in the U.S. have implemented policy and practices to better represent the diverse population of the country (Williams & Clowney, 2007). The benefits of a diverse student body are well-documented (Bowman, 2010; Denson, 2009; Denson & Bowman, 2013; Gurin, Dey, Hurado, & Gurin, 2002; Hurtado, 2007), and as such, IHE campuses are generally eager to embrace diversity (Williams & Clowney, 2007).

In order to further understand diversity, Loden (1996) presented a framework that identifies primary and secondary dimensions of diversity. The primary dimensions identified by Loden “represent properties and characteristics that constitute the core of our diverse identities” (p. 15). Loden originally identified six dimensions (age, ethnicity, gender, mental/physical abilities and characteristics, race, and sexual orientation), but has since added an additional three (income, spiritual belief, and class; Loden Associates, 2010). Secondary dimensions involve characteristics that may have more variable impact on the life of an individual and may be more apt to change (e.g., geographic location, family status, work experience, political beliefs).

Approximately 11% of students enrolled in postsecondary education programs have identified themselves as an individual with a disability (U.S. Department of Education, 2016). Yet, most of the conversations about diversity involve race, gender, and ethnicity. Domains related to ability and disability are often excluded from diversity frameworks and descriptions (Davis, 2011; Hurtado, Griffin, Arellano, & Cuellar, 2008). The absence of disability from many visions of diversity is troubling. When excluded from this conversation, the notion that diversity exists outside the realm of disability is perpetuated. Including disability as a form of diversity reinforces the notion that there is no normal and reduces the othering of individuals with disabilities (Davis, 2011).

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This research seeks to understand the extent to which ability or disability is included in diversity statements at four-year colleges and universities in the U.S. Understanding the extent to which IHEs recognize these individuals as being part of the diverse makeup of their campus will help guide those interested in developing programs to provide on-campus opportunities for students with intellectual and developmental disabilities. In addition, the use of key terms such as ability or disability, provides key supportive language for students who plan to attend IHEs. Use of these terms also reflect more comprehensive inclusivity when referring to diversity as a whole; diversity not only focused on culture, race, ethnicity, language, and sexual orientation, but also on different abilities.

Benefits of Diversity in Higher Education

Although people of all ages can benefit from experiences with people different than themselves, Gurin et al. (2002) noted that involvement in a diverse culture may be especially beneficial to the traditional undergraduate students (i.e., young adults), who populate IHE campuses. To support this idea, Gurin et al. explained that early adulthood is a time in which lifelong social and personal identities go through significant development. When young adults are exposed to ideas, individuals, practices, and cultures different than their personal previous experiences while attending an IHE, the impact of these experiences may have significant influence on personal development.

More specifically, Gurin et al. (2002) theorized that meaningful and genuine experiences with diverse individuals provide benefits in two primary outcome domains. First, learning outcomes from exposure to a curriculum that is both rich with diversity and features interactions with peers from diverse backgrounds “will foster a learning environment that supports active thinking and intellectual engagement” (p. 14). Second, student experience in diverse educational settings may also lead to positive democratic outcomes. Opportunities to engage with individuals different than themselves will allow students to better understand and make meaningful contributions to our increasingly diverse society. Both outcomes are possible only when peers have genuine experiences with a student body that includes diverse backgrounds.

Hurtado (2007) identified three primary grounds to support the need for diversity in IHEs, including practical, theoretical, and empirical rationale. In a practical sense, diversity is necessary in higher education because institutions are preparing today’s youth to live and succeed in an increasingly diverse world. This theoretical rationale is grounded in the idea that learning in a diverse setting allows individuals to better understand the perspectives of others, while evaluating and developing personal beliefs. Hurtado cited research that describe benefits of experience in diversity-rich environments and participation in diversity-specific courses on students IHE campuses, including: (a) an increase in the ability to see the world through the perspective of another individual, (b) a deeper interest in social issues and societal improvements, (c) stronger belief in social equality, (d) heightened view regarding the importance of making civic contributions, and (e) increased likelihood to vote in a state or federal election.

Other research has pointed to additional benefits of a diverse campus. Supporting the notion that exposure to individuals who are different from ourselves increases understanding, Denson (2009) reviewed relevant literature and found that experiences with a diverse student body has the potential to reduce bias. Bowman (2010) conducted a similar review of relevant literature and found that learning on a diverse campus may lead to increased cognitive skills (i.e., skills commonly associated with problem-solving and critical thinking) and cognitive tendencies (i.e., proclivity towards a style or approach to thinking). Barron et al. (2007) explored student perceptions regarding campus diversity and found that experiences with diverse students empowered students by increasing knowledge and allowing for a better understanding of one’s own background and perspectives. The notion that experiences with a diverse student body lead to improved democratic outcomes (Gurin et al., 2002) is also supported by Denson and Bowman (2013) who found that such opportunities increase an individual’s comfort and confidence when interacting with people who are different than themselves. The authors suggested that this comfort may also lead to an expanded sense of civic duty as well as increased participation in civic activities.

Although scholars point to the benefits of a diverse student body, students also recognize the value of involvement with a diverse peer group. Campbell-Whatley, Lee, Toms, and Wang (2012) found that students generally supported activities related to campus diversity. Faculty may also appreciate the benefits of serving a diverse student body. Gordon, Reid, and Petocz (2010) used qualitative methods to explore the perceptions of Australian instructors at IHEs to better understand their perspectives relating to diversity. Although some participants noted that diversity is a nonfactor in relation to their teaching, most had positive views that went beyond those featured in institution policy and promotion. One participant explained the importance of diversity as a teaching strategy by noting, “I see diversity as a tool to open minds” (p. 986).
Disability as Diversity

The Americans with Disabilities Act Amendments Act (ADAAA, 2008) defines disability as “a physical or mental impairment that substantially limits one or more major life activities of such individual” (Section 12102). Being that over 20% of adults in the U.S. have some kind of disability (Center for Disease Control and Prevention, 2017), these individuals are certainly a significant part of our diverse society. Although frameworks involving diversity are moving beyond non-ethnic dimensions (e.g., Banks, 2016), disability is often omitted from conversations about diversity (Davis, 2011; Hurtado et al., 2008).

Davis (2011) explained the illogic in excluding disability as part of diversity, noting that “diversity also represses difference that isn't included under the better-known categories of race, ethnicity, and gender. In other words, diversity can exist only as long as we discount physical, cognitive, and affective impairments” (para. 5). Davis argued that medical models have made it difficult for disability to be recognized as a form of diversity. When viewing human differences through a medical model, the term normal is desirable; people generally desire to hear this term when receiving information about personal health from a physician. However, within diversity studies, which celebrate human differences, the term normal ethnicity, for example, would be an unwelcome guest. Davis explained, “as long as disability is seen in this medical sense, it will therefore be considered abnormal and outside the healthy, energetic bodies routinely depicted in celebrations of diversity” (para. 11). In the context of higher education, this focus on the use of a medical model of disability is perhaps reinforced by the necessity of students to provide medical documentation to become a part of this group in the eyes of an IHE (Shallish, 2017).

This exclusion of disability from conversations about diversity is also present in the postsecondary setting. Shallish (2017) interviewed individuals at postsecondary institutions who are involved with diversity initiatives. One interviewee who worked for recruitment and retention of students from underserved populations “acknowledged that ‘disability fit perfectly into [his program]’ even though it was never mentioned as part of the committee’s charge” (p. 25). In a review of application essays for a faculty diversity position, Lee Baker, Schmaling, Fountain, Blume, and Boose (2016), found that individuals applying for the position generally emphasized gender, race, class, and ethnicity in their writing. The low-level of disability-related language in applicant discussions suggests that they do not view this as a primary dimension of diversity. An author of this paper recently participated in their IHE’s new faculty orientation. Although presentations were rich with valuable and necessary discussions about diversity, disability as a dimension of diversity was not once mentioned.

Mission Statements and Diversity

Beliefs about diversity are commonly stated in official documents produced by IHEs (Wilson, Meyer, & McNeal, 2012). These documents provide the tone and values of the institution, creating a specific culture, goals, and foci within the institution (Cochran & David, 1986; Davis, Ruhe, Lee, & Rajadhyaksha, 2007). As such, schools that value diversity may include mention of this in their mission statement.

With the main focus of policy, research, and literature focused on race, gender, sexual orientation, and ethnicity as part of diversity in higher education, Shallish (2015) stated that institutions of higher education do not acknowledge disability as a social, cultural, and political construct and identity making it difficult to build inclusive notions of the purpose of a college education. She called for colleges to interrogate policies, practices, and definitions of disability within a construct of diversity, in order to shift the purpose, practices, and services provided to all students. Similarly, Wilson et al. (2012) stated that institutions' self-reflection of their statements and language used to describe diversity may help explore discussions of what this language means and how it is being carried out. They too express that perhaps this will help institutions of higher education improve.

According to Wilson et al. (2012), out of 80 IHE mission statements, 59 (75%) referred to diversity with only 19% of it defining it in terms of ethnicity or race. Also, 65% (or 52) of them included a separate diversity statement with 18 of them being official statements from the institution. This information, along with data collected from this study, provides statistical information as evidence of further work that IHEs must do in order to truly embrace and support diversity in their campuses.

Gabel, Reid, Pearson, Ruiz, and Hume-Dawson (2016) explored websites for California State University (CSU) campuses to understand the extent to which disability was represented in prominent organizational materials. In addition to exploring factors such as accessibility and visual presence of disability in promotional materials, the authors sought to find the extent to which disability was included as diversity in materials. Of the 23 CSU webpages, only one IHE included the descriptor diversity to be associated with information related to disability. In addition, although the researchers found many photos depicting racial and ethnic diversity, they were unable to find
any representation of an individual with a noticeable physical impairment.

In order to better understand the extent in which IHEs include disabilities in their mission or diversity statements as ways to expand on the notion of diversity within their student body, staff, or faculty, the following research questions were explored:

1. Do IHEs include disability within their (a) mission statement and/or (b) diversity mission statement?
2. To what extent do IHEs include disability within their mission statements?
3. Are there are differences between IHEs, including disability in their mission statement or diversity statement depending on the (a) number/percentage of students with disabilities in their campus, (b) Carnegie classification, (c) geographic location, (d) urbanization type, and (e) institution size?
(a) If so, what are those differences?

Methods

Research Design

A sequential mixed methods research design (quant-qual; Teddlie & Tashakkori, 2009) was employed in order to provide evidence for the exploration of the research questions. Phase I consisted of acquiring data from the Integrated Postsecondary Education Data System (IPEDS; National Center for Educational Statistics, n.d.) according to specific variables: (a) Carnegie size/status, (b) geographic location, and (c) percentage of students with disabilities. In a deductive manner Phase I was employed in order to better understand the relationship between four-year IHEs and the number of students with disabilities enrolled in each one. For example, the initial rationale for exploring the data using these specific variables about IHEs was based on our observations of IHEs focusing more on inclusive practices (e.g., more postsecondary education programs for students with intellectual/developmental disabilities located on Eastern U.S.) than others, as the differences were observed in geographic location, Carnegie classification, and other demographic information. We define inclusion at IHEs as an “all-encompassing access to admission, programs, events, classes, and physical spaces within the college and university environment” (Myers, Lindburg, Nied, 2013, p.7). Most importantly, inclusive practices must be thoughtful and proactive as well as purposeful to meet the needs of all people.

Once the data (n=300) were collected, coded, and analyzed, it informed Phase II (qualitative phase). Phase II consisted of hand sorting and coding qualitative data of the universities that included a specific mention of disability in their mission statement or their diversity statement. The qualitative data were then analyzed using thematic analysis (Braun & Clarke, 2006) in order to further explore the phenomenon of the mention of disability in mission and diversity statements by IHEs. Finally, a meta-inference (Teddlie & Tashakkori, 2009) was formed based on both the quantitative and qualitative results in order to have a more well-rounded picture of how four-year IHEs discuss or prioritize disability within their mission and/or diversity statements.

Data Collection

A total of 2,104 four-year-colleges and their information were obtained through the IPEDS. Once the data were downloaded, a power analysis was conducted using g-power 3.1 software for an effect size of less than .3 (p = .05). The power analysis suggested a sample of 300 cases. Using a web-based randomizer, 300 out of the 2,104 colleges in the list we randomly selected in order to better guide the qualitative strand, or phase II of the study. Mission statements and diversity materials from the selected IHEs were then coded by hand by viewing their institutional website using the following criteria: (a) Is disability mentioned in the mission statement?; (b) Is there a diversity statement or diversity page/information about diversity?; and (c) If so, is disability mentioned as part of this diversity information? More specifically, a dichotomous coding where 0 = No Mention, 1 = Yes Mentioned, was employed by the three researchers. The specific search terms used within each university’s search engine were: (a) Mission Statement and (b) Diversity Statement.

Data Analyses

Quantitative. A multivariate analysis of variance (MANOVA) was conducted in order to see the differences between groups (No mention/Yes mention) with the percentage of students with disabilities in their campus, geographical location (region), Carnegie status, urbanization type, and institution size. In addition, descriptive statistics and frequencies were obtained in order to better understand the mentions of disability in institutions of higher education.

Qualitative. Once the quantitative data were collected and analyzed, coding of the mission or diversity statements that mentioned disability or abilities began. Thematic analysis (Braun & Clarke, 2006) and document analysis (Bowen, 2009; Patton, 2015) were used in order to better understand the manner in which the term disability was discussed. Deductive themes
and patterns were then coded using content analysis (Berg, 2007). Organization of the mission and diversity statements and coding was first conducted by one of the authors. Another author assisted in the coding to seek coder triangulation. A third author was only involved in the coding if the two first authors were not in agreement with the way it was coded. Once all the data were coded separately, all three authors discussed agreement for each code until 100% of the coding was agreed upon. Therefore, inter-coder reliability was achieved. All three coders hold a doctoral degree in special education with expertise in students with disabilities within higher education.

**Results**

**Mission and Diversity Statements by the Numbers**

Descriptive statistics show that out of the 300 randomly selected institutions of higher education, 113 had more than 3% of students with disabilities enrolled in their undergraduate program. Out of these, 89 IHE had 3-9% students with disabilities enrolled in their total undergraduate population, 22 with 10-20%, and two with more than 20%.

A total of 153 out of the 300 (51%) IHE mentioned diversity in their mission statement, and only 14 (4.6%) of them specifically included disability in it. In addition, we found 163 out of the 300 (54%) IHE incorporated a diversity statement or vision within their website, that was separate from the mission statement of the IHE. More specifically, out of these 163, only 68 IHE included (23%) disability or different abilities within diversity statement.

**Differences Among Institutions of Higher Education**

A multivariate analysis of variance (MANOVA) was conducted to understand the differences between institutions of higher education based on the percentage of students with disabilities on their campus, Carnegie classification, and geographical location. To test for error of variances, homogeneity tests were run and met ($p > .005$).

Differences by enrollment of students with disabilities. The MANOVA results included differences between institutions of higher education depending on the percentage of students with disabilities enrolled in their undergraduate program and their mention of disability in the mission statement ($F(4)=6.32$, $p=.000$), inclusion of a diversity mission/vision statement or vision as a separate website ($F(4)=11.66$, $p=.000$), and disability mentioned within the diversity mission/vision statement ($F(4)=3.78$, $p=.005$). In other words, differences were observed depending on the number of students with disabilities enrolled in four-year IHEs and the inclusion of disability within their mission or diversity statements.

**Other differences.** To better understand these differences, a MANOVA was conducted on factors such as Carnegie classification, size of the institution, and geographic location. Differences in Carnegie classification were only observed in the inclusion of the diversity statement/vision ($F(18)=5.3$, $p=.000$) and disability included within the diversity statement/vision ($F(18)=1.76$, $p=.03$). In addition, differences also depended on the size of the institution when including diversity within their mission statement ($F(5)=28.1$, $p<.05$), having a separate diversity mission/vision statement ($F(5)=19.59$, $p=.000$), and disability included within their diversity mission/vision statement ($F(5)=3.33$, $p<.01$). There were no differences observed between different regions.

**Inclusion of Disability in Mission or Diversity Statements**

Although the quantitative results provided information about inclusion of disability in mission and diversity statements, as well as differences observed between various descriptive information of IHEs, these needed to be understood at a deeper level. It was important to understand how the inclusion of disability in the mission or diversity statements within IHEs differed. Therefore, an exploration of each statement was made in a qualitative manner using thematic analyses (Braun & Clarke, 2006) and document analysis (Patton, 2015).

**Disability in mission statements.** Analysis of 300 IHE mission statements resulted in 14 statements that included disability. Mission statements were coded for use of the word disability and words used in mission statements that were reflective of campus culture. An analysis of these words revealed three main themes: disability included in a format commonly found in non-discriminatory policies (e.g., Title IX language; disability as part of a list of dimensions of diversity), disability included as one of many types of difference, and disability as part of a campus culture that emphasizes social justice.

**Demographic data.** Demographic data for the 14 IHEs that had disability in the mission statement can be found in Table 1.

**Non-discriminatory language.** Four of the 14 IHEs included language reflective of Title IX. The phrase “without regard to” was included in these statements, followed by a list of terms referring to dimensions of diversity. Each of these statements referred to disability using the specific terms “disability” or “handicap.” An example of a statement reflecting this
language and term use was “The University provides educational opportunities to all eligible persons without regard to age, gender, ethnicity, race, religion, national origin, disability, or sexual orientation.”

**Disability as one of many human differences.** Mission statements reflecting the theme disability included disability as one of many types of human difference. One university mission statement referred to specific disabilities including “learning disabilities and Attention Deficit Hyperactivity Disorder and other learning differences.” Disability was also used to describe campus culture; recognized as part of “an environment of belonging with differences” and “a community that values differences”, including “ability or disability.”

**Social justice.** Mission statements used language reflective of a campus culture that emphasizes social justice. For example, one university mission statement discussed disability in the context of overcoming prejudice “occasioned by” disability and a list of other terms reflective of diversity. Another reflected the theme of social justice in their reference to personal dignity. Specifically, this university referred to “physical ability” as a “condition,” one that cannot be mitigated, as “human beings have innate dignity… made in the image and likeness of God.” A third university referred to disability as part of a “full spectrum” of individuals on their campus which provides a campus environment based on mutual respect, engagement and learning for everyone.”

**Disability in diversity statements.** Analysis of 300 IHE mission statements revealed 68 diversity statements that included disability. The diversity statements from 30 IHEs were selected and analyzed for words describing disability in the context of diversity, as these 30 IHEs discussed diversity in a meaningful way; not just part of a list of dimensions of diversity (e.g., Title IX, non-discriminatory language). This analysis revealed four main themes: disability as a part of campus community; disability as a part of an inclusive campus; respect for diversity which includes disability, and disability as one of many human differences.

**Demographic data.** Demographic data for the 68 IHEs that had disability in the diversity statement can be found on Table 2.

**Disability as part of community.** Disability as part of the campus community was included in 28 of the 30 IHE diversity statements. Specifically, disability was included as a part of diversity, and diversity a part of what enriches a community. Diversity was valued “because it enriches our campus community” which constitutes “individuals from an array of backgrounds and perspectives.” Diversity was also described as a “varied community of people and human characteristics, ideas, and world views.” A common theme within community was the value of perspectives of individuals within a diverse community, again, one which includes those with disabilities.

**Disability as part of an inclusive campus.** Inclusion was a prominent theme, occurring in 23 of the 30 IHE diversity statements. Inclusion was included in many diversity statements; “inclusion encompasses diversity and enhances it.” Definitions of inclusion included statements such as “Inclusion refers to active, intentional, and ongoing engagement with diversity,” and “Inclusion is engaging the uniqueness of the talents, beliefs, backgrounds, capabilities and ways of living of individuals and groups.”

**Respect for diversity which includes disability.** Diversity statements of 17 IHEs included respect in their diversity statements. Respect was discussed as a value (i.e., “values of mutual respect”), listed as a “principle,” and as a behavior (i.e., “all members of the community are treated at all times with dignity and respect”). Respect was discussed in conjunction with the terms “dignity” and “difference,” a way individuals behave toward others regardless of and with appreciation for unique identities, including those with disabilities.

**Disability as one of many human differences.** The theme of disability as one of many human differences was included in 14 of the IHE diversity statements. A campus culture that recognizes human difference was referred to as “fundamental to a comprehensive education;” something to be embraced, appreciated, and valued. Diversity statements identified human difference as something to be engaged with to create a “culture of belonging.” The understanding and appreciation of human difference was discussed as part of enriching the university community; “our differences enrich us all” and are part of an environment that “finds ways to utilize … differences to promote higher levels of achievement by all members of the community.”

**Meta-Inference**

Based on the quantitative and qualitative results of this sequential mixed-methods study, we can infer that IHEs are more likely to discuss disability in their diversity statements as the number of students with disabilities increases in their student population. Although the inclusion of “disability” in overall mission or vision statements is rare, they are often found within private institutions or those who have the majority of their student population are students with disabilities. It can also be inferred that for those IHEs that do discuss disability within their diversity statements, they often discuss diversity as part of what enriches a
community, describe diversity as human differences that should be embraced, and describe engagement with diversity, including disability, as inclusion. This is unlike almost half of the general mission statements that focused on a more generic stance following a Title IX type of message. Therefore, a meta-inference can be made that those IHEs that discuss disability in their diversity statements are often found to be more inclusive in their use of language regarding students with disabilities as part of a diverse community.

Discussion

A mixed-methods study was conducted to explore the extent to which IHEs view disability or ability as a dimension of diversity. While 51% of IHEs include diversity as part of their mission statement, most do not include disability within their mission or diversity statements. Only 4.6% of the 300 IHEs randomly selected for this study included disability within their mission or vision statement in which half of them discussed disability at a surface-level using wording similar to a non-discrimination statement. In addition, when exploring the diversity statements of these same 300 IHEs only 22.6% of them included wording regarding students with disabilities or different abilities. When investigating these at a deeper level using qualitative analyses, findings show that these statements often included students with disabilities as part of the community, in inclusive ways, with respect, and also as a difference. As the meta-inference shows above, the inclusion of students with disabilities in IHEs mission or diversity statements are uncommon, but those that do can be very inclusive as the number of students with disabilities increase in their student population.

As mission statements tend to present broad information about an IHE (Cochran & David, 1986; Davis et al., 2007), the low-level representation of disability-specific language is perhaps not surprising. Proponents of diversity may be alarmed to see that slightly more than half of IHEs in this study included any mention of diversity in their mission statement. While general diversity may be front and center of an institution’s values or mission, serving individuals with disabilities is generally not a primary focus for most IHEs. One school randomly included in this study did focus on serving students with high-incidence disabilities, and as such this was featured prominently in their mission statement.

Similar to the findings presented by Wilson et al. (2012), the results of this study suggest that IHEs may view diversity as primarily being comprised of dimensions more commonly associated with diversity (e.g., race, ethnicity, gender). Whereas diversity-specific materials on IHE webpages may be a more appropriate placement of disability-specific content (when compared to a mission statement), this was excluded from over 75% of IHE websites.

Implications and Recommendations for IHE Disability Services

As many IHEs promote diversity as a thread in their campus fabric (Williams & Clowney, 2007), it is important for there to be a recognition of disability as a dimension of diversity. If an IHE is interested in providing a variety of perspectives through supporting diversity initiatives, it is necessary to include efforts to include individuals with disabilities in this conversation. Higbee, Katz, and Schultz (2010) recommended that personnel in higher education start by evaluating and reflecting upon their personal perspectives regarding disability. Providing an outlet for staff and faculty to explore personal prejudices may be a successful strategy in recognizing the importance of individuals with disabilities in the culture of the campus (Loden, 1996). When views that lead to othering of people with disabilities, it may be challenging to have a genuinely inclusive environment. IHE personnel should become familiar with models of disability that differ from the traditional medical model. O’Neil Green, Wilis, Green, and Beckman (2017) described the benefits of a university culture that views disability based on social justice models; lenses focused on access rather than differences promote disability as diversity rather than a deficit.

Because of their need to focus on compliance of legally mandated supports, IHE disability services (DS) may be supporting a deficiency model of disability and reinforcing the notion that students who access the services are “needy and burdensome” (Kroeger & Kraus, 2017, p. 221). In order to reinforce disability as a form of diversity, actions taken by a DS office to promote a social model of disability may include (a) evaluating language in DS materials that reinforces a deficit model, (b) exploring service delivery practices that remove burdens not experienced by students without disabilities, (c) supporting faculty in implementing equalizing practices, such as Universal Design for Learning (UDL), (d) building relationships across campus to increase influence in decisions involving physical space and technology, and (e) developing and promoting opportunities for members of the community to explore disability from a social justice perspective, rather than one of pity.

It may be prudent for DS providers to collaborate with departments and faculty on campus who are intrinsically motivated to promote disability as a form
of diversity and work toward inclusivity and accessible instructional practices such as UDL (Myers et al., 2013). Finn, Getzel, Asselin, and Reilly (2015) highlighted the importance of partnerships across campus with administrative offices and individuals with positive reputations among faculty to successfully access faculty who might not otherwise demonstrate interest. Finding a common concern among faculty (e.g., lower student success rates, higher student attrition rates) that may best be addressed by accessible instructional practices may also be effective in implementing practices that support a diverse student body, including students with disabilities. Moore, Smith, Hollingshead, and Wojcik (2018) refer to this as “finding a ‘trojan horse’ to serve as a catalyst for change” (p. 42).

DS offices may also promote reframing the view of disability by reviewing the university structure under which these services are housed. Rather than including this as an entity under student affairs, housing these services in a diversity-focused department will aid in shifting perceptions away from the traditional medical model of disability (Aragon & Hoskins, 2017). Doing so reduces the stigma and supports the notion that disability is just one of the many forms of human diversity. In addition, overt campus-wide recognition of disability as part of a diverse student body may reduce the stigma perceived by students who may benefit from accommodations and perhaps help these students to feel more comfortable seeking accommodations. Further, recognition of disability as part of a diverse student body served in college classrooms may open the door to broader faculty implementation of UDL in college courses. Curriculum based on the UDL principles can benefit all students on campus (Burgstahler, 2015).

Also, individuals who are involved with campus diversity (e.g., hiring, student recruitment, course development) need to make active efforts to include disability in diversity initiatives (Higbee et al., 2010). O’Neil Green et al. (2017) outlined a framework to promote access as a means to include individuals with disabilities as part of a campus culture. The four-pronged approach features: (a) a steering committee comprised of stakeholders at all levels of the IHE to lead and guide efforts related to access; (b) an advisory committee with members from every campus department to ensure each area is well-connected with the campus access efforts; (c) working groups to identify barriers and promote access in different domains such as physical spaces on campus, employment, classroom instruction using the framework of UDL, etc.; and (d) a chairs coordinating group, which allows the heads from each working group to discuss projects and challenges related to their mission. As a result of these efforts by campus leaders and a more immediate improvement, the inclusion of disability/ability as part of the diversity and mission/vision statements could lead to enhanced inclusive efforts at IHEs (Myers et al., 2013). In addition, an expansion of the Association of American Colleges and Universities guiding principle of "making excellence inclusive" (AACU, n.d.) should be discussed to account for the inclusion of disabilities/abilities as part of these efforts.

IHEs may consider the development of programs designed to provide higher education opportunities for students with intellectual and developmental disabilities (IDDs). Such programs are becoming increasingly common on college and university campuses across the U.S. (Weir, Grigal, Hart, & Boyle, 2013). These programs are typically not degree-granting, but rather are focused on providing opportunities for individuals who may not meet the typical admissions criteria to participate in higher education (Grigal, Hart, & Weir, 2012). Providing integrated on-campus opportunities for students with IDDs may be an effective strategy for peers and staff to have genuine experiences with these individuals who are different from themselves. As the notion of intellectual disability is socially constructed (Banks, 2016), interaction amongst peers can be a factor influencing perceptions. If an IHE is truly interested in promoting diversity by representing a cross section of the population on their campus, individuals with IDDs must be included as well.

Finally, as results from this study suggest, IHEs with larger numbers of students with disabilities are more inclusive of disability as part of diversity in mission and diversity statements. As the number of students with disabilities who attend IHEs increase (U.S. Department of Education, 2016), we might anticipate increased recognition of disability as part of a diverse campus and increased efforts to reflect this view in university web-sites and documents. Ultimately, this results in a reciprocal relationship: universities who promote disability as part of a diverse campus may attract more students with disabilities; more students with disabilities on campus may drive a university to place a higher value of students with disabilities as a part of their student body.

**Implications for Future Research**

Future research should include a more comprehensive analysis of all IHEs as they relate to diversity (Wilson et al., 2012) and disability (Davis, 2011). With this in mind, a breakdown of type of institutions as well as differences between private and public IHEs could be helpful to better understand the
efforts being made to make the climate on campus more inclusive. In addition to the analysis of more data, other documents can also be analyzed to better answer these research questions (e.g., recruitment documents, admissions documents, disability/accommodations center information, faculty support and training, financial aid documents, evaluation criterion for accommodations). Also, the exploration of the impact of the addition of disability/ability language to diversity or mission/vision statements as it relates to the to the strength or support of disability services for students with disabilities attending IHEs. Finally, a mixed method study in which students with disabilities enrolled in IHEs discuss their views on the inclusivity of their campus in comparison to the mission/vision and diversity statements would be valuable.

Limitations

Limitations of the current study include the hand-sorting data collection based on the IHE’s website. Some websites did not include a clear avenue to their mission/vision statements or to their diversity statements. As a result, some instances of relevant information may have been inadvertently omitted during the data collection phase. Others may have used language that described their diversity statement (e.g., equity plan). Although the quantitative data collected was randomly selected, the randomization of the IHEs could lead to missed mission/vision statements that are more representative of the overall population. In addition, the search criteria included both private and public institutions in which public IHEs are held to a specific set of guidelines by the U.S. Department of Education than those private IHEs. Finally, qualitative data could have been interpreted differently if the experiences of the researchers were different.

Conclusion

IHEs in the U.S. value a diverse campus; opportunities to engage with peers from a variety of backgrounds enriches both the academic and social components of the college and university experience. These experiences are essential to the development of young adults into citizens of the world. While disability or ability is often not viewed as a dimension of diversity, IHEs should consider this as they work to develop a campus that provides a true representation of society. Including mention of disability in mission statements and diversity statements is meaningful; such actions identify the IHE as one who is willing to support disability as one of many forms of human difference.

References


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Table 1

Descriptive Statistics of IHE Mission Statements where Disability is Included

<table>
<thead>
<tr>
<th>Variable Description (%)</th>
<th>Overall Percentage (Number)</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHEs with population of students with disabilities (larger than 3%)</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>14.4 (2)</td>
</tr>
<tr>
<td>5</td>
<td>7.1 (1)</td>
</tr>
<tr>
<td>7</td>
<td>21.4 (3)</td>
</tr>
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<td>15</td>
<td>7.1 (1)</td>
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<td>7.1 (1)</td>
</tr>
<tr>
<td>100</td>
<td>7.1 (1)</td>
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<tr>
<td>Mideast</td>
<td>21.4 (3)</td>
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<tr>
<td>Great Lakes</td>
<td>14.3 (2)</td>
</tr>
<tr>
<td>Plains</td>
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</tr>
<tr>
<td>Southwest</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Rocky Mountains</td>
<td>14.3 (2)</td>
</tr>
<tr>
<td>Far West</td>
<td>14.3 (2)</td>
</tr>
<tr>
<td>Outlying Areas</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Carnegie Classification</td>
<td></td>
</tr>
<tr>
<td>Doctorate – Moderate Research</td>
<td>14.3 (2)</td>
</tr>
<tr>
<td>Masters – Large Program</td>
<td>35.7 (5)</td>
</tr>
<tr>
<td>Masters – Medium Program</td>
<td>7.1 (1)</td>
</tr>
<tr>
<td>Baccalaureate – Arts &amp; Sciences</td>
<td>14.3 (2)</td>
</tr>
<tr>
<td>Baccalaureate – Diverse Fields</td>
<td>7.1 (1)</td>
</tr>
<tr>
<td>Faith Related</td>
<td>14.3 (2)</td>
</tr>
<tr>
<td>Arts, Music, &amp; Design</td>
<td>7.1 (1)</td>
</tr>
<tr>
<td>Institution Size</td>
<td></td>
</tr>
<tr>
<td>Under 1,000 students</td>
<td>21.4 (3)</td>
</tr>
<tr>
<td>1,000 - 4,999 students</td>
<td>42.9 (6)</td>
</tr>
<tr>
<td>5,000 - 9,999 students</td>
<td>21.4 (3)</td>
</tr>
<tr>
<td>10,000 - 19,999 students</td>
<td>14.3 (2)</td>
</tr>
<tr>
<td>20,000 students or more</td>
<td>0 (0)</td>
</tr>
</tbody>
</table>

*Note. n=14.*
Table 2

*Descriptive Statistics of IHE Diversity Statements where Disability is Included*

<table>
<thead>
<tr>
<th>Variable Description</th>
<th>Overall Percentage</th>
</tr>
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<tbody>
<tr>
<td><strong>IHEs with population of students with disabilities (larger than 3%)</strong></td>
<td></td>
</tr>
<tr>
<td>4% - 9%</td>
<td>42.3 (27)</td>
</tr>
<tr>
<td>10% - 14%</td>
<td>9.4 (6)</td>
</tr>
<tr>
<td>15% - 20%</td>
<td>4.8 (3)</td>
</tr>
<tr>
<td>None reported</td>
<td>43.8 (28)</td>
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<tr>
<td><strong>Region</strong></td>
<td></td>
</tr>
<tr>
<td>New England</td>
<td>12.5 (8)</td>
</tr>
<tr>
<td>Mideast</td>
<td>18.8 (12)</td>
</tr>
<tr>
<td>Great Lakes</td>
<td>12.5 (8)</td>
</tr>
<tr>
<td>Plains</td>
<td>9.4 (6)</td>
</tr>
<tr>
<td>Plains</td>
<td>9.4 (6)</td>
</tr>
<tr>
<td>Plains</td>
<td>9.4 (6)</td>
</tr>
<tr>
<td>Southeast</td>
<td>15.6 (4)</td>
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<tr>
<td>Southeast</td>
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<td>Southwest</td>
<td>10.9 (7)</td>
</tr>
<tr>
<td>Rocky Mountains</td>
<td>6.3 (4)</td>
</tr>
<tr>
<td>Far West</td>
<td>14.1 (9)</td>
</tr>
<tr>
<td>Outlying Areas</td>
<td>0 (0)</td>
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<tr>
<td><strong>Carnegie Classification</strong></td>
<td></td>
</tr>
<tr>
<td>Baccalaureate/Associate's Colleges</td>
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<tr>
<td>Doctoral Universities: Highest Research Activity</td>
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</tr>
<tr>
<td>Doctoral Universities: Higher Research Activity</td>
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<tr>
<td>Doctoral Universities: Moderate Research Activity</td>
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<tr>
<td>Master's Colleges &amp; Universities: Larger Programs</td>
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<td>Master's Colleges &amp; Universities: Medium Programs</td>
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<tr>
<td>Master's Colleges &amp; Universities: Small Programs</td>
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<tr>
<td>Baccalaureate – Arts &amp; Sciences</td>
<td>21.9 (14)</td>
</tr>
<tr>
<td>Baccalaureate – Diverse Fields</td>
<td>6.3 (4)</td>
</tr>
<tr>
<td>Special Focus Four-Year: Medical Schools &amp; Center</td>
<td>3.1 (2)</td>
</tr>
<tr>
<td>Special Focus Four Year: Other Health Professions</td>
<td>1.6 (1)</td>
</tr>
<tr>
<td>Special Focus Four Year: Engineering Schools</td>
<td>1.6 (1)</td>
</tr>
<tr>
<td><strong>Institution Size</strong></td>
<td></td>
</tr>
<tr>
<td>Under 1,000 students</td>
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<td>18.8 (12)</td>
</tr>
<tr>
<td>20,000 students or more</td>
<td>15.6 (10)</td>
</tr>
</tbody>
</table>

*Note. n=68.*
Inclusive Postsecondary Education Programs of Study for Students with Intellectual Disability

Kathleen Becht¹
L. Danielle Roberts-Dahm²
Adam Meyer¹
Denise Giarrusso³
Ethel Still-Richardson³

Abstract

Researchers explored 11 of Florida’s inclusive postsecondary education programs (IPSE) for individuals with intellectual disability (ID), during the 2016 and 2017 academic years. The researchers sought to explore, through ethnographic inquiry, the nature of academic access as well as the programs of study available to students with ID within Florida’s IPSE programs. Researchers found the majority (73%; n=8) of IPSE programs in this study (n=11) housed at three universities, three community and state colleges, and two career technical colleges. These eight institutions provided inclusive programs of study where students were enrolled in two or more academically inclusive courses each semester. Three programs of study types emerged from the qualitative data: Liberal Arts, Career Technical, and Transitional. Each program of study type is described as well as the IPSE programs encompassed within each. Beyond student presence in college courses, data elements examined in this study include course progressions, availability of choice of study, service learning, co-curricular requirements and the diversity in and similarities between the three programs of study types. Researchers point to the need for further exploration of the diversity of IPSE programs, the need to operationalize and examine specific elements within IPSE programs, and the impact of credentials offered upon program of study.

Keywords: inclusive postsecondary education, intellectual disability, programs of study, academic access

Students with intellectual disability (ID) have been excluded from postsecondary education due to institutional barriers, stereotypes, low expectations, and lack of understanding by students and family members (Butler, Sheppard-Jones, Whaley, Harrison, & Osness, 2016; Grigal, Hart, & Migliore, 2011; Shogren & Plotner, 2012). They also lag behind their peers in all critical adult outcomes (Grigal et al., 2011). Grigal and colleagues contend it is often assumed that students with ID do not have the skills and abilities needed to access or benefit from college. Ross, Marcell, and Williams (2013) similarly note that students with ID experience dismal post-school outcomes and, as a disability group, are the least likely to participate in postsecondary education (Thoma et al., 2011). Students with ID attend postsecondary education, defined as any institution of higher education, including 2- and 4- year colleges and universities, at a rate of only 30%, compared to 56% of students with other disabilities (Grigal et al., 2011). Additionally, students with ID have higher rates of unemployment and underemployment, and earn lower wages than those in other disability categories and people without disabilities (Grigal, Hart, & Weir, 2012; Siperstein, Parker, & Drascher, 2013).

Fortunately, interest in postsecondary education for students with ID has recently grown, due in part to the increased inclusion of students with ID and other significant disabilities in K-12 education, coupled with a societal focus on postsecondary education as a desired outcome for all, and increased parental expectations for enrollment in postsecondary education (Butler et al., 2016; Blumberg, Carroll, & Petroff, 2008; Grigal, Migliore, & Hart, 2014). Additionally, the opportunity for students with ID to participate in postsecondary education alongside their peers

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has become an increasing reality, due to provisions within the 2008 reauthorization of the Higher Education Opportunity Act (HEOA; Cranston-Gingras et al., 2015). First, HEOA defined students with ID and removed the barriers associated with high school diploma achievement, often restricting this population’s enrollment in higher education. Next, HEOA amendments provided access to federal work-study funds, Pell Grants, and Supplemental Educational Opportunity Grants (Cranston-Gingras et al., 2015; Madaus, Kowitt, & Lalor, 2012). Finally, HEOA also authorized capital investment to develop and expand postsecondary education programs for students with ID through model demonstration programs and a national coordinating center (Lee, 2009).

Grigal and colleagues (2015) note the increasing numbers across the country of students with ID enrolling in and attending college and the crucial need to develop and implement quality inclusive postsecondary education (IPSE) programs for students with ID. McEathron Beuhring, Maynard, and Mavis (2013) contend that resultant of the recent changes, IPSE programs for students with ID are in a state of flux: new programs are in development, older programs are phasing out, and others are in the process of redevelopment.

Institutions are starting to take a deeper look at specific programmatic aspects that comprise the IPSE programs. For example, academic access, the core of any meaningful postsecondary education, remains a barrier for students with ID (Grigal, Hart, Papay, Domin, & Smith, 2017). In the Year Two Program Data Summary (2016-2017) of the TPSID Model Demonstration Projects, the National Coordinating Center (NCC) reported of 43 programs’ course enrollments for 659 students (Grigal, Hart, Papay, & Smith, 2018), 63% of the programs \( n = 28 \) were academically inclusive, where “at least 50% of course enrollments were in inclusive college courses attended by students with intellectual disability and other college students” (p. 6). Though this finding represents an increase from NCC’s Year One Program Data Summary (2015-2016) from the TPSID Model Demonstration Projects (Grigal, Hart, Papay, Domin, & Smith, 2017), where only 56% of 36 programs were academically inclusive, the amount of time an individual spends in an academic environment may not be a sufficient measure of inclusivity (Wehmeyer, Lattin, Lapp-Rincker, & Agran, 2003). What academic access exists beyond time-in-seat for students in IPSE programs?

While the question of academic access is not new for students with ID (e.g., Individuals with Disabilities Education Act [IDEA] of 1997) (Agran & Alper, 2002), it is new to the postsecondary arena. Hart (2006) identified three types of postsecondary education (PSE) access models: mixed/hybrid, substantially separate, and inclusive individual support. In the mixed/hybrid model, students with ID participate in both academic courses with students without disabilities as well as separate classes, in which only students with ID participate or are enrolled. In the substantially separate model, students with ID participate in classes designed only for students with ID on a college campus and are not enrolled in courses from the general course catalog. Finally, in the inclusive individual support model, students with ID are enrolled and/or participate in, “college courses, certificate programs, and/or degree programs, for audit or credit... [through] individualized services (e.g., educational coach, tutor, technology, natural supports)” (p. 1). In the inclusive individual support model, students with ID are enrolled in general college courses alongside peers without ID. While Hart (2006) provides a holistic lens of inclusion and belonging by utilizing courses, social activity, campus, and employment activities with peers without disabilities to define these models, the models remain focused on environmental access rather than academic access to the academic content.

McEathron and colleagues (2013) provide a greater depth of insight into PSE programs for students with intellectual and developmental disabilities through their development of a taxonomy of the characteristics of these PSE programs. In an iterative process of reviewing interview data, program materials, and survey responses from 21 programs, they constructed a taxonomy with four domains (organizational, admissions, support, and pedagogical), 16 components, and more than 100 elements. Within the pedagogical domain, the researchers identified four academic elements of course integration and selection and types of credits and credentials offered. While there was no identification of programs of study available for this population, this taxonomy did provide the first mechanism through which a PSE program’s components could be compared and understood. A number of McEathron and colleagues’ academic elements were identified and explored in this study.

To date, there has been little research on academic access to college courses, coursework, and the programs of study available to students with ID (Becht, Blades, Burke, & Agarwal, 2020; Neubert, Moon, Grigal, & Redd, 2002; Thoma et al., 2011). Becht and colleagues (2018) conducted a systematic literature review to identify academic access to and progress in college coursework between 1987 and 2017, identifying only four studies that explored methods...
in which students with ID were accessing their college coursework. In a broader review of the literature on postsecondary education for students with ID, Thoma and colleagues’ (2011) found, “little detail and shared understanding of the nature, goals, and objectives of the various PSE approaches and/or pathways” (p. 187). Becht and colleagues and Thoma and colleagues’ reviews support the need for more information regarding the IPSE’s programs of study. How are students with ID accessing college coursework? What are the programs of study students with ID are pursuing? Understanding this area of IPSE, and, indeed, responding to this gap in the literature, are crucial to the growth and future of IPSE for students with ID.

Academic Access

Closely aligned to Hart’s (2006) inclusive individual support model, the HEOA of 2008 identifies academic access for students with ID who attend comprehensive transition and postsecondary (CTP) programs as a focus on academic components through enrollment or auditing of courses alongside students without disability, offered by the institution, and/or participation in internships or work-based training. The intention of the CTP designation is “to support students with intellectual disabilities who are seeking to continue academic, career and technical, and independent living instruction at an institution of higher education in order to prepare for gainful employment” (HEOA of 2008, 20 USC § 1140 Sec 760(1)(B)). The amount of academic access is also defined as “not less than a half-time basis” (HEOA of 2008, 20 USC § 1140 Sec 760(1)(D)). Academic access, in postsecondary programs, was further delineated by Grigal and colleagues (2015) through the terms academically inclusive courses to describe “college classes that are a part of the typical college course catalog and are available to all students in the college” and academically specialized courses to describe “courses that have been designed for, and are only attended by, students with intellectual disabilities” (p. 15). The term “Inclusive Postsecondary Education (IPSE)” program is used in this article to mean a program which endeavors to meet the CTP guidelines, and at a minimum enrolls students with ID in not less than a half-time basis in college courses alongside peers without ID, but may or may not have attained CTP approval by the U. S. Department of Education.

Framed through a holistic lens, academic access encompasses more than the courses a student attends. Academic access is embedded within the program of study and programmatic expectations of the IPSE program and the institution of higher education (IHE) in which the program is housed. McEathron and colleagues’ (2013) taxonomy of PSE programs supports this holistic view and programmatic expectations in their academic elements within the Pedagogical domain of course integration, course selection, types of credits, and types of credentials.

Florida’s Consortium on Inclusive Higher Education (FCIHE)

Since 2010, Florida has been a leader in developing and expanding IPSE programs for citizens with ID. Florida IHEs have been awarded two iterations of Model Comprehensive Transition and Postsecondary Program for Students with Intellectual Disabilities (TPSID) funding under the HEOA of 2008 and utilized this grant opportunity to form a consortium with the goals of IPSE development, enhancement, and research throughout the state. The current TPSID grant, the Florida Consortium on Inclusive Higher Education (FCIHE), identified three objectives, one of which focuses on providing technical assistance and training toward IPSE development and enhancement. The Consortium, housed at the University of Central Florida (UCF), is comprised of four IHEs: UCF, University of South Florida St. Petersburg (USFSP), Florida International University (FIU), and Florida State College at Jacksonville (FSCJ). IPSE momentum in Florida has also been influenced by vigorous parent advocacy and progressive state legislation resulting in the Florida Center for Students with Unique Abilities that provides leadership in IPSE, student scholarships, and program development grants to eligible IHEs.

Methodology

The authors investigated 11 IPSE programs to explore the academic access afforded students with ID and the IPSE programs’ subsequent programs of study. Ethnographic research is one of the earliest traditions to explore patterns within culture groups (Hays & Wood, 2011). In this study, researchers explored the IPSE cultures from the perspective of the staff. Multiple sources of information (site visits, semi-structured interviews, and program documents) were utilized to enable data saturation (Fusch & Ness, 2015) while exploring the shared and divergent patterns among the IPSE programs. The researchers sought to answer the following questions:

1. What does academic access look like in IPSE programs?
2. What programs of study are available to students with ID in IPSE programs?
Researchers as Instrument
In this section, the authors strive to demonstrate trustworthiness through the process of researcher reflexivity. In such, the researcher discloses possible personal assumptions and biases (Brantlinger, Jimenez, Klingner, Pugn, & Richardson, 2005) in order to acknowledge the possible effect on the data collection and analysis. The primary researchers involved in the analysis and peer review detail their perspectives and potential biases in this section. The first author brings 30 years of experience as an educator and advocate, as well as a social justice and familial bias toward the need for academic access for students with ID. As the director of the Florida Consortium on Inclusive Higher Education (TPSID grant), the author is passionate about students with ID succeeding in college. She watches her 28-year old son, currently enrolled in his second year of a three-year IPSE program, proudly identify his dorm room as his apartment and “home.” She believes that with today’s instructional and digital technologies, students with ID have the opportunity to learn much from the core content of their college courses irrespective of suppressed reading levels.

The second author has worked with the Florida Consortium and her IHE’s IPSE program since 2010 as mentor, program coordinator, and director. She has provided technical assistance to IHEs throughout Florida and the southeast, and is familiar with the programs in this study. A key assumption held by the second author is that academic access through inclusive coursework is a critical component of IPSE programs that lead to positive post-school outcomes of improved employment, independence, and quality of life. She is particularly interested in identifying the specific IPSE program components that facilitate positive post-school outcomes.

Sampling
Sixteen (16) Florida programs were identified through purposeful homogeneous sampling, where “the researcher purposefully identified individuals or sites based on membership in a subgroup that has defining characteristics” (Creswell, 2012, p. 208). Two defining characteristics for program inclusion were used in this study: (1) students with ID were enrolled in an IPSE program located on the IHE campus, and (2) students with ID were enrolled in academically inclusive college courses (Grigal et al., 2015). Participant programs were identified through the researchers’ previous and ongoing statewide technical assistance, conference attendance, and outreach associated with Consortium activities. Researchers collected data from 16 Florida IHEs through structured questionnaires sent via email, site visits, phone and in-person semi-structured interviews, and program-related documents. Five (5) programs were excluded from the study after determining, through interview and questionnaire data, that the students with ID were not attending any academically inclusive college classes. The 11 programs that met the characteristics were at IHEs that ranged from large, metropolitan to suburban and rural institutions and included five universities (U1 - U5), four community/state (C/S1 - C/S4) colleges, and two career/technical (C/T1 - C/T2) colleges.

Table 1 reflects descriptive and demographic data collected during the 2016 and 2017 academic years. The student numbers represent attendance during a one-year period, either 2016 or 2017 academic years, and ranged from 2 (C/T1) to 31 students (U4). While all programs served students with ID, the methods of documentation varied including an Individual Education Program (IEP) document, medical, or psychological documentation. Additional eligibility requirements included high school completion; independence measures (e.g., ability to navigate campus, manage medication and behaviors); desire to attend college; and IEP goal attainment (for currently enrolled students).

The programs ranged from one to 11 years in existence. Two programs served only students between the ages of 18-22, through concurrent enrollment in the secondary education and PSE systems. These programs relied on supports provided through IDEA funds. Five programs served only PSE students, students who exited the secondary education system and were no longer funded through IDEA. Four programs served both categories of students – concurrent enrollment and PSE enrollment only. As a result, the student age requirements varied considerably from no age limit to a minimum of 18 and a maximum of 30.

The final column, Program Approvals, refers to two sets of guidelines that Florida’s IPSE programs strive to meet: the federal Comprehensive Transition and Postsecondary Program (CTP) and the Florida Postsecondary Comprehensive Transition Program (FPCTP). Students who attend CTP approved programs are eligible for federal financial aid through the Free Application for Federal Student Aid (FAFSA). The FPCTP, developed and funded by the Florida State legislature and modeled on the CTP, enables students in FPCTP approved programs to access annual scholarship funds through the Florida Center for Students with Unique Abilities. Without one or both of these approvals, students attending Florida’s IPSE programs cannot access federal or state financial assistance.
Data Collection

We collected data from three sources, enabling a methodological triangulation of data during analysis and strengthening the measure of trustworthiness (Brantlinger et al., 2005; Fusch & Ness, 2015). Data sources included semi-structured interviews, both on-site and phone, site visitation, and program documentation (e.g., student program handbooks, student applications, student progress charts, program publications, and websites). Data sources were coded and identified by such when quoted or referenced (e.g., “CT2PS17” refers to the IHE code “CT2,” a document named PS [Program of Study], and the year 2017). Self-administered questionnaires were emailed to 16 program directors in the spring of 2016. Sixteen questionnaires were completed and followed up with site or phone interviews by the spring of 2017. Program directors were the primary informants, though participants interviewed included school district staff and PSE faculty. Where questionnaires were not returned within four weeks, follow up phone calls and site visits were conducted. These questionnaires were most often completed through a phone interview. To ensure the information obtained through follow-up interviews was accurate, the first author returned edited questionnaires to IPSE program directors as a method of member checking (Creswell, 2012). Students were not interviewed and researchers collected no student specific data.

The interviews began with emailed questionnaires (Fontana & Frey, 2000) sent via a Microsoft Word document with short-answer open- and closed-ended questions and extended-answer open-ended questions. Thirty short-answer structured and semi-structured open-ended questions were included for this study. The questions included date of program inception; length; student eligibility; the number of academically inclusive, academically specialized, and reverse inclusion courses students take per semester; the number of courses required for program completion; and open-ended questions regarding program description, goals, curriculum, and course progression. The term program of study was not intentionally used in the questionnaire or during the interviews.

The first author visited 14 of the 16 programs to allow detailed and nuanced follow-up questions (Fontana & Frey, 2000). Due to time constraints within each program’s academic calendar (holidays, breaks, finals week), two programs were not visited. The site visits lasted between three to five hours, and included office meetings, campus tours, and instructional observations. The first author followed up by phone and email for additional clarification of program information where necessary. Data saturation was obtained through the lens of the multiple programs rather than extended time at any one program.

Documents were collected to further illuminate the questionnaires and interview information (Bowen, 2009). Program directors were asked to share documents related to program information, program description, student handbooks, programs of study, program website information, and federal Comprehensive Transition Program (CTP) applications, if applicable/available. Documents were reviewed for evidence or components of programs of study and academic access to academically inclusive coursework available for students with ID.

Data Analysis

Data from all three sources were compiled into charts organized by question and then, through constant comparative analysis (Glaser, 1965) into programs of study types. As the charted data were reviewed and summarized, and the program of study types began to emerge, the IPSE program documents were explored to further delineate, confirm, or disconfirm (Bowen, 2009) the emergent typology. This often led to more detailed comparison of the various components of the programs of study. The first researcher sought peer confirmation as well as member checking regarding the identified typology of the IHEs’ programs of study. The second researcher, not engaged in the data collection, provided peer review and feedback (Creswell & Miller, 2000). An external auditor and researcher in the field of inclusive postsecondary education reviewed the results to provide insight and feedback.

Results

Two questions were explored in this study:

1. What does academic access look like in IPSE programs?
2. What programs of study are available to students with ID in IPSE programs?

A holistic lens was used to view students’ with ID academic access by exploring students’ physical presence as well as the required and elective college coursework, workshops, activities, and internships identified as a part of the IPSE program, and the type of IHE in which each was housed. Only the 11 programs that met the sampling criteria throughout data collection or after initial informational interviews were included in this analysis.
Academic Access

The expected enrollment of students with ID and physical presence in general college courses were tallied in order to begin to answer the first research question, "What does academic access look like in IPSE programs?" Analysis of the data presented a noticeable variability in the number of academically inclusive courses in which students with ID enrolled. For some programs, academic access was dependent upon students’ preferences and goals while other IPSE programs were dependent upon the IHE’s program goals and philosophy. For example, one C/S college had a number of program options for students with ID, from nearly all academically specialized courses to a combination of specialized courses and one or two academically inclusive courses, to all academically inclusive courses, allowing students and families to choose a “best fit” program of study. At all but one of the universities, however, students with ID enrolled in primarily academically inclusive coursework every semester.

Figure 1 represents a continuum of academic course enrollment from academically specialized to academically inclusive. The five universities in the study were coded U1-5, the four community and state colleges were coded C/S1-4, and the two career/technical colleges were coded C/T1-2. Of the 11 IPSE programs analyzed, 18% (n=2) offered academically specialized courses, where students with ID were enrolled in one or two general college course electives across the length of the program (less than one each semester) and 36% (n=4) offered students enrollment in one general college course per semester. The majority of the IHEs surveyed (n=8, 73%) provided a high degree of academically inclusive access where students with ID were enrolled in two or more courses each semester and constituted over 50% of their program of study. Two of the IHEs (C/S1 & C/S2) provided more than one type of program of study (noted by an asterisk) and are represented in the figure more than once, resulting in a percentage total greater than 100.

Programs of Study

As any prospective student will tell you when visiting colleges, each institution varies by size, feel (culture and demographics), the program of study, credentials available (majors and minors), and subsequent options and expectations unique to the campus. While size and feel are important, it is the program of study that must first align with the student’s needs and goals. This should be no different for a prospective student with ID.

Questionnaire, interview, and document data of the 11 IPSE programs provided a comprehensive view of the academic access and expectations of the programs of study for students with ID in Florida. Throughout this study, researchers realized a lack of agreement in terminology; curriculum and program of study were used to mean the same thing at different institutions. Program of study was defined by one informant as “limited to a student’s course progression” (CS2I16). Program of study is defined in this study as a comprehensive structured framework of academic coursework and co-curricular activities and expectations (which may include vocational, social, and independent living components) such as service-learning, mentoring, and career education, leading to a credential (McEathron et al., 2013).

Three overlapping types of programs of study emerged from the data: (1) Liberal Arts, (2) Career Technical, and (3) Transitional. Figure 2 depicts the three programs of study types and the corresponding IPSE programs in each. The program of study types are composites drawn from the collective data rather than a program of study at any one institution. An overview of each type is described below, including details and differences within the program of study types and the corresponding credentials awarded from each.

The Liberal Arts program of study type emerged from two- to four-year programs in which students were offered an array of subjects from which they learned general knowledge and earned certificates of completion. The Career Technical type emerged from one- to two-year programs in which students were offered specific knowledge in one of a number of industry or subject areas and earned either partial or full completion of industry requirements and potential industry certification (depending upon full completion and industry licensure requirement). The Transitional type was found in one- to three-year programs in which students earned a university certificate or industry certificate.

In the following sections, the descriptions of the three Program of Study types include course unit requirements, program of study components, and credentials earned. The course requirements were the primary determiners of the type of program of study. It is interesting to note that four of the five universities offered Liberal Arts programs of study, while C/S colleges housed both Career Technical and Transitional program of study. Finally, C/T colleges focused solely on the Career Technical program of study. The following sections provide further detail of the programs within each type.
Liberal arts. The term liberal arts is used to reflect an academically focused course of study encompassing a general knowledge of an array of subjects (e.g., the arts, humanities, natural sciences, and social sciences) rather than specific technical knowledge (“liberal arts,” n.d.). The Liberal Arts program of study emerged primarily on university campuses (4), with the exception of one at a C/S college campus, and identified as a non-degree seeking programs. All but one IHE enrolled students with ID in two or more academically inclusive general college classes each semester.

Credit unit requirements. Each Liberal Arts program of study required students with ID to take a defined number of courses in core areas, electives, and career-focused courses, as well as co-curricular requirements in employment experiences or internships and campus activities. Programs ranged from one to four years, reflecting both fixed and flexible lengths. The number of units required for completion varied widely by institution, from 12 units in a 1-year program to 44 units in a 4-year program. In some programs, credit units were also given for co-curricular activities such as internships and campus activities and workshops.

Program of study components. Most students in the Liberal Arts program of study audited their courses. The term credit units, is used here to refer to the number of course hours taken rather than credits earned. As evidenced in Table 2, the Liberal Arts programs of study included some combination of co-curricular activities, such as service learning (employment, volunteer, or campus club involvement) mentoring, tutoring, and online curricula. A few of the IHEs tracked co-curricular activities through institutional credit units as required components of the program of study.

Credentials. Students with ID who completed the Liberal Arts program of study earned a certificate of completion at four of the five IHEs. One IHE’s program was newly established and had not yet defined the type of certificate the students would earn. In every instance within this type, the certificates were awarded by the program rather than the IHE, meaning they were not recognized by the IHE.

Career Technical. Career Technical is used to define a program of study that reflects an academically inclusive postsecondary adult vocational (PSAV) program or specific skill designed to instill specific technical knowledge in a chosen vocational field. In Florida, a PSAV program consists of a series of courses that prepare students for entry-level employment in specific career fields. The Career Technical program of study emerged at five IHEs: three at C/S colleges and two at C/T colleges. The Career Technical program of study was generally completed in one to two years, depending upon the Industry chosen or additional time needed to complete the requirements. Table 3 presents the variety of academically inclusive and academically specialized Career Technical programs and certificates available through the Career Technical program of study.

Access to the Career Technical program of study varied greatly by IHE. Industry programs of study included Nursing Assistant, Auto Collision Repair, Child Care, Culinary Arts, Commercial Driving, Diesel Engine Repair, Electrical, Facial Specialty Massage Therapy, Refrigeration Air Conditioning and Heating, and Welding, Customer Service, Creative Arts, National Retail, Cardiopulmonary Resuscitation (CPR), and ServSafe. While three of the IHEs imposed few limits on students’ (with ID) access to Career Technical programs of study, two limited the programs of study. One IHE limited students to industries such as Creative Arts and Hospitality, where extra supports and strategies were provided (C/T2) and another IHE limited students to discrete certificates such as CPR, First Aid, and Red Carpet Customer Training (C/S3), where they felt students could be the most successful.

While each of the five Career Technical programs of study offered academically inclusive programs of study in which students were taking courses for industry certification alongside their peers without disabilities, two also offered an academically specialized program of study (C/S2 and C/S3) in which only students with disability were enrolled.

One IHE (C/S2), encouraged students with ID to enroll in academically specialized PSAV noncredit courses as a prerequisite or in conjunction with their credit-bearing PSAV standard industry courses to gain a broad entry-level of skills and the support necessary to succeed in the standard PSAV Industry courses. Another IHE (C/S1) utilized a standard academically inclusive Industry certification National Retail Certification (NRC), embedded supports and skills, and identified it as a prerequisite certification required of all students with ID. Once students achieved the NRC, which occurred in the first year, they were able to move on to additional Career Technical programs of study. The reader should note that the NRC is listed under the academically specialized program because the standard courses were revised and redeveloped specifically to support students’ (with ID) access to the content. All students were expected to pass the NRC exam.

Credit and noncredit requirements. Four of the five IHEs with Career Technical programs of study used the Florida Department of Education (FLDOE;
Standard PSAV Curriculum Frameworks to identify the Career Technical credit requirements for each Career Technical program of study offered. Students enrolled in a standard Career Technical program of study and took courses for credit to earn the FLDOE requirements. Licensing exam requirements were individual to the industry, some a requirement, others not.

For example, one of the Career Technical programs of study offered was 3-D Animation comprised of four required courses (FLDOE; 2018b). Students with ID enrolled in 3-D Animation were required to successfully complete each course and each standard within the course in order to receive the Career Technical certificate. Students used accommodations to access the material including text-to-speech technology or supplemental supports such as YouTube videos to facilitate learning but the course content could not be modified.

The fifth IHE (C/S3), that housed an Career Technical program of study, focused on vocational preparation skills rather than the PSAV Curriculum Frameworks and identified discrete certificates, generally requiring only one course each, such as First Aid, Cardiopulmonary Resuscitation, and Red Carpet Customer Training. Students were required to take a vocational preparation workshop each semester from an offered series. Students also took Adult Education and Continuing Education courses on campus (e.g., Art, Child Care, ServSafe Food/Nutrition, Reading and Civics) and incorporated a ‘mini-audit’ of a college course or in a vocational area each semester (e.g., sociology, automotive, welding, health care). The mini-audit allowed students to visit the class as much as they wanted without formally enrolling in the course or responsible for content.

In addition to the program of study credit requirements, a number of the Career Technical programs of study also included noncredit or institutional credit unit requirements, including internships, campus activities, tutoring, and online modules. Three Career Technical programs of study required students to participate in face-to-face and online workshops or modules on self-determination (Standing Up for Me), customer service (Skills USA Customer Service Certificate), social skills, life skills, counseling, and tutoring, as well as participation in a school-based enterprise and social or recreational college inclusion activities.

Credentials. Student progress within the Career Technical program of study was measured by the successful completion of requirements within each course. The programs are approved by each industry and students receive certification upon successful completion of all requirements and licensure upon successful completion of the industry licensure test, when required. The following are some examples of recognized industry certificates students earned between the 2016-2017 academic year: Automotive and Collision Repair Workforce Certificate (Standard); Career Education Workforce Certificate (students with disabilities only); Childcare (Standard); and Welding (Standard).

One IHE (C/T2) allowed partial requirement completion to be considered a successful completer, employable in their field, and received a Program Completion Certificate. Additionally, students were not required to pass the industry certification exam to be a program completer (CT:PS17). The C/T college felt strongly that their students were employable with the skills they have mastered without achieving the industry recognized credential.

Transitional. Transitional is used in this study to describe a program of study that reflects a convergence of life skills required to successfully transition to adult life such as independence, employability, self-determination, and/or civic participation rather than a specific field or career. “Students have the opportunity to take classes to increase their employment readiness, their independent living skills, and their ability to advocate for themselves” (U1:HB16, p. 3). The Transitional program of study emerged from two IHEs; one at a university (U1) and one at a C/S college (C/S2). The programs of study differed significantly at each institution and ranged between one to two years in duration.

C/S2 designed a program of study for students (with a disability) undecided in their career goal, “allow[ing] students to pursue a credential in Career Education [and covering]... career planning, soft skills, advocacy, academic skills, and specific employment training through on and off campus internships” (CS:PS16, p. 2). The program of study included a sequence of five non-credit-bearing courses (Orientation to Campus, Career Exploration, Advanced Training in Related Occupations, and Internship), up to 12-hour units of academically inclusive electives and a variety of campus workshops as required co-curricular activities. The 12 credit units of general college courses were expected to focus on a career interest as an area of career specialization (CS:PS16).

U1 offered three Transitional programs of study (Supported Employment, Supported Community Living, and Supported Community Access), designed specifically for “individuals with developmental disabilities ...to develop their academic, vocational, and social skills at the postsecondary level” (U1:PS16, p. 2). Of note is that U1 was the only university in which students’ certificates were earned primarily through...
credit-bearing academically specialized courses, though students did audit one to two academically inclusive courses over the two-year program. Each program of study at University included a sequence of 11 academically specialized credit-bearing courses, two academically specialized credit-bearing electives, one to two academically inclusive audited courses, service learning, and campus activity requirements. General requirements for each of the three programs of study included courses such as Increasing Personal Effectiveness, Career Exploration, Learning with Technology and Health Fitness for Life.

Credentials. Students who completed any of University’s three programs of study earned a university recognized certificate. C/S offered an FLDOE approved PSAV Career Education Workforce Certificate, designed for students with disability still undecided in their career goal.

Conclusion

In this ethnographic study, we explored academic access for students with ID in 11 of Florida’s inclusive postsecondary education programs. Two questions guided this inquiry: (1) What does academic access look like in IPSE programs, and (2) What programs of study are available to students with ID in IPSE programs? A holistic lens was used to view students’ access to academics as embedded within the program of study. Academic access was evidenced through physical presence in college courses and required co-curricular activities such as mentoring, campus social activities, and non-credit workshops.

Seventy-three percent of Florida’s IPSE programs expected students with ID to be enrolled in two or more general catalog courses each semester. This level of academic inclusivity is slightly above Grigal and colleagues’ most recent report of 63% of TPSID programs that provide academically inclusive programs (2018). Course enrollment however, as a measure of academic access, is only a measure of students’ presence in academically inclusive courses and does not account for academic engagement, success, self-determination, or the intentional access strategies and supports provided (Dukes, Madaus, Faggella-Luby, Lombardi, and Gelbar, 2017). Research is needed to explore the engagement and support mechanisms that allow students with ID to learn and progress in the general college courses as well as the requisite self-determination and the co-curricular college activities.

Three types of programs of study emerged from Florida’s IPSE programs: Liberal Arts, Career Technical, and Transitional. In general, the Liberal Arts and Career Technical programs of study provided the most opportunity and expectation of academic access alongside peers without disability through inclusive course enrollment. While the Transitional programs of study reflected less expectation of academic access alongside their peers without disability, it focused on evidence-based practices and predictors of post-school success such as youth autonomy, social skills and self-determination (National Technical Assistance Center on Transition, 2015). The diversity in the programs of study offered provides students with options when choosing an IPSE program, though such diversity also creates confusion in student expectations and completion outcomes. Further, inquiry into the program of study typology and student employment outcome data is necessary to identify efficacy of the programs of study types.

Outcome credentials varied across the three program of study types in both credit units earned and certificate sources. Where students enrolled in credit-bearing courses, the industry or institution awarded a recognized certificate. Where students audited or took non-credit courses, the programs awarded a non-recognized certificate. In four of the five Liberal Arts programs of study, the credential was earned through audited or non-credit courses, identified as a non-university recognized “certificate of completion” and awarded locally by the IPSE.

While the Career Technical program of study was the only one to offer partial or complete alignment to existing recognized credentials, IPSE programs that fell in this type also awarded completion and workforce certificates. Some programs offered a number of outcome levels. This flexibility in certificate outcomes was dependent upon the industry chosen, whether courses were taken for credit or audit, and the number of requirements the student was able to meet. For example, students who enrolled in an Career Technical program of study for credit and met all the requirements earned industry standard certifications in areas such as child care, welding, auto collision repair, national retail, 3-D animation, and ServSafe. Students who enrolled in an Career Technical program of study and audited courses earned certificates of completion.

The credentials awarded within the Transitional programs of study were unique to students with a disability and awarded by the IPSE program rather than the IHE. One university established three credentials based upon primarily credited, though academically specialized, college courses and a C/S college awarded a non-credit academically specialized workforce certificate.
Employment outcome data is needed from each of these programs of study to identify efficacy. Finally, the predominance of auditing or visiting courses in the universities and state and community colleges, instead of credit-bearing courses, also creates confusion regarding just how to measure progress for this population in PSE and raises the question of the expectations for this population in PSE. Do we expect these students to be able to access and progress in the college content or are we, as Grigal, Hart, Smith, Domin, and Weir (2017) suggest, “reinforce [ing] the widespread presumption that students with ID cannot succeed in typical classes” (p. 19)?

Research is needed to facilitate guidance towards programs of study, what to expect of students with ID in audited courses and how to support students to succeed in the expectations and identifiable accountability measures. Additionally, research is needed to move the field forward toward valid measures of student engagement and learning in PSE. Academic access and subsequent progress is a core metric of success for students without ID, through grade point averages (GPA) and Student Academic Progress (SAP) measures. Academic progress must be one of the core metrics by which true access and progress for students with ID is identified. Research is needed to understand academic access for students with ID at a deeper level, both access to the course content and the students’ growth within the content. Physical presence on and access to college campuses for students with ID is not education. We must validate the programs of study offered through IPSE opportunities by strengthening the access to and measuring the progress in the course content.

The implications of this study point toward a few critical choices for the field. How committed are we, as a field, to academic access for students with ID at the postsecondary level? How will we choose to define academic inclusivity? Are we to limit options for students with ID to focus on technical educational options (Williams, 1989)? We are at a crucial juncture in expansion and sustainability of inclusive postsecondary education programs and the way in which the field will define IPSE programs, whether as a physical location or as access to and progress in content and learning with nondisabled peers, will have a profound impact on current and future students and programs. Students with ID are enrolling in academic college coursework across the country through planned individualized supports and intentional academic access (Grigal et al., 2011). If students with ID are to fully access higher education, then academic access for these students must be intentionally planned, progress measured, and outcomes reported.

**Limitations**

The decisions made in designing this study and throughout the data collection and analysis undeniably led to limitations. First, is the recognition that, IPSE is an evolving field and the data from this study provides only a snapshot in time: a static understanding of programs during the time in which the data were collected (2016 and 2017 academic years) (Meathron et al., 2013; Thoma, 2013). Florida’s IPSE programs are experiencing ongoing program improvement and evolution. For example, since these data were gathered, one university program closed, another expanded their program of study available for students with ID, and at least three have restaffed nearly their entire programs resulting in some cases significant programmatic changes. Correspondingly, though many of Florida’s IPSE programs were included in this study, this sample does not represent all of Florida’s IPSE programs.

Grigal and colleagues’ (2015) definition of academically inclusive courses was used to define academic inclusivity. Subsequently, the work-based training component addressed in HEOA as one of the components of academic participation was not included in the inclusivity rating within this study. This may have unintentionally decreased some program’s academic inclusivity ratings.

As a qualitative study, the results are not generalizable to other regions of the country but rather, are particularizable through the details and depth of the study results. To enable the emergence of the diversity of programs across the state, we chose to saturate the data across a larger number of sites instead of within a few sites. This choice was made at the expense of thick description and data saturation at each site. As such, readers should interpret the results with this caution in mind. Additionally, the finding of only two programs represented in the Transitional program of study type, may have been the result of the lack of thick description. The Transitional program of study type should be explored further.

Given that, the primary understanding of IPSE programs stemmed from each researcher’s experiences with their own IPSE programs, it is possible that bias was not completely bracketed. Additionally, the diversity of the programs of study and the IPSE programs and institutions themselves, at times, presented difficulties in understanding and representing the various program components. Fontana and Frey’s (2000) musings, “asking questions and getting answers is a much harder task than it may seem at first. The spoken or written word has always a residue of ambiguity, no matter how carefully we word the questions” described the challenges well (p. 61). Challenges primarily re-
lated to the lack of common terminology across the program types and the vast programmatic differences in universities, state colleges, and career/technical colleges. For example, the phrase “program of study” was met with varied interpretations from academic coursework alone to the entire outline of an IPSE program’s activities and requirements. Finally, the authors strived to check data for accuracy through member checks and peer review, the differences in procedures, protocols, and programs between universities, state and career/technical colleges added to the complexity of the data.

References


**About the Authors**

Kathleen Becht received her B.A. degree in special education from Indiana University and Ph.D. in exceptional education from the University of Central Florida. Her experience includes teaching students with disabilities for 10 years in New York and Florida and advocating for and with students and families of children with disabilities for 25 years throughout Central Florida community and public school agencies. She is currently a Director of the Florida Consortium on Inclusive Higher Education at the University of Central Florida. Her research interests include academic access and progress through literacy for students with intellectual disability. She can be reached by email at: Kathleen.Becht@ucf.edu.
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Table 1

Descriptive Program Data by IHE

<table>
<thead>
<tr>
<th>IHE Code</th>
<th>Program Inception</th>
<th># of Students</th>
<th>Age Requirements</th>
<th>Served</th>
<th>Eligibility Requirements</th>
<th>Additional Requirements</th>
<th>Program Length (Y)</th>
<th>Program Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td>U1</td>
<td>2016</td>
<td>8</td>
<td>18^</td>
<td>PSE</td>
<td>Documented, ID/DD</td>
<td>Completed K-12, Navigate campus and meet personal needs</td>
<td>2-4</td>
<td>CTP &amp; FPCTP</td>
</tr>
<tr>
<td>U2</td>
<td>2011</td>
<td>30</td>
<td>18-22</td>
<td>CE</td>
<td>ID, enrolled K-12</td>
<td>Working on transition IEP goals</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>U3</td>
<td>2015</td>
<td>10</td>
<td>No Age Limit</td>
<td>PSE</td>
<td>Documented ID</td>
<td>Completed K-12, Student’s desire to attend college, Learn to function independently on campus</td>
<td>3</td>
<td>FPCTP</td>
</tr>
<tr>
<td>U4</td>
<td>2006</td>
<td>31</td>
<td>18</td>
<td>CE &amp; PSE</td>
<td>Documented ID, was eligible for special education services</td>
<td>Student’s desire to attend college, navigate campus and manage and administer medicine</td>
<td>2-4</td>
<td></td>
</tr>
<tr>
<td>U5</td>
<td>2010</td>
<td>7</td>
<td>18-22</td>
<td>CE</td>
<td>Documented ID, enrolled K-12</td>
<td>Student’s desire to attend college, willingness to learn public transportation</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>C/T1</td>
<td>2014</td>
<td>2</td>
<td>18-24^</td>
<td>CE &amp; PSE</td>
<td>Documented ID or DD (IEP/doctor)</td>
<td>Independent, does not require 1:1 instruction</td>
<td>1-2</td>
<td>CTP &amp; FPCTP</td>
</tr>
<tr>
<td>C/T2</td>
<td>2015</td>
<td>4</td>
<td>18-23</td>
<td>PSE</td>
<td>Documented ID, Standard or Access Diploma</td>
<td>Independent in Self-care, self-reliance, ability to access transportation to school.</td>
<td>2-3</td>
<td>FPCTP</td>
</tr>
<tr>
<td>C/S1</td>
<td>2009</td>
<td>9</td>
<td>None</td>
<td>CE &amp; PSE</td>
<td>Documented ID, IEP</td>
<td>Independent self-care, behavior management, May not require 1:1 supervision</td>
<td>1-3</td>
<td>FPCTP</td>
</tr>
<tr>
<td>C/S2</td>
<td>2011</td>
<td>21</td>
<td>18^</td>
<td>CE &amp; PSE</td>
<td>Documented ID, Standard or Access Diploma</td>
<td>Navigate to / from campus (commuter school), bring or purchase meals and attend scheduled classes.</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>C/S3</td>
<td>2013</td>
<td>6</td>
<td>18-30</td>
<td>PSE</td>
<td>IQ&lt;70, Documented ID, No Standard Diploma</td>
<td>Navigate campus, Effective communication, handle stress, demonstrate benefit and behavior consistent with college expectations</td>
<td>1-2</td>
<td>FPCTP</td>
</tr>
<tr>
<td>C/S4</td>
<td>2013</td>
<td>5</td>
<td>18^</td>
<td>PSE</td>
<td>Completed K-12, Documented ID</td>
<td>Independent in adult daily living needs, No evidence of aggressive behavior</td>
<td>1-2</td>
<td></td>
</tr>
</tbody>
</table>

Note. IEP = Individual Education Program, ID = intellectual disability, CE = concurrent enrollment, PSE = postsecondary education only.
Table 2

*Liberal Arts Programs of Study*

<table>
<thead>
<tr>
<th>Components</th>
<th>U₂</th>
<th>U₃</th>
<th>U₄</th>
<th>U₅</th>
<th>C/S₄</th>
</tr>
</thead>
<tbody>
<tr>
<td>Required Courses (Audited)</td>
<td>First Year Experience, Personal Adjustment</td>
<td>Introduction to College</td>
<td>None</td>
<td>None</td>
<td>Marketing the Individual, College Success, Intro to Computers, Interpersonal Comm. Rec &amp; Leisure</td>
</tr>
<tr>
<td>Course Choices by Area (Audited)</td>
<td>Computing &amp; Technology, Communication, Social Inquiry, Sciences, The Arts, Health &amp; Nutrition, Business &amp; Finance, Electives</td>
<td>Leadership &amp; Personal Exploration, Interpersonal Communication, Social Studies, Art, Music, &amp; Humanity, Vocational Exploration, Personal Interest</td>
<td>8-24 Courses in subject/career area of focus</td>
<td>4-6 Courses in any subject</td>
<td>None</td>
</tr>
<tr>
<td>Service Learning Requirements (Institutional Credit Units)</td>
<td>Job Shadowing, Community Employment, Internships</td>
<td>Internships, Paid Employment</td>
<td>Applied Career Exploration</td>
<td>Community Service, Campus Clubs, Internship, Employment</td>
<td>Volunteering, Internship/Employment</td>
</tr>
<tr>
<td>Program Activity Requirements (Institutional Credit Units)</td>
<td>Peer Coaching, Academic, Mentoring, Faculty Advising, Job Coaching, Sessions, Summer Residential Monthly Student Meetings</td>
<td>Mentoring &amp; Tutoring Sessions, Campus Club Membership</td>
<td>Inclusion Mentorship, Student Life Academic Advising, Community Advising, Community Travel &amp; Mobility, Civic Engagement, Physical Fitness</td>
<td>Library Reading, Computer Lab, Academic, Peer, &amp; Community Mentors, Campus Activities, Fitness Center, Community Experience, Program Class,</td>
<td>Community Events, Workshops, Disability Mentoring Day, Community-Based Instruction, Resource Meetings</td>
</tr>
<tr>
<td>Online Curricula</td>
<td>Life Centered Education Transition Curriculum</td>
<td></td>
<td></td>
<td>Skills to Pay the Bills, Life-Centered Education, Math, MindPlay Reading</td>
<td></td>
</tr>
</tbody>
</table>
Table 3

*Career Technical Program of Study (PoS)*

<table>
<thead>
<tr>
<th>IHE Code</th>
<th>AI PoS</th>
<th>AS PoS</th>
<th>AI Courses/Activities AI Program</th>
<th>AS Programs</th>
<th>Specialized Certificate (non-credit courses)</th>
<th>Career Technical Certificates (credit bearing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>C/T₁</td>
<td>Yes</td>
<td>No</td>
<td>Any industry certificate program per student skills</td>
<td>Program Completion</td>
<td>Any offered Industry Certificates, Industry Certification Skills, USA Customer Service Certification</td>
<td></td>
</tr>
<tr>
<td>C/T₂</td>
<td>Yes</td>
<td>No</td>
<td>Creative Arts or Hospitality Industries</td>
<td>Program Completion, Creative Arts, Baking, &amp; Pastry Arts</td>
<td>ServSafe, Creative Arts or Hospitality</td>
<td></td>
</tr>
<tr>
<td>C/S₁</td>
<td>Yes</td>
<td>No</td>
<td>Any industry certificate program offered</td>
<td>National Retail Certification</td>
<td>National Retail Certification and choice of any other</td>
<td></td>
</tr>
<tr>
<td>C/S₂</td>
<td>Yes</td>
<td>Yes</td>
<td>Any industry certificate program offered</td>
<td>Florida DOE Workforce Certificate</td>
<td>Any industry certificates from which student can benefit</td>
<td></td>
</tr>
<tr>
<td>C/S₃</td>
<td>Yes</td>
<td>Yes</td>
<td>Mini-Audits, Adult Ed., Continuing Education</td>
<td>Program Completion</td>
<td>First Aid, CPR, Red Carpet Customer Training</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* AI = Academically Inclusive, AS = Academically Specialized, Ed. = Education, DOE – Department of Education.
Figure 1

*Academic Course Enrollment*

- Academicly Specialized
  - U1
  - *C/S2
- Academicly Inclusive
  - 36%
  - 73%
  - U5
  - *C/S1
  - *C/S2
  - *C/S3

○ = number of general catalog courses enrolled in, by students with ID, each semester
* = institutions that provided more than one level of options.
Note: Percentages are calculated using the 11 institutions. Since some of the institutions are in multiple categories, the total is > 100.

Figure 2

*Program of Study Typology*

- Liberal Arts
  - U2
  - U3
  - U4
  - U5
  - C/S4

- Career/Technical
  - C/T1
  - C/T2
  - C/S1
  - C/S3

- Transitional
  - U1

2-4 year programs
Certificate of Completion
1-3 year programs
University Certificate

**KEY**
- U = University
- C/S = Community/State College
- C/T = Career/Technical College
Enhancing Transition Programming for College Students with Autism: A Systematic Literature Review

Brett Ranon Nachman¹

Abstract

This article provides a systematic review of the literature related to college transition programs for students with autism. It addresses how individual programs themselves, as well as associated research, can be enhanced to accommodate the needs, identities, and pathways of individual students with autism more effectively. Methods entailed searching three education databases to yield peer-reviewed journal articles on college autism transition programs. The analysis revealed an emphasis on students’ social skills and self-advocacy skills, often with a peer mentorship component, and a deficiency of literature in attending to these students’ career objectives, trajectories into college, and multifaceted backgrounds. Implications for practice include offering early exposure to college, redesigning programs to include more awareness of students’ other identities, embedding more content on career development, and accounting for community college students’ and transfer students’ unique pathways.

Keywords: Autism Spectrum Disorder, autism, transition programming, college transitions, disabilities

College transition programming, including summer bridge programs, have traditionally targeted minoritized student populations, such as low-income students and students of color, and have shown to be useful in supporting college readiness and campus engagement (e.g., Strayhorn, 2011; Walpole et al., 2008). A limited number of programs have been tailored to students with disabilities (e.g., Crans-Gringas et al., 2015). Transition programs geared toward college students with Autism Spectrum Disorder (ASD) in particular, however, have emerged as a new priority. For this literature review, autism is defined by the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5; APA, 2013), encompassing autistic disorder, Asperger’s disorder, childhood disintegrative disorder, and pervasive developmental disorder not otherwise specified; these were each previously viewed as separate diagnoses.

The National Center for Education Statistics (NCES) indicates that 44.2% of students with autism who received special education services in high school had attended some type of postsecondary education institution within eight years of graduating high school (Snyder, de Brey, & Dillow, 2016). However, this data only covers a student cohort through 2009. White, Öllendick, and Bray (2011) estimate anywhere “between .7% and 1.9% of college students could meet criteria” for having high-functioning autism (p. 683). These rates are likely much higher now, leading postsecondary education leaders to reconcile an influx of college students with autism without often having the infrastructure to support their needs.

First, it is worth understanding the distinct needs between students with autism and students with disabilities more broadly as they transition into college. The Postsecondary Education and Preparation Toolkit notes that key skills for students with disabilities include critical thinking, reading comprehension, growth mindsets, and interpersonal engagement (National Technical Assistance Center on Transition, 2018). Though students with autism may face similar challenges, they also have distinct differences. Autism manifests uniquely with every person, each possessing particular strengths and obstacles; however, individuals commonly experience differences in socializing, developing interpersonal skills, picking up social cues, understanding abstract language and sarcasm, and experiencing pragmatic language difficulties (Brown & Coomes, 2016; Hewitt, 2015; Retherford & Schreiber, 2015; Schindler, Cajiga, Aaronson, & Salas, 2015; VanBergeijk, Klin, & Volkmar, 2008). These challenges may be enhanced as

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students with autism transition into college and navigate new environments.

Additionally, many individuals with autism lack self-advocacy skills, leading some students to not know how or where to seek college services, such as accommodations (Adreon & Durocher, 2007). As Camarena and Sarigiani (2009) noted, “self-advocacy skills are an essential part of the transition process that need to be nurtured by both schools and families if students are going to successfully navigate the expectations of higher education” (p. 12). Developing self-advocacy skills is instrumental, so they need not over-rely on their parents (Zeedyk, Tipton, & Blacher, 2014), try to hide their disabilities (Ames, McMorris, Alli, & Bebko, 2016), or falsely believe they no longer have autism upon entering college (Cai & Richdale, 2016). In addition to communication and self-advocacy skills, students with autism often have challenges in executive functioning, which pose a barrier to their success in college (e.g., Gillespie-Lynch et al., 2017; Hotez et al., 2018). Transition programs are necessary to support college students with autism in combating these ongoing difficulties, as well as capitalizing on their strengths.

As students with autism enroll in college, gaining guidance and support from specialized transition programming is key to their emotional well-being and academic success. If provided with intentional transition plans, complemented by visiting campuses and becoming acquainted with resources and staff, college students with autism may find the transition process easier (Dymond, Meadan, & Pickens, 2017). Transition programs work to reduce students’ feelings of stress and frustration upon entering college and give them the power to shape their life journeys (Cai & Richdale, 2016; VanBergeijk et al., 2008).

Scholarship on college autism transition programs, while emergent, has traditionally been published in autism-specific journals, and thus not targeted toward higher education professionals, who would significantly benefit from understanding these students’ experiences. A systematic review of the literature is essential to: (1) detail how existent, individual college autism transition programs have operated; (2) unveil promising tools that help integrate students into postsecondary education institutions; and (3) to provide inspiration to how both transition programs and research studies can be modified to prioritize a variety of students’ perspectives. The purpose of this review is to address the following three research questions:

1. What do studies on individual college autism transition programs uncover as useful supports?
2. How did programs address (or not address) students’ needs?
3. How can programs, and the studies that evaluate them, be improved to better account for distinct college students with autism?

This review reveals each program’s strengths, identifies gaps, and locates areas of improvement for both existent and future programs.

**Study Design**

While much literature is emerging on the experiences of college students with autism, few empirical studies examine transition programs specifically designed for this college-level student population. For this study, “college autism transition programs” will serve as an umbrella term to describe programs that take place immediately before, during, or after initial college enrollment, as well as peer mentorship programs situated in postsecondary education institutions.

There are different ways of understanding autism due to its multiple and evolving definitions. While the review draws upon DSM-5 definitions of autism (APA, 2013), the study also capitalizes on Attwood’s (1999) strengths-based approach, which embraces the positive characteristics of people with autism and views their struggles with understanding. The review takes into consideration how students with autism are portrayed, and works to veer away from deficit-based models of autism that center on “a clinically apparent deficit in a single cognitive domain or modality underlying the social, communication, and odd non-social behavior in autism,” as Minshew and Goldstein (1998, p. 311) critique. The author of this systematic literature review of college autism transition programs, who was diagnosed with Asperger’s as a child and attended a community college, is attuned to the role of institutional representation, recognizes the challenges associated with how students with autism transition to college, and ensures that these students’ voices are preserved and highlighted in a supportive light.

**Search Process**

This study utilized three databases (ERIC, Academic Search Premier, and Scopus), based on their education focus, to locate peer-reviewed journal articles. Within each database, all combinations of the following keywords were entered: “autism” AND (“college” OR “postsecondary”) AND (“transition” OR “transition program” OR “mentor” OR “mentoring” OR “college preparation”). “Autism” represented the primary keyword due to the review’s reliance on DSM-5, and it encompassed all of the related DSM-IV-TR disorders, such as Asperger’s (APA, 2000). Articles eventually yielded, such as Roberts and Birmingham (2017), featured participants with
“Asperger’s,” for instance. Upon conducting a literature search, 262 publications were initially identified. However, most of the studies were removed due to their focus on students with autism transitioning into college, not transition programs. As a result, upon ruling out irrelevant articles based on exclusion criteria, seven articles met all of the inclusion criteria (see below). Ultimately, all articles were published within education, disability, or autism journals over a four-year period (2015–2018).

Inclusion and Exclusion Criteria
For inclusion in this review, individual studies had to meet the following criteria. Studies needed to be empirical, peer-reviewed journal articles focused exclusively on an individual college autism transition program. For this systematic literature review, college autism transition programs are defined as being based in postsecondary education institutions and serving incoming or prospective students’ explicit transitions into college. Mentorship programs that help college students with autism acclimate to college life are also included. Dissertations, while often containing useful insights, were excluded because they do not undergo peer review. All studies focused exclusively on an individual college autism transition program. This condition was established, because review articles that summarized multiple autism programs (e.g., Barnhill, 2016, who covered 30 programs) generally failed to shed light on the particular aspects of individual programs that bolster students’ success, and lack the student voice. Similarly, as the review wanted to avoid confounding variables, programs focused on broad categories of students, such as developmental disabilities, were excluded. When examining participants, it is hard to disaggregate how students with particular types of disabilities experienced the program differently from their peers (e.g., Wood-Groves, Therrien, Hua, & Hendrickson, 2013).

Likewise, articles about individuals’ transitions into employment from college were omitted because they were not within the scope of the study purposes. Studies about accommodations or support services provided by institutions were not included because they were not formal programs, and all students with disabilities have access to accommodations, making the unique experiences of students receiving these services difficult to discern from their counterparts participating in transition programs. Meanwhile, studies located in high schools were excluded. Due to legal differences between K-12 (IDEA) providing equal access, and postsecondary education (ADA), including high school-only programs was not deemed as appropriate.

All studies had to include at least some incoming or current college students with autism as participants. Studies relying on either or both DSM-IV-TR (APA, 2000) and DSM-5 (APA, 2013) definitions of autism were included in the study, as well as participants who self-reported themselves as being on the autism spectrum. As these perspectives are often omitted from studies on autism, save for exceptions (e.g., Cox et al., 2017), capturing their voices was necessary. All studies must have been published from 2008–2018 to ensure that information was reflective of the current landscape of how institutions support college students with autism.

Data Analysis
Engaging in content analysis, which works to make meaning of how data in written materials is constructed and presented (Krippendorff, 2013, p. 39), was used to analyze each study. Due to the lack of theories across most studies in this review, applying conventional content analysis was a useful inductive approach (Hsieh & Shannon, 2005). “This type of design is usually appropriate when existing theory or research literature on a phenomenon is limited” (Hsieh & Shannon, 2005, p. 1279). Accordingly, the review was concentrated on understanding how studies’ authors used words and featured particular types of content. Codes are situated alongside other similar codes, with the researcher determining connections, and grouping them into themes (HSie & Shannon, 2005). In this review, student demographics like “gender” and “race” each represented codes, belonging under the broader theme of “student identities.” Other similar codes like “transfer students” and “freshmen” were also situated within the “student identities” theme. Following Krippendorff’s (2013) recommendation to clearly demonstrate the context(s) at hand, this review prioritized best understanding the institutional and programmatic layers associated with each study. While studies generally listed some background information, level of detail varied. Finally, structural coding, which involves coding pieces of data with conceptual-based phrases (i.e., “reasons for joining program” in a paragraph related to descriptions of why participants joined an autism program), was used to apply a content-based lens (Saldaña, 2016).

Limitations of the Review
The systematic literature review has several limitations. First, the small n of seven programs restricts understanding autism transition programs more broadly. Accordingly, the findings do not representatively account for the many college autism transition
programs that exist, but have not been studied. Second, the review blends a few studies more concentrated on college mentorship support than generalized transition support, though these studies’ inclusion illuminates peer mentorship as a viable mechanism for how students with autism acclimate to college. Third, the programs illustrated in the studies are inconsistent in length and scale, so we must not consider them to be comparable.

Limitations of the Literature

Several limitations of the studies must be noted. First, the studies generally offered insufficient demographic information on college students with autism, including their race/ethnicity, socioeconomic status, sexual orientation, and gender identity. Thus, a representative portrait of their backgrounds is absent. Second, none of the studies focused on programs situated at community colleges, leading interpretations of students with autism in transition programs to be limited to students at four-year institutions. Consequently, no co-enrollment programs are part of the sample. Third, the programs illustrated in the studies are inconsistent in length and scale, so they cannot be compared to one another.

Findings

Seven studies that focus on college autism transition programs demonstrate their necessity and value. Each article is detailed individually, and later, several themes gleaned from the studies collectively are illustrated. Table 1 offers descriptive information of each study.

**Ames et al. (2016).** Through conducting interviews, as well as distributing questionnaires and evaluations, the authors aimed to understand how Autism Mentorship Program (AMP) content aligned with students’ interests and objectives. College students with autism, who typically enter AMP during their second year of college, meet with their mentors (graduate students) to discuss college goals, desired skills, and social situations. The authors discovered that, across both mentor meetings and group event contexts, students tended to endorse conversations surrounding specific goals, including sensitive topics like stress and coping, and dating and romantic relationship concerns, as well as social skills. However, gaps also existed across spaces, in that while a high percentage of students (67%) endorsed employment and career in mentor meetings, none had in a group context. Alternatively, sexual health, rarely endorsed in mentor meetings (33%) was commonly endorsed in group events (71%). This speaks to how students prioritize different topics based on setting and, often, who comprises that space. Ultimately, a majority of AMP mentees commonly met with their mentors, noted mentorship conversation topics as useful, and accessed other campus supports. AMP appears to be a complementary vehicle in affording students outlets to proactively establish and discuss their objectives with their peers.

**Gillespie-Lynch et al. (2017).** The authors created a mixed methods study to ascertain the efficacy of Project REACH, a mentorship program the authors developed in partnership with Summer Transition Program (STP), as illustrated in Hotez et al. (2018). They aimed to determine what factors support each of these three groups: mentees with autism, mentees with other disabilities, and mentors. Additionally, they sought to identify what benefits mentees gained from program participation. The program’s spring semester, which utilized a social skills curriculum, encouraged students to take more active roles in shaping their college experiences, as opposed to depending on their parents. The fall’s curriculum, more focused on self-advocacy, employed improvisational techniques, public speaking rehearsals, and workshops on disability rights and disclosure, among other topics, to help college students with autism gain confidence in handling different life situations; eventually, students indicated feeling more adept in defining self-advocacy. Students’ written evaluations revealed that they not only enjoyed the social advocacy piece, but also socializing with other students. Focus groups demonstrated that students benefited from rehearsing scenarios and now possessed greater initiative and confidence. Interestingly, students expressed feeling increased social support from the self-advocacy training, not from the social skills training. Project REACH shows much potential to adapt the transition curriculum to reflect college students’ development and new skillsets, and to engage students in shaping programming through obtaining their input.

**Hotez et al. (2018).** Through utilizing a participatory approach, only more recently orchestrated with college students with autism, the authors assessed the experiences of New York incoming and current college students with autism in two iterations of a one-week-long summer college transition program. The program consists of 25 hours of programming, including lectures, workshops, rehearsal of skills with facilitators, and a mentorship program. Mentees also complete various measures, such as the Disability Identity and Opportunities Scale (Darling & Heckert, 2010), in order for program facilitators to better understand their backgrounds and abilities. Major findings from the first iteration of the program,
known as the Summer Transition Program 1 (STP1), revealed that the program was helpful in motivating college students with autism via offering different forms of instruction and activities, but that students wanted more group-oriented, theater-based games. To revise programming for the program’s second iteration, the scholars invited mentors (both college students with autism and neurotypical students) and mentees to participate in interviews and offer insight on how the program could best serve their respective needs. After facilitating Summer Transition Program 2 (STP2) the next summer, the authors conducted further interviews. Participants noted that they had learned self-advocacy skills, attained new social strategies, and identified useful classroom etiquette tools. STP demonstrates promise in both involving mentees in reformatting programming and inviting mentors to attain leadership skills.

**Rando, Huber, and Oswald (2016).** These authors surveyed students who had participated in the first year of the Raiders on the Autism Spectrum Excelling (RASE) program, which focuses on transition coaches working with students individually for an hour each weekday to boost their resiliency, time management and organization, social skill development, technology use, and advocacy. For instance, utilizing Universal Design principles allowed coaches to meet students’ unique learning styles, such as role playing scenarios. Preliminary results from this survey found that coaches gained confidence in their leadership over time, and had built strong relationships with students. Additionally, 11 RASE students (73%) remained in college after the first year, higher than the university’s first-year retention rate, and seven were still enrolled in college into their third year; student G.P.A. had also increased, on average, from 2.58 to 2.71. These findings illustrate encouraging signs of program engagement in students’ college persistence and performance.

**Retherford and Schreiber (2015).** This mixed methods study encompassed an evaluation of the one-week-long Camp Campus program, which involves high school juniors, seniors, or recent high school graduates, engaging in instructional sessions addressing professional development, social communication skills, and executive functioning. Paired with faculty and peer mentors, who participate in trust-building activities, serve as role models, and document daily observations, students work toward engaging in self-reflection and attaining self-determination. Over the course of six years, two-thirds of parents completed surveys. All parents indicated their children were addressing at least one daily task on their own, participating in an extracurricular activity, and showing social skill improvements. Ninety-one percent of parents said their children were enrolled or graduated from a postsecondary education program. Camp Campus illustrates the positive outcomes that may emerge from college-bound students obtaining early exposure to college via this supportive, structured, and succinct format.

**Roberts and Birmingham (2017).** The researchers employed grounded theory in their qualitative study to understand how nine mentors and nine mentees with autism experienced the Autism Mentorship Initiative (AMI) program. After participating in a day of training about autism and mentorship practices, senior undergraduate students and graduate students were individually paired with a mentee on a weekly basis to talk about academic and social objectives. AMI students also participated in workshops and social events. The authors unveiled that, as mentorship progressed over time, mentees demonstrated greater self-advocacy by not acting in a passive manner, but rather taking more control over their choices in navigating college. As mentor-mentee pairs possessed stronger rapport with more open, equitable relationships, meetings lacked formality and the mentorship model followed more of a mentee-centered approach.

**White et al. (2017).** This mixed methods study involved evaluating how the Stepped Transition in Education Program for Students with ASD (STEPS) program serves students’ self-regulation, in terms of their executive functioning skills and regulation of emotions, as well as their self-determination of goals. The study consisted of looking at students across two stages. STEP 1, dedicated toward students with autism in secondary school and those unsure of their plans, unites key individuals in their lives in establishing transition plans, assigns activities to students, orients students to their planned college, and utilizes counseling that focuses on regulatory behaviors and self-advocacy skills. STEP 2, targeted to current college students and those who have exited secondary school, distances the role of parents and school personnel to encourage students’ independence and participation in individual social outings. Early results indicate that the program was helpful to students in managing daily tasks and achieving college objectives. Due to the study’s brevity and offering of only preliminary data, STEPS’ long-term effects cannot be verified (White et al., 2017). However, it seems to possess strengths in establishing different objectives for students based on their progress in the program.

**Common Themes Across Studies**

The studies illustrated three main categories: emphasizing program curriculum; utilizing peer mentors;
and possessing similarities in program evaluation. These themes reveal the current infrastructure of programs and possibilities for further enhancement. Table 2 offers a summary.

Program curriculum. All seven programs emphasized incorporating opportunities for students to be trained and engaged in social skill development, albeit utilizing varied techniques and program duration. Core to many programs is the space for students to rehearse social skills through role-playing activities (e.g., Gillespie-Lynch et al., 2017; Hotez et al., 2018; Rando et al., 2016). These exercises appear viable in building students’ confidence. Programs also often incorporated activities to engage students in different social settings, such as karaoke nights and athletic events in the ASD Mentorship Program (Ames et al., 2016). Programs’ emphasis on outings similarly seem encouraging in helping students feel more comfortable in socializing with peers across different types of contexts. Many programmatic elements also prioritize helping students with autism attain self-advocacy skills, particularly important in motivating them to take greater ownership over both their daily life skills and academic needs (e.g., Ames et al., 2016; Gillespie-Lynch et al., 2017). Students’ ability to possess increased self-advocacy knowledge and define what constitutes self-advocacy varied across studies (e.g., Gillespie-Lynch et al., 2017; Hotez et al., 2018). Unfortunately, studies have yet to explore the social dynamics associated with students’ engagement with peers in academic work, nor find ways of measuring self-advocacy changes. These represent areas worth exploring in future studies. It is important for future researchers and practitioners, in particular, to have assessment templates so they are not recreating the wheel.

Though social skills training and self-advocacy skills, and utilization of peer mentors remain these programs’ priorities, as mentioned earlier, they often underscore students’ career objectives and needs, save for a few exceptions. For example, job skills encompassed a main objective for Project REACH students and, consequently, discussion of interview skills was embedded into the social skills curriculum, yet the productivity of this particular tool was not determined (Gillespie-Lynch et al., 2017). Half of AMP students said they wanted to learn more about careers, though it was unclear based on program results to what extent these objectives were met (Ames et al., 2016). Similarly, AMI students addressed wanting to work on their job skills; although mentors and mentees discussed career goals, they largely did not focus on career pathways (Roberts & Birmingham (2017).

These seven studies, and the programs themselves, also do not emphasize that college often lacks the repetitive nature of how high school courses operate. As college students with autism may find ambiguity and inconsistent structure difficult to absorb (Brown & Coomes, 2016), program participants could falsely interpret the structured curriculum and group activities to be representative of college more broadly. Programs commonly fail to speak to how students transition out of the program, such as completing their degrees or entering the workforce.

Peer mentors. Six of the seven studies feature peer mentors (or coaches) to guide college students with autism with their academics, social lives, and other elements associated with attending college – in the case of White et al. (2017), Project REACH used counselors as the primary support mechanism. At times, mentors consisted of graduate students (Ames et al., 2016; Rando et al., 2016; Roberts & Birmingham, 2017), who either had specialized knowledge and/or received training to work with college students with autism. Whether or not mentors possess an extensive background on autism, these individuals are effective in fostering relationships, comfort, and new skillsets with these students. Studies must take into greater consideration, however, the varying levels of qualification of peer mentors, as well as institutional resources, funding, and training curriculum of peer mentors. Though some studies illustrated thorough descriptions of how programs trained mentors (e.g., Gillespie-Lynch et al., 2017; Retherford & Schreiber, 2015), it may be helpful for studies to include links to, or examples of text from, mentorship training handbooks that practitioners could draw from in designing their own programs.

Program evaluation. Studies relied on some common methods for gathering data from program participants. Most prominently, surveys, whether in the form of both pre- and post-program evaluations (e.g., Hotez et al., 2018) or multiple follow-up evaluations (Retherford & Schreiber, 2015) worked to understand the impacts of the content that facilitators delivered. Difficulties exist in not knowing the long-term impacts of programs – later described as a methodological limitation – and surveys represent a low-cost, systematic, and simple to institute avenue for obtaining this data. While interviews were more sparingly used (Ames et al., 2016; Hotez et al., 2018; Roberts & Birmingham, 2017), they offer more complete insights into how college students with autism make sense of these programs. Students must be afforded greater choice in determining the context, subject matter, and length of interviews, as these factors remains absent across the studies and
represents an area of opportunity for future scholarship. Such agency may enhance students’ comfort and sense of control.

Discussion

In the following discussion, the theoretical absence in the current literature and utility of Critical Disability Theory, and methodological limitations of existent literature, are explained, as they inhibit understanding college students with autism in transition programs. As the implications for practice section focuses on actionable approaches based on the literature, the main discussion section serves as more of a critique of the literature that practitioners should be mindful of in guiding their work.

Theoretical Absence in the Current Literature and the Utility of Critical Disability Theory

Save for Ames et al. (2016), who drew on student development theory, disability theory, and program theory, and briefly explained these theories’ role in shaping AMP’s design, the other six studies failed to incorporate references to theoretical frameworks that guided their work. Instead, some studies, such as Roberts and Birmingham (2017), employed grounded theory, which they contend is an ideal substitute due to the dearth of conceptual frameworks amongst studies focused on college autism mentorship programs. Grounded theory has its merits, but as Ames et al. (2016) illustrated, studies should not start from scratch in creating theoretical approaches—or more problematic—fail to broach the topic whatsoever.

Studies addressing transition programs may benefit from utilizing Critical Theory as a guiding framework. As Max Horkheimer (1972) described, Critical Theory’s purpose “is to penetrate the world of things to show the underlying relations between persons” and works to deconstruct equality through bringing in one’s subjectivity (p. xiii). Critical Disability Theory (CDT), in particular, recognizes disability fluidity and temporality, honors individuals’ lived experiences, spotlights social justice issues, and attends to students’ intersectional identities (Evans, Broido, Brown, & Wilke, 2017). As critical research works to inspire change by questioning assumptions, challenging norms, and consequently reforming social structures (Ary, Jacobs, & Sorensen, 2010; Morrow & Brown, 1994), postsecondary education institutions must be more inclusive and supportive of college students with autism. Practitioners who run college autism programs may utilize CDT through a variety of means. For instance, in working with college students with autism, they can alter deficit-based language in “helping them” or “treating them,” and instead speak to students in a respectful manner that demonstrates to them that they have agency in shaping their life experiences. Practitioners may also carry across CDT principles that prioritize learning about students’ constantly evolving and multifaceted identities, as well as the social structures that have shaped their lives. This may, in turn, guide how practitioners individually meet the needs and support the objectives of their students.

Methodological Limitations of the Literature

Current studies offer a variety of avenues for depicting how college autism transition programs support the development of students. Though studies may find it difficult to compact weeks’ or months’ worth of programming into the page limits of journal articles, when practitioners are looking to develop or refine programs, and researchers seek studying these programs, there are four areas that they can collectively take into consideration. These factors include the following: (1) recognizing students’ other minoritized identities; (2) demonstrating their positionality and biases; (3) supporting community college students and acknowledging differences among transfer students’ experiences; and (4) tracking the long-term outcomes of program participation.

The first area to engage with is to see college students with autism in a holistic light, as opposed to following stereotypical assumptions of autistic students as only white, middle-income, cisgender, heterosexual males who enter a four-year institution straight from high school and seek employment upon attaining a four-year degree. This is the most prominent and serious methodological limitation, and thus deserves the most thorough attention. White students tended to be most prominent in these programs – for instance, more than 80 percent of Project REACH students identified as white (Gillespie-Lynch et al., 2017) – and autism is often portrayed as a one race issue. Students of color may be diagnosed with autism at later dates and less often than white populations, with specific nuances existing according to individual identities based on race and ethnicity (CDC, 2006; Mandell et al., 2009). Accordingly, students of color have been rarely represented in studies because of lack of diagnoses, and were not mentioned in three studies in this review (Ames et al., 2016; Retherford & Schreiber, 2015; White et al., 2017). Three of the four studies that mentioned race, at least, disaggregated racial information, but this is only the first step (Gillespie-Lynch et al., 2017, Hotez et al., 2018; Roberts & Birmingham, 2017).

Even more, no studies address students’ socioeconomic status (SES). Low-income individuals who have autism, yet were never diagnosed, remains
a prominent issue (Durkin et al., 2010), as they may not have had access to, nor possessed knowledge of, service providers who could have offered autism diagnoses. Major disparities in diagnosis rates exist based on SES, as Durkin et al. have illustrated such gaps. Children from higher-income families are diagnosed more frequently than their lower-income counterparts, but rates may actually be higher and simply underreported. Other factors that may influence rates of diagnoses, in correlation to SES, include family access to quality healthcare and parental education (Bhasin & Schendel, 2007; Taylor & Seltzer, 2010). Furthermore, transition programs may be financially inaccessible to many students, and studies in this review shed few insights on this topic. While STP is free (Hotez et al., 2018), fees associated with other programs from studies featured in this review are unknown. This continued omission in studies, and within transition programs, composite college students with autism who partake in such programming as strictly middle- or high-income.

Similarly overlooked in these studies was the intersection of autism with sexual orientation and gender identity. Though some scholars (e.g., Gutmann Kahn & Lindstrom, 2015) have examined adolescents with disabilities who are minoritized based on their sexual orientation and/or gender identity identities (e.g., Bedard, Zhang, & Zucker, 2010), studies that even make references to non-heterosexual or non-gender binary college students with autism is generally absent from higher education literature, save for some exceptions (e.g., Miller, Nachman, & Wynn, in press). Demonstrating this intersection is notable for several reasons, such as the parallels of wrestling with coming out (Davidson & Henderson, 2010) and fearing stigmatization (Vaccaro, Kimball, Moore, Newman, & Troiano, 2018). Consequently, scholars fall short in giving full context to these students’ identities because the programs omit capturing this information from the onset.

Second, studies must more explicitly recognize the positionality of authors who serve in dual roles (as both researchers and practitioners), and biases held by participants. It is important for practitioners to produce research about practice, and to write with greater transparency, for only some studies (e.g., Hotez et al., 2018) clearly mention this positionality. Otherwise, only some authors’ institutional affiliations may suggest having multiple roles. Biases may also exist among participants who self-elect to engage in the studies, though this is rarely mentioned, let alone addressed. Ames et al. (2016) determined that, while completing questionnaires, students may have been biased by their mentors’ presence; this may have falsely distorted students’ true satisfaction and relationships with mentors. However, it appears that no steps were taken to enhance the rigor given this major problem. Additionally, Hotez et al. (2018) relied on students’ self-reports; obtaining additional measures and perspectives would allow for richer insights.

Third, the literature’s omission of transition programs’ existence at community colleges – complemented by these studies at four-year institutions not referencing transfer students’ journeys – contend a need to capture their experiences. Some community college autism transition programs exist, but have yet to be published in scholarly literature, representing an area for future inquiry. Although NCES data shares the percentage of college students with autism who attend and graduate from community colleges, it neither addresses transfer rates nor shares context of what transitions entail (Snyder et al., 2016). Determining students’ transfer experiences, nuanced based on size, location, and institutional type, will expose how postsecondary partnerships can resolve college choice challenges. Community college program practitioners should consider working in conjunction with researchers at nearby four-year institutions, who may possess greater funding and resources to track students’ experiences.

Fourth, long-term outcomes of programs are hard to determine, often due to the nascence of offerings, as in the case of RASE (Rando et al., 2016) and STEP (White et al., 2017). Here, newer studies that follow the same sets of program participants, or at least programs more generally, will reveal what techniques are effective in shaping college persistence and graduation, as well as students’ attainment of academic, life, professional, and social skills.

Implications for Practice

Three domains represent areas of opportunity for practitioners to enhance current programs or develop higher quality new programs. These include stepping up college awareness and orientation, better recognizing students’ identities, and incorporating more content on career development. Table 3 illustrates these recommendations as well.

College awareness and orientation. Practitioners should consider developing or redesigning transition programs to earlier expose students with autism to college settings. The opportunity rests with high school counselors to familiarize themselves with, and offer recommendations to, colleges and programs that most align with individual students’ needs (Morrison, Sansosti, & Hadley, 2009). Taking students on campus visits to local institutions provides early
exposure and establishes connections with disability service providers. This is necessary to proactively address students’ executive functioning skills, such as adhering to instructions, establishing calendars, and following daily routines (Morrison et al., 2009; Van-Bergeijk et al., 2008; Wenzel & Rowley, 2010). For college-level programmatic practitioners, identifying existing college students with autism who attended the same high school as incoming students may also help in connecting peers who possess similar identities. These individuals may similarly serve as prime mentors for transition programs. Additionally, college program practitioners may consider meeting with high school students with autism on an individual basis to familiarize them with not only their campuses, but also themselves.

Furthermore, encouraging incoming college students to participate in orientation programming is very useful for all students, particularly for students with disabilities (Garrison-Wade & Lehmann, 2009) and students of color (Mayhew, Stipeck, & Dorow, 2011) as they acclimate to college. For college students with autism, who may also have other minoritized identities, institutions should work to offer them separate breakout rooms, longer breaks, and online options with specific functions, such as panels of college students with autism. This option, of course, is contingent on institutional ability to foster trusting and supportive relationships with these students.

Student identities. Practitioners must more greatly recognize and welcome students who have other marginalized identities. Working in tandem with campus organizations that serve students of color and LGTBQ students, for instance, transition program facilitators may develop new ideas of how to provide resources that serve students based on their multiple identities. Additionally, programs may find ways of integrating exercises that lead these students to reflect on these intersections. Pairing college students with autism with mentors who share similar identities can also build trust and community. Ensuring that programs are not cost prohibitive is vital, as a majority of fee-based postsecondary institution programs for students with autism are costly, averaging $6,525 per academic year (Barnhill, 2016). Many low-cost recommendations exist, including beta testing transition programs as registered student organizations, creating informal mentorship groups with neurotypical students as “peer guides,” connecting with autism organizations, and creating scholarships designed for low-income students.

Career development. As highlighted in the analysis, college autism transition programs generally focused on self-advocacy skills, social skills, and utilizing peer mentors. Colleges will continue to experience hurdles if postsecondary education institutions embody the first setting where these factors are prioritized, as well as omit an emphasis on career skills and professional development programming. Working on job applications, rehearsing interviews, and finding and gaining internship opportunities are all important skills for college students with autism to develop (Perner, 2002; Wenzel & Rowley, 2010). Due to the high rates of underemployment among individuals with autism (Taylor & Seltzer, 2011), transition program practitioners must prioritize career assessments and provide students with outlets to learn about different industries or shadow employees at local companies to determine to what extent they suit their interests.

Implications for Research
Scholars are called to not only locate and study transition programs situated at community colleges, but also discover how four-year institution transition programs serve transfer students in their supports. Understanding how these different institutional structures support college students with autism, as well as disaggregating students based on their postsecondary pathways, will help unveil varying experiences students receive across programs.

Conclusion
Over the coming years, both existing college autism transition programs and future programs can be enhanced to meet the specific needs, backgrounds, and strengths of individual college students with autism by intentionally offering more targeted programming. As the review illustrates, further studies covering these programs can also possess greater rigor and inquiry, as well as more strongly value insight on how students’ multifaceted identities and experiences shaped their transitions into college and within these programs.


**About the Author**

Brett Ranon Nachman is a doctoral candidate in Educational Leadership and Policy Analysis at the University of Wisconsin-Madison. His experience includes serving as a researcher for College Autism Network and at the University of Wisconsin-Madison, and as an instructor of higher education courses centered on topics including inclusive teaching practices and navigating college. Brett’s research is concentrated on capturing the depictions and experiences of college students with autism, as well as understanding the pathways of community college transfer students. He can be reached by email at: bnachman@wisc.edu.

**Acknowledgement**

I thank my colleagues Dr. Kirsten Brown (Edgewood College), Dr. Xueli Wang, Dr. Maxine McKinney de Royston, Esther Bettney and Pallavi Chhabra (University of Wisconsin-Madison) for their support and insights as they offered substantial feedback on this manuscript. I also appreciate the JPED reviewers for sharing useful critiques and recommendations.
### Table 1

*Descriptive Information of the Literature*

<table>
<thead>
<tr>
<th>Author, year</th>
<th>Program Name</th>
<th>Program Length</th>
<th>Participants</th>
<th>Diagnostic Criteria</th>
<th>n</th>
<th>Methods</th>
<th>Program Key Elements</th>
<th>Examples of Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ames, McMorris, Alli, &amp; Bebko, 2016</td>
<td>ASD Mentorship Program (AMP)</td>
<td>1 year or longer</td>
<td>College students with ASD</td>
<td>DSM-IV-TR</td>
<td>23</td>
<td>Interviews, Year-end evaluations</td>
<td>Social activities, Meetings with mentors</td>
<td>Students frequently met with mentors, discussing topics like mental health, and relationships, and demonstrated high satisfaction with the program</td>
</tr>
<tr>
<td>Gillepie-Lynch et al., 2017</td>
<td>Project REACH (Resources and Education on Autism as CUNY’s Hallmark)</td>
<td>1 semester or longer</td>
<td>Autistic college students, College students with other disabilities, Mentors</td>
<td>Individualized Education Plans, Psychoeducational Reports</td>
<td>39</td>
<td>Needs assessments, Questionnaires, Scales/inventories, Focus groups Written evaluations</td>
<td>Mentor meetings, Social skills, and self-advocacy curriculum</td>
<td>Students found the program to be most helpful in learning about and gaining social skills and self-advocacy skills.</td>
</tr>
<tr>
<td>Hotez et al., 2018</td>
<td>Summer Transition Program (STP)</td>
<td>1 week</td>
<td>Incoming and current college students with autism, Mentors</td>
<td>Documentation of ASD Diagnosis</td>
<td>24</td>
<td>Interviews, Surveys, Scales/inventories</td>
<td>Social activities, Instructional sessions, Meetings with mentors</td>
<td>Students noted increases in self-advocacy and social skills. Mentors attained greater autism knowledge. Students and mentors called for logistical changes.</td>
</tr>
<tr>
<td>Rando, Huber, &amp; Oswald, 2016</td>
<td>Raiders on the Autism Spectrum Excelling (RASE)</td>
<td>1 year or longer</td>
<td>Students with ASD, Mentors</td>
<td>DSM-5</td>
<td>19</td>
<td>Surveys</td>
<td>Meetings with coaches</td>
<td>Program participants’ GPA increased, whereas student conduct incidents decreased. Coaches gained leadership skills.</td>
</tr>
</tbody>
</table>

*(Continued)*
<table>
<thead>
<tr>
<th>Author, year</th>
<th>Program Name</th>
<th>Program Length</th>
<th>Participants</th>
<th>Diagnostic Criteria</th>
<th>n</th>
<th>Methods</th>
<th>Program Key Elements</th>
<th>Examples of Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Retherford &amp; Schreiber, 2015</td>
<td>Camp Campus</td>
<td>1 week</td>
<td>High school juniors, seniors, or recent graduates with high-functioning autism, Asperger syndrome, or a related social communication disorder (all planning to attend college), Parents</td>
<td>DSM-IV-TR</td>
<td>34</td>
<td>Surveys</td>
<td>Instructional sessions, Support groups, Social activities, Meetings with mentors</td>
<td>Students handled more daily life skills independently. Parents and students indicated improvements in social skills. Most students were enrolled in college.</td>
</tr>
<tr>
<td>Roberts &amp; Birmingham, 2017</td>
<td>Autism Mentorship Initiative (AMI)</td>
<td>2 semesters</td>
<td>Students with high-functioning ASD, Mentors</td>
<td>DSM-IV and DSM-5</td>
<td>18</td>
<td>Interviews, Surveys, Notes and forms</td>
<td>Meetings with mentors, Workshops, Social activities, Counseling sessions, Community-based outings, Online trainings</td>
<td>Mentees expressed having attained self-advocacy improvements. Mentees and mentors learned how to gain mutual support. Preliminary data indicates that the program was helpful to students, but does not offer any elaboration.</td>
</tr>
<tr>
<td>White et al., 2017</td>
<td>Stepped Transition in Education Program for Students with ASD (STEPS)</td>
<td>1-2 semesters</td>
<td>Students with ASD, Parents</td>
<td>Not listed</td>
<td>26</td>
<td>Surveys, Questionnaires</td>
<td>Counseling sessions, Community-based outings, Online trainings</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* In Hotez et al. (2018), participants also featured mentors, whose *n* was not listed in the study. Additionally, for White et al. (2017), participants also included parents who completed surveys, but their *n* was not listed in the study. Descriptions of participants are listed in the original authors’ words.
Main Findings

Program curriculum
- Prioritization of self-advocacy skills and social skills
- Shortage of content on career development

Peer mentors
- Demonstration of mentors as guides and supports
- Lack of context on training and qualifications

Program evaluation
- Commonality of surveys
- Infrequency of interviews

Table 2

Collective Themes in Studies

Table 3

Implications for Practitioners

Main Recommendations

College awareness and orientation
- Forge connections between local high schools and postsecondary education institutions
- Provide high schoolers with campus visits and meet with them
- Develop mentorship pairs among prospective and current college students with same high school experience

Student identities
- Partner with campus organizations/units that serve other student identities
- Pair students with mentors based on similar identities
- Reduce fees to programs
- Connect with local autism organizations
- Create scholarships for low-income students
- Orient students with the financial aid office

Career development
- Prepare students with how to write job applications
- Rehearse interviews
- Prioritize career assessments
- Offer job shadowing opportunities
Supporting Students with ASD on Campus: What Students May Need to be Successful (Practice Brief)

Tara Rowe¹
Tyler Charles¹
Henry DuBose¹

Abstract

The growing number of students with Autism Spectrum Disorder (ASD) in postsecondary education requires accommodations beyond typically provided supports in order to ensure success. However, most campuses lack support services provided in addition to general accommodations. A supplemental support program within a public university was developed to provide social skills, career development skills, and independent living skills to matriculating students with ASD. Program participants are provided with a mentor to work towards self-identified goals throughout the semester. In order to gain better understanding of individual student needs, a baseline survey was developed to assess strengths and needs of incoming students from the individual student perspective. The baseline was completed by 20 students in 2017-2018, providing program staff assistance, guidance, and support based on feedback from individual students. Increased GPAs as well as First Time In College (FTIC) retention rates were observed after one year. Observed outcomes included increased student participation and campus engagement for participants. Implications and recommendations for future use are discussed.

Keywords: autism spectrum disorder, retention, first time in college, student perspectives

Autism spectrum disorder (ASD) is one of the fastest growing disability categories in the world. Factors contributing to this rapid growth include the number of children diagnosed with ASD, which has increased from 1 in 88 in 2008 to 1 in 59 in 2018 (Center for Disease and Control, 2018), heightened awareness, changes in the diagnostic criteria, and improved ability to recognize and diagnose higher-functioning individuals with ASD (Pinder-Amaker, 2014). The number of students with ASD enrolling in postsecondary education continues to increase, accounting for almost 1% of the total population of universities (Anderson, Carter, & Stephenson, 2018). Despite this increase, a lower percentage of students with ASD graduate college compared to neurotypical peers (Elias & White, 2018).

Common accommodations utilized by students with ASD include testing in a separate environment from the classroom, requesting additional time on exams, recording lectures in class, reduced course loads, and meeting with disability support coordinators (Anderson et al., 2018). Other accommodations that are preferred include housing (such as living in residence halls and roommate selection), academic coaching, priority registration, and tutoring (Van Hees, Moyson, & Roeyers, 2015). Accommodations provided in higher education do not follow the same legal stipulations as the Individuals with Disabilities Education Act (IDEA), instead, rely on the scopes of services described by the Americans with Disabilities Education Act (IDEA), instead, rely on the scopes of services described by the Americans with Disabilities Act (ADA) and Section 504 of the Rehabilitation Act (with provisions post-high school) (Chan, 2016). However, despite having access to accommodations, students with ASD may experience difficulties and challenges that go beyond the services provided by the office of accessibility on campus. Recent years have shown an increase in supplemental support programs offered across the nation for students with ASD, however, most programs require a fee for participation (collegeautismspectrum.com/collegeprograms/).

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A comprehensive and flexible approach that is individualized and based on the student’s needs is integral to providing a successful program for students with ASD (Elias & White, 2018). Van Hees and colleagues (2015) recommended using a personalized approach, having a safe and transparent environment with sufficient planning and clear communication, providing academic accommodations, coaching students in education, student life, and daily living skills, and providing psychosocial support. However, in order to provide additional supports beyond accommodations included with DSO services, additional or supplemental supports may be required. Even supplemental programs specific to ASD have limitations such as limited program capacity, lack of funding, and lack of professionals trained in providing services to students with ASD (Barnhill, 2016).

**Depiction of the Problem**

Limitations associated with ASD include difficulties in reciprocal social interactions and relationship development, challenges maintaining conversation in social settings, perseverative or obsessive thought patterns, restricted behaviors and interests, and difficulty interpreting nonverbal cues or the perspective of others (Van Hees et al., 2015). There exists little research outside of adolescence and childhood for support services available to individuals with ASD, with even less on support services for students in post-secondary education (Anderson et al., 2018). These support systems may be more difficult to access or may not focus on the individual perspectives of student needs. Further, many studies focus on caregiver and professional supports, neglecting the direct input from the individuals (Turcotte, Mathew, Shea, Brusilovskiy, & Nonnemacher, 2016). In college, students with ASD may face difficulties with sensory overload, lack of support systems, and have challenges with time management and a lack of routine, which often leads to students feeling overwhelmed and burnt out (Anderson et al., 2018). Additionally, administrators on campus may face challenges supporting students with ASD as this may require additional resources, including funding and training (Cai & Richdale, 2016; Zeedyk, Tipton, & Blacher, 2016).

The transition from high school to college is difficult for students with ASD, with many feeling that they are unprepared for the transition. Individuals with ASD report higher levels of loneliness, anxiety, and depression compared to neurotypical students (Pinder-Amaker, 2014). Because of difficulties with social communication, it can be difficult for students with ASD to form necessary support systems in college (Pinder-Amaker, 2014).

Many students diagnosed with ASD choose not to disclose their disability status due to a fear of stigma or feeling that they do not need accommodations (Van Hees et al., 2015). As a result, students may choose to not take advantage of support services that are available to them including tutoring, mentors, exam accommodations, and assistance with daily living (Anderson et al., 2018). Some students with ASD have difficulty advocating for themselves and do not seek support services until it is too late (Elias & White, 2018).

It is clear that providing support to students with ASD is important in order to succeed in college and in the workplace. By supplementing services provided by campus DSO offices, students with ASD can practice developing social skills, independent living skills, and career development skills. However, in order to provide effective services to degree-seeking students with ASD, students must first identify and communicate areas they may require assistance in. Furthermore, before supports and resources can be identified for students, DSO staff need to have intake or initial evidence of where student strengths and areas of need may be evident. Below is a description of a diagnostic tool used to assess and identify problem areas for students with ASD participating in the Transition to Healthiness, Resourcefulness, Independence, Vocation, and Education (THRIVE) program, which is then used to help THRIVE staff create individualized goals (with the student) to improve their areas of need.

**Participant Demographics and Institutional Partners/Resources**

Along with national trends reflecting larger numbers of students with ASD entering four-year institutions, the campus recognized an increased number of students with ASD registering with the Disability Services Office (DSO). The DSO provided significant guidance on an individual student basis; however, a more proactive, overarching training appeared necessary for students with ASD. In the summer 2012 semester the DSO implemented a pilot supplemental support peer-mentoring program for students with ASD. After several years of continued program success, three areas of need emerged: social skills, independent living skills, and career development skills.

For the 2017-2018 academic year, seven mentors were assigned to 20 students with ASD. Mentors were made up of undergraduate and graduate students in various programs of study including: psychology, exercise science, sociology, business, and applied behavioral analysis. Mentors met with individually assigned students up to three hours per week. Three
mentors were senior level program participants (students who received mentoring in previous semesters and applied to become mentors for fellow students with ASD). Mentors were required to complete anecdotal notes following each individual session with mentees and were also required to participate in social focus groups and social skills training activities. Each mentor committed to roughly 10-15 hours per week working with students, completing session notes, and participating in group activities. The small sample size of both the students and mentors reflects the exploratory nature of this practice brief and the need to carefully explore the results. Of the 20 students, 12 were First Time In College (FTIC) students and the majority of students and mentors were Caucasian. The sample of students was comprised of 70% males and among the mentors, 57% were female. The mean age for the students was 21.

Description of Practice

With the three identified areas of focus, THRIVE students have the opportunity to develop social skills, independent living skills, and career skills while gaining valuable experience in a higher education setting with the support of a peer mentor (https://www.unf.edu/drc/thrive). One of the overall strategies used to promote student-led learning and experiences is through the use of goal-setting. By identifying a personal goal, students are empowered to take action on changes they want to make or experiences they want to gain; held accountable by their peer mentor and other participating students. Goals range from obtaining a driver’s license to getting a job to getting accepted in a graduate program. Specific areas of weaknesses and strengths are explored in weekly group meetings as well as during one-on-one meetings with mentors.

Mentors are provided by program staff and are assigned prior to the start of the semester. Mentors are made up of volunteers, federal work study, internship, and practicum students currently enrolled in classes. Each mentor is required to complete a mentor application, interview with program director and staff, and one-day training prior to the start of the first semester as mentor. While there is no formal partnership between campus departments and mentors, opportunities for students to earn extra credit, practicum and internship hours, and research opportunities are made available.

In the fall of 2016 a baseline survey was developed by the director and a student assistant as a way to measure incoming students’ knowledge and awareness from the perspectives of the student. As a result, the baseline survey served as a guide for the director and staff to identify areas of strengths as well as areas of need. In the fall of 2017, 20 students completed the baseline survey prior to the start of their first semester and results were used to determine student goals. New students were required to complete the baseline survey that evaluated student knowledge of the three program areas of focuses (social, independence, career). The program director then analyzed each survey to establish goals and strategies to begin implementing with each student’s peer mentor. Survey results were also used to determine mentor assignments as the director paired mentors with similar interests with students that reported needing help or guidance in specific areas.

The baseline survey was created to identify the strengths and weaknesses of each student and included areas in which they may need assistance, and how familiar they were with their diagnosis, skills, and resources. The baseline is comprised of the following sections: Disability Awareness, Campus Resources, Self-Advocacy, Major and Career, Time Management, Study Strategies, Goals, Stress Management, and Living in the Dorms. Each section asks the student to fill out a Likert-type scale ranging from “Not Confident” to “Completely Confident” regarding a statement pertaining to the section. For example, in the Disability Awareness section, students are asked to state their confidence by answering, “I know what my disability is and how it affects me.” The student is then asked to provide evidence that supports the claim on the Likert-type scale by asking the student to answer statements in their own words. Using the same example, the student is asked what their diagnosis is and how it affects them as two separate follow-up questions to the Likert-type scale. Based on the answers the student provides to the open-ended questions, it is possible to see if their actual responses are representative of the confidence levels they chose for the Likert-type questions at the beginning of each section.

Responses to the baseline assessment help to provide understanding of an incoming student and what possible supports may be needed. A student may not realize they need assistance in a given area, especially if they are confident in their perceived mastery of skills. The baseline allows mentors to match open-ended responses to the Likert-type scale responses and identify areas of weakness that the student may perceive as strengths. Each section within the baseline was selected based on their importance for developing successful strategies for completing college and independent living skills. If the student claimed to have a study strategy that worked and was
able to describe the strategy and how it works for them, the student may have some level of proficiency or knowledge with study habits and may not be something they need to work on. Instead, the student may not be confident in their ability to take care of themselves independently, which could be something to focus on when meeting with their mentor. The baseline serves as a tool to aid in tailoring the mentoring experience for each individual student and what they may need additional support developing, which may or may not be perceived as areas of support initially by the student.

**Evaluation of Observed Outcomes**

Students participating in the program enter at different levels, meaning not every student has an established GPA prior to enrollment in the program. However, average GPA’s of students following the fall 2017 semester was 3.00, which improved to 3.34 by the end of the spring 2018 semester. The retention rate for FTIC students was 100%, or twelve out of twelve, higher than the overall university’s first year retention rate of 79.1% for the same period (UNF Florida Equity Report, 2017). While the baseline survey is meant to provide a starting point for mentors and students to identify and target areas to focus on, the results of the survey can also provide long-term direction for students who may be unsure of what types of careers can be associated with specific majors and programs of study. For example, students select their confidence levels in the major or potential major preparing them for a career. Following this, students are asked to list a specific career that requires their degree or major as well as what career evidence the student has that confirms their choice in major. The results of the survey indicated areas of need for students unsure of career choices or what majors could be required for specific employment fields. Students participating in the 2017-2018 year were able to explore majors and careers with the support of their mentors by attending career fairs, information sessions on different majors, and meeting with career advisors as a result of completing the baseline survey.

The results of the baseline survey have provided program staff with much-needed student perspective in terms of evaluating student functioning levels. Unlike previous research by Turcotte and colleagues (2016) that intentionally omitted survey responses of individuals with ASD, this survey allows the individual to tell staff what their personal wants and needs for supports may be, directly from them. This allows for the opportunity for the individual to advocate for their own needs and give them an opportunity to speak for themselves. One of the downsides to including only individual perspectives is the increased likelihood of miscues and incorrect information provided. However, using the baseline survey is an opportunity for students to learn where their strengths and weaknesses may be and what potential resources might be necessary to ensure success. Overall, staff reported seeing an increase in confidence and self-advocacy when meeting with students using the results of the baseline to provide a foundation or starting point in developing goals and skills. One measure used to evaluate increased confidence and self-advocacy with students was through attendance and participation in campus events. At the end of the semester, students were able to compare their baseline results to end of term progress and reflect on the strategies utilized throughout the semester with the mentor that led to the positive outcomes, and how they can be implemented across times and settings. Weekly mentor notes described examples of students engaging in self-advocacy (seeking help when needed, problem-solving issues with roommates, initiating participation, and attending campus events) and overall confidence levels increased when mentors asked students what they liked doing over the course of the semester and why these activities were helpful.

**Implications and Portability**

The use of the baseline has been valuable for providing insight into the current thoughts and feelings of the individual, making it easier to determine what supports the individual may need. The baseline is simply a tool, however, to be used alongside information given from the student. There is very little research that has been done from the student’s perspective, such as asking them directly what supports they feel they need, identifying their own goals, or what skills they would like to learn or improve upon. This baseline is unique because it helps to establish how the student feels about their knowledge or skills by asking them directly, as opposed to asking parents, doctors, or other professionals. The baseline was created after the program had already been created and was not present from the beginning, so not every student in the program has taken the baseline. In the future, making the baseline a requirement for all students seeking to enter the program would aid in the process of beginning to ask the student what supports they are interested in before fully engaging within the program. Having the students complete the baseline before leaving the program may also allow staff to compare the student’s initial knowledge to their cur-
rent knowledge, which can aid in improving how the program functions.

While the baseline was created for the program, the ideology of asking students with disabilities directly what supports they would need or be interested in to be successful is something that can be generalized across all settings and institutions. Allowing the student to express their own wants and needs is an expression of self-advocacy, which is a skill most individuals, whether they have a disability or not, is important to learn. The baseline is composed of questions that are not specific to the program or to an ASD diagnosis, so the same baseline can be used or slightly modified and can be generalized across populations. It would be possible to use the baseline for students with disabilities in other institutions and programs, and could assist individuals working with the students in connecting them with resources and supports that would benefit their interests, wants, and needs, leading to an overall more useful experience for the student.

References


About the Authors

Dr. Tara Rowe received her B.A. degree in exceptional student education from the University of North Florida and EdD from the University of North Florida in Educational Leadership. Her experience includes working as an adjunct instructor for the College of Education and Human Services as well as serving as the director for THRIVE, a transition program for matriculating students with ASD. Her research interests include self-determination, students with disabilities, developing mentor programs, leadership, and graduation and employment success for individuals with disabilities. She can be reached by email at: t.rowe@unf.edu.

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Audio Description as a Collaborative and Reflexive Tool  
(Practice Brief)

Elizabeth A. Thomson¹

Abstract

With approximately six million people who are blind, between the ages of 16-75+ years of age in the U.S., audio description (AD) is one way to increase people with disabilities’ access when visual images are involved (American Council of the Blind, 2019). Snyder (2014) described AD as a verbal description of a program (i.e., performing arts, films, cultural events). Furthermore, AD is distinct from an art label, photo caption, or an audio tour offering more than context, but actual description of the situation (Thomson, 2017). In some cases, AD is available at art and cultural museums. This paper imagines AD as a collaborative and reflexive tool for college artists, AD practitioners, blind communities, and gallery curators. This collaborative practice is important because the outcomes can increase shared access accountability, offer participating artists reflexivity, and increase the level of AD accuracy for people with visual impairments.

Keywords: audio description, art, campus art galleries, collaboration, access, Universal Design, blind/visual impairments

Audio description (AD) is a verbal description of an item, program, or event. As early as 1964, blind communities have advocated for AD, although the service was not the blind communities’ highest priority. Then, in the early 70s, an academic at San Francisco State University started to do work with AD and theater performances. Nearly a decade later, pioneers Margaret and Cody Pfanstiehl facilitated AD training to volunteers for the PBS series American Playhouse. Audio description was first included in a 2002 piece of legislation, when the major broadcasters would have to provide a minimum number of described programming due to the Federal Communications Commission (2002; Packer, Vizenor, & Miele, 2015).

Until recently, little research has been done on AD. Snyder (2014) wrote the first dissertation and later a comprehensive training manual on audio description which gives a historical overview of the practice as well as guidelines and practice activities. To further practitioners’ professional development, Snyder annually facilitates the Audio Description Institute, a three-day intensive hands-on workshop where the manual is used as the primary textbook (American Council of the Blind, 2015). Scholar and AD consumer Georgina Kleege (2016, 2018) critically considered the practice and argued that AD could have more universal audiences beyond those who are blind or with visual impairments and envisions a future where the practice is done more collaboratively (i.e., artists, describer, and blind and low vision communities). For example, Cozendeey and Costa (2016) examined how AD can be a learning tool for all students in a physics class; and Perego (2016) examined the tool with sighted viewers experiencing it with a film. Branje and Fels (2012) demonstrated how 12 people with little or no prior knowledge of AD participated in an AD training, and then created a description for a 20-minute TV show. Blind and low vision consumers of AD rated them, and nine out of twelve scored at least satisfactory or higher. This is important because it showed with some training, most people can produce AD at least satisfactory, if not better. Although there is little research in the area of AD, the current research is exploring teaching AD to “non-professionals” and broadening its audience. In parallel, Closed Captions were primarily meant for those who are d/Deaf and Hard of Hearing, and now hearing folks utilize Closed Captions (Griffin, 2015). Audio description has a similar potential for “eyes free” experiencing, which may result in greater access for all.

¹ University of Illinois at Chicago
Depiction of the Problem

One of the longstanding guiding principles for AD is the idea of being objective and not interpreting a scene or artwork (Packer et al., 2015; Snyder, 2014). Taking this into consideration as I was producing AD for some campus art exhibits, I wished I had access to the artists so I could “check” my work. Additionally, I found this practice to be lonely and isolating. I often sat in the gallery alone or viewed the images on my laptop by myself. I wondered how this could be more of a collaborative process, get confirmation by the artists, and share more equitably the time and labor production. Often when it comes to access, the burden is put on the person with the disability. From the social model and social justice model of disability, this unacceptable. The environment and/or the power dynamics is what should be changed.

Thus, I realized one possible solution for the problems was to collaborate with the participating artists. I could provide a brief tutorial of what audio description is, assist them with the writing, but ultimately the artists would write the descriptive text and voice the recording, too. Thus, AD could enhance the experience for everyone by hearing the artists. This act also supported the ideas of interdependence, self-determination, and empowerment – some values of feminism and disability (ARC of the United States, 2011; Sprague & Hayes, 2000).

Participant Demographics and Institutional Partners/Resources

For this practice brief, the case explored is an art exhibit at a lesbian, gay, bisexual, transgender, queer, intersex, and ally (LGBTQIA) cultural center at a university. The case involved many people with various roles. They included the gallery curator, the participating artists, the audio describers/AD educators, and the blind and low vision community.

Gallery Curator

The gallery curator was also the director of the LGBTQI cultural center, at a large urban research university. The center has sibling cultural centers, which include the student disability resource center. The various centers often collaborate and exchange ideas to support the diverse student population and increase inclusion. The gallery curator was a White, non-disabled, cisgender female. Prior to the collaboration, she expressed she had little experience with AD, but was open to the practice.

Participating Artists

For this art exhibit, there were ten artists showing their work. They were students and community members (i.e., non-students) of various identities. The AD educators did not know their specific identities. However, during the process, one artist disclosed having a visual impairment. Very few of the artists were familiar with AD. Through the exhibit, the artists gained exposure from an opening reception, the exhibit’s associated programs, and the potential to sell their work.

Audio Describers and Educators

There were two initial audio describers and educators. One person was a museum studies master’s graduate student and also the graduate assistant for the LGBTQIA center. He provided an insider role which proved extremely beneficial (i.e., more time with the gallery curator, more time to focus on the exhibit). He identified as a cisgender, gay, non-disabled male. The other describer and educator also held an insider’s relationship with the center, since they had previously worked at the center. They are a PhD candidate, in disability studies, and identified as a person with a disability (but not a visual impairment), a Vietnamese adoptee, bi/queer, gender non-conforming, cisgender female.

Blind and Low Vision Communities

Reflecting on the historical disability rights slogan, “Nothing about us without us,” one of the audio describers reached out to some students and community members who they knew and were blind or have low vision for feedback on the collaborative process and the final AD of the exhibit (Charlton, 2000).

Gallery Space

The gallery space played a role in this endeavor. The space was approximately 10’x15’ in a pie-like piece shape. It was located adjacent to the larger center’s student community space where predominantly students drop in, study, socialize, and use the computers and printer. The gallery is free and open to the public during Monday-Thursday, 10 a.m.-5 p.m. and Fridays, 10 a.m.-2 p.m. Sometimes the gallery space is used for meetings. Typically, the center organizes two to three exhibits all centering around the subject of gender identity, gender expression, and/or sexual orientation throughout the academic year. The space is physically accessible and located on street level near one of the main entrances. The building is near a bus and train stop, which increases pedestrian traffic.
Description of the Practice

Unlike previous experiences of doing AD with art galleries, the audio describers approached the gallery curator two months ahead of the Call for Artists. This allowed everyone involved as much lead time as possible and have the AD work be integrated as early as possible in the process. Even before the artists’ selections were made, the audio describers/educators provided the gallery curator with a brief description about the collaboration and information about AD. The artists were invited to write their descriptive text independently, or with help (in person, by phone, email). Most of them wrote the descriptive text with the AD educators and in-person. For example, the artists would write the initial draft and one of the audio describers/educators would review the text. The artists might be probed through open-ended questions, such as, “how would you describe the woman’s dress color?” or “is this part important, because I notice you didn’t describe it?” The artwork was present to be reviewed together. Then, if the artists wanted to and had the time, they voiced the descriptive text and the art label on a smartphone, which was familiar and easy to use. Ultimately, for each art piece the result was: (1) the descriptive text in a Word document for large print format and text online, (2) a recorded sound file voiced by the artist to be on a device, and (3) the audio file and image on Soundcloud.com, a free, audio cloud portal.

In the end, nine of the ten artists wrote their descriptive text for their art pieces. Then, five of them voiced the text they wrote. For those who did not write either the text or voice the text, one of the audio describers/educators completed the AD, and there was transparency to the exhibit audience in these instances who was speaking.

To be as inclusive as possible and have a variety of different means of access, there was the descriptive text available in hardcopy large print; text in a document online; the sound files uploaded to Soundcloud.com, a free, third-party cloud system; and lastly, the sound files uploaded on two iPod Nanos that people could use in the gallery space for free. The goal was to have different ways of access just in case there were Internet or technical difficulties. Ironically, even though the collaboration had begun early, finishing touches with the gallery art labels and the AD occurred one hour before the opening reception. However, in the end, all the artwork had audio description by the opening reception.

Evaluation of Observed Outcomes

The idea of collaborating with others was a new and innovative idea. Often, audio describers take on all the labor to observe the art, write the descriptive texts, voice the text, and upload to a device or cloud system. Initially, one of the goals for this collaboration was to involve others to help share the labor and responsibility. This approach is similar to other work and experiences with diversity and inclusion issues. In other words, access, diversity, and inclusion should not be solely one person’s or one unit’s responsibility – diversity and inclusion should be shared and be part of institutional responsibility. Interestingly, regarding time- the audio describers believed they spent more time, than less.

Additionally, during the process, the audio describers/educators saw how the collaboration was beneficial as a reflexive tool for the artists involved. For example, while working with one artist and reviewing the descriptive text, the question was posed, “What about your main figure’s dress?” The artists had not realized she had not described it. In this way, there is potential and an opportunity for artists to use audio description as a reflexive tool to re-examine their artwork. Similar to qualitative research work, art students could use reflexivity via AD. Furthermore, voicing the descriptive text can give them practice speaking aloud about their work. As the artists read the text aloud, they often “noticed” different things and would want to re-write and then re-record. On average, the artists made no more than three attempts to record their text.

After the AD process was completed, the audio describers/educators distributed a short, confidential, informal survey to the artists to get feedback on their experience. Seven of the nine artists completed the survey. Prior to the exhibit, about half of them were familiar with writing AD. Regarding writing and voicing the text, most of the artists thought the process took “longer than expected” and was “harder than they thought.” Thinking about their future work in exhibits, most were “extremely likely” to ask future gallery curators about having audio description for the exhibits. Below are some feedback highlights:

Did writing and/or voicing the descriptive text have an impact on you?

• I feel more conscious of my work, and of creating visual descriptions in other spaces and online.
• Helped me to better understand my work and how to put in the effort to make it more acces-
sible. Very helpful!

- It made me feel happy because I love storytelling and I was very much telling the story of our piece for others to enjoy.
- I had to put myself in the place of visually impaired people to understand if my description would be effective or not. It expanded my knowledge of necessary accommodations that I was otherwise not familiar with.

Although most of the artists’ experiences were positive, some artists commented,

- It was mildly frustrating.
- I am still doubtful as to why a blind person would want to attend a visual art show. Is there evidence that the blind are being underserved in this respect? Or was this a case of sighted people want to feel more politically correct? I suspect the latter, which makes the whole endeavor feel like a waste of time at best, and pretty unsavory at worst.

This last comment surprised the describers/educators. Furthermore, the artist’s comment conveyed a cynical tone that this process was done to be “politically correct.” After reflection, the AD educators recommended more education for future projects about why AD is necessary and the idea that blind and low vision communities do attend art and cultural events; this should be explained more to the artists.

Lastly, there was a survey feedback form in print and online for those who used the AD. However, no one submitted feedback. The AD educators did get feedback from a few people who were blind or low vision with positive remarks. After the AD was done, the describers organized a lunch and had them listen to the AD and got feedback – both on the content as well as the technical side.

Implications and Portability

Although this is a single case, there are possible implications and high portability of AD as a collaborative and reflexive tool. First, with the collaboration, there can be a dialogue and an exchange of thoughts and ideas between all parties involved (i.e., the gallery curator, artists, audio describers, and those who are blind or have low vision). Second, by having the artists write their own descriptive text, if they cross the line and give some artistic interpretation, it is okay, because it was their art. Third, by voicing the descriptive text, it gives all the exhibit guests the opportunity to hear the artists’ voices and have a more intimate relationship to the artists and their work. Fourth, by doing the AD work proactively, people with visual impairments did not have to “ask for the accommodation at least one week in advance,” which is the university’s standard accommodations’ practice. The burden was not put on the person with the disability, but shared by the center, audio describers, and the artists. Fifth, having digital images of the art work and then the audio files are another way to archive the entire exhibit. And in this case, some of the artists’ voices would also be preserved. Lastly, although this gallery was open to this collaboration, their most recent exhibit this fall 2017 did not have AD. This shows the need for AD to become more ingrained in gallery and museum work standard practices rather than be one person’s initiative. How can writing the descriptive text and producing the audio description become as necessary and standard as handing the pieces of art or a beautiful display of wine and cheese? Clearly, this needs further research and discussion not only by academics, but with gallery and museum practitioners, museum studies students, and students and people with disabilities.

Audio description as a collaborative and reflexive tool is extremely portable to other campuses specifically for the visual arts. Whether the higher education institution has only one main art gallery or a few smaller galleries, the collaborative practice can be implemented with foresight and intention. There is little technical or required devices needed. The main components to the process are someone experienced with AD, a willing gallery curator, willing artists, and time. The success of the process is dependent on how the process is initiated (i.e., lead time, personal attitudes, and personal relationships), how much people understand and value access, diversity, and inclusion in the context of people with disabilities, and how open people are to new ideas and collaboration.

Concrete Suggestions

Here are some suggestions that may increase accessibility, more positive exhibit experiences for all, and increase diverse communities to more fully participate in arts and culture. Suggestions include:

1. Insert a line item in budget for AD work of at least 10%;
2. Train student interns on AD so they could help with the writing of descriptions and keep the process “in house” rather than a third-party vendor;
3. Connect and collaborate with a museum studies program; often, students have a capstone project or can receive internship credit;
4. During the Call for Submissions, when artists submit digital pieces of work, require them to submit a description;
5. Provide AD guidelines and “how to” sheets for artists submitting work;
6. Clearly communicate that AD is significant and necessary. The burden should not be placed on the person with a disability by having a friend or family member describe the art;
7. In social media and exhibit press releases, make sure to communicate that AD is available;
8. Have the descriptive text in many different forms for the guest; regularly test out any equipment or Internet links;
9. Connect, collaborate, and market exhibits with AD to the blind and low vision communities; additionally, the AD could be an “on the road” art exhibit bringing the sound files to their location; and.
10. Take the time to gather feedback from everyone involved – especially those who are most affected (i.e., blind and low vision communities).

References


About the Author

Elizabeth A. Thomson received their B.A. degree in sociology/anthropology and German from Lake Forest College, M.A. in women and gender studies from Roosevelt University, and is a Ph.D. candidate in disability studies, from University of Illinois at Chicago. Their 20+ years of experience includes working with a variety of underrepresented and marginalized student communities. They are currently the Assistant Vice Chancellor for Student Affairs and Director of the Office of Equity, Diversity, and Intercultural Programs at the University of Minnesota Morris. Their research interest includes the new phenomenon of disability cultural centers in higher educations. They can be reached by email at: lthomson@uic.edu.
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