# Table of Contents

*Journal of Postsecondary Education and Disability, 29(3)*  
**Special Issue: Contemporary Best Practices in Disability Services**

**From the Guest Editor**  
Larry Markle  
213-214

**Disability Services Partnerships with Faculty Members**  
Sally Scott, Larry Markle, Roger D. Wessel, & Jennifer Desmond  
215-220

**Doing the Right Thing: One University's Approach to Digital Accessibility**  
Jill A. Sieben-Schneider & Valerie A. Hamilton-Brodie  
221-230

**Closed Captioning Matters: Examining the Value of Closed Captions for All Students**  
Karla Kmetz Morris, Casey Frechette, Lyman Dukes III, Nicole Stowell, Nicole Emert Topping, & David Brodosi  
231-238

**Digital Media Education and Advocacy: Addressing Attitudes Toward Disability on College Campuses**  
Michael T. Hartley, Aimee C. Mapes, Aryn Taylor, & Paul J. Bourgeois  
239-247

**Academic Coaching and Self-Regulation: Promoting the Success of Students with Disabilities**  
Joshua J. Mitchell & Ann M. Gansemier-Topf  
249-256

**An Academic Coaching Model Intervention for College Students on the Autism Spectrum**  
Heather Rando, Mary J. Huber, & Gina R. Oswald  
257-262

**Developing Peer Supports for College Students with Intellectual and Developmental Disabilities**  
Megan M. Griffin, Kelly F. Wendel, Tammy L. Day, & Elise D. McMillan  
263-269

**Changing Systems to Provide Inclusive Higher Education for Students with Intellectual Disabilities**  
Olivia Raynor, Katharine Hayward, Wilbert Francis, & Catherine Campisi  
271-276

**Comprehensive Services Tailored for the Transitional Success of Veterans in Higher Education**  
Dustin D. Lange, Susann Heft Sears, & Nicholas J. Osborne  
277-283

**From Camouflage to Classroom: Designing a Transition Curriculum for New Student Veterans**  
Nicholas J. Osborne  
285-292

**Strategies and Challenges for Creating an Inclusive Study Abroad Program**  
Tanja C. Link  
293-298

**McDaniel Step Ahead: A Summer Transitional Program for First Year College Students with Disabilities**  
Dana L. Lawson, Sarah A. Gould, & Melanie L. Conley  
299-302

**Universal Design: Supporting Students with Color Vision Deficiency (CVD) in Medical Education**  
Lisa M. Meeks, Neera R. Jain, & Kurt R. Herzer  
303-309

**Author Guidelines**  
310-311
Congratulations to Colleen A. Thoma, Virginia Commonwealth University, for being the 2016 Research Reviewer of the Year

Congratulations to Lisa Toft, Learning Specialist & Educational Consultant, for being the 2016 Practice Brief Reviewer of the Year
From the Guest Editor

This issue of the JPED is unlike any other in its long and proud history. There is not a single traditional research article in this issue. Instead, it is comprised entirely of practice briefs, which, according to the JPED’s author guidelines, “describe new or expanded programs, services, or practices that support post-secondary students with disabilities.” The JPED has included one or two practice briefs in issues for many years to complement the research articles it publishes. However, this special issue focuses entirely on practice briefs with two goals in mind: to highlight innovative and exciting programs and initiatives happening within disability services; and to spur disability services professionals to participate in research projects.

The genesis of this special issue was a meeting at the 2015 AHEAD conference with Sally Scott, AHEAD’s Senior Research Associate, David Parker, outgoing JPED Executive Editor, and Roger Wessel, the new JPED Executive Editor, and myself. Drs. Scott, Parker, and Wessel expressed an interest in seeing more disability services professionals participating in research, and for the scholarly articles published in the JPED to have resonance and application for AHEAD members, primarily disability services professionals. Thus, an idea was born for a special issue of JPED consisting solely of practice briefs. Many of the briefs featured in this issue originated as sessions at past AHEAD conferences, and the presenters were invited to submit their work as a practice brief manuscript. Others describe new and exciting practices on the authors’ campuses. Many of the briefs are the result of disability services professionals collaborating with faculty members, relationships that benefit both parties. Some of the hot-button topics within the field of disability services in higher education are represented in this issue: digital accessibility, academic coaching, creating programs for students with intellectual disabilities, and fostering an inclusive environment for student veterans.

I had the privilege of collaborating with Roger Wessel and Jennifer Desmond from Ball State University, along with AHEAD’s Sally Scott on the first practice brief. This article describes the many benefits of partnerships between disability services and faculty, highlights successful partnerships, and provides tips for disability services professionals wishing to do the same.

In the second article Jill Sieben-Schneider and Valerie Hamilton-Brodie from the University of Colorado Boulder describe that institution’s response to a complaint from the Department of Justice regarding lack of digital accessibility. The university’s response serves as a model for other colleges and universities seeking to remove technological barriers for students with disabilities.

Exploring the benefits of captioned media for all students is the theme of the third practice brief. Karla Kmetz Morris, Casey Frechette, Lyman Dukes III, Nicole Stowell, Nicole Emert Topping, and David Brodosi, all from the University of South Florida at St. Petersburg, report on outcomes of a project where captioned videos were provided for students in an online program.

Michael Hartley, Aimee Mapes, and Aryn Taylor from the University of Arizona, and Paul Bourgeois from Springfield College describe a college course that looked at media representations of disability. In this fourth article the authors used the lessons from this course to explore how postsecondary institutions can use digital media to create more inclusive environments for individuals with disabilities.

Joshua Mitchell and Ann M. Gansemer-Topf from Iowa State University discuss the merits of academic coaching for students with disabilities. They outline in this fifth article a coaching model implemented at their institution and provide a summary of assessment results of this program. The sixth brief also describes an academic coaching model, this one for students on the autism spectrum. Heather Rando, Mary Huber, and Gina Oswald from Wright State University describe the promising results, both academically and socially, of a transitional support program for college students with ASD.

Megan Griffin from the University of New Mexico, and Kelly Wendel, Tammy Day, and Elise McMillan from Vanderbilt University, look at a program to provide peer mentoring support for students with intellectual and developmental disabilities. In this seventh practice brief, the authors discuss the need for the program, how it was implemented, and identify challenges encountered in facilitating the program.

Providing access to higher education to students with intellectual disabilities is also the focus of the eighth practice brief. Olivia Raynor, Katharine Hayward, Wilbert Francis, and Catherine Campisi from the University of California, Los Angeles study programs for students with intellectual disabilities across the country, with a special emphasis on a comprehensive program developed for community colleges in California.
In the ninth article Dustin Lange, Susann Heft Sears, and Nicholas Osborne from the University of Illinois at Urbana-Champaign describe a model that provides a range of services to student veterans. In addition to outlining the tenets of the program at their university, the authors suggest practices that other institutions could replicate for their student veterans. Taking the theme of support for student veterans a step further, Nicholas Osborne expounds upon his colleagues work in the previous brief and describes the implementation of a transition course for student veterans. In this tenth article Osborne takes the lessons from this course to offer suggestions for institutions wanting to replicate it.

Tanja Link from Kennesaw State University explains the value of studying abroad for all students and encourages university administrators to offer more opportunities for students with disabilities. In this eleventh practice brief, she shares experiences from a study abroad program and offers recommendations for institutions to consider when students with disabilities are participating in such a program.

In the twelfth practice brief Dana Lawson, Sarah Gould, and Melanie Conley from McDaniel College describe McDaniel Step Ahead, a transition program for new students with disabilities at the institution. The authors use data to share the positive results of the program for students and look at the challenges that the program will face in the future.

The final brief is written by Lisa Meeks and Neera Jain from the University of California, San Francisco, and Kurt Herzer from the Johns Hopkins School of Medicine. They discuss the challenges of medical students with color vision deficiency. The authors identify accommodations to assist these students and recommend universal design principals that can be replicated at other medical programs.

I want to thank Drs. Parker, Scott, and Wessel for the conversation that got me thinking about contemporary best practices in the field, and JPED’s confidence in me to be the guest editor of this JPED special issue. While we are trying something new here, we feel that the programs, initiatives, and collaborations featured in these pages can have relevance for disability services professionals. My mentor Richard Harris once told me that one of the things he loved most about our field was that colleagues openly shared their ideas and best practices with each other. I am certain the authors of these thirteen practice briefs would be honored if their ideas were replicated at other institutions.

Larry Markle
Guest Editor
Ball State University
Disability Services Partnerships with Faculty Members

Sally Scott1
Larry Markle2
Roger D. Wessel2
Jennifer Desmond2

Abstract
Creating impactful partnerships across university divisions can enhance the effectiveness and impact of the Disability Services Office. Research has shown the benefits of practitioners and faculty members collaborating; however, careful consideration and communication is needed in order for these collaborations to be successful and beneficial. In this practice brief, successful collaborations are examined and suggestions are made for Disability Services to foster partnerships with faculty members.

Keywords: Disability services, collaboration, partnerships

Higher education encourages and supports collaboration and partnerships across institutional divisions (AAHE, ACPA, & NASPA, 1998). Collaboration can influence student learning and outcomes while promoting needed change and advancement for the effectiveness of an office (Kezar, 2009; Schroeder, 2003). For professionals to begin partnerships outside of their areas, there are many strategies to successfully balance daily duties and form meaningful collaborations. Through strategic relationship building and understanding individual strengths, professionals can form meaningful partnerships across divisions.

Disability Services is an important resource for students on campuses. Section 504 of the Rehabilitation Act of 1973, and the Americans with Disabilities Act (ADA) ratified in 1990, have played critical roles in ensuring access to higher education for students with disabilities (Madaus, 2011). By promoting inclusive campus practices and facilitating reasonable accommodations, Disability Services ensures that students with disabilities receive equal opportunity for education and the ability to succeed in college while preparing for future careers.

Disability Services function in varying administrative units; some offices work within the Division of Student Affairs while others function in divisions of Academic Affairs or Equity and Inclusion. Duffy and Gugerty (2005), in their examination of the roles that Disability Services fulfills and how the structure of the office interacts with the rest of campus, found that Disability Services can operate from centralized or decentralized orientations. Centralized offices offer wide-ranging services that provide multiple resources for disability-based needs. Decentralized offices provide disability-based services not available elsewhere on campus. Both of these models, depending on the size, mission, and organizational structure of the campus, have proven to be successful. However, both program models can be enhanced by collaborating and forming partnerships across divisions as Disability Services should not work in a vacuum on campus (Association on Higher Education and Disability, n.d.).

Along with verifying disabilities, ensuring reasonable accommodations, and assisting students with disabilities, a priority for Disability Services should be collaborating with faculty and staff (Cory, 2011). Collaboration across the university can ensure commitment to the success of students with disabilities and can assist Disability Services professionals and faculty members to better meet the needs of students with disabilities, and help foster an environment conducive to academic success. Additionally, Disability Services assists the

1 The Association on Higher Education And Disability; 2 Ball State University
Collaboration across divisions or units has often been used as a catalyst for reform and ensuring best practice. Collaboration was positively implemented to enhance the training of future teachers (Sharpe, Lounsbery, & Templin, 1997). The authors examined a partnership between university faculty members and K-12 public school teachers. They viewed this effort as a scholar-practitioner model of combining research and theory with the practical execution of working in the field. The collaboration of these two perspectives and insights allowed individuals to ensure college students were receiving effective training for their future careers. Through the data collected in this study, it was found that successful collaborations begin with a shared vision of the purpose of the partnership and that the participants agree to defined roles.

In the field of Disability Services, collaboration can be an important practice for professionals in higher education. Practitioners seek to promote the development of their students throughout their university experiences. In particular, Disability Services aims to help students transition from high school to college, develop while in college, and effectively find employment after graduation (Scott, 1996). The additional support that collaboration fosters for students with disabilities can enhance their experiences and success on campus, while spreading understanding of students with disabilities to all sectors of the university community. In particular, the partnership between Disability Services educators and faculty members can foster a relationship that enhances the effectiveness of the office and impact with students. With the emergence of universal design and its applications to college instruction, successful faculty and disability resource partnerships in recent years have focused on ways to promote inclusive teaching (Roberts, Park, Brown, & Cook, 2011). New types of partnerships describe the changing role of disability resource professionals to include that of assisting and supporting faculty with instructional design that anticipates diverse learners (Scott & McGuire, in press).

Despite mostly widespread success of partnerships across divisions, there is some caution that collaboration should not receive blind acceptance. Peter Magolda (2005) encouraged those interested in building partnerships across divisions to carefully examine themselves and the situation before proceeding. Creating an effective partnership takes careful consideration of not only the desired outcomes of the relationship but also an understanding of the cultural differences that can exist across divisions. Such cultural differences could be the priorities of being student centered, research focused, or goal driven (Kezar, 2003). Effective collaborations should have “a meaningful, reciprocal, and responsive relationship” (Magolda, 2005, p. 18). By embracing and understanding the different strengths and weaknesses within the partnership, effective collaboration can be accomplished.

Katherine Stolz (2010) interviewed housing professionals working with students with disabilities about the successes or difficulties they faced in forming partnerships across divisions. Participants identified size and decentralization of a university, organizational hierarchy on campus, involvement in multiple initiatives, understanding the needs of students with disabilities, and the demand of keeping up with daily tasks as barriers to forming meaningful partnerships. These hindrances encompassed time constraints and the perceived authority of individuals wanting to form partnerships. However, aspects that helped them partner included being able to share a vision, joining committees, having a point person for the collaboration, and understanding an institution’s history. Individuals who were more involved on campus and were able to relate to different departmental needs were able to form successful partnerships. The participants of the study witnessed the benefit of their partnerships through the success of their students due to the added support that was fostered across campus.

Collaboration has the potential to benefit individuals working in higher education, and the impact can be seen through student experiences. Pursuing a partnership takes careful consideration and strategy. Best practices can inform successful collaborations, and many practitioners can follow the steps to build beneficial relationships across campus.

**Disability Services Practitioner/Faculty Model**

Disability Services professionals can form meaningful partnerships to support the success of students with disabilities. Forming partnerships with faculty members can not only enhance support for students with disabilities on campus, but significant research can be conducted to inform best practices and revitalize policy and procedures for student success. A partnership fostered between a disability services educator and
a faculty member at Ball State University, in Muncie, Indiana, serves as a case study for creating impactful collaborations across campus.

Educators at Ball State University have experienced a successful collaboration between Disability Services, housed in Student Affairs, and academic faculty who are members of Academic Affairs (Scott, 2015). The Director of Disability Services and a faculty member from the Department of Educational Studies began collaborating in 2004 to compare persistence to graduation data for students with disabilities and other students on campus (Wessel, Jones, Westfall, & Markle, 2009). Although this collaboration started with a specific task in mind, this partnership has continued to focus on Disability Services and related research. For faculty members, especially those on the tenure track, these partnerships provide excellent opportunities for scholarship and service. For Disability Services professionals, who are working directly with students with disabilities, these partnerships provide best practices based on research and experience.

Roles

Successful partnerships exist when interest in contemporary issues are combined with an understanding of the research to complement best practices for working with students with disabilities. Creating distinct roles is an imperative first step. At Ball State partnering a faculty member with a Disability Services professional allowed a topic to be approached from two unique and specific vantage points. The Disability Services professional effectively identified a topic to be studied, assisted with access to data or study participants, and discussed implications. The faculty member was more equipped to formulate the purpose and research question(s), conduct the literature review, and design the method and statistical analyses of the project. Through their varying perspectives and administrative homes, these partners were able to approach a research project from multiple dimensions that foster enrichment in both of their lives and data that can enrich policy and practice.

However, it is necessary to recognize the different focus and needs of practitioners and faculty members. Disability Services educators often spend their days working directly with students to identify barriers to their success and negotiating reasonable accommodations. Often, conducting research is not a part of the regular routine for practitioners who are consumed with other daily duties. The benefits for faculty members, who are expected to be scholarly, are an enhanced research agenda. The primary benefits for the Disability Services professional are equally rewarding. Disability Services educators work with faculty daily addressing student needs, and this creates a necessity to foster relationships with faculty members and build credibility with them. Understanding faculty needs and actively working with them is critical to the work in Disability Services and ensuring academic success for students with disabilities.

Additionally, it is important to understand the balance of roles between Disability Services and Academic Affairs educators. Disability Services practitioners do not always have the flexibility to partner with faculty members on their desired research topics (Scott, 2015). Practitioners must be accountable to their supervisors; the Office of Disability Services often determines the primary focus or projects and the ability to collaborate. If a project does not contribute to work of Disability Services, or the experience of students with disabilities, it is likely not a beneficial collaboration to pursue.

These are a few of the key characteristics in building the relationship for a successful partnership. Identifying defined roles within the collaboration and having a shared vision within separate departments are critical factors for success.

Benefits and Challenges

This partnership at Ball State between offices embedded in separate divisions of the university has developed scholarship related to postsecondary disability. For example, partnerships have included research studies on implications for performance based outcomes related to graduation rates for students with disabilities (Knight, Wessel, & Markle, in press); attendant care for students with disabilities (Burwell, Wessel, & Mulvihill, 2015); pre-enrollment considerations of undergraduate wheelchair users and their post-enrollment transitions (Wessel, Jones, Blanch, & Markle, 2015); faculty mentorship and transition experiences for students with disabilities (Patrick & Wessel, 2013); and the experiences of students using power wheelchairs in a collegiate athletic club (Wessel, Wentz, & Markle, 2011). Additionally, the partnership has benefitted Ball State University by sharing results of research projects at multiple professional conferences. Also, this partnership was the impetus behind the receipt of a United States Department of Education demonstration grant that focused on a student-faculty mentorship program ensuring a smooth transition to college for students with disabilities. The Director of Disability Services served as co-principal investigators of this grant with faculty members.

However, as with any collaboration, there are challenges to overcome. In order to address research
questions, there needs to be pertinent data to analyze. The partners must work together to develop a research agenda and obtain archival data. In cases where data does not exist, collaborators must gather data. Furthermore, sometimes Disability Services professionals must convince supervisors that conducting research is an important part of the job in a field when research is not part of everyday practice. When partners are able to overcome challenges like these, rewarding partnerships can be formed to enhance the effectiveness of a Disability Services office.

Lessons Learned and Suggestions

By combining interests and specialties, Disability Services educators and faculty members are able to produce scholarship that may have not been able to be completed without the partnership. Disability Services has access to a population of students and data that may be difficult for a researcher to obtain. Through a practitioner/faculty model, combining interests and resources has the ability to produce rich insights in the postsecondary disability field.

Research has the potential to play a significant role in the work of Disability Services practitioners. By engaging in research, policy and practice can be revised to enhance the quality of Disability Services everywhere. Through networks and professional connections, Disability Services professionals can easily share their findings and encourage other professionals to seek out opportunities to contribute to the field and student experience.

Similarly, faculty members can benefit from partnering with practitioners. Faculty can sometimes become isolated on college campuses through their individual research endeavors, and with the addition of readily available technology, some faculty do not even need to come to campus. This can be a lonely profession. However, when faculty members partner with practitioners not only do they gain the benefits of collaborating and learning from others, their own research and teaching can be informed by best practices.

Relationship building is a key component to fostering successful partnerships across university divisions. Disability Services needs to get to know the faculty and learn of their research interests. There are often many ways Disability Services and faculty members can collaborate if they are willing to reach out and form relationships.

Conclusion

Collaborating with other educators outside of their own administrative area can be a meaningful practice for Disability Services professionals. The ability to partner with faculty members not only contributes to the Disability Services literature, but it also improves practice on their campus, and creates a broader support for students with disabilities on campus and enhances their experiences. Disability Services educators may personally and professionally benefit from partnering with faculty members, and students with disabilities on college campuses may benefit as well.
References


About the Authors

Sally S. Scott received her Ph.D. from the University of Virginia. Her experience includes working as director of disability resources and faculty member on multiple campuses including the University of Mary Washington, the University of Connecticut, and the University of Georgia. She is currently Senior Research Associate for the Association on Higher Education and Disability and the National Center on College Students with Disabilities. Her research interests include postsecondary disability program development and evaluation, universal design for instruction (UDI), and use of evidence-based practices in the field of postsecondary disability. She can be reached by email at sally@ahead.org.

Larry Markle is the director of Disability Services at Ball State University. He is a past president of the Indiana Association on Higher Education and Disability and serves on the review board for the Journal of Postsecondary Education and Disability. He can be reached by email at lmarkle@bsu.edu.

Roger Wessel received his bachelor’s degree in Biblical Studies from Lee University, and master’s and doctor of philosophy degrees in higher education from Southern Illinois University at Carbondale. He is a professor of higher education in the Department of Educational Studies at Ball State University, and has worked in multiple academic and student support offices. He can be reached by email at rwessel@bsu.edu.

Jennifer Desmond received her B.A. degree in Political Science from The University of Maine and is currently pursuing her M.A. degree in Student Affairs Administration in Higher Education from Ball State University. Her professional experience includes Honors College program development and student advising, student leadership development programs, and study abroad. She is currently a Graduate Assistant in the Office of Student Life and Practicum Student in the Office of Disability Services. Her current research is focused on factors enhancing student leadership development including optimized study abroad experiences. She can be reached by email at jldesmond@bsu.edu.
Doing the Right Thing:
One University’s Approach to Digital Accessibility

Jill A. Sieben-Schneider¹
Valerie A. Hamilton-Brodie¹

Abstract
This article describes the approach employed by one university to address a complaint filed by students with disabilities with the Department of Justice (DOJ) regarding the inaccessibility of information and communication technology (ICT). Prior to the DOJ complaint, the university did not have a process in place to address ICT accessibility. Using a project management approach, the university implemented a series of changes to create an infrastructure for digital accessibility. These changes sought not only to remediate the concerns presented in the investigation, but also to establish a process to manage future ICT accessibility concerns. While formal investigation by a federal agency is not something an institution wants to receive, it may be useful in bringing about necessary changes. The response generated by the university can serve as a model to proactively address digital accessibility in higher education.

Keywords: Digital accessibility, higher education, students with disabilities, Department of Justice

Effective information and communication technology (ICT) has revolutionized teaching and learning modalities in higher education. Advances in speech-to-text, text-to-speech, voice recognition software, live captioning, and screen reading technologies have removed many barriers to education (Wald, Draffan, & Seale, 2009). Students with disabilities use general and assistive technologies to support their learning, but there are obstacles to using publicly available digital technology. Additionally, there is a lack of software available for students to access information. These barriers can encompass a wide-range of issues from screen reading and website incompatibility, to problems related to the navigation structure of a website, and limited accessibility of audio and video materials (Fichten, et al., 2012). Furthermore, poorly designed websites and difficult to navigate on-screen displays have challenged the independence of students with disabilities (Varney, 2013).

Since 2009, there have been numerous legal complaints and resolutions that affect ICT in higher education, but few regulations have been put into place at the governmental level. In 2010, the Department of Justice (DOJ) and the Department of Education issued a joint Dear Colleague Letter, which insisted that the use of emerging technology be accessible to all students. This letter became an indication of actions to come. Many of the grievances filed with the DOJ or the Office of Civil rights noted discrimination because of inaccessible ICT. In March of 2011, the National Federation for the Blind filed a complaint against Northwestern University and New York University citing inaccessibility to Google frameworks. The University of Montana, similarly, faced a complaint due to barriers with their web content and services. To date, 30 higher education institutions have faced liability for inaccessible digital technology. While some institutions have adopted broad international web standards others have developed internal processes to address inequities in the system (Carlson, 2016). Until digital accessibility barriers are addressed, educational providers will continue to see complaints and legal action.

Depiction of the Problem

Section 504 of the Rehabilitation Act and the Americans with Disabilities Act (ADA) has provided mandates that ensure equal access and opportunities to people with disabilities—a civil rights act that applies to educational providers (Gordon & Keiser, 1998). The university in question received a letter of investigation from the DOJ in the spring of 2014.

¹ University of Colorado Boulder
that outlined concerns with the accessibility of the institution’s digital technology platforms. While the inaccessibility of ICT has the potential to impact all users, many of these concerns had a direct correlation with the compatibility of screen readers that resulted in barriers for students with vision impairments. At the time of the investigation, the institution did not have a process in place to manage digital accessibility. The DOJ cited six problematic areas:

1. Google Apps for Education: This included the use of email, calendar, spreadsheets, and document processing.
2. Digital textbooks: Required textbooks are commonly not known prior to class causing an untimely conversion of alternate formats.
3. Digital signage: Visual touchscreen displays that provide information such as activities, emergency alerts, and other notices was not equally available to people with vision impairments.
4. University portal: Systems for obtaining scholarship information, paying bills, making appointments with advisors, and registering for courses was not compatible with screen reading software.
5. Websites for homework and course related content: Aspects included items such as the University’s learning management system (LMS).
6. Online placement and diagnostic exams: Components of this citation related to language, math and science assessments that were used to place students in an appropriate level course.

The barriers caused students to fall behind in their academics, rely on the assistance of others for routine tasks and dedicate additional hours attempting to access information through digital technology. In addition, users with vision related disabilities did not have equal access to public information that was available to people without vision impairments (Carlson, 2016). The description below provides information on how the University resolved the cited barriers that were brought to the institution’s attention. Organizational infrastructure and cultural shifts regarding the long-term forecast for ICT accessibility is also outlined in the Evaluation of Observed Outcomes section and Implications and Portability section.

Participant Demographics and Institutional Partners/Resources

The university in focus is a large, residential, public four-year institution that is located in the mountain west region of the United States. It has a student population of 32,000 and is classified as a doctoral research institution with a high undergraduate profile (Indiana University Center for Postsecondary Research, n.d.). In total, the University has 2,100 students registered with the Disability Services (DS) office.

In order to resolve the investigation and build an infrastructure supportive of the ongoing accessibility of ICT, the executive level administration assembled faculty and staff from a variety of departments including: Office of Information and Technology (OIT), DS office, ADA office, General Counsel, University System, Procurement Services, Undergraduate Education, the College of Arts and Sciences, and University Communications. Each of these departments have a role in ICT service delivery or accessibility. The inclusion of these departments was necessary in responding to the DOJ, the overall remediation efforts, and the creation of a system to manage future digital accessibility needs. Additional resources included an external consultant with expertise in digital accessibility and five peer institutions that are leaders in the ICT accessibility field or who have undergone similar investigations.

Description of Practice

At the time of the investigation, the University lacked policies, resources, and staff dedicated to the accessibility of digital technology. When university affiliates brought forth barriers they were accommodated for on a case-by-case basis through OIT, DS, or the ADA office. Like many institutions, ICT accessibility was on the campus’ radar, but without a system in place to manage it, there was not a centralized department that was accountable and the barriers were not formally documented.

Upon receipt of the investigation, executive level administration gathered leading staff from OIT, DS and the ADA office to brainstorm approaches to the citations outlined in the DOJ letter. Early discussions of these working members led to an accessibility gap analysis of the cited services to gain insight into the scope of digital accessibility problems. The gap analysis led to a firm commitment from the executive administration for internal and external accessibility audits of the technology cited in the DOJ letter, remediation of the campus’ digital technology, changes to the organizational structure, and accessibility funding.
This analysis was crucial as it revealed further ICT barriers and provided working members with direction on how to address the investigation.

Strategies most often fail because they are not executed well . . . [project management] assists with the early work of initiating a project, the ongoing planning of project work, the control and management of tasks, and the project closure and knowledge capture. (Clark, 2008, p. 3)

With the additional ICT deficits uncovered in the gap analysis, it became clear that a project management approach would be the most efficient way to ensure barrier removal in a timely way. A project manager was appointed from the OIT department to aide in the creation of project charters and was also responsible for facilitating communication between working members, holding people accountable for deadlines and assisting the working members in narrowing the scope of the project. The scope of the project resulted in three objectives: address the issues cited in the DOJ letter, create an infrastructure to appropriately manage digital accessibility and foster a culture of accessibility and inclusivity for students with disabilities.

In order to address the issues outlined in the DOJ letter, the University created a project structure that resulted in three levels of teams: the Executive Team, the Steering Team, and four Working Group Teams (see Appendix A). The Executive Team included the University’s top-level administration and was accountable for financial resources, decision-making regarding the recommendations of the Steering Team, and the overall implementation of the project. This team also gave the working members a voice. The Steering Team delivered quarterly updates and recommendations to the Executive Team, and consisted of project co-leaders from the Working Group Teams in addition to other key staff. This team also communicated across all Working Group Teams to ensure that ideas and concerns were acted upon so groups could move forward with their work. The four Working Group Teams were directed by two co-leaders from three different offices: OIT, DS, and the ADA office. This guaranteed that accountability was cross-departmental and multiple perspectives were taken into consideration for the project. The four working groups were tasked with the following:

1. Support Services Team: Developing ICT accessibility support and consultation for campus affiliates.
2. Policy Team: Creating an ICT Accessibility Policy and Standards document that provides guidelines on how to comply with the policy.
3. Remediation Team: Correcting the digital technology outlined in the DOJ letter.
4. Communication and Documentation Team: Designing, distributing, and managing campus communications about the project’s progress and the resources available for ICT accessibility.

At the midpoint of the working group projects, the Steering Team hosted a two-day symposium with five peer institutions. At the symposium, the four working groups presented their completed tasks to date. The institutions provided feedback that resulted in revisions for each team.

In addition to the work that each aforementioned team was completing, the Chancellor of the University asked the working members to engage an external consultant. The hiring of the external consultant was invaluable as an unaffiliated party was providing the University with an outside perspective about its current state of digital technology accessibility. The consultant provided a formal report to the Executive Team that addressed opportunities, challenges, and detailed recommendations for long-term change to improve the overall culture of accessibility on campus.

Evaluation of Observed Outcomes

The tasks that the working members completed resulted in significant changes to the daily operations of the University and organizational adjustments to OIT and DS. These changes resulted in positive accessibility outcomes for all ICT users. In addition to the document that the external consultant provided to the institution, each working group completed their project charter and scope of responsibilities that resulted in the following.

Support Services Team

Per the recommendation of the Support Services Team and the external consultant, the creation of new ICT accessibility positions were implemented. A Chief Digital Accessibility Officer (CDAO) was appointed within OIT with the intent of full oversight and accountability of digital accessibility. To ensure that executive administration is up-to-date on digital technology accessibility and that ICT remains at the forefront, the CDAO position sits under the Deputy Chief Information Officer. An ICT Accessibility Program Manager and a Universal Design Coordinator were also hired to filter all digital accessibility tasks, conduct outreach to the University, and serve as a
resource for the campus. These positions were funded by the Chief Financial Officer. This team also created a survey to analyze ICT accessibility gaps that will be distributed annually.

Policy Team

A draft policy was vetted to the University community and was approved in the fall of 2015 (see Appendix B). This marks the institution’s first policy to address ICT accessibility. As a result of the feedback that the Policy Team received at the hosted symposium, the final policy was reduced from approximately seven pages to three pages. The intent of reducing the content was to make it readable, direct, and to give it relevance over time. It emphasizes the University’s legal, moral, and ethical obligation to provide accessible digital technology to maximize the potential for all users. The policy also outlines the position (CDAO) that is responsible for holding ICT creators accountable for digital accessibility and designates a review board that oversees the accompanying Standards document. While exceptions to digital accessibility are highly discouraged and rarely granted as described by the policy, this same review board determines the appropriateness of exception requests. With direct correlation to the citations listed in the DOJ letter, the Standards document addressed textbooks and digital signage—both resulting in assigned accountability and separate established processes for compliance.

Remediation Team

The majority of the homegrown systems have been remediated to meet the accessibility standards outlined by the institution’s ICT policy. Some systems referred to in the DOJ letter were decommissioned with the primary functions being parcelled out among other accessible resources. For external systems that the University has used, the remediation team worked with vendors to test for accessibility. The accessibility tests led to complete remediation of products, vendor repairs, deactivation of services, implementation of already available accessible versions, and formal roadmaps and timelines for full accessibility remediation for vendors and campus entities. With the amount of auditing that was brought forth by this team and the anticipated need for future audits, OIT created a permanent Accessibility and Usability Testing Lab. This lab is staffed by one full time staff member and four student staff—the majority of those students being screen reader users.

Communication and Documentation Team

To encourage transparency, frequent communications were released to the University community. These communications included publications on the institution’s commitment to accessibility, the importance of a cultural shift in how disability accessibility is viewed and planned for, updates on the work in progress, hiring of external consultants, hiring of ICT accessibility staff, and resources for ICT accessibility barriers among other things. Upon the closing of the project charter, this team created an ICT accessibility website that houses the policy, standards, resources, and thorough details on how users and creators of ICT can obtain assistance.

Closing of the Investigation

After multiple updates to the DOJ from the University’s General Counsel, the University received notice from the DOJ in the spring of 2015 that they were closing the investigation. The closing of the investigation was unexpected as it was predicted that a closing letter would not be received for two-three years. The University took this as a commitment to the work that had been done but the institution’s goal remained the same. With continued remediation and the implementation of the new policy and resources, the ongoing goal is to foster a cultural shift in how disability and accessibility is viewed on campus. As such, the University has transitioned the project into an Accessibility Initiative. Using universal design principles, the Accessibility Initiative, while still in its beginning stages, will focus on outreach, programming, support and education surrounding inclusivity and ICT accessibility on campus.

Implications and Portability

One takeaway for other campuses to consider is to be proactive. The institution discussed in this article did not have a system or dedicated staff in place to address ICT accessibility and this made the university susceptible to a formal complaint. The policy (see Appendix B) and ICT staff positions that were created provided an overall infrastructure that outlines accountability and new resources to manage future digital accessibility barriers—all components that others may want to consider implementing as it applies to their school.

Two years prior to this investigation, a university committee submitted a report and recommendations to senior level administration regarding digital accessibility. One reason, among many, that the recommendations did not persist was due to the fact that there was not an executive level staff member championing the cause. When the University received the letter of
investigation it was imperative that the institution had executive level buy-in and participation from the start. This project required the involved departments to work together towards a common goal—thus bringing the issue of departmental silos to light that many campuses experience. One of the ways that the silos were eliminated and collaboration was able to flourish was by issuing cross-departmental co-leaders for the working groups. The involved departments also had middle and senior level staff members who were dedicated to this project and it should be noted that the amount of work that this project took resulted in significant time away from traditional operating processes. The amount of time spent away from the working members’ daily job functions should be planned for from the beginning.

After the initial gap analysis during the infancy of the investigation, it became clear that there were more accessibility issues than originally anticipated. Other institutions should keep in mind that once remediation begins, the solution for one accessibility issue may result in another barrier that needs to be fixed. This caused difficulty regarding the priorities of what needed to be accomplished. To narrow the scope of the work and to identify timelines and accountability, it is recommended that institutions consider using a project management approach. In addition, at the initial stages of gathering working members for the project, key departments were initially overlooked (Library, Campus Bookstore). Other institutions should think broadly about other departments that may be able to assist with digital accessibility and include those people in the conversation from the beginning.

While this investigation is specific to this institution, other schools may want to consider using this case as an example of what could happen when there is not a system in place to handle ICT accessibility. The case provides a solid argument for why it is imperative for campuses to be proactive. If institutions are strategically planning for ICT accessibility up front, they will most likely spend less money remediating and building their infrastructure. The biggest implication to note is that a formal investigation is not necessarily a bad thing. It has led to a cultural shift in how accessibility is viewed on campus and has brought universal design principles to the forefront. There were specific issues that needed to be remediated from a legal standpoint, but the working members and executive level administration emphasized that this project was not about compliance; the project would persist because it was the right thing to do. This standpoint made the ongoing Accessibility Initiative possible post-investigation and has resulted in a system that encourages inclusivity and a level playing field for students with disabilities.

References


About the Authors

Jill Sieben-Schneider received her bachelor’s degree from the University of Colorado Denver in English Literature with Secondary Education, her master’s degree from Ball State University in Student Affairs Administration in Higher Education Administration and is working on her doctorate in Educational Leadership at the University of Colorado Denver. She is currently an Assistant Director at the University of Colorado Boulder in the Disability Services office and serves as the Chair-Elect for the Colorado and Wyoming Association on Higher Education And Disability (AHEAD). Prior to her work at the University of Colorado Boulder she was an Accommodation Specialist and coordinated the Transition Program in the McBurney Disability Resource Center at the University of Wisconsin-Madison. She has also served as a Graduate Assistant in the Disability Services office at Ball State University and taught high school English in Denver Public Schools. Her areas of interest include accessible technology, strategic planning, program as-
essment and transition for students with disabilities. She can be reached at jill.schneider@colorado.edu.

Valerie Hamilton-Brodie received her bachelor’s degree in History from the University of California at Santa Cruz, her master’s degree in Special Education from the University of Minnesota, Twin Cities, and her Diploma in Professional Education and Postsecondary Education and Disabilities from the University of Connecticut. Her experience includes working as a special education teacher in the public school setting and as a coordinator of disability services in higher education. She is currently a Senior Disability Access Coordinator at the University of Colorado Boulder. Her research interests include transition programming and Universal Design. She can be reached by email at: vabrodie@gmail.com.
Appendix A

ICT Services and Applications Accessibility Project Organization Chart

[Note: The original document was a flow chart, and has been converted to a nested outline for usability. Turn on identification of tabs and bullets in your screen reader for best results. Titles of members may have been altered for anonymity and readability.]

Executive Team
- Provost
- Vice Chancellor, Diversity, Equity, and Community Engagement
- Chancellor’s Chief of Staff
- Senior Assistant University Counsel
- Senior Vice Chancellor and Chief Financial Officer
- Associate Vice Chancellor for OIT and Chief Information Officer
- Chief Digital Accessibility Officer (CDAO)

Steering Team
- Vice Chancellor, Diversity, Equity, and Community Engagement
- CDAO
- Director of Disability Services
- Associate Vice Chancellor for OIT and Chief Information Officer
- Senior Assistant University Counsel
- Associate Director of Academic Technology
- Assistant Directors of Disability Services
- Program Manager of Disability Services
- ADA Coordinator of ADA office
- Director of Enterprise Services
- Director of Academic and Campus Technology Communications and Support
- Interim Deputy Director of Communications and Support
- Director of OIT Human Resources
- Project Manager from OIT

Working Group
- Associate Vice Chancellor for OIT and Chief Information Officer (co-leader)
- Director of Disability Services (co-leader)
- Program Manager of Disability Services
- Assistant Directors of Disability Services
- ADA Coordinator of ADA office
- Director of Enterprise Services
- Director of Academic and Campus Technology Communications and Support
- Director of OIT Human Resources Assistant
- Director of Communication, Web and Documentation
- Associate Director of Academic Technology Strategy and Support
- Assistant Director of Teaching and Learning Applications
- Associate Director of Learning Spaces and Technology
- Program Manager of Messaging and Collaboration
- Assistant Director of Communication, Web and Documentation
- Service Managers from OIT
- Assistant to the Executive Director of OIT
- Project Manager from OIT
- ICT Accessibility Consultant
- Project Manager from OIT
Working Group, Policy Team
- ADA Coordinator of ADA office (co-leader)
- Director of Academic and Campus Technology Communications and Support (co-leader)
- Assistant Directors of Disability Services
- Senior Assistant University Counsel
- Faculty
- Vice Provost and Associate Vice Chancellor for Undergraduate Education
- Director of Procurement Services

Working Group, Remediation Team
- Program Manager of Disability Services
- OIT Supervisor
- Program Manager of Teaching & Learning Applications
- Associate Director of Academic Technology
- Assistant Director of Student Services, Quality Assurance and Support
- Labs Services Manager
- Audiovisual Engineer
- Program Manager of Email Collaboration
- Senior Associate Director of Support
- Associate Director of Academic Technology

Working Group, Support Services Team
- Assistant Director of Disability Services (co-leader)
- Associate Director of Academic Technology Research (co-leader)
- Associate Director of Academic Technology
- Director of Academic and Campus Technology Communications and Support
- Director of Web Communications
- Arts and Sciences Creative Director

Working Group, Communications and Documentation Team
- Assistant Director of Disability Services (co-leader)
- Assistant Director of Communication, Web and Documentation (co-leader)
- Assistant Director for Campus Communications and Engagement
- Public Relations and Communications Manager
- User Experience Specialist
- Information Design Manager
- Campus Communications and Engagement
- Communications Professional
- ICT Accessibility Coordinator
Appendix B

Accessibility of Information and Communication Technology Policy

A. Purpose
The Americans with Disabilities Act of 1990 (ADA), as amended, and Section 504 of the Rehabilitation Act of 1973 require, that higher education institutions afford all qualified individuals with equal access to programs, services and activities, and effectively communicate with individuals with disabilities. In addition to complying with the law, [institution's name] is morally and ethically committed to communicating information to all individuals in a manner that enables them to achieve their academic and professional goals and aspirations. To maximize [institution's name] potential to achieve its legal, moral, and ethical commitments in the digital environment, the university has established the following policy to complement its information and communication technology accessibility program.

Implementation Period: The ICT Accessibility Review Board shall establish a prioritization schedule defining when different programs, services and activities must be compliant with this policy.

B. Policy and Procedure
1. [institution's name] commits to ensuring that the information and communication technology (ICT) that it creates or provides in conducting its programs, services, and activities is accessible to people with disabilities, in accordance with applicable law and our moral and ethical commitments described in section A.

2. To facilitate faculty and staff meeting the responsibilities described in section B.3, [institution's name] shall make training and resources readily available to faculty and staff, including a campus website devoted to providing information regarding accessible ICT. The training and resources shall include specific information for faculty and staff who are responsible for creating, selecting, or maintaining ICT in any university program, service or activity. The training and resources shall also include how to make ICT accessible, how to both manually check and use automated tools to ensure the accessibility of content therein, and how to get assistance.

3. Drawing on resources described in section B.2, faculty and staff who use, create, purchase, or maintain ICT for university programs, services, and activities in the scope of their employment are responsible for making it accessible in accordance with this Policy and the accompanying ICT Accessibility Standards referenced below. Faculty and staff should consult with the Chief Digital Accessibility Officer (CDAO) for more information regarding responsibilities and advice on best practices.

4. [institution's name] shall appoint and maintain a Chief Digital Accessibility Officer (CDAO) who is responsible for:
   • creating, revising, and publishing campus ICT accessibility standards (ICT Accessibility Standards), best practices, and resource information, in collaboration with the ICT Accessibility Review Board, as a supplement to this Policy;
   • in collaboration with University Counsel monitor for regulatory changes and coordinate with regulatory agencies as appropriate;
   • providing guidance regarding implementation of ICT accessibility standards;
   • reviewing and reporting on program effectiveness as appropriate to the Chancellor, Vice Chancellor for Diversity, Equity, and Community Engagement, the Associate Vice Chancellor for Information Technology and the ICT Accessibility Review Board (as described in section 5);
   • day-to-day management for the ICT accessibility program;
   • maintaining ICT accessibility training content;
   • executing any other related responsibilities as assigned by the Associate Vice Chancellor for Information Technology or designee.

5. [institution's name] will establish and maintain an ICT Accessibility Review Board. Members of the board shall include a cross-representation of faculty, staff, students, and administrators. The Vice Chancellor for Diversity, Equity, and Community Engagement and the Associate Vice Chancellor for Information Technology, or their designees, shall appoint board members. The board, in collaboration with the CDAO,
shall advise the Chancellor, Vice Chancellor for Diversity, Equity, and Community Engagement and the Associate Vice Chancellor for Information Technology, of the status of the ICT accessibility program and required program changes. These duties include:

- approval of campus ICT accessibility standards, best practices, and resource information proposed by the CDAO;
- that members of the board, as delegated, review and grant any exceptions to this Policy or the ICT Accessibility Standards;
- determine the content and frequency of trainings, as required by Section B.2. of this Policy;
- periodically review and update this Policy and the ICT Accessibility Standards.

6. Exceptions may be granted by the ICT Accessibility Review Board (as defined in B.4) under certain circumstances including, but not limited to, fundamental alteration, as defined below, or undue burden to CU Boulder. Exceptions should be narrowly tailored, limited in duration, and should describe the method through which equally effective alternative access will be provided.

C. Definitions
Accessibility: means a person with a disability is afforded the opportunity to acquire the same information, engage in the same interactions, and enjoy the same services as a person without a disability in an equally effective and equally inclusive manner, with substantially equivalent ease of use. The person with a disability, using auxiliary aids if necessary, must be able to obtain the information as fully, equally and independently as a person without a disability. Although this protocol might not result in identical ease of use compared to that of persons without disabilities, and the means of acquiring information may differ, the protocol still must ensure equal opportunity to the educational benefits and opportunities afforded by the technology.

Information and Communication Technology: means any electronic system or equipment, and content contained therein, used to create, convert, communicate, or duplicate data or information. The intent of this definition is to capture an inclusive spectrum of current and emerging technology.

Fundamental Alteration: means alteration of the essential purpose of the program or service, or any of its components.

Undue Financial and Administrative Burden: means significant difficulty or expense. Because an institution must consider all resources available at the university level when reviewing claims of undue financial and administrative burdens, the decisions to invoke undue financial and administrative burdens must be carefully weighed and sufficiently documented.

Effective Date
Wednesday, September 16, 2015
Closed Captioning Matters: Examining the Value of Closed Captions for All Students

Karla Kmetz Morris¹
Casey Frechette¹
Lyman Dukes III¹
Nicole Stowell¹
Nicole Emert Topping¹
David Brodosi¹

Abstract
As the number of online course offerings expands and student retention and graduation metrics proliferate, colleges and universities are examining how to maximize student comprehension, meet the needs of a diverse student body, comply with accessibility regulations, and avoid litigation. One area of particular interest is the use of closed captioning in online course materials. The University of South Florida St. Petersburg Distance Learning Accessibility Committee and faculty contributors conducted an initial investigation to determine the benefits of providing captioned media for students with and without disabilities. Reported here are student outcome data from two online courses and the benefits of captioning for students and faculty are explored. In addition, this practice brief includes a discussion about how captioned videos employ principles of universal design to make course content accessible to students in online courses. A section of the article addresses the cost of captioning videos as well as alternate transcription options. The article concludes with the results and recommendations for further research.

Keywords: Online learning, web accessibility, closed captioning

At many institutions, closed captioning in online courses is provided on an as-needed basis. Typically, captions are provided in response to an accommodation request made through an office of student disability services (OSDS). However, recent litigation (e.g., Grasgreen, 2013; Lewin, 2015), growing student diversity in higher education, and potential benefits to all learners highlight the value of making closed captioning a standard feature in online courses.

Federal legislation ensures equal access to higher education for students with disabilities. In particular, Title II of the American with Disabilities Act ([ADA], 1990) requires that communications with people with disabilities is as effective as communications with others. As interpreted by the U.S. Department of Education Office of Civil Rights ([OCR], 2003), “as effective as” encompasses timeliness, accuracy, and the provision of the content in a manner and medium appropriate to the significance of the message and the abilities of the individual with the disability.

In response to a compliance review by the OCR, the Distance Education Accessibility Guidelines Task Force of the California Community Colleges developed an updated set of distance learning guidelines. One of the 11 guidelines outlined the requirement for closed or open captioning for all course media (Distance Education Accessibility Guidelines Task Force, January 2011). A 2012 settlement between the National Federation for the Blind (NFB) and Pennsylvania State University highlighted the importance of accessibility compliance and resulted in the institution improving the accessibility of their distance learning technologies (The Pennsylvania State University, 2011). The OCR has also indicated “The courts have held that a public

¹ University of South Florida St. Petersburg
Covered entities under the ADA are required to provide effective communication regardless of whether they generally communicate through print media, audio media, or computerized media such as the Internet. Covered entities that use the Internet for communications regarding their programs, goods, or services must be prepared to offer those communications through accessible means as well. (Patrick, 1996, p. 1)

This further emphasizes the need for comprehensive captioning policies and procedures in advance of accommodation requests and, we believe, demonstrates the value of a proactive approach to accessibility in online course offerings.

Previous research shows that closed captioning can benefit many kinds of learners. In addition to students with hearing impairments, captions stand to benefit visual learners, non-native English learners, and students who happen to be in loud or otherwise distracting environments. In remedial reading classes, closed captioning improved students’ vocabulary, reading comprehension, word analysis skills, and motivation to learn (Goldman & Goldman, 1988). The performance of foreign language learners increased when captioning was provided (Winke, Gass, & Sydorenko, 2010). Following exams, these learners indicated that captions lead to increased attention, improved language processing, the reinforcement of previous knowledge, and deeper understanding of the language. For low-performing students in science classrooms, technology-enhanced videos with closed captioning contributed to post-treatment scores that were similar to higher-performing students (Marino, Coyne, & Dunn, 2010). The current findings support previous research and highlight the suitability for closed captioned content for students with and without disabilities.

Making closed captioning standard in online courses with audio or video content is consistent with the principles of universal design. Universal design stipulates that products, spaces, and experiences should be designed to maximize accessibility. Instead of providing alternatives for certain populations, universal design involves inherent accessibility, with the potential to benefit everyone (deMaine, 2014). In the context of higher education, universal design for learning (UDL) provides guidelines for designing instruction that promotes access to and understanding of content for all learners (King-Sears et al., 2015). Central to UDL is the principle that multiple ways to interact with content and people are provided (Tobin, 2014).

Because more students are enrolling in online courses, the potential for UDL principles to enhance higher education is increasing (Rao & Tanners, 2011). Law schools are seeing an increase in the number of students with physical and cognitive impairments (deMaine, 2014), and, across disciplines, students with disabilities participate in online courses at disproportionately high rates (Coy, Marino, & Serianni, 2014).

Some research has tested the effectiveness of UDL in online courses. In a small-scale study, Rao and Tanners (2011) found that students were receptive to course elements developed in accordance with UDL principles. In another study, King-Sears et al. (2015) found no significant differences between a group exposed to a course and a control group. Some research has emphasized the role of captioning as part of a broader UDL strategy. For courses with extensive video resources, Tobin (2014) observed that captions have the potential to benefit almost every student. Other work has focused on the merits of a two-pronged approach to captioning that involves verbatim captions and "concise captions" that are designed to simplify vocabulary and grammar (Sapp, 2009). These studies are preliminary, and more research will broaden our understanding of how the application of UDL principles affects online learners.

Although further empirical evidence is needed, UDL has great promise for increasing access and understanding in online courses. Some evidence also suggests that UDL can improve retention rates online (Tobin, 2014). However, multiple barriers can hinder the successful adoption of UDL principles. UDL can require a significant investment of time (Rao & Tanners, 2011), and the success of a UDL-inspired course ultimately rests on the abilities and attitudes of the instructor responsible for its delivery (Black, Weinberg, & Brodwin, 2014).

**Depiction of the Problem**

Our institution’s Distance Learning Accessibility Committee and contributors conducted an initial investigation to explore the benefits of closed captioning of multimedia for students in two online courses. This project was conducted to determine whether a more proactive approach to accessibility in online courses
at the University of South Florida St. Petersburg was prudent; however, the project results may prove useful to other institutions examining similar aspects of their online instructional strategy. Our guiding questions included the following: Is there a statistically significant difference in student achievement between the captioned and non-captioned course? Was there a significant change in the academic assessment of instruction? What, if any, were the benefits of closed captioned media to students? What is the average per course cost of captioning? Finally, is it more cost effective to caption videos at the institution, rather than with an external vendor?

**Participant Demographics and Institutions**

**Partners/Resources**

The University offers undergraduate and graduate degrees in arts and sciences, business, and education. The current student population is approximately 6,500 full and part-time students, with significant growth in recent years. Approximately 25% of student-earned credit hours during the fall and spring semesters are generated through online courses. During the summer, approximately 54% of student-earned credit hours are generated online. The university’s online courses are delivered using the Canvas learning management system by Instructure.

**Description of Practice**

All video content was closed captioned for two online courses, which had previously been offered with identical content and format but without captions. This allowed for comparison of the outcome data, student response survey, and student assessment of instruction from both the total of 241 students enrolled in the captioned course as well as the 334 students previously enrolled in the course prior to captioning.

**Law & Business I** and **Introduction to Psychology** were the courses examined and both courses incorporated the full-length lecture capture method. This method captures a typical full-length lecture in which students will see both the instructor and the presentation visuals (e.g., PowerPoint) on screen. Based on a 16-week semester, the average weekly video lecture length was 99 minutes for **Law & Business I** and 108 minutes for **Introduction to Psychology**. Lectures for both courses were filmed in the Distance Learning Studio at the institution during a regular semester in front of a live audience.

A third-party vendor transcribed the course videos and supplied the captioning files that were attached to videos in post-production. Next, captioning files were packaged with the video using the Camtasia video editing program. Video files were hosted on a server and links to the videos were provided on the course site. These links opened video content in a new tab played within the browser.

At the end of the semester, students were asked to complete an anonymous survey about their experiences. The survey, of which 66 students responded, consisted of 12 questions as well as queries for demographic information, previous experience with closed captioning and online learning, and perceived advantages or disadvantages of their experience with captioning in the current course (See Appendix A).

The survey data, student assessment of instruction, and achievement data were compared with the 334 students enrolled in the previous versions of the course with no closed captions.

**Evaluation of Observed Outcomes**

**Student Benefit**

We suspected students would, in general, benefit from the inclusion of closed captioning, and the results support that hypothesis. Interestingly, more than 13% of respondents indicated having a disability, of which only 6% of those indicated being registered with the OSDS. When queried regarding whether captions were helpful, 99% of students reported they were helpful (5% slightly, 10% moderately, 35% very, 49% extremely). We were unable to determine differences among students with and without disabilities, as we did not track individual survey responses.

Qualitative responses to the student survey point to four distinct benefits:

**Clarification.** Students reported difficulty hearing the instructor at times for various reasons, and captions allowed them to understand the lectures fully, even when the audio was not discernable. This was seen in student comments such as, “Close caption helped me because I was able to read and process what was being said a little easier.”

**Comprehension.** Some students found the option to both hear and see content more consistent with their learning styles. These self-described “visual learners” treated captions as a core delivery method, not just a
supplement to the audio content. One student remarked, "They clarified any misunderstandings or miscommunications. Made the information easier to learn because I am more of a visual learner."

**Spelling of keywords.** Students appreciated the chance to see how unfamiliar words were spelled. For example, "If the professor said a word I didn't understand I'd go back and read the caption, there were many legal terms that I did not know of and the captions helped me learn how to spell them."

**Note-taking.** More generally, students reported using captions as a note-taking tool. For example, one student reported, “They helped because when I was taking notes I was able to pause the video and use the captions rather than rewind and repeat the video.” Research (e.g., Locke, 1977; Nye, Crooks, Powley & Tripp, 1984) has shown that taking more comprehensive, accurate notes is correlated with better student academic outcomes. Other research suggests novice learners who take notes while watching video-based lectures remember more and demonstrate better understanding (Shrager & Mayer, 1989). Overall, captions made it easier for students to focus on the instruction and study more efficiently.

Captioning could also enhance academic achievement. The spring 2013 class of *Law & Business I* (with closed captioning) had a slightly higher grade average than the fall 2012 class (without closed captioning). In *Introduction to Psychology*, the class average for the spring 2013 class (with captions) was 7.18% higher than the summer 2012 class (without captioning). While a causal link between closed captioning and academic performance is unsubstantiated, these findings certainly merit consideration and eventual empirical examination.

**Faculty Benefit**

With regard to the impact of closed captioning on instruction, one of the instructors stated:

I was thrilled to be able to offer the on/off captioning option to my students. I really liked that the students could turn off the captioning option if they found it distracting. I have had several students tell me that they like the closed-captioning feature.

When comparing student assessment of faculty instruction results for both courses across semesters, some differences were observed; however, these differences cannot be considered statistically significant due to the response rate for the surveys, nor can differences be directly attributed to the use of captions. Based on comments from the student surveys, four items could, arguably, be impacted by the use of captions. These are: *Respect and Concern for the Students, Facilitation of Learning, Communication of Ideas and Information, and Overall Rating of the Instructor.*

In *Introduction to Psychology*, there was a modest increase in the *Overall Rating of Instructor, Facilitation of Learning, and Respect and Concern for the Students*, however there was a slight decrease in the *Communication of Ideas and Information*. The *Law & Business I* instructor indicated modest increases on all four survey items. A table displaying the full results of student ratings of the faculty is provided as Appendix B.

**Cost Analysis**

Through the selected vendor, the fee was $150 per hour for transcription and provision of caption and transcript files in a variety of formats compatible with many video production programs. Upon reviewing other vendors offering similar services, this was found to be a competitive rate. The cost to caption all videos for both courses for this project was $8,529.93.

Other captioning options also exist. For example, speech-to-text software automatically transcribes speech to text and can be very accurate if speakers spend short sessions training the program to recognize their voices. Faculty could train a dictation program such as Dragon Naturally Speaking and wear a microphone during the presentation to capture and transcribe audio as they teach. This transcript could then be proofread, converted to a time-stamped caption file, and packaged with the video. This process, although time consuming, requires intermediate level technology skills and could be completed by faculty, student employees, or other course development staff. The video production software Camtasia also has speech-to-text capabilities. This program can transcribe and time-stamp captions simultaneously during post-production. The captions would then need to be proofread. Again, this process could prove to be time consuming, and also requires intermediate level technology skills and could be completed by faculty, student employees, or other course development staff. Institutions might also consider hiring a full-time captionist. If an institutional budget permitted, the university could hire a person with a certification in stenography and a minimum of intermediate technology skills to transcribe, proofread, caption and package all multimedia.

**Other Takeaways**

With a 99% accuracy rating, and low cost of captioning when purchased in high volumes, the selected vendor was determined to be the best supplier at the
time for the purpose of the current project. However, some students reported concerns about the quality of the captions. Accuracy issues and missing spaces between words were observed, and these errors were a potential distraction, possibly limiting the value of the captions. If an institution experienced similar issues, we recommend following up with the vendor to discuss errors and solutions, in addition to researching other video delivery technologies. Having a plan to correct problems with captions when they are detected is also important.

Questions asked by the students in the recorded class periods sometimes produced unintelligible audio, which the vendor was unable to transcribe. Our solution was to install new microphones to better capture audience questions and comments. Ultimately, creating a procedure and making students aware of where and how to report problems with captions is also advisable.

Implications and Portability

Though not conclusive, the results of the pilot investigation provide strong support for further research into the benefits closed captioning can offer to all college students taking online courses. Further research in this area could include evaluating the effectiveness of captions in other courses or content areas, directly analyzing student learning outcomes in captioned courses, evaluating the functionality of a variety of multimedia delivery tools, and comparing data of students with and without disabilities. Given the high stakes when captions are neglected and the potentially significant benefits when they are included, we recommend ongoing research into the merits of this basic but important accommodation.

References

Americans with Disabilities Act of 1990, 42 U.S.C. § 12101 et seq
Distance Education Accessibility Guidelines Task Force. California Community Colleges, (2011). Distance education accessibility guidelines for students with disabilities.


**About the Authors**

Karla Kmetz Morris received her B.A. degree in English and Disability Studies from The Ohio State University and M.Ed. degree from George Mason University. Her experience includes working as an Assistive Technology Resource Teacher with Fairfax County Public Schools and working with the Association of University Centers on Disabilities on their collaborative research agreement with the Centers for Disease Control and Prevention. She is currently the Manager of Instructional Design Services at the University of South Florida St. Petersburg and serves on Florida’s State Advisory Committee for the Assistive Technology Act. Her research interests include universal design and accessibility in online learning. She can be reached by email at: kmetz1@mail.usf.edu

Casey Frechette received his M.A. degree from New Mexico Highlands University his and Ph.D. from the University of New Mexico. His professional experience includes instructional design and multimedia production work at The Poynter Institute for Media Studies, a school for journalists. He is currently an assistant professor in the Department of Journalism and Media Studies at the University of South Florida St. Petersburg. His research interests include the design of online learning environments. He can be reached by email at: frechette@usfsp.edu

Dr. Lyman L. Dukes III, is a Professor of Special Education at the University of South Florida St. Petersburg with 25 years of educational experience. He earned his B.S. in psychology and M.A. degree in special education at the University of Florida and his Ph.D. at the University of Connecticut. He has published and presented extensively on topics related to secondary and postsecondary education for students with disabilities. His current research interests include transition from secondary school to college life, and organizational frameworks for postsecondary education and disability. He can be reached via email at: ldukes@usfsp.edu.

Nicole Forbes Stowell, received her B.A. degree in business administration from The University of Florida, Juris Doctor from Stetson University College of Law, and Master of Business Administration from Stetson University. Her practice areas included real estate transactions, real estate financing, business entities, and estate planning. She is currently Instructor II of the undergraduate course, Law & Business I, and the MBA course, Regulatory and Reporting Environments in Business, at the University of South Florida St. Petersburg. She can be reached by email at: nstowell@mail.usf.edu.

Nicole Emert Topping received her B.A. degree in psychology from University of South Florida St. Petersburg, Masters of Educational Technology from Boise State University and is a Ph.D. student in the Instructional Technology program at University of South Florida. Her experience includes working as a technical communications specialist at Soft Computer Consultants and a senior instructional designer for University of South Florida. She is currently an LMS administrator at the Joint Special Operations University. Her research interests include learner satisfaction and retention in online courses. She can be reached by email at: nicoleemert@mail.usf.edu.

David Brodosi received his B.A.S. in Technology Management from St. Petersburg College. He is currently the Interim Director of Online Learning and Instructional Technology Services at the University of South Florida St. Petersburg. Before that, David was the Coordinator of Operations for the Online Learning and Instructional Technology Services Department and has almost 23 years of combined online and classroom technology support services experience in higher education. He can be reached by email at: Brodosi@mail.usf.edu.
Appendix A

Closed Captioning Survey Questions

1. How often did you use closed captioning with the video lessons throughout the semester?
   Never | Seldom | Sometimes | Often | Always

2. How helpful were the closed captions?
   NA (Didn't Use) | Not at all | Slightly | Moderately | Very | Extremely

3. How distracting were the closed captions?
   NA (Didn't Use) | Not at all | Slightly | Moderately | Very | Extremely

4. If the closed captions helped, please explain, briefly, how. If they hindered, please explain why:

5. How helpful was it for the course to have video lectures?
   Not at all | Slightly | Moderately | Very | Extremely

6. What is your anticipated grade?
   A | B | C | D | F

7. Aside from this course, how many online or hybrid classes have you taken?
   None | 1-2 | 3-4 | 5-6 | 7+

8. Outside of this course, describe your experiences with closed captioning in an academic setting:

9. Do you ever struggle with focusing or maintaining attention in class?
   Never | Seldom | Sometimes | Often | Always

10. Do you have a disability?
   YES | NO

11. If so, what is your disability type? (checkboxes, multiple answer)
   Chronic Medical Disorder | Learning Disability | Sensory Disability | Physical Disability | Mental Illness | Intellectual Disability | Developmental Disability | No Answer

12. Are you registered with Student Disability Services?
   YES | NO
# Appendix B

**Student Assessment of Instruction**

*Summary of Data: All Sections of Both Courses Compiled*

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean (no captions)</th>
<th>Mean (with captions)</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Introduction to Psychology</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description of Course Objectives &amp; Assignments</td>
<td>4.38</td>
<td>4.42</td>
<td>+.04</td>
</tr>
<tr>
<td>Communication of Ideas and Information</td>
<td>4.58</td>
<td>4.48</td>
<td>-.1</td>
</tr>
<tr>
<td>Expression of Expectations for Performance</td>
<td>4.42</td>
<td>4.43</td>
<td>+.01</td>
</tr>
<tr>
<td>Availability to Assist Students In or Out of Class</td>
<td>4.04</td>
<td>4.24</td>
<td>+.2</td>
</tr>
<tr>
<td>Respect and Concern for the Students</td>
<td>4.15</td>
<td>4.49</td>
<td>+.34</td>
</tr>
<tr>
<td>Stimulation of Interest in the Course</td>
<td>4.5</td>
<td>4.43</td>
<td>-.07</td>
</tr>
<tr>
<td>Facilitation of Learning</td>
<td>4.23</td>
<td>4.43</td>
<td>+.2</td>
</tr>
<tr>
<td>Overall Rating of the Instructor</td>
<td>4.42</td>
<td>4.57</td>
<td>+.15</td>
</tr>
<tr>
<td><strong>Law and Business I</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Description of Course Objectives &amp; Assignments</td>
<td>4.59</td>
<td>4.78</td>
<td>+.19</td>
</tr>
<tr>
<td>Communication of Ideas and Information</td>
<td>4.59</td>
<td>4.62</td>
<td>+.03</td>
</tr>
<tr>
<td>Expression of Expectations for Performance</td>
<td>4.65</td>
<td>4.8</td>
<td>+.15</td>
</tr>
<tr>
<td>Availability to Assist Students In or Out of Class</td>
<td>4.52</td>
<td>4.76</td>
<td>+.24</td>
</tr>
<tr>
<td>Respect and Concern for the Students</td>
<td>4.6</td>
<td>4.81</td>
<td>+.21</td>
</tr>
<tr>
<td>Stimulation of Interest in the Course</td>
<td>4.38</td>
<td>4.56</td>
<td>+.18</td>
</tr>
<tr>
<td>Facilitation of Learning</td>
<td>4.46</td>
<td>4.76</td>
<td>+.3</td>
</tr>
<tr>
<td>Overall Rating of the Instructor</td>
<td>4.61</td>
<td>4.82</td>
<td>+.21</td>
</tr>
</tbody>
</table>
Digital Media Education and Advocacy: Addressing Attitudes Toward Disability on College Campuses

Michael T. Hartley¹
Aimee C. Mapes¹
Aryn Taylor¹
Paul J. Bourgeois²

Abstract
As digital information becomes the preferred mode of communication, media applications have become an emerging context to address attitudes toward disability. This practice brief details digital media as one method to critically frame ableism on college campuses, promoting a more inclusive campus environment. Coordinated by the disability service office, faculty affiliated with a campus-wide disability collaborative used a Disability Studies framework to design a general education course that critiqued the social construction of disability in the media. Following the course, interviews with eight students illustrated the relevance of the curriculum as it sponsored emergent awareness and understanding of ableism. In particular, it became evident that exposure to first-person narratives of disability via social media were fundamental. Implications address how colleges and universities can use emergent digital media applications as a method to promote an undergraduate culture that is more welcoming to disability.

Keywords: Attitudes, disability, digital media, postsecondary education

Ableism is a form of social prejudice against people with disabilities, defined as the perceived inferiority of people with disabilities and preference for able-bodiedness (Davis, 2006). Attitudes toward disability have improved since the 1970’s disability rights movement (Loewen & Pollard, 2010); however, students with disabilities continue to experience marginalization and social isolation (Baker, Boland, & Nowik, 2012; Dowrick, Anderson, Heyer, & Acosta, 2005). In recent years, Disability Studies has become a framework to promote an undergraduate culture that is more welcoming to disability (Agarwal, Moya, Yasui, & Seymour, 2015; Gabel, 2010; Kroeger, 2010). Disability Studies is an academic field of inquiry that “places disability in a political, social, and cultural context, that theorizes and historicizes deafness or blindness or disability in similarly complex ways to the way race, class, and gender have been theorized” (Davis, 2006, p. xvi). As digital information becomes the preferred mode of communication, digital media applications can offer a critical location for situating disability in ways that promote an inclusive campus climate.

Over the last decade, the development of Web 2.0 applications (also known as “social media”) has led to social networking, defined as the “phenomenon through which Internet users build virtual communities based on common interests, activities, and established friendships” (Chapin & Byrne, 2013, p. 11). Digital media, in the form of on-line newspapers, YouTube videos, and blogs and forums, are replacing traditional forms of information literacy in libraries and books (Buckingham, 2013; Carr & Porfilio, 2009). Offering a limitless supply of first-person narratives about

¹ The University of Arizona, ² Springfield College
disability, the emergence of popular social media tools, such as Twitter, Facebook, YouTube, blogs, and wikis has led to a surplus of individuals using digital technologies and social media as platforms for media authorship (Brandt, 2009). Today, digital media has become a preferred interface to “organize disability-rights actions, let others know about disability related news, promote events, or just find like-minded disability rights advocates” (Haller, 2010, p. 5).

Statement of the Problem

Despite the increasing potential of emerging digital media on college campuses, there is limited information on how colleges and universities can apply this technology to address attitudes toward disability. Building upon decades of research, Shannon, Tansey, and Schoen (2009) noted how the stigma of disability can limit social interactions between students with disabilities and their nondisabled peers, potentially lowering students with disabilities view of self and self-efficacy—key factors in college retention and subsequent graduation (Pascarella & Terenzini, 2005); addressing negative attitudes may increase the academic and social integration of students with disabilities. With this in mind, this practice brief describes using digital media as an innovative “catalyst for defining strategies that educators wishing to incorporate disability studies into their campus community life, inside and outside of the classroom, might adopt” (Fox, 2010, p. 40).

With new generations of students growing up as digital natives, YouTube series and blogs are increasingly integral to addressing disability as a social justice issue (Hartley, Johnson, & Tarvydas, 2015), hopefully bridging the gap between information, knowledge, and the social construction of disability (Gabel, 2010). To be sure, digital media is a critical context to confront social justice inequities impeding students with disabilities, serving as a powerful way to mobilize supporters, foster dialogue with a wide audience, and draw attention to social justice issues that may otherwise go unnoticed on campuses (Haller, 2012). This practice brief will introduce curriculum, present students’ perceptions of ableism in digital media, and consider implications for using digital media as an avenue to address attitudes toward disability in college.

Description of the Project

Coordinated by the Disability Service Office, faculty affiliated with a campus-wide disability collaborative used a Disability Studies framework to design a general education course that critiqued the social construction of disability in the media. The course had not been taught in several years, and with the support of the director and two staff members of the Disability Service Office, the first author redesigned the curriculum to include social media. Specifically, the course content critiqued news stories and Hollywood films with respect to the social positioning of people with disabilities (Reinhardt, Pennycott, & Fellinghauer, 2014). While news stories and films are a common form of critical media literacy, a unique aspect of the course was that social media, such as Twitter, Facebook, Skype, YouTube, and blogs, exposed students to first-person perspectives of people with disabilities with respect to contemporary disability-related political and cultural issues (Gabel, 2010; Rembis, 2010). Contrasting the voices and experiences of people with disabilities as an important point of comparison to dominant news stories and mainstream films, reflective writing and critical thinking were used to foster a model of review and meta-analysis to discern patterns and generate new ways of thinking (Gutiérrez, 2008). To make the learning more concrete, the course analyzed various media examples and asked students in the course to analyze positive and negative messages they receive about disability from a social model perspective.

Following the course, interviews were conducted with eight students to explore the impact of the course on understandings of ableism. After obtaining IRB approval, procedures involved asking participants an identical set of questions in a semi-structured format (Strauss & Corbin, 2015) in the following order: (1) How would you describe your thinking about disability during the course? (2) In what ways has your understanding of disability changed since the course? (3) What role did the course play in your understanding of the social construction of disability? While questions were asked in a similar manner, the format of the interview structure remained sufficiently open and flexible to permit participants to expand upon their responses. Scheduled approximately one month after the semester, the interviews lasted about an hour.

Participants

Taught by the first author in fall 2012, the course had an enrollment of roughly 80 students, and an announcement about follow-up interviews was made to the entire class on the last day of the semester. Of these, eight students agreed to be interviewed once the semester was over, and they approximated the total enrollment in terms of gender, disability, academic year, and academic major. The participants included seven female, and one male student. Further, three students self-disclosed a disability. Finally, students
ranged from sophomore to senior, with majors from special education and speech pathology, to architecture, computer science, and English.

**Procedures**

Data were analyzed using discourse analysis from a constructivist paradigm (Blommaert, 2005). In analyzing the data, the researchers followed an iterative process of data coding. First, initial passes through the data employed structural coding (Saldaña, 2013), applying content-based categories to data segments, which identified data related to three facets of the course curriculum: examining language use, identifying discourses of pity, and recognizing ableism. During subsequent passes of the data, codes were triangulated across different interviews to confirm validity during the coding process (Maxwell, 2013). Triangulation assisted in the cohesive progression of coding, and ensured the data were examined and re-examined from varying perspectives. Following the initial development of structural codes, a second cycle of coding was completed to examine connections across data segments as well as differences. Structural codes were further analyzed into categorical codes, leading to representative codes of the participants’ experiences (Saldaña, 2013). Categories were continually verified by moving between emic and etic perspectives, which helped to ground the data analysis within the course context, including specific course assignments (Strauss & Corbin, 2015).

**Results and Discussion**

From the outset, the course was designed to be an opportunity for students to think critically about ableism through the representation of disability in mainstream media. In the interviews with participants, it became evident that exposure to social media combined with critical thinking in and outside of the course was fundamental (See Table 1 for excerpts of the interview data). Specifically, the interview data illustrated the relevance of the curriculum as it fostered awareness and understanding of ableism, as discussed in the following paragraphs.

**Theme #1: First-Person Narratives**

Data revealed the significance of incorporating social media produced by individuals with disabilities themselves. In fact, the interviews revealed that social media produced from the point of view of persons with disabilities offered great potential for resisting simplistic representations of disability often found in mainstream media. First-person narratives of disability will continue to flourish in social media and may provide increasingly diverse personal narratives, exposing students to multiple and shifting identities, including how the experience of disability may differ for men and women, middle-class white and non-dominant minority communities.

**Theme #2: Function of Language and Representation**

All of the participating students described how critical thinking developed through repeated opportunities to analyze language and images in media, assisting them to identify stereotypes and recognize ableism more complexly. Further, participants were able to articulate a conceptual link between representations that merged into a discourse of disability as deviance. During the interviews, participants introduced media examples from outside of the course, illustrating the ability to generate the type of thinking that occurred in the class on their own. Moving beyond language alone, students were critical of the social positioning of characters with disabilities, including when disability was used as a metaphor for deviance.

**Theme #3: Pathos, Pity, and Charity**

In terms of what changed most during the course, participants described experiences that formed a theme centered on the social implications of pathos, pity, and charity. In this way, participants’ interviews revealed an awareness of an epistemology of disability whereby “embedded assumptions, concepts, and powerful images” reinforce messages of disability as pitiful and tragic (Goggin & Newell, 2003, p. 24). At the least, participants recognized the ways in which a charity ethic functions in dominant cultural narratives about disability. Whether entering healthcare professions or simply interacting with persons with disabilities as family members, peers, neighbors, co-workers, and romantic partners, participants became critical about pity narratives that involved “saving” people and curing disability as something inherently tragic.

**Theme #4: Forming a Concept of Ableism**

Ultimately, the interview data revealed that the course helped participants to conceptualize ableism and the false dichotomies between “us and them,” which dehumanize people with disabilities. Specifically, the class promoted the ability to view disability as a difference, rather than as a social concept inherently associated with marginalization. Participants were able to move past societal meta-narratives and internalized notions of ableism that suggest there is something wrong with people with disabilities and they are not acceptable as they are.
Implications and Future Directions

Moving forward, additional work is needed to fully realize the potential of digital media applications as a tool for education and advocacy. College campuses are more diverse than ever before, with an estimated 11% of undergraduate students reporting some type of disability (as cited in Agarwal et al., 2015). Yet, there is no guarantee that interactions between students with and without disabilities will be positive and respectful (Baker et al., 2012; Dowrick, et al., 2005). As such, addressing attitudes to disability on college campuses continues to be a key priority of disability service offices (Kroeger, 2010). This practice brief argues that digital media provides a context to contest ableism and the associated epistemological assumptions that position individuals with disabilities as inferior to individuals without disabilities (Davis, 2006).

Since 2012, the course described in the present article has been offered each subsequent year with increasing enrollments as high as 175 students per semester. As a result of the interview data, the content of the course has continued to evolve, with an increasing emphasis on first-person narratives of individuals with disabilities and their families via social media. In addition, the course content has expanded to involve more individuals with disabilities as guest speakers who discuss media depictions of their particular disability. The course content now examines disability themes across particular genres, such as Disney films, comic books and superheroes, and online role playing games. Finally, students have the option to locate new digital media applications or to create their own digital media products. One year a group of students developed a YouTube video to end the use of the “R” word on college campuses. Tables 2 and 3 represent examples of digital media artifacts that students in the course have identified over the last four years, sometimes emailing the course instructor a year or two after having completed the course. Consistent with the interview data, it would appear that the course capitalizes on students preferred mode of communication (i.e. digital) as a means to understand ableism.

While the present project focused on a semester long course, there are likely shorter interventions, such as educational campaigns and lecture series, which could be integrated with a blog or other digital media products with similar effect. Importantly, the results of the present project included some narratives from students with disabilities who described the benefits for their own sense of self. Indeed, it is possible that media literacy and positive images of disability may assist students with disabilities to respond in successful and creative ways to disability concerns (Murray, Lombardi, & Kosty, 2014). On college campuses, social media is ever present, and colleges and universities can use Twitter feeds, informational blogs, and YouTube channels that address disability concerns (Gabel, 2010; Rembis, 2010). With an emphasis on critical media literacy, colleges and universities can offer a general education course such as the one described in the present study to empower students with disabilities via digital media applications, highlighting first-person voices and narratives of students with disabilities who have successfully navigated the college environment (Pascarella & Terenzini, 2005). While there would still be a need for courses on critical media literacy, positive representations of disability have the potential to counter the negative images in social media often found in the dominant cultural discourse. In the future, subsequent quantitative and qualitative research on similar projects may be able to index specific digital media artifacts that effectively counter ableist attitudes and behaviors on college campuses, including internalized feelings of ableism among students with disabilities.

Conclusion

The present study explored media representations as an avenue to contest ableism and the associated epistemological assumptions. With respect to postsecondary education, the results suggest that individualized, first-person narratives were most beneficial to understand the ways in which ableism is constructed and enacted through media. With this in mind, general education courses can promote social media applications as a means to empower students with disabilities by circulating their first-person perspectives within the undergraduate culture.
References


About the Authors

Michael T. Hartley received his Ph.D. degree in Rehabilitation Counselor Education from The University of Iowa. His experience includes working as a certified rehabilitation counselor as well as training certified rehabilitation counselors to work in a variety of settings, including postsecondary education. He is currently an assistant professor in the Department of Disability and Psychoeducational Studies. His research interests include professional ethics and the ethical obligation to promote disability advocacy and resilience as critical rehabilitation counseling outcomes. He can be reached by email at: mthartley@email.arizona.edu.

Aimee C. Mapes received her Ph.D. degree from The University of Iowa. Her experience includes teaching English composition and directing university programs to support underprepared students. She is currently an assistant professor in the Department of English and assistant director of the Writing Program. Her research interests include student development, sociocultural literacy studies, and qualitative methodology. She can be reached by email at: acmapes@email.arizona.edu.

Aryn Taylor received her M.A. degree in Rehabilitation Counseling from The University of Arizona. Her experience includes working as a substance abuse counselor for a non-profit, in-patient treatment facility and serving as a clinical site supervisor for counseling students. She is currently a PhD Candidate in the Department of Disability and Psychoeducational Studies. Her research interests include clinical mental health and rehabilitation counselor education, and the treatment and prevention of substance use disorders and co-occurring disorders in people with disabilities. She can be reached by email at: aryntaylor@email.arizona.edu.

Paul J. Bourgeois received his Ph.D. degree in Rehabilitation from The University of Arizona. His experience includes working as a certified rehabilitation counselor and as an educator in rehabilitation counseling graduate programs. He is currently an assistant professor at Springfield College. His research interests include the infusion of distance technology in the training and supervision of graduate rehabilitation counseling students. He can be reached by email at pbourgeois@springfieldcollege.edu.

Acknowledgement

The authors wish to thank the students who participated in the undergraduate course.
Table 1

Examples of the Interview Themes

**Theme #1: First-person narratives**

For me the best thing is the actual accounts from people, when people with disabilities actually talk about it themselves. I guess that is what makes you think about it the most—just the personal experience . . . it definitely contributed to the class to have people with disabilities in the class because they were part of the discussion, and it made it a lot more interesting.

I liked hearing difference in point of view and different life experiences . . . because what happens when someone is rich and has a disability is very different than somebody who has a disability when they’re poor. And that’s just one factor. Essentially a diverse point of view throughout the course was neat . . . I found that it was really applicable to what I want to do, work with patients that have diabetic foot ulcers. It’s interesting because a lot of what a doctor tries to do is the opposite of the culture of disability: You’re ok how you are. A lot of what a doctor does is try to fix you, so a big part of that helped me understand that I need to look at what the patients’ goals are, rather than what my goals are for the patient—that it’s from their perspective and not from mine. I’m a caregiver; I’m not them. So it was stepping back from that role of, “I’m going to save the world.”

I think it’s important to have people who are college aged to talk about themselves and what it honestly means to be a disabled person at college and what it means to go through the daily routine. I distinctly remember this girl. It was interesting because she had never had a conversation [with a person with a disability], and I was the first person who she was talking to. I think it’s funny because it was kind of what we harped on in class, was so true, like, they don’t know what to say or what to do. So I think it was really helpful for a lot of kids, especially being 18 or 19 year old kids, being able to ask me kind of hard questions that seemed kind of taboo.

**Theme #2: Function of language and representation**

I’m more aware of language. Before this class, I guess I always thought that disability was from the person. I never really thought much about how interaction with society makes them more or less disabled. There are still movies today that address issues, or at least ones where disability has a part, and you may not think about it in a certain way until you start thinking about it critically: instead of just being like, “Oh here’s the way this person in a wheelchair is being treated,” now you’re like, “oh now they’re being treated differently by certain people but not by others.”

The [the movie] Rudolph, the Red-nosed Reindeer cartoon, I had seen that cartoon a hundred times when I was younger, at least ten. You figure every year it came on. I started watching again and I thought this has a lot to do with disabilities. It’s right there. It’s all about difference.

I had watched [the movie] Gattaca since I was young. And watching it through the filter of this class was fascinating because I just I saw it differently. Even though Jude Law’s character is in a wheelchair, he’s not the main character. He’s part of the impetus for being able to move into the world of perfect people. And then the power of words, like language, like artifacts, like the media portrayal of things, it’s not a matter of offending. It’s more a matter of moving language away from using disability and more towards explaining or understanding or meeting disability where it is or where it will be looking ahead. Because when we use an impairment or disability as an archetype or an effect in a TV program or in a book, it’s still using them.
Theme #3: Pathos, pity, and charity

I remember when I was little and we went to this restaurant and there was this teenager, or a little older, and he had some kind of disability to where I thought it was a disability . . . and he would just rock in his seat, like he had a helmet on, and they were escorting him everywhere. And you know when I was little, I was scared I didn’t want to go over there because I was totally scared . . . It [the course] opened my perspective.

It kind of makes you understand that things are kind of idealized and they’re not really truthful a lot of times. Before the class I thought I was more of the sympathetic, you need to be nice to them and you need to give them special treatment, not like extreme. But after the class, you don’t even really think about it. I noticed a lot more things that say about people with disabilities or how they act, and a lot of people are like that. They’re like you can’t say anything or you have to be really nice and you need to make sure you give them special treatment. But now I think that’s kind of ridiculous.

I’ve always accepted people, but when it came to being paralyzed or anything like that, I used to think I’d be more of a burden. But I’d never give my opinion on that. [The course] really gave light to me that maybe living with a disability really isn’t that bad. I have a free conscience I guess.

Theme #4: Forming a Concept of Ableism

My view of disability has changed a whole lot. I’ve never thought of myself as an ableist before, but then I started thinking about it. I never realized the “us and them” ideas that I had before. I’ve always tried to fight that in my normal daily life and I realized I didn’t try to fight that with disabled people before because again the media always made it seem like, oh these people aren’t going to want to talk to me and they’ll be jealous of me because I’m able bodied and just stuff like that. The way to approach a person with a disability, especially someone that might need a hand, how to approach them properly, without insulting them, or stepping on their toes—that was a big thing for me.

The thing that really surprised me about the whole experience of being in that class was how I guess close to home it hit. I know that I say that and it’s kind of obvious. But at the same time there were so many students in that class who know people who have family members who have disabilities who have friends, and obviously see me and other girls and other guys on campus that have disabilities. It was kind of definitely days where it’s heavy. It’s heavy to be talking about it, and it obviously affected me differently than your average person who doesn’t have to go through the things that I and many other people that have disabilities have to go through. So, there were definitely days where I thought this is hard. But I enjoyed it nevertheless. It was fun. It’s an important topic to discuss, too, because it’s taboo not to talk about it. Just to let it be what it is.

If someone with a disability takes this class, it gives you a lot more views on the different ways people have handled different things. And a lot more likely to look ahead to what you’re going to do and to see where you might have issues. That part I liked. I think in general it’s nice to know, it’s nice to get that experience . . . because we all live in our own little bubbles sometimes and we don’t really know. I actually think this would be a great class for anybody. Something hit me in that class, I don’t know what. But it gave me better experience. I don’t know how to say it; it was a good experience.
Table 2

**YouTube Examples**

<table>
<thead>
<tr>
<th>Examples</th>
<th>Websites</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stella Young—“I’m not your inspiration”</td>
<td><a href="https://www.youtube.com/watch?v=8K9Gg164Bsw">https://www.youtube.com/watch?v=8K9Gg164Bsw</a></td>
</tr>
<tr>
<td>Maysoon Zayid—“I got 99 problems…”</td>
<td><a href="https://www.youtube.com/watch?v=buRLc2eWGPQ">https://www.youtube.com/watch?v=buRLc2eWGPQ</a></td>
</tr>
<tr>
<td>Maggie Little—“Intro to bioethics”</td>
<td><a href="https://www.youtube.com/watch?v=--h0qnGKYjPY">https://www.youtube.com/watch?v=--h0qnGKYjPY</a></td>
</tr>
<tr>
<td>Richie Parker—“Drive”</td>
<td><a href="https://www.youtube.com/watch?v=vRi4zCiclRY">https://www.youtube.com/watch?v=vRi4zCiclRY</a></td>
</tr>
<tr>
<td>Heath White—“Perfect”</td>
<td><a href="https://www.youtube.com/watch?v=4LkElaCHQJE">https://www.youtube.com/watch?v=4LkElaCHQJE</a></td>
</tr>
<tr>
<td>Amanda Baggs—“In my own language”</td>
<td><a href="https://www.youtube.com/watch?v=JnylM1hI2jc">https://www.youtube.com/watch?v=JnylM1hI2jc</a></td>
</tr>
<tr>
<td>Teal Sherer—“My gimpy life”</td>
<td><a href="https://www.youtube.com/user/MyGimpyLife">https://www.youtube.com/user/MyGimpyLife</a></td>
</tr>
<tr>
<td>Zach Anner—“Baby steps”</td>
<td><a href="https://www.youtube.com/watch?v=xWI_J3-2Nzg">https://www.youtube.com/watch?v=xWI_J3-2Nzg</a></td>
</tr>
<tr>
<td>Dillian Barmarche—“Dillian’s voice”</td>
<td><a href="https://www.youtube.com/watch?v=oMN2PeFama0">https://www.youtube.com/watch?v=oMN2PeFama0</a></td>
</tr>
<tr>
<td>Samir Madden—“Differences”</td>
<td><a href="https://www.youtube.com/watch?v=FRy7cnePYq0">https://www.youtube.com/watch?v=FRy7cnePYq0</a></td>
</tr>
<tr>
<td>Jessica Cox—“Jessica Cox”</td>
<td><a href="https://www.youtube.com/watch?v=FkMH4cVZx4k">https://www.youtube.com/watch?v=FkMH4cVZx4k</a></td>
</tr>
<tr>
<td>Pro Infirmis—“Because who is perfect?”</td>
<td><a href="https://www.youtube.com/watch?v=E8umFV69fNg">https://www.youtube.com/watch?v=E8umFV69fNg</a></td>
</tr>
</tbody>
</table>

Table 3

**Blog Examples**

<table>
<thead>
<tr>
<th>Examples</th>
<th>Websites</th>
</tr>
</thead>
<tbody>
<tr>
<td>It's My Life</td>
<td><a href="http://sazzyactivist.blogspot.com/">http://sazzyactivist.blogspot.com/</a></td>
</tr>
<tr>
<td>Life is Short and So Am I</td>
<td><a href="http://courtney-simross.blogspot.com/">http://courtney-simross.blogspot.com/</a></td>
</tr>
<tr>
<td>The Perks of Being Disabled</td>
<td><a href="http://theperksofbeingdisabled.tumblr.com/">http://theperksofbeingdisabled.tumblr.com/</a></td>
</tr>
<tr>
<td>The Gimp Parade</td>
<td><a href="http://thegimpparade.blogspot.com/">http://thegimpparade.blogspot.com/</a></td>
</tr>
<tr>
<td>Hyperbole and a Half</td>
<td><a href="http://hyperboleandahalf.blogspot.com/">http://hyperboleandahalf.blogspot.com/</a></td>
</tr>
<tr>
<td>Rolling Around in My Head</td>
<td><a href="http://davehingsburger.blogspot.com/">http://davehingsburger.blogspot.com/</a></td>
</tr>
<tr>
<td>Adventures of Wheelchair Boy</td>
<td><a href="http://theadventuresofwheelchairboy.blogspot.com/">http://theadventuresofwheelchairboy.blogspot.com/</a></td>
</tr>
<tr>
<td>Blind Girls See</td>
<td><a href="http://www.blindgirlsssee.com/">http://www.blindgirlsssee.com/</a></td>
</tr>
<tr>
<td>Autistic Hoya</td>
<td><a href="http://www.autistichoya.com/p/about.html">http://www.autistichoya.com/p/about.html</a></td>
</tr>
<tr>
<td>Yes, that too</td>
<td><a href="http://yesthattoo.blogspot.com/">http://yesthattoo.blogspot.com/</a></td>
</tr>
<tr>
<td>Deafinitely Girly</td>
<td><a href="http://www.deafinitelygirly.com/">http://www.deafinitelygirly.com/</a></td>
</tr>
<tr>
<td>Disabled &amp; Living in the Real World</td>
<td><a href="http://disabledandlivingintherealworld.blogspot.com/">http://disabledandlivingintherealworld.blogspot.com/</a></td>
</tr>
</tbody>
</table>
Academic Coaching and Self-Regulation: Promoting the Success of Students with Disabilities

Joshua J. Mitchell¹
Ann M. Gansemer-Topf¹

Abstract
The increasing number of students with disabilities enrolling in postsecondary education, and the variety of these disabilities, challenges higher education institutions to meet the unique needs of these students. Academic coaching has been found to be effective in enhancing student success and is one approach that can help meet the needs of students with disabilities. This paper describes an academic coaching model for students with disabilities, discusses the theoretical foundations on which the model was developed, and summarizes the results of an assessment of the program.

Keywords: Students with disabilities, academic coaching, self-regulated learning

With an increasing number of students with disabilities (SWD) enrolling in postsecondary education (DeAngelo, 2011; Henderson, 2001), higher education professionals are implementing programs to support this diverse and growing population (Bellman, Burgstahler, & Hinke, 2015; Parker & Boutelle, 2009; Wessel, Jones, Markle, & Westfall, 2009). Students with non-apparent disabilities (e.g., learning disabilities, ADHD, psychiatric disorders) account for a growing majority of those served by Disability Services (DS) offices (DeAngelo, 2011; Henderson, 2001). Like many SWD, students with non-apparent disabilities are more likely to be underprepared for college and lack the academic skills (e.g., organization, study strategies) necessary for success in higher education (Parker & Boutelle, 2009; Wolf, 2001).

Students with non-apparent disabilities often encounter a variety of difficulties associated with executive functioning, cognitive processing, and interpersonal communication (Bellman et al., 2015; Parker & Boutelle, 2009; Wolf, 2001). These difficulties increase the need for additional supports, which aid in student development, retention, and graduation (Harris, Ho, Markle, & Wessel, 2011; Parker & Boutelle, 2009; Wessel et al., 2009). Academic coaching is one approach used to aid in students’ transition to postsecondary education and to develop students’ academic skills (Bellman et al., 2015; Parker & Boutelle, 2009).

In this paper, we describe an academic coaching model for SWD. We begin with a brief review of how academic coaching is used to support SWD. Then, we outline the theoretical foundations that guided the development of a program, and we highlight results of an assessment conducted on the program. We conclude with a discussion of implications for future programs and assessments.

Summary of Relevant Literature

Academic coaching is a contemporary approach to supporting and retaining students in postsecondary education (Bettinger & Baker, 2014). Given its focus on supporting students’ academic skill development, scholars and practitioners have explored its use with SWD (Bettinger & Baker, 2014; Parker & Boutelle, 2009). In the following sections, we briefly review the effect of academic coaching on student success and discuss how humanistic psychology and self-regulation

¹ Iowa State University
provide a theoretical foundation for academic coaching practice.

**Academic Coaching**

Academic coaching consists of a series of individualized meetings between a student and an academic coach. During these meetings, the academic coach and student work collaboratively to identify a student’s strengths and develop the skills the student needs to be academically successful (Bellman et al., 2015; Field, Parker, Sawilowsky, & Rolands, 2013). Many approaches to academic coaching use an inquiry model—a semi-structured format focused on reflection, planning, and self-awareness using open-ended questions (Bellman et al., 2015; Field et al., 2013; Parker & Boutelle, 2009). The flexibility of the inquiry model allows sessions to be tailored to meet the students’ needs while also modeling reflective thinking, goal setting, and planning (Bellman et al., 2015).

In addition to modeling, academic coaching promotes success by providing a supportive environment for students to gain knowledge, develop confidence, and try new strategies (Bettiger & Baker, 2014; Stober, 2006). Disability scholarship has predominantly focused on the positive effects of academic coaching for students with ADHD and learning disabilities (Parker & Boutelle, 2009; Swartz, Prevatt, & Proctor, 2005). Scholars (Bellman et al., 2015; Parker & Boutelle, 2009) have found that academic coaching benefits SWD by developing their self-regulation, developing their academic skills, and improving their communications and self-advocacy skills. In previous work, Parker and colleagues (Field et al., 2013; Parker & Boutelle, 2009) focused on the value of coaching on students’ self-determination and self-regulation. Although much of the coaching literature provides empirical support for the practice, literature less frequently provides a theoretical foundation to help link theory to practice.

**Theoretical Foundations**

Assumptions grounded in a humanistic approach and self-regulated learning provided the theoretical foundation for the development of the academic coaching program described later in this brief. Many academic coaching approaches are rooted in humanistic psychology (Rogers, 2002; Stober, 2006). An assumption undergirding humanistic psychology is the belief that every person has the potential for growth and the capacity to achieve his or her goals (Stober, 2006). Using humanistic psychology as a lens to view education, Rogers (2002) advocated for an approach that emphasized the individual, the development of relationships, and the facilitation of learning—a process by which a person makes sense of and creates meaning from the information and people with whom he or she engages.

Self-regulated learning is similar to the humanistic, person-centered approach, which emphasizes self-directed learning. In self-directed learning, the student assumes the responsibility for choosing personally meaningful and worthwhile learning outcomes while collaborating with others who provide guidance and/or assistance (Garrison, 1997). Self-regulation relates more to the internal processes of mobilizing those strategies and resources. Developing self-regulation skills in SWD emphasizes their active role in the learning process, promotes proactive efforts needed for success (Zimmerman, 1990), and helps counter executive function deficits associated with non-apparent disabilities, such as planning and organizing tasks and maintaining focus while working (Parker & Boutelle, 2009).

**Depiction of the Problem**

Individual colleges and universities across the United States are working to address the needs of a growing number of SWD in postsecondary education and the potential limitations in their self-regulation and academic skills (Bellman et al., 2015; Parker & Boutelle, 2009). At the public, four-year, doctoral-granting university in the Midwest that served as the site for this program, the number of students receiving accommodations increased 11% in three years. Despite the increasing number of students requesting and receiving accommodations at the university, professional and graduate student staffing within the DS office remained unchanged.

With an increasing number of students seeking assistance and accommodations, DS staff had less time to meet one-on-one with students to address academic and personal concerns related to the student’s disability, to connect the student with appropriate resources, and to aid the student in developing the appropriate academic skills necessary for success in postsecondary education. Furthermore, the DS office did not provide a formal academic coaching experience, and the Learning Center’s (LC) academic coaching staff had limited disability-specific knowledge. Therefore, a program was developed to alleviate the workload of DS staff while still providing valuable resources for SWDs. The program represented a unique opportunity to strengthen collaborations within the Division of Student Affairs, alleviate some of the time constraints of the DS staff, and support the increasing number of SWD on campus.
To better serve the increasing number of SWD and provide more individualized support to aid in transition and academic skill development, the DS office and the LC at the university collaborated to implement a pilot program for coaching students with disabilities. The directors initially envisioned the program as an academic support service for first-year students with autism spectrum disorder (ASD). However, within the first few weeks of the program, it became apparent that all students could benefit from working with an academic coach who had both academic skill development and disability-specific knowledge. Thus, the scope of the program expanded to include any student who was referred by the DS staff. A graduate student with previous coursework and experience in postsecondary academic support and disability services served as the academic coach.

Approximately 60 students participated in the program, and 300 individual academic coaching sessions occurred during the academic year. Students who participated in the coaching program were referred by a member of the DS staff based on the student’s needs. Of those who participated, approximately 30% were first-year, 18% were sophomore, 30% were juniors, 19% were senior, and 4% were graduate students. Many of the students who participated in the program were in their first year at the university and primarily reported non-apparent disabilities—such as ADHD, ASD, psychiatric disorders, and learning disabilities.

### Description of Practice

Members of the DS staff referred students to the coach and helped the academic coach establish relationships and make connections with students early in the fall semester. When students came in to set up an appointment to review disability documentation or to complete an accommodations request form, DS staff introduced the student to the academic coach and encouraged them to set up an appointment. When possible, the academic coach had a short, informal meeting that day before the student left the office. Many students who participated in the program attended one-hour sessions once or twice a month. Not all students continued with the coaching sessions through the semester or the academic year.

The program focused on identifying and mobilizing effective learning strategies and increasing students’ self-regulation as a way to promote student success and progress toward graduation. The coach facilitated learning by providing guidance, while supporting and challenging the student as he or she thought through ideas and strategies and chose those that were the most meaningful. This approach encompasses the foundations of the humanistic approach as well as aligns with the inquiry model used in previous coaching literature.

### Session Structure

Academic coaching sessions were structured around students’ self-selected goals. At the beginning of each session, the academic coach asked the student what he or she wanted to achieve during the session, took notes, and allocated time to each goal. The focus of the first session was to begin to build rapport with the student, understand the student’s questions or concerns, and identify the strategies that had been applied—successfully or unsuccessfully—in the past to address the student’s concerns. Using this information, the academic coach and student discussed strategies that aligned with the student’s goals or the concerns the student identified during the session.

In subsequent sessions, the academic coach asked the student about how he or she implemented the strategies discussed in the previous session. The academic coach asked the student not only to focus on what did and did not work, but also to focus on why the strategies may or may not have worked. The coach used this information to re-focus future efforts to avoid similar pitfalls. This conversation served three additional purposes: (a) it allowed students to improve their ability to think critically about the strategies they were using and ways to adapt in the future, (b) it provided an accountable environment where the student had to communicate their needs and concerns, and (c) it provided information from the student that the academic coach could use to guide the conversations and link back to the student’s experiences. The first two purposes reflected the active role necessary for self-regulation, while the third purpose reinforced the collaborative, humanistic approach.

Through the process, the goal was for the student to learn how to learn and process information as well as how to identify and mobilize resources to adapt to situations, change behaviors, and promote success. The collaboration between the student and academic coach is foundational to the humanistic approach. The student’s ability to learn, process, adapt, and make sense of situations and information are foundations of self-regulation. These foundations are especially important when working with SWD because many times in practice the disability can overshadow the person. A humanistic approach creates the opportunity...
to focus on the individual needs of the student instead of focusing on the assumed limitations of the disability.

**Program Assessment**

A Backward Design approach informed the development of the program. Backward Design is a method whereby program outcomes and student learning outcomes are developed, and then program sessions are designed to meet these outcomes (Wiggins & McTighe, 2005). These program outcomes, session outcomes, and student learning outcomes subsequently guided the assessment activities (Huba & Freed, 2000; Schuh, 2009). Six program outcomes were identified:

- develop collaborative relationships with students;
- help students relate academic/educational goals to life goals;
- encourage students to achieve self-awareness (e.g., identifying strengths, values, and interests);
- assist students in becoming more responsible and developing decision-making skills;
- identify resources to enhance both academic success and personal development; and
- assist students in developing plans of action—and being accountable—to achieve substantial results.

Table 1 illustrates how session outcomes and student learning outcomes aligned with the program outcomes. These outcomes guided individual coaching sessions as well as the development of the assessment.

**Evaluation of Observed Outcomes**

At the end of the academic year, the program was evaluated through a web-based survey of program participants. The survey questions were modeled after the program, session, and student learning outcomes. A section of the web-based survey included open-ended questions about the student’s experience, which allowed the student to provide narrative feedback. An anonymous survey design was chosen instead of a focus group or interview protocol to respect and preserve the privacy of the participants.

The survey was administered during a three-week period at the end of the spring semester. Students received two email reminders, as well as verbal reminders when they visited the office. Of the eligible participants, 29% (n=17) started the survey; 26% (n=15) completed it.

The majority of students who completed the survey (n=11) identified having someone to talk to as the primary reason they attended the coaching sessions. Time management (n=10) and study strategies (n=9) were also frequently mentioned reasons. When asked about their overall satisfaction with the academic coaching program, 87% reported being satisfied or very satisfied with their experience. Notably, all respondents thought coaching should be offered in the future.

Participant responses illustrated that the humanistic and self-regulated learning approaches were utilized within the sessions. Eighty-seven percent agreed or strongly agreed that they were asked what they wanted to achieve during the sessions (i.e., humanistic approach). Ninety-three percent agreed or strongly agreed that they had support to come up with solutions or strategies to problems during the session or that they worked collaboratively with the academic coach (i.e., humanistic approach). Eighty-six percent agreed or strongly agreed that the sessions helped them identify resources and develop an action plan (i.e., self-regulation).

Students provided open-ended responses about their experiences, which elicited three themes: (a) their development of study skills and critical thinking, (b) their ability to effectively communicate and self-advocate, and (c) their ability to create a plan and follow-through. Similar to above, these responses reflect how the humanistic psychology and self-regulated learning approaches influenced student learning. These themes also align with many of the outcomes such as, generating solutions (i.e., session outcome), developing self-advocacy skills (i.e., student learning outcome), and developing action plans (i.e., program outcome). See Table 2 for a full summary of the program outcomes assessment.

**Implications and Portability**

Results of the assessment found that students perceived the program to be useful and supportive. However, we learned many lessons along the way. Higher education professionals seeking to expand services should consider the availability (and sustainability) of physical and financial resources. They should also be mindful of the availability and interpretation of assessment data.

**Available and Sustainable Resources**

The availability of physical space was a limitation to program implementation. Although funding was secured for a year, the academic coach did not have dedicated office space. In most cases, the coach was
able to use a local conference room, as well as professional staff offices when there were not scheduling conflicts. For academic coaching to be successful, there needs to be dedicated, private space for a coach and student to meet one-on-one. If the coach and student will need to work on electronic documents, the space needs to include a computer. If the coach and student will be working on mapping out plans, a whiteboard may be useful.

Financial sustainability was a second limiting factor for the program. Despite being able to secure funding for a pilot year, the program was unable to continue in the original format because of a lack of funding. To minimize the effects of increasingly limited financial resources while promoting collaboration and addressing the needs of SWD, DS and LC staff can coordinate efforts to provide cross-training on issues that are relevant to the success of SWD on their campus (Scott, 1996).

Cross-training allows for better use of existing university resources, builds relationships, and strengthens collaboration. LC staff specialize in academic success strategies and DS staff specialize in the needs of and issues facing SWD—both bring an essential element to effective academic coaching for SWD. For example, a student with ADHD might need a more detailed approached to time management and focus than students without ADHD. Working together, DS and LC staff can create strategies that better meet the academic needs of SWD on their campus.

Assessment and Research

Future assessments that collect data such as grade point averages, retention, and graduation rates can provide further evidence of the effectiveness of academic coaching programs. Collecting, analyzing, and interpreting data is critical for program sustainability and improvement. For practitioners, the ability to make data-driven decisions is crucial for securing institutional buy-in and resources (Schuh & Gansemer-Topf, 2010).

Finally, academic coaching programs provide opportunities to engage in research on the success of SWD. Researchers could explore the influences of self-regulated learning on specified outcomes. Specifically, to what extent do students’ perceptions of self-regulated learning affect their selected pathways to success? How can academic coaching staff co-create experiences with students to promote the development of self-regulated learning skills?

Summary

Academic coaching is a contemporary approach to supporting students with diverse needs as they develop academic and communication skills and transition to postsecondary education. Although empirical data is emerging to support academic coaching as an effective practice, previous literature provided little information to guide theory to practice applications. To aid in this dialogue, we briefly described humanistic psychology and self-regulation, which provided a framework for the pilot program for coaching students with disabilities. Our assessment data reinforce the use of academic coaching as a means to support SWD as they develop academic skills and learn to identify and mobilize resources for academic success. However, higher education professionals considering implementing such a program should consider the availability and sustainability of physical and financial resources.
References


About the Authors

Joshua Mitchell received his B.S. degree in journalism from Ball State University and is a doctoral candidate at Iowa State University. His experience includes working in tutoring services, disability services, and educational research. He currently coordinates the Personal and Social Responsibility Inventory and Global Perspective Inventory for the Research Institute for Studies in Education at Iowa State University. His research interests include developing and assessing academic support services and learning assistance in higher education and examining the influence of students’ perceptions of campus climate on learning and development outcomes. He can be reached by email at: jjm1@iastate.edu.

Ann Gansemer-Topf received her B.A. degree in psychology from Loras College and Ph.D. from Iowa State University. Her experience includes working in residence life, admissions, student financial aid, new student programs, campus ministry, conference services, academic advising, and institutional research. Her research interests include examining the micro (student) and macro (institutional, state, and federal) factors that contribute to student success and using assessment methods to understand best practices related to effective teaching and learning and program implementation. She can be reached by email at: anngt@iastate.edu.

Table 1

<table>
<thead>
<tr>
<th>Session Outcomes</th>
<th>Program Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Identify what the student wants to achieve</td>
<td>a b c d e f</td>
</tr>
<tr>
<td>Encourage the student to look within to learn more about self</td>
<td>• •</td>
</tr>
<tr>
<td>Allow/support the student to generate solutions and strategies to problems</td>
<td>• • •</td>
</tr>
<tr>
<td>Teach the student to be responsible and accountable for his or her actions/ inactions and decisions</td>
<td>• • • • •</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Student Learning Outcomes</th>
<th>Program Outcomes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Develop self-advocacy skills and understand responsibilities related to academic success at the postsecondary level</td>
<td>• • • •</td>
</tr>
<tr>
<td>Demonstrate effective communication strategies with instructors and other university partners</td>
<td>• • •</td>
</tr>
</tbody>
</table>

*Note. Program outcomes a through f are included in the Description of Practice section.*
Table 2

Percentage and Frequency of Student Agreement with Program Outcome Assessment Questions

<table>
<thead>
<tr>
<th></th>
<th>Strongly Disagree</th>
<th>Disagree</th>
<th>Neither Agree nor Disagree</th>
<th>Agree</th>
<th>Strongly Agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>During my sessions we worked collaboratively to identify my needs and goals</td>
<td>15</td>
<td>-</td>
<td>7</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>During my sessions we worked collaboratively to meet my needs and goals</td>
<td>15</td>
<td>-</td>
<td>7</td>
<td>53</td>
<td>40</td>
</tr>
<tr>
<td>During my sessions we made connections between my academic/educational goals and life goals</td>
<td>15</td>
<td>-</td>
<td>20</td>
<td>27</td>
<td>53</td>
</tr>
<tr>
<td>I was encouraged to become self-aware</td>
<td>15</td>
<td>-</td>
<td>7</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>I was encouraged to identify my strengths</td>
<td>14</td>
<td>-</td>
<td>7</td>
<td>36</td>
<td>57</td>
</tr>
<tr>
<td>I was encouraged to identify my values or what is important to me</td>
<td>14</td>
<td>-</td>
<td>7</td>
<td>29</td>
<td>57</td>
</tr>
<tr>
<td>I was encouraged to identify my interests</td>
<td>14</td>
<td>-</td>
<td>7</td>
<td>50</td>
<td>43</td>
</tr>
<tr>
<td>My sessions helped me become more responsible</td>
<td>15</td>
<td>-</td>
<td>36</td>
<td>7</td>
<td>64</td>
</tr>
<tr>
<td>My sessions helped me develop decision-making skills</td>
<td>14</td>
<td>-</td>
<td>29</td>
<td>14</td>
<td>57</td>
</tr>
<tr>
<td>My sessions helped me identify resources to enhance academic success</td>
<td>14</td>
<td>-</td>
<td>14</td>
<td>36</td>
<td>50</td>
</tr>
<tr>
<td>My sessions helped me identify resources to enhance personal development</td>
<td>14</td>
<td>-</td>
<td>21</td>
<td>36</td>
<td>43</td>
</tr>
<tr>
<td>My sessions helped me develop an action plan</td>
<td>14</td>
<td>-</td>
<td>14</td>
<td>43</td>
<td>43</td>
</tr>
</tbody>
</table>

Note. Percentages may not equal 100% because of rounding.
An Academic Coaching Model Intervention for College Students on the Autism Spectrum

Heather Rando¹
Mary J. Huber¹
Gina R. Oswald¹

Abstract
Based on the increasing numbers of students with high functioning autism spectrum disorder (ASD) entering colleges and universities, many schools are at a loss for how to support students needing services outside the typical academic assistance often required by students with disabilities. The diagnostic features and psychiatric characteristics associated with ASD (American Psychiatric Association, 2013), coupled with the transitions and stressors that come along with college life, present extraordinary challenges for these students. With the unique characteristics and support need of this population in mind, the Raiders on the Autism Spectrum Excelling (RASE) transition program was developed and implemented in 2012 to provide transitional support for students with ASD entering a midsized public university in the Midwest. First year results indicate an increase in student GPA over two semesters, a decrease in behavioral violations, and high levels of satisfaction with the program from both the students and the transition coaches.

Keywords: Autism spectrum disorders, transition coach, peer mentor

The number of students entering college with high-functioning autism spectrum disorders (ASD) is not only increasing but expected to surge in coming years (Pinder-Amaker, 2014). Reasons for this surge include the proportion of children diagnosed with ASD, which has increased from 1 in 150 in the year 2000 to 1 in 88 in 2008 (Autism and Developmental Disabilities Monitoring Network Surveillance, [AD-DMNS], 2012), heightened awareness, changes in the diagnostic specification, and most notably, improved ability to recognize and diagnose higher-functioning individuals with ASD who may have been unnoticed in the past (Pinder-Amaker, 2014). In response to the dramatic increase, many institutions of higher education are now supplementing their base level of support with additional ASD specific services either free of charge or for an additional fee (Brown, 2013). The diagnostic features and psychiatric characteristics associated with ASD were recently defined in the Diagnostic and Statistical Manual of Mental Disorders Edition 5 (DSM-5) as persistent deficits in social communication and social interaction across multiple contexts (American Psychiatric Association, [APA], 2013). Limitations associated with ASD include difficulty engaging in reciprocal social interactions and relationship development, problems maintaining conversation in social settings, perseverative or obsessive thought patterns, fixated or restricted behaviors and interests, and difficulty interpreting nonverbal cues or the perspective of others (APA, 2013).

Depiction of the Problem

Periods of transition are particularly difficult for high school students with ASD entering a postsecondary setting. Students on the very high functioning end of the spectrum may gain admission to a university setting without ever identifying as individuals with ASD. These students go unnoticed by their professors until their sensory, social, learning styles and organizational challenges combined with fatigue cause them to fail (U.S. Autism, 2014). Despite adequate cognitive ability for academic success, many students with ASD never finish college (Adreon & Durocher, 2007; Geller & Greenburg, 2009; U.S. Autism, 2014).

¹ Wright State University
In addition to social and educational challenges, Koegel, Singh, and Koegel (2010) found that many students with ASD lack the motivation to succeed academically, in part because of the wide range of subjects covered outside of their restricted interests. Others argue that adolescents with ASD regard school as an over stimulating and stressful environment for social and sensory reasons making it difficult to achieve academic success (Humphrey & Lewis, 2008). College life is less structured in nature than high school posing significant difficulties for transitioning to and performing well in higher education (Adreon & Durocher, 2007). Even those students who make wise choices may struggle in social settings, group projects, or be faced with the attitudes of peers in classes and on campus who often do not respond positively to typical ASD behavior (Geller & Greenberg, 2009; Pinder-Amaker, 2014). Thus, many students with ASD underachieve relative to their intellectual abilities, a problem that intensifies with age (Goldstein et al., 2008).

Although a growing number of colleges offer support programs for students with ASD through an office of disability services (ODS), some students may view supports as stigmatizing or unhelpful and prefer not to enroll in special programs (Vogel, Fresko, & Wertheim, 2009; Wei, Yu, Shattuck, McCracken, & Blackorby, 2013). Furthermore, many may lack the initiative or self-advocacy skills needed to seek these resources because of social deficits, anxiety, and immaturity (Anckarsäter et al., 2006; Soderstrom, Rastam, & Gillberg, 2002).

Providing appropriate support to students with ASD is essential to assisting students achieve a higher quality of life, increased productivity, positive social interactions inside and outside of the classroom, and decreased reliance on subsequent or perpetual disability services post-graduation. One such program was specifically designed to address the above mentioned concerns at a midsized public university in the Midwest, nationally recognized for its efforts to serve students with disabilities through various innovative services. Below is a description of a pilot transitional program serving students with ASD, followed by the methods used to implement the pilot program, first year findings, and implications for future research and practice.

**Participant Demographics and Institutional Partners/Resources**

In line with national trends indicating larger numbers of students with ASD entering four-year institutions (Wei et al., 2013), in fall 2012 the campus experienced nearly a doubling of students with ASD. Along with this influx of students came numerous questions and requests for information and guidance from faculty and various departments on campus regarding how to best accommodate students with ASD, both in the classroom and across the campus environment. The ODS provided significant guidance on a case-by-case basis; however, a more proactive, over-arching training appeared warranted. Efforts to deliver this outreach resulted in multiple face-to-face training sessions for faculty and staff, including the campus police force, staff from residence housing, and academic advisors. Topics covered in the outreach training offered a general overview of ASD and discussion of best practice strategies for working with this population. The outreach provided an opportunity to demystify the disability and open a dialogue between campus personnel to better ensure continuity of support for the students.

For the 2012-2013 academic year, eight transition coaches were employed to work with 12 students with ASD. The small sample size of both the students and transition coaches reflects the exploratory nature of this practice brief and the need to carefully interpret the results. One student elected to disconnect from the program after three weeks, leaving 11 students who completed the Raiders on the Autism Spectrum Excelling (RASE) program from fall through spring semesters. The majority of the students and coaches were Caucasian. The sample of students was comprised of 80% males and among the coaches 50% were male. The mean age for the RASE students was 19.

**Description of the Practice**

With the unique characteristics of this population in mind, the RASE transition program was developed and implemented in the fall of 2012 to provide transitional support for students with ASD entering the university. The RASE program is based on a transition approach that offers more intensive support for the first year of college, followed by less frequent intervention in subsequent years to encourage a focus on increased independence and overall growth for the students involved. The program provides structure and guidance to students via a transition coach (peer) model that aligns students of similar age and status in college (Terrion & Leonard, 2007; Vogel et al., 2009).
Additionally, the National Professional Development Center on Autism Spectrum Disorders (NPDCAS) now has Peer-Mediated Instruction and Intervention on its list of evidence-based practices (NPDCAS, 2010).

Through RASE, students can create a metaphorical “toolbox” of academic and social skills that students with ASD can pull from in order to navigate the college experience. The parameters of the toolbox were set to incorporate the five key competency areas of resiliency, time management and organization, social skill development, technology use, and advocacy. Beginning summer 2012, all students with ASD admitted for the fall semester were assessed for the RASE program through a face-to-face interview process that included a needs assessment completed by the program supervisor. All 14 students assessed were recruited and 12 were accepted to the program based on level of need in one or more of the five key competency areas. Factors in the assessment process included educational background and past support services, current social skill development, level of independence, and family support. The assessment process also utilized a Likert scale of current skill level in the five key competency areas. Although motivation is important for the change process, a lower level of motivation during the initial interview, while noted, is considered a part of the transition experience that can be addressed in the coaching relationship. Consideration was also given to students with additional disabilities that may be present, such as Attention Deficit Disorder (ADD) or other mental health disabilities. Each student admitted to the RASE program was assigned a transition coach to work with him/her individually for up to 10 hours per week. Enrollment in the program was for one academic year. Students were evaluated after the fall semester to determine the level and frequency of support needed for the spring semester.

The first year, transition coaches were hired as student employees and funded by ODS. RASE transition coaches, recruited from campus undergraduate and graduate level programs, completed an interview and structured training process. Coaches were chosen based on effective communication skills and a demonstrated skill set in navigating the college environment successfully. As experienced undergraduate and graduate students, their role was to provide guidance to RASE students and serve as a valuable resource for questions and concerns. In order to facilitate independence and an appropriate balance of parental involvement, transition coaches were instructed to only work directly with individual students while the director provides all interactions with parents throughout the student’s tenure at the university with a signed Family Educational Rights and Privacy Act consent.

To improve the efficacy of the program, coaches tailored their individual meeting schedules to accommodate their students’ specific needs and availability. Typically, the coach and student met for roughly five hours per week, or about one hour per day, each weekday. If needed, coaches were also available on weekends. During these meetings, coaches worked with students on the five key competency areas to assist with development of the structure and skillset necessary to be successful in college. Structured content to be covered in meetings with students was provided to coaches by the coaching supervisor (Assistant Director of ODS) during their training to help facilitate consistency in the coaching process. However, each RASE student, being unique, needed a specific plan designed for his/her success that was developed based on strengths and areas of concern gleaned during the rapport-building phase.

Another critical component of the coaching program is the universal design for learning model, with a particular focus on kinesthetic and visual learning. Studies have shown that the hippocampus, which is responsible for sensory input and memory and learning, is neurologically immature in individuals with autism (Bauman & Kemper, 1994). Due to this fact, students with ASD may prefer the relative permanence of a visual or written explanation regarding the requirements of an assignment or policy. Coaches were encouraged to work with their students in as many modalities as possible to ensure students were receiving information in a way that was most beneficial to their learning style. For example, rather than instructing one of their students to go to the tutoring office to sign up for additional help for a class, the coach worked with the student in a role play scenario to practice the interaction. Once the student effectively navigated the situation, the coach and the student then went to the tutoring office together in order for the student to complete the tutoring request. This process of practice first and then engage was critical for the long-term self-sufficiency of the student. While each coaching session followed a standard format that consisted of overview of grades and homework assignments followed by a kinesthetic learning activity and social skill modeling, session topics varied according to student need.

Following the spring semester, students and their families met with ODS staff to determine overall progress and the next step in the support process. Based on level of progression evidenced by Likert scale improvements in skill development from the initial assessment to the end of the fall and spring semesters, students moved to a less structured series of meetings with the ODS staff as needed. ODS also offered a bi-weekly
support group for students with ASD that addressed problem solving, social skills, self-advocacy, and any additional support resources for students as they transitioned to greater independence during their sophomore year in college. If the necessary skills to progress to the next phase of independence were not developed, a meeting was held with the student and his/her family to determine appropriate next steps to ensure the best environment for the student going forward. This process involved adult disability services agencies and other community resources to help the student gain the skills necessary to eventually re-enter the university environment or transition directly to the work force.

**Evaluation of Observed Outcomes**

As the program is a direct admit support program for incoming freshman, students do not have an established GPA prior to enrollment in the program. However, for RASE students, the average GPA of students following one semester within the program was 2.58 which improved to 2.71 by the end of spring semester. The retention rate was eight out of 11 or 72.7% which is higher than the overall university’s first year retention rate of 61.5% for the same period (Wright State University Institutional Research, 2014). Of the eight RASE participants who continued with the university after the first year, seven past participants or 87.5% were then retained into the third year. In addition to academic and retention outcomes, the program impacted student success in terms of a significant decrease in behavioral incidences in students with ASD when comparing pre- and post-implementation groups of the RASE program. Improvement is supported by the decrease from two serious student conduct behavior concerns resulting in expulsion the year prior to no student expulsions for students the first year of the program, a decrease in student faculty concerns as evidenced by a drop in phone calls and inquiries to ODS regarding student issues specific to the ASD population in class from eleven to four in the fall term and just two in the spring term, and an increase in a positive climate towards students with ASD from police and faculty on campus evidenced by an increase in consultation with ODS from no contact to four consultations in year one regarding best practices and proactive measures to assist students with ASD. This was facilitated through a combination of transition coaching outreach for individual students and the Assistant Director’s outreach to university faculty, student affairs, residential services, and other campus resources.

**Implications and Portability**

The first year of the RASE program focused on academic skills and assisting students with the transition to college life, which indirectly impacted the behavioral issues that had been present the terms prior to implementation. As a result of the frequent and open contact between coaches and their students, the relationship bond that was formed over time created a comfortable and safe environment for the students with ASD to express concerns and ask questions as demonstrated in survey data. When possible, at least 50% coaches were retained from year to year creating a seasoned layer of support for new coaches. In addition to the student success, the first year provided invaluable information on programmatic features, working with students with ASD in this type of program, and areas that could be improved for heightened effectiveness.

Lessons learned from survey data completed by the coaches and students included the need for coaches to connect with RASE students prior to the semester through email, phone calls, and, in some instances, showing up to a classroom the first week of the semester. Coaches also were encouraged to work with students on the development of a daily “script,” which outlined the schedule or sequence of events beginning the moment the student awakened until their bedtime routine with an alternate script in the event that life intervened and the student needed to redirect themselves to a plan B scenario.

An unexpected positive result was a marked pattern of growth in the coaches in the areas of leadership and resiliency. The passage of time, coupled with input and advice from the coach supervisor and coach peers, provided opportunities for daily individual successes that facilitated a gradual, growing sense of confidence in the coaches. In coaches that encountered barriers to rapport, the issue stemmed from the fact that some students with ASD may wish to remain as independent as possible or overlook the value and need for transition support at the postsecondary level. The coaches who demonstrated the strongest interpersonal skills and patience found the rapport-building phase to go fairly smoothly and as they had expected it would proceed. Individual coach maturity and independence levels greatly impacted the degree of confidence and persistence demonstrated by coaches when they hit a stumbling block. In order to use difficult instances as a learning opportunity for struggling coaches to build an improved sense of confidence, the coach supervisor scheduled a meeting with the coach and student involved to model the desired type of interaction. The personality profile that was found to be most benefi-
cial for the coaching role was an individual with clear boundaries and strong interpersonal skills, as well as a patient and consistent personality style. Additionally, the connection between the coaches and their supervisor was found to be the cornerstone by which all of the ensuing relationships in the program were based.

Initial retention data gathered on the RASE program, although small in scale, has sparked interest by other colleges and universities who would like to model a program on their campuses after the RASE program. Based on its foundation as a peer mentoring model, detailed hiring and supervision practices, established data collection measures and guidelines and the positive impact that has been demonstrated with relatively few contact hours per week, the RASE program has portability within various postsecondary settings. As this program is not a required accommodation and provides additional support, disability service offices could institute a fee for service program to offset staffing costs within 6-8 months of initiating a plan. A few areas of future research include: the role of gender for coaches and RASE participants; the differences found between students who commute versus residential students; and how comorbid disabilities impact the effectiveness of the RASE program.

References


About the Authors

Heather Rando, M.Ed., completed her Bachelor’s Degree in Sociology at Ohio State University and her Master’s Degree in Education /Counseling at Youngstown State University. She is currently the Associate Director for the Office of Disability Services at Wright State University in Dayton, Ohio and is also the creator and director of the Raiders on the Autism Spectrum Excelling (RASE) Program, implemented in 2012 to support students with autism as they transition from high school to college. In addition to her duties as an administrator, she also collaborates closely with Wright State University campus partners and with members of the surrounding communities to provide outreach on the topics of disability, autism support and higher education. She can be reached by email at: heather.rando@wright.edu.

Mary Huber, Ph.D., CRC, completed her Master’s Degree in Rehabilitation Counseling at the University of Wisconsin-Milwaukee and her Doctorate in Educational Psychology at the University of Washington with a focus on the application of measurement, statistics and research design to rehabilitation. She completed two internships, a NIDRR-funded fellowship in Rehabilitation Psychology (1997) and a NIAAA-funded fellowship in Substance Abuse (2004), at the University of Michigan. She is currently an Assistant Professor in the College of Education and Human Services (CEHS) at Wright State University (WSU) and the Director for the Chemical Dependency Master’s degree in Rehabilitation Counseling. She has worked in various capacities with persons with disabilities for the past 30 years including academia, non-profit agencies, private-for-profit companies, and private consulting. She is the elected Chairperson for the Research and Knowledge Committee for the American Rehabilitation Counseling Association (ARCA). Her research interests include transition and employment services for people with disabilities and international rehabilitation. She can be reached by email at: mary.huber@wright.edu.

Gina Oswald, Ph.D., CRC, LPC, received her B.A. degree in psychology and history, MEd in rehabilitation counseling and Ph.D. from Kent State University. Her experience includes working as a state vocational rehabilitation counselor for the State of Ohio and program coordinator for the Transition Center at Kent State University. She is currently a professor in the Department of Human Services at Wright State University where she also directs the Transition to Work endorsement and rehabilitation services programs. Her research interests include addiction studies, prevention, and implementing Evidence-Based Practices in Rehabilitation. She can be reached by email at: gina.oswald@wright.edu.
Developing Peer Supports for College Students with Intellectual and Developmental Disabilities

Megan M. Griffin¹
Kelly F. Wendel²
Tammy L. Day²
Elise D. McMillan²

Abstract
Many postsecondary education programs for students with intellectual and developmental disabilities (IDD) provide support to these students by matching them with peer mentors. Though this practice is widely used, the scholarly literature offers little information about successful peer support models in higher education settings. To address this need, we describe the model developed to support and include students with IDD in the Next Steps Program at Vanderbilt University. We first describe the roles and responsibilities taken on by peer mentors, as well as the Circles of Support model used by Next Steps at Vanderbilt University. We then detail how this model is implemented—包括 recruitment strategies, the application process, formation of Circles of Support, training of peer mentors, and ongoing support by staff. We conclude by discussing challenges encountered by the staff in facilitating this model, as well as implications for practice and research.

Keywords: Intellectual and developmental disabilities, inclusive education

In the last twenty years, the United States has seen exponential growth in opportunities for students with intellectual and developmental disabilities (IDD) to participate in inclusive postsecondary education (PSE) programs (Grigal, Hart, & Weir, 2013). Though these programs all look different, they share the common goal of affording students with IDD the opportunity to pursue higher education. With the passage of the Higher Education Opportunity Act and accompanying financial support, inclusive higher education for students with IDD is “an idea whose time has come” (p. 50). Indeed, beyond programs developed independent of federal funding, federal grants supported 27 programs in 2010, and 25 in 2015 (ThinkCollege, n.d.).

To support and include students with IDD in college life, many PSE programs match students with peer mentors who serve as a support system (Grigal et al., 2013). The effectiveness of peer support models has been well documented in the special education literature (Carter, Sisco, Chung, & Stanton-Chapman, 2010). Though most studies on peer supports have been conducted in elementary schools, research at the middle and secondary levels suggest the promise of these practices with older learners. Some of the benefits to students with IDD include enhanced academic engagement and social interaction (Carter, Cushing, Clark & Kennedy, 2005; Carter & Kennedy, 2006). Developing peer mentor relationships to support college students with IDD is a natural extension of promising practices from the K-12 research base.

Limited Literature on Peer Supports in Higher Education

With so many new PSE programs being developed, there is a great need for detailed descriptions of promising practices related to peer mentoring. Unfortunately, the current literature base offers little guidance about implementing peer support models within higher education settings (e.g., Blumberg & Daley, 2009; Jones & Goble, 2012). This lack of information leaves program staff to work largely by trial-and-error, rather than benefiting from previous successes and lessons learned at other institutions (Hart, Mele-McCarthy,

¹ University of New Mexico; ² Vanderbilt University
Pasternack, Zimbrich, & Parker, 2004). To address this need, we provide a detailed description of the peer mentoring model implemented at an inclusive PSE program, Next Steps at Vanderbilt University. Documentation of this model will allow staff members in existing and new programs to replicate components that meet their needs.

**A Model for Developing Peer Supports for College Students with IDD**

**Setting and Participants**

Next Steps at Vanderbilt University is a four-year certificate program for students with IDD (e.g., autism spectrum disorder, Down syndrome). Students include individuals with IDD aged 18-26. In the 2014-15 academic year, 10 students were enrolled. Students participate in an undergraduate course each semester, activities designed for students in the Next Steps program (e.g., employment internships), student clubs, and other social opportunities. To provide support to students and promote their social inclusion, Next Steps recruits volunteer undergraduate and graduate students to be peer mentors. Several peer mentors are matched with each student in the Next Steps program. This group of peer mentors composes that individual student’s “Circle of Support.” For demographic characteristics of peer mentors for academic year 2014-15, see Table 1.

**Peer Mentors and the Circles of Support Model**

**Responsibilities of Peer Mentors**

Peer mentors are asked to volunteer for at least two hours a week over the course of a semester. Some peer mentors exceed this expectation, and most continue to volunteer with the program after their initial semester. On average, students in the Next Steps program spend 10 hours per week in scheduled sessions with peer mentors.

There are four roles that a peer mentor might play: academic tutor, daily planner, exercise partner, and lunch partner. Academic tutors engage in a variety of activities with students—reviewing notes from class, preparing assignments, and studying for assessments. Daily planners help students to organize their time on campus and to plan for various responsibilities, whether those are related to classes, internships, or social activities. Exercise partners meet with students in the Next Steps program and join them in some form of exercise—from pick-up basketball to attending a yoga class. Others simply meet with students with IDD for lunch on- or off-campus.

Peer mentors are assigned to meet with one or more students in the Next Steps program for a specific time period each week. They are expected to attend these sessions as scheduled, and to reschedule with the student when necessary. Each student has an online sign-in sheet that documents the attendance of their peer mentors, as well as what was accomplished during their time together. This procedure ensures accountability of peer mentors and facilitates communication between peer mentors and Next Steps staff members.

**Circles of Support**

The group of peer mentors that supports an individual student is called a Circle of Support; most are composed of 8-12 peer mentors. Each Circle has a Lead Peer Mentor who serves as a liaison between Next Steps staff and the members of the Circle. The Circles of Support model is flexible in its approach to providing support. Each student in the Next Steps program is different and therefore requires individualized supports. Accordingly, the Next Steps staff forms each Circle of Support and develops student schedules based on the needs and preferences of each individual student. Some students may thrive with a smaller circle (e.g., fewer peer mentors), while others prefer more peer mentors in their Circles.

Beyond recognizing that supports should be individualized to each student, this model recognizes that support needs often evolve over time. As the students progress through Next Steps, their support needs often change. Upon starting in the program, a student may need extensive support such that all of their activities are scheduled and their time on campus is structured with the help of staff and peer mentors. However, as they progress through the program, students often need fewer supports to be facilitated by Next Steps. Often, they have become more independent in managing their time and responsibilities, and have more natural supports in place, such that the need for support provided by peer mentors is not as great. The goal for each student is to increase independence and gradually fade formal supports.

**Recruitment of Peer Mentors and Eligibility**

The Next Steps program takes several steps to recruit new peer mentors each year. Though the retention rate of peer mentors is high, there are various reasons that more volunteers are needed each semester (e.g., former peer mentors study abroad for a semester or graduate). A primary outlet for recruitment is the campus-wide Student Organization Fair that is held each fall. This event showcases all of the organizations on campus, providing students with information about
opportunities to get involved in volunteer and other opportunities. Next Steps participates in this event by setting up a booth that is staffed by both peer mentors and students with IDD who share information with attendees.

Another strong recruitment tool is advertisement through the Special Education Newsletter. Although Next Steps draws peer mentors from diverse backgrounds with a variety of majors (see Table 1), those in the field of Special Education often have a high interest in supporting students in the program. Given this interest, recruiting from students in Vanderbilt University’s Special Education department has been successful. Many of these students view volunteering as a peer mentor to be both an opportunity to provide support to students with disabilities, as well as a way to extend their own learning (Griffin, Mello, Glover, Carter, & Hodapp, 2016).

In addition, the Next Steps program specifically recruits peer mentors from several campus organizations that encourage volunteerism, for example Vanderbilt’s many fraternities and sororities. Dissemination of information about volunteering as a peer mentor varies by organization. Some fraternities and sororities send information about the opportunity to members via e-mail, while others invite a current peer mentor to present at a chapter meeting. In addition to these more formal recruitment strategies, many people become interested in volunteering as a peer mentor simply through word-of-mouth or interactions with students in the Next Steps program.

In terms of eligibility, peer mentors must be undergraduate or graduate students at Vanderbilt University. All peer mentors must pass a background check in order to participate. Applications are available prior to the start of each academic semester, and include questions regarding applicants’ demographics, schedule, skills and dispositions, career goals, and prior experience (see Table 2). In addition, prospective peer mentors must provide two references.

**Formation of Circles**

As Next Steps staff learns about the needs, interests, and goals of a student, they can more effectively match students with peer mentors. With a diverse pool of volunteers, Next Steps is able to match students with peer mentors who can offer the supports needed to help the student thrive on campus. Students in the Next Steps program have a range of abilities and support needs. Those who have a need for academic or behavioral supports are matched with volunteers who have more experience with individuals with disabilities, as they may feel more confident using strategies to help students meet educational and behavioral goals.

Personality and mutual interests also play a role in matching students in Next Steps with their peer mentors. On the peer mentor application, volunteers describe their interests and extracurricular activities. This helps staff match students with peer mentors with whom they may have some interests in common. This effort to match individuals based on mutual interests can help the pairs build rapport quickly, laying the foundation for authentic friendships to develop.

Finally, availability also impacts the creation of a student’s Circle of Support. Peer mentors submit times when they are available each week. Their schedules are then matched with the schedules and needs of the students in the Next Steps program. Thus, the staff creates Circles based on the needs of students in Next Steps, common interests, and compatible schedules.

The process of forming each student’s Circle is revisited every semester. This allows for the Circle to evolve in order to meet each student’s individual needs, and also provides the flexibility to make adjustments related to changing availability of peer mentors over time. Next Steps staff members ask both students with IDD and peer mentors if they have preferences about individuals they would or would not like to be matched with in the future.

**Training**

All peer mentors are required to attend an initial three-hour training facilitated by program staff; returning peer mentors are required to attend a one-hour review training each semester that provides an update of the initial training they received. These trainings provide an overview of the Next Steps program’s policies, including issues related to confidentiality; disability etiquette; peer mentor roles and responsibilities; and the Circles of Support model. Peer mentors also receive information about the students with whom they are matched in regard to their interests, preferences, goals, strengths and challenges.

Additionally, during the training, peer mentors are introduced to strategies that have proven effective for supporting students in Next Steps in the past. Although the supports provided to each student will vary, such strategies include using visual supports, modeling skills, and providing reinforcement. During the training, peer mentors are presented a scenario and are asked to brainstorm ways to address the situation in small groups. The larger group then discusses possible approaches to resolve the situation in a positive manner.

**Initial Facilitation and Ongoing Supports**

Once peer mentors are assigned and trained, Next Steps staff members host a Kick-Off Party where the
Implications for Practice and Research

In coordinating the Circles of Support model, the Next Steps staff has encountered certain challenges. For example, few males volunteer to be peer mentors (see Table 1), posing a challenge to the Next Steps staff in terms of pairing students with peer mentors. Matching a student with a peer mentor of the same sex can be beneficial for certain activities—for example, if the pair is exercising at the Student Recreation Center and the student needs support in the locker room. The Next Steps staff addresses this issue by ensuring that male students in the program have at least one member of their Circle who is male. Also, the staff actively recruits male peer mentors; for example, if a student expresses interest in joining a fraternity, the staff might recruit specifically within that organization in order to develop natural supports.

Another challenge involves peer mentors who do not fulfill their commitments, for example, by missing a meeting with a student in the Next Steps program. Though relatively rare, this situation has significant repercussions for both students and staff. Because peer mentors are not compensated (e.g., by stipends or course credit), there are few natural consequences for such irresponsible behavior. To address their concerns, staff members speak directly with the peer mentor. If the problem persists, they may not invite the peer mentor to return. However, this situation is rare; frequently, peer mentors respond positively to feedback from the staff.

Despite these challenges, the Circles of Support model is an effective way to support the diverse needs of college students with IDD. By capitalizing on the interests and efforts of volunteers, this model reduces the amount of formal support needed from PSE program staff or campus disability service providers who already have extensive workloads. Additionally, this model facilitates the authentic inclusion of students with IDD in college life. They are studying, eating, and “hanging out” with a group of their peers, just as other college students do.

Given the promise of this model, future research should focus on its immediate and longitudinal effects. Researchers should document the friendships that develop from peer mentoring relationships, and investigate whether these friendships sustain over time. Also, researchers should investigate the finding that volunteering as a peer mentor has a bearing on career aspirations (Griffin et al., 2016). Longitudinal research on the career paths of former peer mentors would shed light on the impact this experience has on the lives of future professionals.
Inclusive PSE programs are a new frontier in higher education. The Circles of Support model represents one approach for supporting the social and academic development of college students with IDD. As we have described, this model accommodates varying needs for support among students with IDD, while also promoting their inclusion in the campus community, and minimizing the formal supports provided by program staff and disability services. By presenting a detailed description of the Circles of Support model, it is our hope that other current and future programs for students with IDD might benefit from the structure presented and lessons learned.

References


About the Authors

Megan Griffin received her M.Ed. in Elementary Education from the University of Notre Dame and Ph.D. in Special Education from Vanderbilt University. She is currently an Assistant Professor of Special Education at the University of New Mexico. Her teaching and research activities focus on individuals with intellectual and developmental disability, particularly in the transition to adulthood, and on interventions based in applied behavior analysis (ABA) to support individuals with disabilities. She can be reached by email at griffinm@unm.edu.

Kelly Wendel received her B.A. in Elementary Education from Wake Forest University and M.Ed. from Vanderbilt University. Her experience includes working as a consultant for Vanderbilt’s Treatment and Research Institute for Autism Spectrum Disorders (TRIAD) and serving as Program Coordinator for the Next Steps at Vanderbilt postsecondary education program. She is currently an educational consultant with TennesseeWorks and TRIAD, through which she conducts teacher and administrator trainings, primarily focusing on secondary transition. Her research interests include educator professional development, teacher preparation, and best practices in the field of secondary transition. She can be reached by email at kelly.wendel@vanderbilt.edu.

Tammy Day received her B.A. degree in Special Education from the University of Tennessee and Master’s from Vanderbilt University. Her experience includes working as a classroom teacher for 18 years in Tennessee and West Virginia, and then serving as transition coordinator for Rutherford Co. TN school district. She is currently a staff member in the Department of Special Education at Peabody College, Vanderbilt University as the founding director of Next Steps at Vanderbilt, an inclusive postsecondary program for students with intellectual and developmental disabilities. Her research interests include the impact of inclusive higher education on the learning community at large. She can be reached by email at Tammy.Day@vanderbilt.edu.
Elise McMillan received her B.S. degree in Communications from Texas Tech University and her J.D. from the Nashville School of Law. Her experience includes leadership in several Tennessee initiatives in the areas of information and support for families, development of inclusive higher education opportunities and training for health care providers serving individuals with intellectual and developmental disabilities. She is currently a senior associate in the Department of Psychiatry at the Vanderbilt University Medical Center, Co-Director of the Vanderbilt Kennedy Center (VKC) for Excellence in Developmental Disabilities and the VKC Director of Community Engagement and Public Policy. Her research interests include inclusive higher education, development of integrated employment opportunities, and disparities in health care. She can be reached by email at elise.mcmillan@vanderbilt.edu.

Table 1

Demographics of Peer Mentors for Academic Year 2014-15 (N = 66)

<table>
<thead>
<tr>
<th>Demographic Variables</th>
<th>n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>53 (80%)</td>
</tr>
<tr>
<td>Male</td>
<td>13 (20%)</td>
</tr>
<tr>
<td>Ethnicity</td>
<td></td>
</tr>
<tr>
<td>Caucasian</td>
<td>53 (80%)</td>
</tr>
<tr>
<td>Asian</td>
<td>11 (17%)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>Multiple</td>
<td>1 (1.5%)</td>
</tr>
<tr>
<td>Primary Majors</td>
<td></td>
</tr>
<tr>
<td>Special Education</td>
<td>19 (29%)</td>
</tr>
<tr>
<td>Other</td>
<td>18 (27%)</td>
</tr>
<tr>
<td>Psychology</td>
<td>7 (11%)</td>
</tr>
<tr>
<td>Liberal Arts &amp; Sciences</td>
<td>6 (9%)</td>
</tr>
<tr>
<td>Biology</td>
<td></td>
</tr>
<tr>
<td>Economics</td>
<td>4 (6%)</td>
</tr>
<tr>
<td>General Education</td>
<td>4 (6%)</td>
</tr>
<tr>
<td>Medicine &amp; Related Fields (e.g., pre-nursing)</td>
<td>4 (6%)</td>
</tr>
</tbody>
</table>

Note: Other includes the following: Art History, Chemistry, Child Development, Communication Studies, Engineering, Film Studies, Health Administration, History, Human and Organizational Development, Law, Neuroscience, Philosophy, Political Science, Public Policy, Social Work, and Undecided
Table 2

*Sample Questions from Peer Mentor Application*

<table>
<thead>
<tr>
<th>Topic</th>
<th>Question</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation for applying</td>
<td>What interests you most about this volunteer opportunity?</td>
</tr>
<tr>
<td>Prior experience with disability</td>
<td>Describe your experiences, if any, with persons who have disabilities.</td>
</tr>
<tr>
<td>Interests/hobbies</td>
<td>Please list your personal interests and hobbies or activities you like to do in your spare time.</td>
</tr>
<tr>
<td>Availability</td>
<td>What amount of time do you anticipate that you will have to commit to as a mentor?</td>
</tr>
<tr>
<td>Personal Characteristics</td>
<td>Please circle 3-5 words that best describe you:</td>
</tr>
<tr>
<td></td>
<td>Outgoing, Quiet, Athletic, Patient, Talkative, Artistic</td>
</tr>
<tr>
<td></td>
<td>Friendly, Assertive, Careful, Funny, Creative, Studious</td>
</tr>
<tr>
<td></td>
<td>Active, Flexible, Daring, Energetic, Shy, Responsible</td>
</tr>
</tbody>
</table>
Changing Systems to Provide Inclusive Higher Education for Students with Intellectual Disabilities

Olivia Raynor
Katharine Hayward
Wilbert Francis
Catherine Campisi

Abstract
For several decades, institutions of higher education (IHE) have been addressing the need for postsecondary education (PSE) for students with intellectual disabilities (ID). These efforts have increased significantly since 2008 with passage of the Higher Education Opportunity Act (HEOA). The law includes a defined set of services and activities which make up a Comprehensive Transition Program (CTP) of PSE for students with ID, as a pathway to employment. In response to student need and the HEOA, California developed a unique partnership between Vocational Rehabilitation (VR) and selected Community Colleges to create College to Career (C2C) Programs. This practice brief describes PSE programs for students with ID in general and development of the C2C programs. It also shares student outcome data and implications from the C2C programs which may be applicable to other colleges and universities as they strive to meet the PSE needs of students with ID on their campuses.

Keywords: Intellectual disabilities, college to career

The development of postsecondary education (PSE) for individuals with intellectual disabilities (ID) is relatively new (Kelly & Westling, 2013; Plotner & Marshall, 2015). Traditionally, students with ID did not meet matriculation requirements and given their support needs, they were not considered a match for the integrated college experience (Plotner & Marshall, 2015). In the first decade of 2000, growth occurred in the number of PSE options for individuals with disabilities, including students with ID (Grigal & Hart, 2010; Grigal, Hart, & Weir, 2012; Newman, Wagner, Cameto, Knokey, & Shaver, 2010; Raue & Lewis, 2011; Snyder & Dillow, 2010). Scholars (e.g., Kelly & Westling, 2013; Neubert, Moon, Grigal & Redd, 2001) credited federal legislation for improvements in inclusive higher education.

Much of the growth in PSE programs is attributable to the Higher Education Opportunity Act of 2008 ([HEOA]; Plotner & Marshall, 2015). It specifically included provisions to increase PSE participation of individuals with ID and cited meaningful employment as a goal. The law defined an intellectual disability within the context of higher education, created a new category of Title IV-funded higher education programs known as Comprehensive Transition and Postsecondary programs (CTP), made federal financial aid available to eligible students attending CTPs, waived matriculation requirements, added requirements for inclusive student participation, and funded model demonstration PSE programs, as well as a national technical assistance center (Grigal, Hart & Weir, 2013).

Zaft, Hart, and Zimbrich (2004) found lack of access to PSE was a major barrier to improved employment outcomes; less than 40% of young adults with ID accessed higher education compared to almost 80% for others. Individuals with ID who have participated in PSE have experienced better post school outcomes including higher levels of employment, increased wages, and extended social networks than peers who did not have PSE (Hart, 2006). Rehabilitation outcome data show that youth with ID who participated in PSE were 26% more likely to leave Vocational Rehabilitation (VR) with a paid job and earned 73% in higher weekly income (Migliore, Butterworth, & Hart, 2009).

1 University of California Los Angeles
Depiction of the Problem

Both the community colleges and VR in California identified the need to change systems to improve programming and outcomes for students/clients with ID. The California Community Colleges (CCC) are an open access system of higher education. Generally, entrance criteria require students to be 18 years of age or older, have a high school diploma, or be able to “benefit from instruction.” Many CCCs offer continuing or adult education classes to meet the lifelong learning needs of various student populations, including students with ID. Currently, at colleges without a College to Career (C2C) program, students with ID enroll in classes with varying degrees of inclusion and student success. In 2014-15, 6,871 students with ID received services or took a special class for students with disabilities in a CCC (DSPS Allocations, n.d.). It is estimated that many of these students are enrolled in continuing education life skill classes held in community facilities for persons with ID. In other cases, students attend specialized classes on independent living and pre-employment skills on campus with other students with ID. In situations where students do enroll in inclusive classes on campus, they often start with Adaptive Physical Education (APE) or an arts class and go on to enroll in classes without academic prerequisites. Auditing of classes is rarely used as an option for students with ID in the CCCs.

Other key institutional partners, namely the VR and developmental disabilities (DD) fields, offered little focus for transition age youth with ID to become prepared to work in integrated settings in their communities and to live independently. VR is a federal program administered by the state that provides services to job seekers with disabilities to achieve and maintain competitive employment. Youth with ID who became clients of VR were traditionally referred to specialized vendors who placed them in supported employment jobs, often in a group setting. Within the DD system, the significant majority of youth with ID exiting high school were referred to segregated, non-work “day activity programs” which took them further away from a future which involves employment as a major life activity.

Description of Practice: The Development of the C2C Programs

While many colleges, especially community colleges, had been serving students with ID for decades, few, if any, had programs which were consistent with the federal guidance provided in the HEOA. Colleges and universities were now challenged to re-think their expectations of students with ID, analyze their current services and identify needed new services and partnerships both on campus and in the community. California found it lacked effective existing programming and needed new systemic initiatives. To address this need, a unique partnership developed between the CCCs and California VR, known in California as the Department of Rehabilitation (DOR) in the form of five pilot C2C Programs. Interested colleges were required to submit proposals to DOR to implement three-year programs for students with ID that were aligned with the HEOA and met the following conditions: (a) be offered at a college; (b) support students with ID who are seeking to continue academic, career and technical, and independent living instruction to prepare for gainful employment; (c) include guidance and advising; (d) include at least 50% focus on academic opportunities with students without disabilities; and (e) lead to competitive employment outcomes as indicated in the contract. The initial C2C programs, located at College of Alameda, North Orange County Community District, Sacramento City College, San Diego Community College District, and Santa Rosa Junior College, were funded, beginning in FY 2010-11 at $250,000 per year for four years. No matching funds were required. As outlined in a contract between DOR and the college, the programs offered rehabilitation services as well as disability support services provided by the college. The supplemental VR services offered through the C2C program at the college included: focused guidance/advising to match the student’s PSE experience to their career interests, educational coaching, work experience, job development, and placement services. They also offered program coordination and direction both within the campus and between the college and DOR and community based DD services. Four of the five initial programs also provided specialized instruction.

Education coaching, which has been identified as a needed service by students and staff, included organizational supports to assist students to prepare for and debrief after classes and provided assistance with executive functioning. To attain sufficient well-trained education coaches, one C2C program utilized occupational therapy assistant students on campus to serve as education coaches.

At the end of the first three year funding cycle, C2C programs were approved by DOR for three additional years of funding through June 30, 2017. In addition, three additional college programs started a three-year funding cycle beginning in 2015: Fresno City College, Shasta College, and West Los Angeles College. This practice brief presents a description of key elements from the first three years of implementation of the C2C program, including academic and campus participation,
career development activities, and educational supports for student access and success.

**Participant Demographics**

Across the five initial sites, 296 students participated in the C2C program during the first three years spanning 2011-2014; 87 students in Year One (2011-12), 108 in Year Two (2012-13), and 101 in Year Three (2013-14). The number of students per site ranged from 54 to 62, with sites most commonly having 60 students. The majority of C2C students were male (57%). Three-quarters (77%) of students were between the ages of 18 and 26, with an average age of 25 (median=24). Half of the students were White, 14% were Black or African-American, and another 14% were Asian. Nearly a quarter (24%) of C2C students were Hispanic or Latino. C2C students primarily had an intellectual disability (52%) and/or developmental delay (36%). A quarter (27%) of C2C students had autism either alone or in combination with another diagnosis. At the time of referral to C2C, less than half (46%) of the students were DOR clients. As a result, 160 individuals became eligible clients of DOR. Students were also asked about previous academic and work experiences prior to C2C. A little over half (54%) of the C2C students had taken a college course prior to C2C. The majority of incoming C2C students (63%) had not been employed at or above minimum wage prior to C2C.

**Institutional Partners/Resources**

The two key institutional partners in the development and implementation of C2C programs were the CCCs and DOR. As part of this effort, the Chancellor’s Office of the CCCs contracted with the Tarjan Center at UCLA to serve as a consultant in developing the programs. The Tarjan Center, which is a nationally funded University Center for Excellence in Developmental Disabilities (UCEDD), continued to provide professional development, technical assistance, and evaluation services to the C2C programs. In addition, the local DD service agencies, known as Regional Centers, partnered with the colleges to provide additional services as well as program referral to the C2Cs.

**Evaluation of Observed Outcomes**

**Course Enrollments**

On average, C2C students enrolled in six to seven classes per year which included a variety of courses. As students moved through the C2C program, course enrollments in academically specialized courses designed for students with ID and other disabilities, which includes Disabled Student Programs and Services courses and C2C courses, decreased and regular course enrollments increased (See Table 1). For-credit course enrollments increased from 53% (Year One) to 62% (Year Three). Course enrollments were also increasingly related to a student’s career goals, rising to 61% in Year Three from 47% in Year One. Examples of courses related to the student’s career goals were in the areas of Child Development (i.e., Nutrition, Health, and Safety; Child Development Curriculum: Music/motor skills; Child, Family, and Community); Culinary Arts (Food Production Theory; Intro to Hospitality and Tourism; Food and Beverage Management); Computer skills (Intro to PowerPoint, Desktop Publishing, Word, Database Development, and Principles of Information Systems); Business (Law and Legal Environment; and Business Mathematics) and the Arts (Beginning Voice for Actors, Music Appreciation, and Beginning Painting). Likewise, course enrollments related to a degree/certificate increased from 6% in Year One to 21% in Year Three.

**Career Development and Work Experiences**

As part of C2C, students engaged in a variety of job preparedness activities. In Year Three, the majority of students had prepared a resume (75%), identified potential employers (68%), created a list of references (61%), and conducted an online job search (60%). Nearly half (47%) of C2C students submitted a resume in Year Three compared to 36% in Year One. There was an increase in the percentage of students who applied for a job from 15% in Year One to 46% in Year Three.

The C2C program was designed to focus on work experiences after the first year. There was an increase in the number of work experiences, paid and unpaid, from Year One to Year Three. In Year One, 26 (30%) of the 87 students attending C2C had 32 work experiences. In Year Two, 88 (47%) of the 188 C2C students had 115 work experiences. In Year Three, 116 (44%) of the 265 students in C2C had 154 work experiences. The top three most common work experiences in each year were individual paid jobs, volunteer positions, and unpaid internships. See Figure 1. C2C students who had an individual paid job earned, on average, over nine dollars an hour: $9.05 (Year One); $9.79 (Year Two); $9.45 (Year Three). C2C students worked, on average, 13 to 22 hours a week. Examples of employers include preschool and elementary schools, hospitals, museums, movie theaters, grocery, restaurants, and retail stores.

**Systemic Changes at the College**

The C2C program also facilitated attitudinal changes as well as expansion of services and programs offered
at the college to assist students with ID in gaining skills for employment. For example, at one site, conversations with C2C staff and the department chair of the auto body program led to progress in developing certificates of proficiency in specific task areas related to auto body rather than the requirement for completion of a full certificate which may not be attainable for some students with ID. At another site, the building of relationships among staff heightened the awareness of the needs of students with disabilities, including those with ID, in developing and restructuring new certificate programs.

Implications and Portability

As described in this practice brief, the HEOA created the framework for key elements to be considered for supporting individuals with ID in higher education. Several implications arose from implementation of C2C, which may be applicable in other postsecondary settings that are seeking to better serve students with ID. First, colleges need to venture into the new area of preparing students with ID for competitive, integrated employment. This focus, which traditionally is beyond the scope of the college, led to a natural partnership with VR agencies in the form of C2C programs in California and possibly to other collaborative programming strategies with VR in other states. A second implication was the need for colleges to examine already existing services and initiatives in their disability support services (DSS) and other campus offices that are applicable to serving students with ID and to change systems and attitudes to recognize students with ID as a natural part of the student population. Disability supports discussed in the paper along with Universal Learning Design and Student Diversity efforts were part of the already available resources. Third, the C2C’s had to identify unique needs for some of their students that go beyond services provided to other students with disabilities such as education coaching and the development of other pre-vocational and vocational supports. Additional resources must then be identified to meet these needs. In the case of California, DOR funding was utilized to enhance the offerings and services of the college to better assist students with ID to succeed in career oriented college courses and enter into integrated employment.

While C2C presents one promising model for using PSE as a pathway to employment for students with ID, it is not the only one. In designing the best program for each IHE, the process of using the HEOA as a framework and then identifying available resources as well as unmet needs and key strategic partners is a portable strategy that can be utilized universally.

References


Olivia Raynor received her B.S. degree in Occupational Therapy from Boston University, M.A. in Occupational Therapy from the University of Southern California, and Ph.D. in Educational Psychology from the University of California Los Angeles (UCLA). She is the Director of the Tarjan Center, a University Center for Excellence in Developmental Disabilities, and Adjunct Professor in the Department of Psychiatry and Biobehavioral Sciences at the Semel Institute, UCLA. Her career spans over 40 years of experience in management, analysis, evaluation, training and public policy at the individual and system levels that support individuals with disabilities participation in inclusive postsecondary education, integrated competitive employment, the arts, and civic engagement. Dr. Raynor is the Principal Investigator and Director of CECY (California Employment Consortium for Youth with Intellectual and Developmental Disabilities), California’s Project of National Significance Partnerships in Employment Systems Change project (2011-2016). Dr. Raynor has spent the last 15 years advancing policy and practice in inclusive post secondary education and competitive integrated employment for individuals with intellectual and developmental disabilities. She is the developmental disability consultant to the California Community College Chancellor’s Office of the CA Community Colleges which is the largest higher education system in the world. Catherine Campisi received her B.A. and M.A. degrees in psychology from Southern Illinois and San Diego State Universities, respectively. She also earned a Ph.D. in Social Psychology from the University of Missouri, Columbia. Her experience includes working at the local and state levels in disability services in higher education and in rehabilitation. She served as Director of the CA Department of Rehabilitation for seven years. She also worked as a Dean of Student Services at the Chancellor’s Office of the CA Community Colleges which is the largest higher education system in the world. Catherine was active in AHEAD and served as the Chair of the Legislative Committee as well as President Elect, President, and Past President of the organization. She is currently retired but works as a Consultant. Her professional interests include policy and program development in transition services to bridge the transition from college to career for persons with disabilities. She can be reached via email at: catherinecampisi@att.net.

Wilbert Francis received his BA and MBA degrees in business administration from the University of the Virgin Islands and is a candidate for the Ed.D. with a specialization in community college and postsecondary education from San Diego State University. He is the project director of postsecondary education at the UCLA Tarjan Center, a Center for Excellence in Developmental Disabilities, Research, and Service. His experiences include consultation to the California Community Colleges Chancellor’s Office. He directs the development of training and technical assistance (TA) to build the capacity of California’s 113 community colleges, to support students with intellectual disabilities and autism in higher education. His research interests include the identification of factors that contribute to academic success (as evidenced by persistence, certificate and degree completion, and transfer) and job attainment in competitive integrated employment of individuals with intellectual and developmental disabilities. He can be reached by email at: wfrancis@mednet.ucla.edu.

Katharine Hayward received her B.A. degrees in Psychology and Rhetoric and Communication from the University of California, Davis and her Masters and Ph.D. in Public Health from the University of California, Los Angeles. Her experience includes designing evaluation methods and performing analysis to assess the impact of various projects that focus on improving the quality of life of individuals with disabilities’ including increased access to women’s health care services, the arts, postsecondary education and competitive integrated employment. She is currently the Director of Evaluation for the Tarjan Center at UCLA, a university center for excellence in disabilities. Her research interests include a wide range of topics from parenting with a disability to careers of artists with disabilities to systemic factors affecting employment of people with disabilities. She can be reached by email at: khayward@mednet.ucla.edu.
Table 1
Number and Percent of Course Enrollments by Year

<table>
<thead>
<tr>
<th>Types of Courses</th>
<th>Year One (n=527 courses)</th>
<th>Year Two (n=1127 courses)</th>
<th>Year Three (n=1501 courses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic skills course</td>
<td>37 (7.0%)</td>
<td>77 (6.8%)</td>
<td>101 (6.7%)</td>
</tr>
<tr>
<td>C2C courses</td>
<td>158 (29.8%)</td>
<td>313 (27.8%)</td>
<td>307 (20.5%)</td>
</tr>
<tr>
<td>Career Technical Education</td>
<td>33 (6.3%)</td>
<td>51 (4.5%)</td>
<td>104 (6.9%)</td>
</tr>
<tr>
<td>DSPS courses</td>
<td>135 (25.6%)</td>
<td>247 (21.9%)</td>
<td>292 (19.5%)</td>
</tr>
<tr>
<td>Regular courses</td>
<td>154 (29.2%)</td>
<td>414 (36.7%)</td>
<td>664 (44.2%)</td>
</tr>
<tr>
<td>Other regular course</td>
<td>11 (2.1%)</td>
<td>25 (2.2%)</td>
<td>33 (2.2%)</td>
</tr>
</tbody>
</table>

Figure 1. Percentage of Types of Work Experiences by Year

![Bar chart showing percentage of types of work experiences by year](chart.png)
Comprehensive Services Tailored for the Transitional Success of Veterans in Higher Education

Dustin D. Lange\textsuperscript{1}  
Susann Heft Sears\textsuperscript{2}  
Nicholas J. Osborne\textsuperscript{2}

Abstract

It is estimated that in the next decade, over two million veterans and dependents will utilize the Post-9/11 GI Bill for postsecondary education. Most colleges already possess the resources that veterans need to successfully transition and persist, though this subpopulation of learners also require services that are tailored to their nontraditional and unique backgrounds. Drawing on case study examples, this article offers a student-centric conceptual model that was developed at a major public university in the Midwest where approximately 400 student veterans are enrolled. The model offers a holistic approach for blending academic, career, family, and disability services for veterans along with recommended practices for student service offices and administrative leaders.

Keywords: Veterans, military, transition, student services, higher education

Over the past decade, college campuses around the nation have seen an increase in the number of student veterans enrolled in postsecondary education. Not since World War II have so many veterans transitioned from military life to student life (Cook & Kim, 2009; White-man, Barry, Mroczek & MacDermid, 2013). The number of student veterans and beneficiaries (i.e., dependents or spouses) accessing military educational benefits across the United States increased from 397,598 in 2000 to 564,487 in 2009 to over a million in 2012, totaling over $10.5 billion in utilized benefits in 2011 alone (McCaslin, Leach, Herbst, & Armstrong, 2013). Overall, it is estimated that over two million service members returning from conflicts in the Middle East and departing the military will enroll in postsecondary education (Cook & Kim, 2009; Madaus, Miller, & Vance, 2009).

This influx of veterans and their dependents utilizing education benefits is largely the result of the Post-9/11 GI Bill, which took effect in 2009. This, according to Cate (2014), is a massive investment of more than $30 billion dollars to make college more reachable for military-connected populations. As President Truman stated to Congress on January 6, 1947, “History will judge us not by the money we spend but by the future contributions we enable our veterans to make to their country” (Strom, 1950, p. 60). Indeed, aside from a national responsibility, an investment in the welfare and education of veterans is integral to offset potential long-term and individual costs, which could result from lost productivity, reduced quality of life, homelessness, domestic violence, family strain, suicide, and disability (Vance & Miller, 2009).

Compared to military conflicts from previous eras, improved equipment and advances in medical technology have led to an increased survival rate for service members, but with a much higher rate of injury. For example, DiRamio and Spires (2009) reported that the ratio of wounded to dead among American service members in Iraq was roughly 16 to 1 versus 3 to 1 during the Vietnam era. According to the Congressional Research Service’s Report, between October 7, 2001 and August 7, 2015 the U.S. had a total of 52,351 service members wounded in action (Fischer, 2015). The most common injuries include Post-Traumatic Stress Disorder (PTSD), Traumatic Brain Injury (TBI), amputations, burns, and sexual assaults.

\textsuperscript{1} Center of Innovation for Complex Chronic Healthcare (CINCHH) at Edward Hines Jr. VA

\textsuperscript{2} University of Illinois at Urbana-Champaign
Veterans have nontraditional features and requirements that make them a unique student population to work with. To adequately meet their needs, colleges and universities must evaluate their services and understanding of veterans to determine if existing resources are adequate and particularly when assessing support for a disability. According to 690 institutions surveyed by the American Council on Education (ACE), a majority of institutions provide basic services for veterans, such as financial aid and counseling assistance. However, the survey also found that few institutions have established programs or services to specifically assist veterans with physical disabilities and less visible injuries such as TBI (McBain, Kim, Cook, & Snead, 2012). In addition, the survey illuminated that only 12.9% of public four-year colleges have support groups specifically for student veterans with disabilities and only 8.2% offer services for veterans’ families.

Veterans with newly acquired injuries must develop an understanding of how their disability may affect their learning (Church, 2009; Madaus et al., 2009). Many are unaware of the Americans with Disabilities Act (ADA), their rights as students with a disability, or how to initiate support for receiving academic accommodations (Madaus, 2009). Making matters more complex, veterans with disabilities are transitioning from a military culture that may stigmatize their condition. Although studies have shown that many student veterans believe that their service provided them with positive attributes such as discipline, maturity, and innovation (Ackerman, DiRamio, & Mitchell, 2009), a rigid military culture that emphasizes toughness and self-sufficiency can make asking for help difficult for today’s student veteran (Osborne, 2014).

Conceptual Comprehensive Service Model for Student Veterans.

The purpose of this practice brief is to create awareness of a student-centric conceptual model that incorporates academic, career, disability, veterans and family services. This model was created by the authors and has been implemented successfully at a major public university (more than 40,000 students) in the Midwest that serves approximately 400 student veterans. Additionally, this brief provides case study examples and suggestions for working with student veterans that readers can consider implementing based on their own institutional needs.

Figure 1 presents a conceptual services model to support the academic and transitional success of student veterans. Four core service areas are recommended for student veterans to ease their transition from military to academic life. They are: (1) Academic Services, (2) Career Services, (3) Disability Services, and (4) Veteran and Family Services. Figure 2 provides a detailed list of items that fall under each core area. Most colleges already have these services in place but may need to tailor them specifically for their veteran population; as their unique experiences and characteristics can be quite different from traditional students and even of other non-traditional groups. To meet this aim, the authors worked with current student veterans while developing the model to determine the types of resources they found most helpful in addition to determining how these offices could brand elements of their services specifically to veterans. As a starting point, the authors conducted a needs assessment survey that was disseminated to all registered student veterans. The purpose of the survey was to identify the types of services and resources that student veterans found most helpful or that needed to be enhanced in order to be more effective. Additionally, semi-structured interviews and meetings with the student veteran’s organization provided enhanced insight into strategies for strengthening existing resources. For example, career services developed brochures for student veterans that addressed workshops related to translating their military experiences to non-military employers in addition to career fairs and industry partners who are looking to hire veterans.

Description of Practice through Case Studies

The following case studies were developed to demonstrate the unique characteristics and potential range of needs that student veterans may exhibit while pursuing a postsecondary education. Although the following case studies are fictitious, they represent an amalgamation of students that the authors have worked with. The fundamental vision for the proposed practice implementation is to treat the student veteran holistically by addressing their psychosocial and emotional health through a spectrum of services that support their transitional and academic success.

Case Study 1

Jeff is a 27-year-old married male with a four-year-old daughter. Jeff experienced a concussive blast when he was deployed to Iraq. As a result, he has been diagnosed with TBI and PTSD. His brain injury has impacted the emotional control center of his brain along with his short-term memory and retrieval skills.
Recently, Jeff had a dispute with a neighbor. His wife has further reported that he has emotional outbursts and she anticipates these are an outcome of having survivor’s guilt, as other soldiers in his unit were killed in action. Jeff recently started taking courses at a local college, but is not utilizing any support services.

**Intervention approach for case study 1.** It is suggested that Jeff seek out a staff member who can serve as an academic coach to meet weekly or bi-weekly to help him prioritize his ongoing academic and non-academic responsibilities. Such an individual may be available either through his campus academic or disability services offices. The goal is to assist Jeff in staying on schedule and to keep the majority of his responsibilities and priorities from escalating into a crisis. In doing so, the academic coach would help Jeff establish both long and short term goals to further ensure he is appropriately managing both his academics and connecting with additional support services. Jeff is in need of learning how to utilize computer and cell phone technology to keep track of major academic deadlines (e.g., midterm and final exam dates; class project deadlines; and research paper deadlines) as well as non-academic priorities (e.g., medical appointments, filling prescriptions, and picking-up his daughter from preschool). Additionally, ongoing counseling with a psychologist that specializes in working with combat veterans who have been diagnosed with PTSD and TBI will assist Jeff in being more consciously aware of how his emotional states appear to others while he is functioning throughout his day as well as strategies for effectively coping with mood fluctuations. It is further recommended that Jeff register with the campus disability services office so that he can qualify for accommodations for his courses due to his short-term memory and retrieval skills as well as his concerns for the possibility of having to sit with his back to the doorway of a classroom; a stressor that makes him anxious. Early registration access is another recommended benefit so that he can select course sections that occur when his medication levels are most optimal.

**Case Study 2**

Jodi is a 26-year-old single female who was hit by a rocket-propelled grenade (RPG) and experienced an amputation of her left leg. She experienced ongoing sexual harassment from her superiors during her enlistment. Jodi was athletically gifted while in the military and ran a number of marathons throughout her service. She has reported that she is experiencing a dramatic change in her sense of identity as a female, in her career path, and as an athlete. The trauma associated with both her combat missions and from the negative experiences from her leadership has resulted in a PTSD diagnosis. She is now enrolled in higher education to obtain a degree for a career change and to establish a new beginning for herself.

**Intervention approach for case study 2.** Jodi will likely benefit from meeting with a counselor that specializes in working with women who have experienced trauma so she can address the ongoing concerns she has related to the sexual harassment she experienced during her military tenure as well as addressing her sense of identity. Registering with the campus disability services office may afford her the ability to have accessible parking and additional transportation services to and from classes. She may further qualify for academic accommodations for her PTSD diagnosis. Disability services or the Veterans Administration (VA) may have additional resources to assist her in connecting with either local, regional, and national adaptive sports programs, since athletics continue to be a part of her identity. Jodi may also benefit from meeting with her campus career services office so that she can learn more about professions that are compatible with her interests and strengths as well as companies who are known to interview and prioritize the hiring of veterans.

**Case Study 3**

Mike is a 28-year-old single male who served one deployment in Operation Iraqi Freedom (OIF) and another in Operation Enduring Freedom (OEF). He did not experience any physical injuries related to combat and would like to know more about how to utilize his GI Bill to enroll in higher education to pursue studies for a career change, as he decided not to reenlist in the Army. He has demonstrated strong leadership and problem-solving skills as a Staff Sergeant.

**Intervention approach for case study 3.** Although it does not appear that Mike has self-identified as having service-related injuries requiring additional treatment or intervention, it would still be important for him to be aware of the support services available in the event that his circumstances were to change in the future, as the onset of PTSD or issues related to mobility can occur months and years following the experience of combat.

**Services Beneficial for All Student Veterans**

Although each case study presented has their own distinct needs, there are a number of support services that universally benefit most student veterans regardless of their circumstances or disability status. The following section identifies these recommended services.

**Peer support.** Veterans are notorious for looking out for each other. Connecting new student veterans with currently enrolled student veterans is a helpful way to establish an immediate peer network. Many
schools have a veteran’s student organization in place and chapters can be found through the Student Veterans of America (www.studentveterans.org). Additionally, community-based support can be found through several Veteran Service Organizations (e.g., American Legion, Disabled American Veterans, and Veterans of Foreign Wars). These groups offer effective resources for helping new veterans acclimate to the community and they are often engaged in various philanthropic work that benefit military populations.

Financial assistance and advisement. Many veterans are entitled to multiple types of benefits and selecting the best one can be confusing. For veterans who have a service-connected disability, the Vocational Rehabilitation and Employment program (www.benefits.va.gov/vocrehab) provided through the VA offers individualized career and education counseling, including benefits selection. Additionally, ongoing advisement from a financial aid officer who is knowledgeable of the GI Bill and various state grants and scholarships is another critical area to ensure is in place.

Academic related supports. Student veterans may require additional supports for their academic demands in higher education. Services such as tutoring or test-taking strategies may be needed to further ensure they are performing optimally. Additionally, academic coaching services can further support executive functioning skills management with the goal of advising students on techniques for successful self-management of their coursework.

Psychological counseling. Counseling centers and mental health staff should be made available to student veterans to help them process the academic and cultural adjustments they experience while transitioning to higher education. Attention should also be directed toward providing counseling staff with training on military culture in addition to specialized training related to military sexual trauma and PTSD. The Center for Deployment Psychology (http://deploymentpsych.org) is a helpful resource for receiving specialized training related to military populations.

Career counseling. The employment focus of student veterans make career services one of the most sought after resources on campus. Workshops and services that build on skills acquired in the military offer a great starting point for working with student veterans.

• Translating military experience to civilian employment: learning more about how their prior work-related and combat experiences translate into skills and assets for the employment setting in the civilian world.

• Information on existing careers: information on careers that is compatible with one’s interests and aptitude.

Implications and Portability

The process of student veteran support services will vary across institutions. The listed recommendations provide guidance for initiating a course of action toward establishing or improving service provision to student veterans. The primary objective is to provide information that is both practical and useful for a wide variety of higher education institutions. The critical elements essential for creating positive impact include the establishment and sustainment of professional relationships with other campus units and the effective management and usage of resources. The following recommendations address student veteran’s needs at the individual and campus level.

Individual Level

• Create web-based surveys for student veterans and dependents to assist in determining needs for service provision.

• Conduct focus groups with student veterans to learn about their transitional experiences, perception of campus climate, and identified barriers. Including student veterans by way of surveys and focus groups is effective for giving student veterans buy in with regard to their input being used to strengthen and shape programming.

• Collaborate with other Registered Student Organizations. Student veterans should be encouraged to integrate into the larger campus and engage with diverse student populations. An excellent strategy for promoting integration is to empower the student veteran’s organization to collaborate with other student groups. The authors’ have sponsored activities that have linked student veterans to international students, veterans from other countries and students associated with Greek life to engage in various social and philanthropic events.

Campus Level

• Create a veterans services website and link other student services to it. The campus homepage should also consider having a link for veterans to enhance visibility.

• Utilize social media to increase visibility of veterans’ presence on campus.

• Educate faculty and staff about military culture,
ways to effectively work with student veterans, and how to brand services toward military-connected students. For instance, residential services might consider including information that explains whether or not veterans are required to live on campus or of housing options for nontraditional students.

- Collect data on veteran enrollment, retention, number of wounded veterans, and types of disabilities.
- Reach out to different college units for collaborative projects. A veteran’s advisory committee is a helpful way to bring multiple units together to strategize development and programming for veterans.
- Consider how student veterans needs align to your campus’ strategic plan.

The goal of this practice brief was to create awareness of a conceptual model that incorporates multiple services that are critical for supporting the transition and integration of student veterans. It should be noted that regardless of the size and philosophy of an institution, the infrastructure necessary to best serve student veterans is often times pre-existing; in other words, the services that are currently available and that benefit traditional students are likely to also benefit student veterans. However, the infusion and tailoring of a “veteran’s lens” into these existing services is required.

**References**


About the Authors

Dustin D. Lange received his B.S., M.S., and Ph.D. in Community Health with a Vocational Rehabilitation emphasis from the University of Illinois at Urbana-Champaign. He spent 8 years on active duty in the Marine Corps and is currently doing an Associated Health Post-doctoral Fellowship at the Center of Innovation for Complex Chronic Healthcare at Edward Hines Jr., VA Hospital. His research interests include the use of complementary and integrative health practices for managing the symptoms and sequelae of neurological disorders, implementation of veteran transition programs, and the career development of veterans with visual and non-visual disabilities. He can be reached at dustin.lange@va.gov.

Susann Heft Sears received her B.A. degree in Communicative Disorders from the University of Northern Iowa, her M.Ed. in Higher Education Student Affairs Administration from Iowa State University and is a part-time doctoral student in Community Health with a Rehabilitation emphasis at the University of Illinois at Urbana Champaign. She is a military spouse to a Chief Warrant Officer and is currently the Acting Director of Beckwith Residential Support Services (BRSS) with the Division of Disability Resources and Educational Services (DRES) at the University of Illinois. Her research interests include investigating the career readiness levels of college students with disabilities and the factors that impact their vocational behavior. She can be reached by email at: sheft@illinois.edu.

Nicholas J. Osborne received his B.S. in sociology from Lees-McRae College; his M.A. in sociology from Humboldt State University; and his Ed.D. in educational leadership from the University of California, Davis. He is a former Coast Guard officer and is currently the Director of the Center for Wounded Veterans in Higher Education at the University of Illinois at Urbana-Champaign. His research interests include first-year experience programs, student veterans, male community and disability. He can be reached at nosborne@illinois.edu.
Figure 1. Conceptual Services for Academic and Transitional Success of Student Veterans

![Conceptual Services Diagram]

Figure 2. List of Comprehensive Services for Student Veterans

<table>
<thead>
<tr>
<th>Academic Services</th>
<th>Disability Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veteran Orientation</td>
<td>Transitional Disability Management Program</td>
</tr>
<tr>
<td>Tutoring</td>
<td>Hiring, Training, Scheduling, and Managing Personal Assistant</td>
</tr>
<tr>
<td>Writing Labs</td>
<td>Health and Life Skills Management Program</td>
</tr>
<tr>
<td>Academic Coaching</td>
<td>Training in the use of Assistive Technologies and Auxiliary Aids</td>
</tr>
<tr>
<td>Financial Aid Services</td>
<td>Academic Accommodations</td>
</tr>
<tr>
<td>Scholarship Services</td>
<td>Academic Coaching</td>
</tr>
<tr>
<td>Priority Registration</td>
<td>Adaptive Sports Teams / Support Groups</td>
</tr>
<tr>
<td>Reduced Courseload if Needed</td>
<td>Speciality Printed Materials</td>
</tr>
<tr>
<td>Evening / Online Courses</td>
<td>Education on Disability Rights and Self-Advocacy (e.g., ADA)</td>
</tr>
<tr>
<td>Academic Advising</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Career Services</th>
<th>Veteran Family Services</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Placement</td>
<td>Peer Mentoring via Veteran Support Group</td>
</tr>
<tr>
<td>Education / Resources for Job Searches</td>
<td>Points of Contact for Local Veteran Service Organizations</td>
</tr>
<tr>
<td>Education on Writing Resumes &amp; Cover Letters</td>
<td>Points of Contact for VA and VA Benefits</td>
</tr>
<tr>
<td>Education on Application Process</td>
<td>Access to VetSuccess Rehabilitation Counselor on Campus</td>
</tr>
<tr>
<td>Mock Interviews</td>
<td>Family Support Groups</td>
</tr>
<tr>
<td>Education on Accepting and Negotiating Contracts</td>
<td>Counseling to Veterans and Family Members</td>
</tr>
<tr>
<td>Career Counseling</td>
<td>Veteran's Lounge and/or Veteran's Center</td>
</tr>
<tr>
<td>Education on Networking</td>
<td>On-Campus Daycare Services</td>
</tr>
<tr>
<td>Introducing them to Alumni Association</td>
<td>Registered Veterans’ Student Organization</td>
</tr>
<tr>
<td>Translating Military Experiences into Civilian Language (e.g., soft skills)</td>
<td>Campus Veteran Coordinator</td>
</tr>
</tbody>
</table>

Figure 2. List of Services to Consider. This list is not exhaustive but offers an excellent start for services that could be utilized by veterans and their families.
From Camouflage to Classroom: Designing a Transition Curriculum for New Student Veterans

Nicholas J. Osborne

Abstract
The landscape of higher education necessitates that strategies be in place to meet the needs of an ever changing student population. Since 2009, the Post-9/11 GI Bill has spurred an increased enrollment of student veterans that is forecasted to rise. Students who are veterans have unique experiences related to their service, age, and work-life responsibilities that often serve as barriers on college campuses. Additionally, a moderate number of veterans pursue an academic program while contending with a disability and are subsequently unaware of assistive resources available to them. This practice brief describes the target audience, theory, instructional, and implementation processes of a veterans transition course with the intention that readers can adapt similar strategies appropriate to their own institutional needs.

Keywords: Veterans, military, disability, first-year experience, transition

It is no surprise to the higher education community that veterans are arriving on campuses across the country. As students, they are nontraditional in that they are more likely to be first-generation, older than their peers, to have dependents, career-focused, and have had a break in their education (DiRamio & Jarvis, 2011; Kim & Cole, 2013). Some veterans who are college bound have served in various combat capacities prior to their enrollment and these experiences have matured them and set them apart from their civilian peers (Ackerman, DiRamio, & Mitchell, 2009).

The transition from a structured military environment to a college or university setting can be overwhelming for veterans, who may confront barriers in areas related to academic readiness, navigating the Department of Veterans Affairs (VA) and their school’s administrative procedures, denial of academic credit for military training, as well as integrating into the campus community (Armstrong, Best, & Domenici, 2005; Hassan, Jackson, Lindsay, McCabe, & Sanders, 2010). These stressors are made more challenging by perceptions that faculty and staff do not understand military culture or that they view veterans as a traumatized and possibly dangerous group (Berrett, 2011; Cook & Kim, 2009; Hanafin, 2011; Osborne, 2014). With less than one percent of the U.S. population having served in the military since 9/11 and the few number of veterans among the faculty and staff ranks of higher education, many veterans isolate themselves and report feeling disconnected from their campus (Livingston, Havice, Cawthon, & Fleming, 2011; National Survey of Student Engagement, 2010; Rumann, Rivera, & Hernandez, 2011). Moreover, for veterans who were injured or wounded during their service, an acquired disability adds another layer of complexity for leveraging effective support services (Elliott, Gonzalez, & Larsen, 2011).

Depiction of the Problem
Aside from the complexities associated with being a nontraditional student and reintegrating into the society at large, some veterans are charged with the difficult task of pursuing a postsecondary education with a disability. Major advances in protective equipment and medical technology has vastly increased battlefield survival rates, though they have also introduced new challenges to care for veterans with complex and multiple injuries (DiRamio & Spires, 2009). Cognitive difficulties are among the most prevalent injuries of modern conflicts. By some estimates, service members have as much as a 40% chance of acquiring a cognitive injury by the time they complete their military service. Predominant among

1 University of Illinois at Urbana-Champaign
these injuries are Traumatic Brain Injury (TBI) and Post-Traumatic Stress Disorder (PTSD; Kato, 2010; Radford, 2009; Shea, 2010). Between January 2000 and June 2015, 327,299 total TBI cases were reported, while the number of PTSD diagnoses included 39,264 for non-deployed personnel and 138,197 for deployed personnel. Moreover, the number of individuals with battle-injury limb amputations was 1,645 (Fischer, 2015). It is important to note that these statistics address the major disabilities classified by the VA and do not include other conditions that veterans may confront such as anxiety, burn injuries, vision impairments, military sexual trauma, and learning disabilities.

Veterans with newly acquired injuries are just beginning to develop an understanding of how their disability may affect their learning (Church, 2009; Madaus, Miller, & Vance, 2009). For most veterans, an acquired injury or disability is a new experience for them and few have knowledge of the Individuals with Disabilities Education Act (IDEA) Section 504 eligibility. Most veterans are unaware of their rights as students with disabilities or how to initiate support for receiving academic accommodations (Madaus, 2009). Compound with this and making institutional support more complex is that veterans with disabilities are less likely than civilian students to identify as disabled, access disability resources, and request accommodation assistance (Madaus, 2009). Cloos (2015) found in her qualitative study with 10 veterans from 10 different universities that half were unaware that their institution provided support services for students with disabilities. Furthermore, a military culture that emphasizes physical toughness and self-sufficiency and that equates disability with being unable to work and contribute to the mission may explain why some student veterans are reluctant to ask for services (Burnett & Segoria, 2009; Kraus & Rattray, 2013; Osborne, 2014). To mitigate the barriers that veterans encounter during their transition to higher education, and to inform them of the various assistive resources available, an innovative course was developed for first-year and transfer undergraduate veterans.

### Participant Demographics

The transition course was offered at a large (over 40,000 students) public research university in the Midwest, where approximately 400 student veterans are enrolled. The course duration was eight weeks and provided students with two hours of elective credit. Participants from two sections of the course consisted of a total of 21 undergraduate male veterans who were new to campus as first-year or transfer students. The age of the participants ranged from 22-26 years old. Eleven participants identified as Caucasian (52%), four as Hispanic (19%), three as Asian (14%), and three as African American (14%). The participants spent an average of three years on active duty and six (28%) were still affiliated with the National Guard or Reserves. Thirteen students (62%) had completed at least one deployment in either Iraq or Afghanistan.

### Description of Practice

Transition courses for student veterans are described as a best practice (American Council on Education, 2011; Student Veterans of America, 2011) though their design, implementation, and participants’ experiences are underrepresented in the literature. The sporadic availability of veterans classes across the country coupled with wide-ranging syllabi creates uncertainty concerning their effectiveness (Grasgreen, 2012). The impetus to offer a transition course at our university was largely based on survey and focus group data that suggested that the vast size of the campus was overwhelming to new veterans and that their mandatory “101” orientation classes were disproportionately designed for traditional students. As one veteran explained,

I had to sit in this mandatory orientation for first years, and it was brutal. I mean, these kids were right out of their parents’ homes. I had traveled around the world and was a squad leader in my platoon. I felt out of place, and the professor wasn’t really sure what to do with me.

Furthermore, survey data suggested that approximately 20% (N = 100) of our total student veteran population had a disabling condition, though few received services from the VA or through the university’s disability resources office or received an academic accommodation.

Student veterans need instructional strategies that reflect their unique backgrounds and provide opportunities for individual growth and integration into higher education. The first-year transition course was designed to fulfill several aims, to: (1) welcome new student veterans and to educate them of the assistive resources on campus and within the community; (2) support their academic readiness through skill development (e.g., note-taking, reading comprehension, effective writing strategies); (3) create a safe and communal space where they could reflect on their transition, beliefs, assumptions, and discuss their new mission as students with other veteran peers; and (4) integrate them into the university by way of campus activities and student organizations.
The course was established around concepts contained within adult learning theory; specifically, andragogy (Knowles, 1980) and transformational learning (Mezirow, 1996). Adult learning offers a useful framework for designing curricula that is self-directed and that integrates student veterans’ unique and salient life experiences (see Figure 1). Additionally, the course was framed around concepts from men’s studies (O’Neil, 1990; Pollack, 1998); an interdisciplinary field devoted to the study of men, masculinities, gender, and power. Men comprise about 85% of the U.S. military (Military One Source, 2015) and the hyper-masculine environment of the military and its cultural emphasis to be self-sufficient and suppress emotion presents challenges for educators to assist and connect with both male and female veterans (Hamrick & Rumann, 2011; Osborne, 2014), and particularly those with a disability (Kraus & Rattray, 2013). Because open communication was an essential component of the course, men’s studies provides helpful strategies for confronting limiting traditional gender norms and a military culture that associates weakness with sharing vulnerable personal experiences (see Figure 2 for course outline).

Curriculum

Students read two texts in the course; Life During College: The Veteran’s Guide to Success (Osborne, Arndt, & Coleman, 2015) and Wild: From Lost to Found on the Pacific Crest Trail (Strayed, 2013). The first text, written specifically for veterans transitioning to higher education, provides information of the different offices within a college or university and the confluence of military and academic culture. It also includes strategies for establishing an academic foundation, connecting with peers and faculty, developing a budget, along with tips for integrating into the campus. The second text is a memoir about a woman who encounters several life-changing events and subsequently walks the Pacific Crest Trail with limited backpacking experience. The “journey” and personal struggles showcased in the text were well received and provided students with an excellent foundation to reflect and share parts of their personal story.

When working with adults, reflection and dialogue are key elements of the learning process (Dirkx, 1998). The course was designed to draw out veterans’ experiences in the military and transition to the university by way of weekly writing prompts followed by informal student-led presentations. The curriculum centered on activities that supported students with communicating their thinking in both written and spoken form. Prompts consisted of intentionally vague questions that inspired personal reflection and group discussion (see Figure 3).

Evaluation of Observed Outcomes

The primary outcomes described here were generated by students’ written and oral feedback, a post-course evaluation, and ongoing communication with a university disability access specialist. The program is noted for establishing a communal and supportive environment that empowered student veterans to disclose aspects of their transition they found challenging. Through this process, several students disclosed disabling conditions and were receptive to receive assistance without shame or embarrassment.

Community

The course created a safe and respectful setting to support reflection and authentic engagement, which contributed to a sense of community. Authentic engagement is defined by the author as the ability for the student veterans in the course to communicate honestly; including vulnerabilities, while minimizing “small talk” about things like sports, politics, or pop culture. Examples of authentic engagement in the course included discussions surrounding the fear of being a student or feeling out of place on campus in addition to other personal life circumstances, such as divorce, parenthood, loss of a loved one, inadequacy as a man, and combat or military-related stress. While it should be carefully noted that the course was not therapy nor intended to address possible mental health issues, creating a climate where trust, security, and respect were established was essential. As an Army veteran described:

I would look forward to this class because it is the mix between military and school life that I need as I transition. It’s difficult to be in class with younger students, and I still hide a lot of who I am. Here I can be more honest and I won’t get judged for it. This class reminds me of what I felt like on active duty with a bunch of guys I trust.

Disability Support

The course provided a pathway to link student veterans with disabilities to support services. Of the 21 students, eight revealed disabling conditions that included anxiety, depression, ADHD, PTSD, and TBI. All eight students accessed disability and counseling services through the course and four of eight received an academic accommodation. A Marine explained:

I’ve dealt with migraines for the past few months but never really thought it could be related to Iraq. Looking back, it makes sense, though. I don’t really think of myself as disabled but if I can get extra help then I’m better off as a student.
An Opportunity to Explore Masculinity

Throughout the course, students read articles and engaged in dialogue surrounding masculinities and what it means to be a military man in U.S. culture. A unique strength of the course, as described by a majority of students, was that they could freely discuss aspects of manhood, including how gender norms are socially constructed and shaped in the military, while in the company of male peers; a topic that most found interesting and complex. During one class discussion, a student remarked that there were few resources available on campus that focused on masculinities or that brought groups of men together for a shared dialogue of their experiences. Several students acknowledged this as an area of interest and four students subsequently reached out as a group to faculty in women and gender studies to request the inclusion of more resources and programming for college men.

Implications and Portability

The program was effective for establishing an immediate peer community for new student veterans while providing them with an overview of assistive resources and coursework that promoted their academic readiness. Through the community setting and reflective assignments, participants became progressively comfortable communicating the layered experiences of their transition to the university. As one student shared, the course provided “a sense of relief” in that he realized that other veterans were struggling with similar fears and transitional issues. According to a post-course evaluation, all 21 participants “strongly agreed” with the statement, the transition course was effective in supporting my transition to the university. More than half recommended that the course be extended to a full semester and several requested that it be mandatory for new student veterans.

Several limitations were also noted in the veterans’ transition course. The first is a lack of female enrollment. Female veteran participation is strong in our university’s student veterans organization, including the number of women who hold leadership positions within the group. It is unclear why female enrollment was low in the course, though the number of incoming veterans at our university are disproportionately male and may partially explain this discrepancy. As of this writing, strategies to recruit more women into the program are being developed. A second limitation that others will need to consider is expense. In a time of budgetary issues, justifying a separate course with low student enrollment may be difficult. Two sections were piloted on our campus to gauge effectiveness and participation and given the success of the program, the course has been permanently added. To replicate this program, student veterans should be involved throughout the planning process. The transition course was developed through a combination of recommended practices in the literature and in consultation with a first-year experience faculty member and several student veterans.

The program holds much promise for continued research that can be applied broadly and to multiple student populations. The homosocial make-up of the group and its masculinities and male community focus inspired follow-up with our gender and women’s studies department. Additional programming in areas related to college men and masculinities and a course on how gender is constructed in the military are being considered. Other noteworthy observations include how a course of this design can be tailored for other first-year experience programs and underrepresented groups, such as international students, nontraditional learners, and students with disabilities. Feeling “out of place” is a common theme among these groups and a community-based environment that includes reflective exercises may be helpful for assisting and integrating new students onto campus.

References


---

**About the Author**

Nicholas J. Osborne received his B.S. in sociology from Lees-McRae College; his M.A. in sociology from Humboldt State University; and his Ed.D. in educational leadership from the University of California, Davis. He is a former Coast Guard officer and is currently the Director of the Center for Wounded Veterans in Higher Education at the University of Illinois at Urbana-Champaign. His research interests include first-year experience programs, student veterans, male community and disability. He can be reached at nosborne@illinois.edu.

---

**Figure 1. Course Framework**

```
<table>
<thead>
<tr>
<th>Theoretical Framework</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Andragogy, Transformational Learning)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Classroom Practices</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Physical Environment, Authentic Engagement)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Veterans Transition Course</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Curriculum</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Skill Development, Reflective Writing, Group Dialogue)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Campus, Community, State, Federal)</td>
</tr>
</tbody>
</table>
```
Figure 2. Course Outline

<table>
<thead>
<tr>
<th>Theory</th>
<th>Associated Themes</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Andragogy</td>
<td>Self-directed learning; task oriented; assignments have relevance to personal life</td>
<td>Knowles, 1980</td>
</tr>
<tr>
<td>Transformational learning</td>
<td>Instructor-student relationship; classroom environment; reflection</td>
<td>Dirkx, 1998; Mezirow, 1996</td>
</tr>
<tr>
<td>Men’s Studies</td>
<td>Fear of the feminine; boy code</td>
<td>O’Neil, 1990; Pollack, 1998</td>
</tr>
<tr>
<td>Directed Readings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Required Texts</td>
<td><em>Life during college: The veteran’s guide to success</em>; <em>Wild: From lost to found on the Pacific Crest Trail</em></td>
<td>Osborne, N.J., Arndt, T. and Coleman, K., 2015; Strayed, 2013</td>
</tr>
<tr>
<td>Campus Integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Out of class requirements</td>
<td>Students assigned a veteran peer-mentor; required to attend two Student Veteran Club meetings</td>
<td></td>
</tr>
<tr>
<td>Classroom Environment</td>
<td></td>
<td></td>
</tr>
<tr>
<td>In-class context</td>
<td>Campus resources orientation; students called me by first name; chairs seated in a circle; class began with a brief check-in where students discussed personal and academic issues affecting them; students used I statements to prevent from speaking on behalf of group or military</td>
<td></td>
</tr>
<tr>
<td>Out of Class Homework</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Assignments</td>
<td>Weekly reflective writing assignments (1-2 pages); presentations; and book essay on wild (5-7 pages)</td>
<td></td>
</tr>
<tr>
<td>Weekly Prompts</td>
<td>1-2 pages; turned in for a grade (presentation intentionally vague)</td>
<td></td>
</tr>
<tr>
<td>---------------</td>
<td>-------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Week 1</td>
<td>Tell us about your military service and what you’re studying at the university; fears of being a student, difficult aspects of your transition; academic and personal goals</td>
<td></td>
</tr>
<tr>
<td>Week 2</td>
<td>Do you believe that veterans are portrayed accurately in the media? How are veterans misunderstood? What should faculty &amp; staff know about veterans?</td>
<td></td>
</tr>
<tr>
<td>Week 3</td>
<td>How can we better educate our campus and community about veterans?</td>
<td></td>
</tr>
<tr>
<td>Week 4</td>
<td>What does it mean to live authentically? Are you living an authentic life? What are your gifts? Where are you holding back?</td>
<td></td>
</tr>
<tr>
<td>Week 5</td>
<td>What has been the most challenging part of your educational journey and transition at this point? Where are you excelling?</td>
<td></td>
</tr>
<tr>
<td>Week 6</td>
<td>Who have been influential allies in your life? When have you encountered fear? What happened? How did you grow from the experience?</td>
<td></td>
</tr>
<tr>
<td>Week 7</td>
<td>What is your personal mission? Discuss your immediate and long-term action points for fulfilling your mission. What will your time here at the university contribute?</td>
<td></td>
</tr>
<tr>
<td>Week 8</td>
<td>Do you feel limited by social representations of masculinity? What do you do to manage this? Are you the person you hoped you’d become?</td>
<td></td>
</tr>
</tbody>
</table>
Strategies and Challenges for Creating an Inclusive Study Abroad Program

Tanja C. Link

Abstract

In 2013, 14,304,467 U.S. students participated in a study abroad program related to their academic course work, marking an average increase of 5.2% to the previous year among the reporting institutions. Students with disabilities continue to be significantly underrepresented in such programs. Given the consistent popularity of studying abroad, its documented benefits to students, and the documented desire for inclusion of students with disabilities, it is imperative for study abroad directors and staff to improve opportunities for this underserved population. The current practice brief addresses specific experiences with the planning and on-the-ground operations of a study abroad program to the Netherlands and Germany that included a student with a physical disability, and provides recommendations for future inclusive programs.

Keywords: Study abroad, criminal justice, disability, Germany, the Netherlands

In 2013, 14,304,467 U.S. students participated in a study abroad program related to their academic course work, marking an average increase of 5.2% to the previous year, and a more than a threefold increase over the past two decades among reporting institutions (Open Doors, 2013/2015). The majority (62%) of programs were short-term (either summer or eight weeks or less), underscoring a multi-year trend that shows an increase in short term programs and a decrease in long-term programs (academic or calendar year) (Hoye 2006; Open Doors 2013/2015). According to the same report, currently nine percent of undergraduates in the United States will study abroad for some duration before they graduate. Overall, about 87% of study abroad participants were undergraduates, 65.3% were female, and 74.3% were white (Open Doors, 2013/2015).

Students with disabilities have traditionally been and continue to be underrepresented in study abroad programs (Ableva 2012; Dessoff, 2006; Hameister, Matthews, Hosley, & Groff, 1999; Sygall 1994). Remarkably, only 5% (or 2,786) of students who studied abroad in 2011/12 reported any disability at all. Of those, 43.4% had a learning disability, 28% a mental disability, 7.6% a physical disability, 3.8% a sensory disability, and 17.2% fell into an “other disability” category. While the overall participation of students with disabilities is steadily increasing (2.6% - 4.1% between 2006/07 and 2010/11), it is obvious that improvement is needed (Johnson, 2000). Matthews, Hameister, and Hosley (1998) found that the barriers to studying abroad for students with disabilities are not necessarily predicated upon their abilities. The authors found that the three most prevalent issues were "lack of knowledge," "lack of available assistive devices and services," and "financial barriers." Furthermore, participating in a program open to both, non-disabled as well as disabled students, as opposed to a program focused on students with disabilities was important to the respondents (Matthews et al., 1998). Given the steady popularity of studying abroad, its documented benefits to students, and the documented desire for inclusion of students with disabilities, it is imperative for study abroad directors and staff to explore opportunities for this underserved population and increase the understanding of needs that might need to be accommodated.

Participant Demographics

To give some context to our experience, the group consisted of three faculty members and 24 students, including one male student with spinal bifida who was using a wheelchair but occasionally could walk short distances on crutches. Students’ ages ranged from 21 to 39 years, and the group included 9 males and 15 females.
Description of Practice

The program started with four days in Amsterdam, followed by one week in The Hague, and wrapped up with one week in Hamburg. The focus of the program was International Crime and Justice, with a focus on international organizations of criminal justice, such as Europol, Eurojust, the International Criminal Court, as well as human rights, prostitution, and drugs. In addition to visiting a number of large international organizations, we received presentations from smaller and non-profit organizations, and engaged in community service activities.

Evaluation of Observed Outcomes

Pre-Program Planning Phase

The institutionally-set deadlines for students’ applications, deposits, and full payment for the study abroad program can make accommodations requests challenging. While accommodations and airline tickets can often be held for some time prior to final booking, the inability to commit until close to departure can stand in the way of being able to secure accessible rooms or preferred seats on a plane, for example. It helps tremendously to have a good standing relationship with the contacts at the hotels or hostels so that deposits can be pushed back and late changes do not result in additional charges.

Per university policy, a disability cannot be assumed and the program director has to wait until the student discloses. If the disability is apparent, such as the use of a wheelchair, a conversation can be initiated after the student officially applies and commits to the program. Some abroad programs require students to disclose any condition or disability that could impact their participation eight weeks prior to the start of the trip, which in many cases is very late with respect to plane tickets and room accommodations. We worked with the Student Disability Services and the Education Abroad Office and met with the student to discuss the itinerary and requirements of the trip in detail. The purpose here was not to point out what the student cannot do or make unrealistic promises of being able to accommodate fully, but rather have an honest conversation of what the activities and conditions in the respective countries are and work on a plan to accommodate as much as possible. This also gives the student the opportunity to talk about their concerns. It is important not to make any assumptions prior to meeting and talking with the student while at the same time making sure that the student gives an accurate account of his or her abilities and needs. Traveling abroad brings with it a host of things that cannot easily be anticipated, especially if the student has not traveled before. Being able to live independently at home might provide a false sense of confidence, and it is important to try to prepare the students for the unknown challenges, both emotional and practical, without being patronizing.

Air Travel

Air travel presents its own set of challenges for those traveling abroad for the first time with a mobility disability. Of particular note on this trip was additional time needed to be processed through security with a wheelchair, having medications checked, making sure to get assistance for boarding and limiting the risk of the wheelchair being damaged. To be prepared for the unfortunate case that some damage might be done to the chair, it is good to know who to contact for a claim and where to get the chair fixed at the destination. Often times bike shops are well-equipped to make small repairs on mechanical chairs.

Commenting on his own experience and that of other travelers with disabilities, Davenport (2013) noted that “the main impediment to a successful trip around Western Europe is public transportation, including the airlines” (“Accepting the challenge,” para. 2). Depending on the length of the flight, inform the student that access to a bathroom may be difficult for a variety of reasons. They might need to make special arrangements regarding seating or temporary medical devices.

On site

Amsterdam. We arrived at Schiphol airport after a 9+ hour flight. Immigration and customs were easy to navigate. We chartered a shuttle bus to get to the hostel. Despite prior confirmation via phone, when we arrived at the bus, it was very apparent that it was not accessible—steep stairs to get on and no ramp or lift. For a student who uses a wheelchair this can mark a challenge, as he or she has to be carried/lifted onto and off the bus, and it is important to assume that being carried is not acceptable for the student.

Alternative transportation arrangements should be considered, provided they are reasonable with regard to cost and duration of travel. From Schiphol, a train can be taken to the main station in the center of the city. However, the trains in Amsterdam are very crowded, which can make the transport of a big group (we were 27 people) with luggage challenging. Another, albeit more expensive, option would be an accessible taxi.

This was the second year we stayed at the Stayokay Vondelpark, and once again the central location of the hostel was an asset. We were able to reserve an accessible group room, which turned out to simply mean that a person using a wheelchair could fit through the door, but not much else. The bathroom was not accessible, and the room was cramped.
Most of the sites we visited were within close proximity to the hostel. The cobblestones made for a strenuous ride with a manual wheelchair, a fact that was mentioned by other travelers who wrote about their experience in Amsterdam. For example, Davenport (2013, “The Irish Way”, para 5) observed “The city’s cobblestone sidewalks make it difficult for people who use manual wheelchairs to get around.” In addition, the sidewalks do not have many lowered curbs, so it is oftentimes necessary to go out of the way to cross the street. One recommendation another traveler made was to equip the wheelchair with a bicycle bell and use the bike lanes (Murphy, 2007).

Our itinerary in Amsterdam contained a number of cultural outings to museums, parks, and historical sites, as well as social gatherings at restaurants and bars. Among the highlights were the Heineken Experience, a canal tour, the Anne Frank house, the Van Gogh museum, and the Rijksmuseum. The Heineken Experience had an alternate route plan available for visitors in wheelchairs. We were given a map and an access key to elevators and lifts that at times took us behind the scene of the place. Elevators and lifts were tricky, which caused our smaller group to be separated from the larger group. Overall, it was a bit cumbersome but allowed our student to have the full experience.

Despite prior confirmation via phone, the canal boat we booked was not accessible, and the student had to be lifted into and out of the boat. There was no secure place on the dock to leave the wheelchair, so the wheelchair was broken down and occupied one of the booths on the boat. Again, if a student had not been comfortable with being carried onto and off the boat, this particular canal tour would have not been possible or appropriate with being carried onto and off the boat. One point to note is that their a-bar area and meeting rooms. The staff was once again incredibly nice and helpful. One point to note is that their small ramp, but we were never offered that service. At this point, some students in our group had fallen into a good routine of being available and ready should assistance be needed and wanted. Overall, while very convenient and efficient, utilizing public transportation in The Hague was an at times rather aggravating experience.

We stayed in another Stayokay Hostel in The Hague. The room set up was similar to the one in Amsterdam, with a small elevator servicing the building, as well as a bar area and meeting rooms. The staff was once again incredibly nice and helpful. One point to note is that their outdoor patio overlooking the river, a popular hangout spot for guests, did not have a ramp and thus was not accessible with a wheelchair.

Our schedule in The Hague included a variety of visits with International (Criminal) Justice agencies, as well as several cultural landmarks and museums. Some of the agencies (e.g., Europol and the ICC) are housed in recently constructed buildings where accessibility is no issue. The organizations located in older buildings were very accommodating with ramps and small (service) elevators. Of the museums we visited, the Escher and Prison Gate museum in The Hague, as well as the Prinsenhof museum in Delft were located in very old buildings and thus not accessible. The great halls of the Oude and Nieuwe Kerk in Delft could easily be navigated in a wheelchair, while the 376 steps to the top of the bell tower of the Nieuwe Kerk were an obstacle that could not be scaled. In any event, it was helpful to call or email ahead of time informing the contact persons that we had a student in a wheelchair in our group, so
that necessary arrangements could be made or we could be alerted that accessibility might pose a problem due to different issues such as the building structure or a broken elevator and the like. All of our contacts were very professional and willing to help.

During our week in The Hague, students also visited Madurodam², a large outdoor park with miniature models of Dutch landmarks. Scheveningen beach, another stop for the group, boasted a lively boardwalk with numerous bars and restaurants that were accessible with a wheelchair⁶. Many of the bars in The Hague had covered outdoor seating, but were typically not wheelchair-friendly. Again, bathrooms were almost never reachable without having to climb or descend step sets of stairs.

**Hamburg.** To get from The Hague to Hamburg, our final destination, the available options for the group were to travel by train or bus. We opted to take a bus with Eurolines. The bus was very inaccessible, including steep steps to enter, and a tiny toilet that was hard to get to and maneuver for even an able-bodied person. There were several short stops to provide passengers the opportunity to get off, stretch, and use a bathroom but this was difficult for our student due to the extra time he required to accomplish these tasks. Overall, the experience did not live up to the expectation of a more restful travel when compared to travel by train.

In Hamburg, we relied more on public transportation and it quickly became obvious that additional time was needed to get from one place to another. Some tram stations were not accessible, so we typically opted to exit at a different station and walk/roll to the point of interest. But even the stations that were officially accessible had a cumbersome maze of elevators and long distances to and between the platforms. In addition, Hamburg is another old city with more of the rather uncomfortable cobblestone.

In Hamburg, our group stayed at the Generator hostel in St. Georg, which is centrally and conveniently located across the street from the central train station, a hub to go anywhere in the city and beyond. The hostel’s main entrance had several steep steps, but the side entrance featured a wheelchair lift, which in the end turned out to be more undesirable for our student than assistance from peers to go in and out the main entrance due to the time it took to get the lift to work.

The only accessible room was a private room on the first floor, offering a bit more space and privacy compared to the other hostel rooms. The doors to the room were very heavy and hard to open, especially from a seated position. Being on the first floor rather than ground level became an issue when the fire alarm was activated in the middle of the night. With elevators not operating, the student had to crawl down crowded stairs and sustained minor injuries and scrapes.

Our cultural site visits included a harbor cruise, a visit to the Panoptikum and the Tierpark Hagenbeck, as well as playing minigolf and attending a public viewing of a German world cup soccer game. For the harbor cruise, we opted for a bigger boat that had more room and less potential for sea-sickness. The minor trade-off was a lack of access to the outside with a wheelchair. The Panoptikum, one of the oldest wax figure museums, also had several floors without an elevator or lift. The Tierpark (zoo and aquarium), on the other hand, was very accessible with accommodating and trained staff to assist throughout the park.

The group also had appointments with the police and several non-profit organizations. The meeting with the police took place on the third floor of the police department, but an elevator was available only to the first floor. At DrobInn, a drug consumption room and needle exchange, we were able to move our meeting to the main room on the ground floor. Ragazza, a non-profit providing services to drug addicted prostitutes, was housed in a small building with steps throughout. Many restaurants and bars are located in small spaces, but staff were very accommodating. Some obstacles and physical barriers were structural, so it was helpful to scope out potential locales for lunch and dinner and call ahead.

**Implications and Portability**

Overall, this experience of traveling with a big group that for the first time included a student who used a wheelchair was easier than anticipated, yet at the same time still very eye-opening and humbling. Even though we tried to prepare as much as possible and called ahead to ascertain that accessibility would not be a problem, there were situations, such as the fire alarm, that we simply did not foresee due to our inexperience. The description of some of our experience is not intended to be negative, because all of them were manageable and can be ameliorated with the right preparation. The way the group worked together to ensure inclusiveness was remarkable. It was very apparent that they created lifelong memories and formed a bond that is very unique to this type of program. The structural barriers of old European cities made travel and getting around more cumbersome but in no way impossible. One of the most inspiring lessons learned was watching others in the group becoming more aware of how difficult our surroundings can be for a person with a disability and learning to assist when needed without simply taking over and being inclusive without being (unintentionally) patronizing.

In addition to the factors for consideration and planning purposes explicitly illustrated throughout the
paper, the following points should be contemplated when planning an education abroad program that can include students with physical disabilities. First, the personal needs of the student(s) need to be taken into account. Every person is different with varying levels of mobility and needs. The long hours in the chair, traveling, staying with (at least at the beginning of the trip) strangers in small cramped multi-person hostel rooms with even smaller bathrooms and showers are challenges that are not easily anticipated, even if the student is very independent at home. Adding to the physically strenuous factors of traveling abroad are the emotional and psychological factors that students typically cannot foresee simply due to a lack of reference. The exhaustion, missing home, and not having your regular routine are all challenges that can affect even the most enthusiastic and adventurous study abroad student. It is also not uncommon for students to take regular prescription medicines, and it is very important to continue medications while abroad. Since laws regarding the regulation of medicinal substances vary from country to country, students should familiarize themselves with the regulations in the places to be visited and if possible carry a valid prescription or note from their physician in case the medication gets lost or stolen. For this conversation to be initiated in a timely manner, it is imperative for promotional and informational materials on the program to encourage students to disclose any disability early on so their needs can be met. Additionally, school policy should be amended to allow the director and coordinator to initiate conversations and planning prior to the institutionally set payment deadlines.

Another possible complication is associated with the functioning of the wheelchair. Unfortunately, there is a chance that parts get broken as early as on the initial flight. Depending on the issue, bike shops might be able to repair flat tires or other small mechanical problems, provided they can get spare parts if needed. Fixing a power chair can be more tricky. Additionally, in many countries 220 volts are the norm, rather than the American standard of 110 volts, which might impact the ability to properly charge a power chair. Mobility International USA (n.d.) has several very helpful tip sheets and first-person accounts addressing travel abroad with a physical disability. Bringing a backup manual chair and extra tubes or tires would be wise. Research whether international vendors of the wheelchair company, and shops where wheelchairs can be rented on site or repaired prior to the trip.

Students need to have access to information on what is available and what might be difficult abroad. At this time, there are several organizations that provide excellent free resources and guides for students with disabilities, such as MIUSA. Several countries have similar publications, although not always available in English. The Education Abroad Office should include such information in their promotional materials and on their website.

Above all, it is imperative to create an inclusive environment and keep the channels of communication open to all students, since the student with the physical disability will not be the only one affected personally and emotionally. At the beginning of the trip, it is likely that students need to be reminded of small things, such as not standing right in front of a person in a wheelchair with their back facing them, or not crossing streets when curbs are high and inaccessible. Our experience was that very soon most of the students were very tuned in to the needs of everyone in the group, and we were able to create a wonderful experience. We learned that even when we thought we had prepared, such as having called ahead to ensure accessibility or booking an accessible room, the reality was not always in line with what was confirmed, and we improvised and pulled together, which turned out to be a series of great, albeit unplanned group bonding exercises. In conclusion, preparation and flexibility are key to a successful inclusive experience for all participants.
References


About the Author

Tanja C. Link received her law degree from Eberhard-Karls Universität Tübingen and Ph.D. in Sociology from the University of Georgia. Her experience includes directing a study abroad program for college students to the Netherlands and Germany. She is currently an Assistant professor in the Department of Sociology and Criminal Justice at Kennesaw State University. Her research interests focus on vulnerable populations and their experiences with regard to a variety of sociological and criminological issues. She can be reached by email at: tlink1@kennesaw.edu

Footnotes

1 According to Open Doors (2013, 2015), short term programs have increased from 58.1% in 2010/11 to 62.1 in 2012/13, while mid-length (one semester or one to two quarters) and long-term programs have decreased in the same time frame from 38% to 34.9%, and 3.9% to 3.0%, respectively.

2 Our application deadline that includes a small non-refundable deposit for a summer program is the beginning of February. Full payment is received by mid-March.

3 http://amsterdamcanalcruises.nl/index.html, across the street from the Heineken Experience

4 According to Accessible Amsterdam, the Blue Boat Company provides a ramp, but we could not confirm the actual overall accessibility of their boat

5 http://www.madurodam.nl/en/

6 Some of our favorite casual eateries for the group in The Hague are Vapiano’s (http://www.vapiano.com/en/home/ - bathroom on second floor with no elevator) and Will’s Pancake House (http://www.willspancakehouse.com/)

7 For Amsterdam, contact the SGOA- Stichting Gehandicapten Overleg Amsterdam (Amsterdam Forum for the Disabled), Phone: +31(0)20 577795, E-mail: sgoa@xs4all.nl or • RSA Wheelchair Rental Amsterdam, Williem Fenengastraat 33-35, 1096 BM Amsterdam, Tel: 020 435 2540 Fax: 020 435 2541, Email info@reacare.nl; In Hamburg: Reha-Technik, Morgenroth GmbH, Großlohering 68 / 70, 22143 Hamburg
McDaniel Step Ahead: A Summer Transitional Program for First Year College Students with Disabilities

Dana L. Lawson¹
Sarah A. Gould¹
Melanie L. Conley¹

Abstract
In recent years, there has been a significant increase in the number of students with disabilities seeking postsecondary education. The complexity of needs is also increasing, resulting in more students withdrawing from college or taking leaves of absence in their first year. In 2012, the Student Academic Support Services office (SASS) at McDaniel College piloted McDaniel Step Ahead, a five-day transition program that aims to fine-tune the academic, social, and independent living skills of first year students with disabilities. As a result, there has been a notable increase in the number of students with disabilities still in active status at the end of their first year. The early connection with SASS and McDaniel resources creates a natural venue for early detection and intervention. This practice brief describes the implementation of Step Ahead, the needs addressed by Step Ahead, the data collected from past years, and the implications and challenges for planning future years.

Keywords: Disabilities, college, transition

The Step Ahead summer experience at McDaniel College anticipates challenges that first-year students with disabilities may encounter and provides strategies for students to become strong self-advocates. Specifically, Step Ahead participants sharpen their skills in note-taking, reading comprehension, time management, study strategies, assistive technology, communicating with professors and roommates, college-level writing, and independent living skills such as maintaining hygiene and interacting with peers.

Though summer bridge programs are offered nationwide, Step Ahead is distinctive in its broad applicability (in contrast to programs that focus on a specific diagnosis, such as Autism Spectrum Disorder), and its low cost. Step Ahead is intended for all students, not just students diagnosed with learning disabilities, registered with the disability support office, known as the Student Academic Support Services (SASS) office, Step Ahead is offered at the low cost of $250. Other residential programs of a similar length (one to three weeks) may cost between $2,600 to $5,800.

The need for Disability Services (DS) offices to help facilitate a successful transition to college is arguably greater than ever. Enrollment of students with disabilities has more than tripled in the past twenty years (Hong, 2015), yet most professors report not feeling properly prepared or equipped to instruct students with disabilities (Orr & Goodman, 2010), making the need for self-advocacy all the more important. Additionally, students with disabilities are frequently not prepared to thrive in a postsecondary setting due to lack of transition planning; planning that starts too late or provides too little information; or lack of knowledge about postsecondary accommodations, services, and expectations. Dual enrollment is one strategy found to be effective in preparing students for college, but not all students have access to this type of program (Brand, Valent, & Danielson, 2013).

¹ McDaniel College
Depiction of the Problem

Between fall 2010 and fall 2015, the number of students registered with McDaniel College’s SASS increased by 32%. In addition, the percentage of the college student population registered with the SASS office increased from 9% of the total population in 2010 to 14% of the population in 2015. Not only has the number of students with disabilities increased, but the level of need of these students has also increased.

Over the past five years, there has been an increase in the number of students in all disability categories at McDaniel College. The level of academic, psychological, social, and emotional need is higher. There are also more students on the Autism Spectrum, many students with more than one diagnosis, and a large spectrum of IQs ranging from borderline to superior. Numerous students have received high levels of support in high school and often anticipate receiving identical support in college. Some students attended alternative high schools where they may not have had regular homework assignments and were not assessed through papers and tests. Several students had one-on-one support in the classroom. As a result, many incoming students arrive unprepared for college-level work. Additionally, many students who receive mental health treatment at home do not continue with services when they arrive at college. Consequently, there is an increase in students going to the hospital for psychological reasons. Because McDaniel is a residential campus, not all students have a vehicle, which makes it difficult for students to connect with resources in the community since Westminster, Maryland does not have a large public transportation system. In the end, more students are withdrawing from college or taking leaves of absence within or at the close of their first year. To address these issues, McDaniel College piloted McDaniel Step Ahead in 2012. Without Step Ahead, students with disabilities were at risk of higher attrition rates due to academic deficiency, unmet mental health needs, and prolonged difficulty acclimating to the campus environment.

Participant Demographics and Institutional Partners/Resources

McDaniel College is a small (approximately 1,600 undergraduate students), selective, private, coeducational liberal arts college in Westminster, Maryland whose students come from 37 states and 30 countries. Fifty-three percent of the undergraduate students identify as female; 76% are White. Forty-one percent of the entering freshman class of 2015 are first-generation college students. Mirroring the general population, McDaniel Step Ahead participants represent a wide array of demographic categories. The number of students enrolled in Step Ahead increased from 24 students in 2012 to 32 students in 2015. Disability diagnoses include ADHD, learning disabilities, psychological disorders, physical impairments, and Autism Spectrum Disorders. Although the participants were predominantly White in 2012 (84%), the racial and ethnic diversity has increased by 12% by 2015. Participant ages range from 17-25, with up to 13% being transfer students.

To meet participants’ complex array of needs during Step Ahead, a host of campus departments collaborate to support a well-rounded, comprehensive program. The Office of Institutional Advancement works to secure continuing funding to offset the base cost of Step Ahead. Student Affairs provides informational sessions to introduce students to all aspects of student life, and academic departments present mock lectures. Deans host social events to offer a welcoming, personal atmosphere. The collaboration and support across campus offices and departments is crucial to the success of McDaniel Step Ahead.

Description of Practice

McDaniel Step Ahead provides tools for navigating college life, including how to self-advocate, and how to properly utilize supports within our disability services office. The five-day program features team-building activities, academic workshops, field trips, and tips about college life. Participants meet the SASS staff and take the initial steps in creating a sound college routine that incorporates college resources, supportive faculty and staff, and peer interaction.

Students of diverse backgrounds may participate, as enrollment is open on a rolling basis to all registered incoming students. By making Step Ahead attractive to incoming students and their families/guardians, the program has hosted a cohort of 25-35 students each year since its inception.

Essential learning strategies are taught and reinforced throughout the five-day program via audio, visual, and kinesthetic workshop activities. Through modeling appropriate classroom behaviors, email etiquette, and self-advocacy while discussing accommodations, Step Ahead participants build confidence and – in the case of students who have never had to self-advocate – acquire the language necessary to discuss their unique learning differences, likely challenges, and accommodations with their professors. Step Ahead also allocates time to elucidating the differences between high school and college. Participants have the opportunity to practice assistive technology in hands-on workshops, which builds
confident and camaraderie by allowing some students who are already familiar with assistive technologies the opportunity to shine as experts while giving novice users the freedom to learn in a low-stakes environment.

McDaniel Step Ahead spans several hours over the course of each day and strikes a balance between academic workshops and social activities. Contact between the SASS office and participants begins in the weeks leading up to Step Ahead; students are contacted by both peer mentors and SASS office staff. Once students arrive on campus, it is a fully immersive experience; students can feel connected to campus and the surrounding community. Each participant is assigned a Step Ahead peer mentor, who is vetted and trained by SASS staff. The mentors are also students registered with SASS and are able to provide a peer perspective on being a college student with a disability, with the aim of reducing stigma surrounding the use of academic supports, as well as providing an initial social connection for incoming students. Step Ahead mentors continue to plan social events and provide outreach throughout the first semester. Peer mentors have proven invaluable to Step Ahead as a resource for students who are new to self-advocacy or who face social challenges.

By establishing early connections with SASS staff, students enrolled in Step Ahead (and their families/guardians) benefit from early intervention strategies. Step Ahead students meet and become familiar with resources for self-care, such as Campus Safety and the Wellness Center. Families/guardians are invited to a parent information session that provides information about the differences between accommodations in high school and college, outlines the students’ right to privacy as it relates to FERPA, and provides guidance to help them transition into the role of parents of college students.

Feeling unable to predict what college will be like is a common anxiety for first-year students, so living on campus for five days before first-year orientation is comforting to many participants. Students have the opportunity to attend condensed class lectures from McDaniel professors to get a feel for classes and note-taking. This activity fosters goodwill between the faculty and the SASS office, increasing faculty buy-in while offering students early access to different teaching and communication styles. This access can be especially beneficial for first-generation and/or low-income students who may feel more reticent than their peers due to a sense of otherness or being an outsider to the college experience. Regardless of background, the academic workshops in Step Ahead build self-esteem, reduce anxiety, and normalize the experience of navigating higher education with a disability.

Evaluation of Observed Outcomes

McDaniel Step Ahead collects qualitative and quantitative data each year for future planning. All participants take a pre-assessment survey prior to the start of Step Ahead and a post-assessment survey on the final day of the program. These surveys assess how students perceive their level of preparedness academically, socially, and independently. The pre-test and post-test responses are compared for each question. In 2012, post-test averages were higher in 24 out of 25 comparisons, 21 of which were statistically significant. The greatest increases appeared in the students’ familiarity with resources at McDaniel and the Westminster community. In 2013, 23 out of 24 post-test averages were higher, 18 of which were statistically significant. In 2014, the post-test averages were higher in 23 out of 24 comparisons, 19 of which were statistically significant. The data from all three years are nearly identical, demonstrating that Step Ahead is consistently effective. In addition to the assessment data, a brief survey is sent to the families/guardians of Step Ahead participants. In 2012, 2013, and 2014, 100% of families/guardians who completed the survey agreed that they would recommend Step Ahead to future incoming students with disabilities.

Retention data are also monitored at the end of each year. For the 2012 cohort, 67% of students were still in active standing, but only 30% were still active at the end of their second year. After much reflection, data interpretation, and improvements, Step Ahead 2013 yielded much stronger data with 90% of participants still on active status after their first year, and 86% active at the end of their second year. In the 2014 cohort, 83% of participants were still active at the end of their first year, and 72% by the end of their second year. Also, Step Ahead 2013 was the pilot year for the Step Ahead mentor program, which may have contributed to the higher retention rate of later years.

Program data indicates that participation in Step Ahead fosters connections between peers, strengthens students’ self-advocacy skillset, familiarizes students with the accommodations available to them, and mitigates stressors common to the first-year experience, such as feeling intimidated by professors or anticipating that their disability will be stigmatized (Kranke, Jackson, Taylor, Anderson-Fye, & Floersch, 2013). Upon completion of the program, the majority of students reported that they felt ready for college, and that they enjoyed their time in Step Ahead.
Implications and Portability

Changes are made to Step Ahead each year based on staff observations and evaluation data. After reviewing the retention data from the pilot year in 2012, two major changes were implemented. First, each student was matched with a Step Ahead peer mentor, an upperclassman who also has a documented disability. Since the implementation of the mentors in 2013, the SASS office has observed an increase in students feeling comfortable coming to the SASS office to use resources. Additionally, staff has observed improved relationships among students; they remain friends and support each other throughout their time at McDaniel College. Second, assistive technology was incorporated into the workshops, which led to a notable increase in students using assistive technology during the semester. Other campuses adopting a program such as Step Ahead should consider including peer mentors and using assistive technology for best results. Other campuses should also consider daily evaluations to gain valuable feedback from the students. Changes are made to the content of the Step Ahead workshops yearly based on workshop evaluations that students complete at the end of each day. These daily evaluations also provide feedback on the pacing of the schedule and help us determine the right balance of academic and social activities.

Step Ahead faces several ongoing challenges, which would affect its portability to other campuses. The first challenge is funding, to pay for expenses such as staff salaries, social activities, and workshop supplies. Staffing presents a second challenge. It would be difficult for a one-person DS office to offer this program because of the staff to student ratio required. Step Ahead has approximately ten staff members each year for a maximum of 35 students. DS offices of all sizes will need to find accessible, available spaces on campus to host activities and hold workshops. A growing student population seeking disability services is an ongoing challenge that makes it difficult to keep the program small. Not only is the population of students growing, the level of need is also increasing. The needs of each cohort are very different, which requires a level of flexibility once the program begins.

With the success of Step Ahead, areas of additional research have been identified to consider how to apply this program to other populations. Modifying the program for other specific at-risk populations, such as first-generation, international, or transfer students is a future possibility. Research could also be conducted on how to alter the program for students with specific types of disabilities.

References


About the Authors

Dana Lawson received her B.S.W. degree in Social Work from McDaniel College and M.S.W. degree from University of Maryland School of Social Work. Her experience includes working as a mental health therapist for three years prior to moving to an academic setting. She is currently the Associate Director and Coordinator of Special Programs for the Student Academic Support Services office at McDaniel College and has served five years. She can be reached by email at: dlawson@mcdaniel.edu.

Sarah Gould earned her B.A. degree from Muskingum University, and her M.A. from West Virginia University. Her experience includes teaching high school and college writing, and she is currently working as an Academic Counselor in the Student Academic Support Services office at McDaniel College. She can be reached by email at: sgould@mcdaniel.edu.

Melanie Conley received her B.A. degree in Psychology and Elementary Education from Western Maryland College and MS in Counselor Education degree from McDaniel College. Her experience includes working as an elementary school teacher and working with students in public school special education. She returned to McDaniel to work with students with disabilities in the higher education environment. She is currently the Director for the Student Academic Support Services office at McDaniel College and has served five years. She can be reached by email at: mconley@mcdaniel.edu.
Universal Design: Supporting Students with Color Vision Deficiency (CVD) in Medical Education

Lisa M. Meeks¹
Neera R. Jain¹
Kurt R. Herzer²

Abstract
Color Vision Deficiency (CVD) is a commonly occurring condition in the general population. For medical students, it has the potential to create unique challenges in the classroom and clinical environments. Few studies have provided medical educators with comprehensive recommendations to assist students with CVD. This article presents a focused review of the literature about the impact of CVD on medical education. Universal Design for Instruction (UDI) principles are leveraged to identify and provide recommendations for mitigating the effects of CVD and rendering medical education curricula more accessible to all students regardless of their CVD status. Examples of recommendations for the classroom, lab, and clinical settings include: adjusting the color of laser pointers, providing high quality grayscale images alongside microscope images, and coaching around strategies for recognizing clinical indicators (instead of color-related signs). The experience of a prominent medical school in the United States, which was faced with a high number of first-year students with CVD and implemented these recommendations, is described. Other medical schools can similarly adapt and implement these recommendations within their own programs.

Keywords: Color vision deficiency, medical students, histology, cvd, disability, universal design

Colorblindness is common in the general population, and can produce unique educational challenges for medical students and administrators alike. Colorblindness, or more accurately color vision deficiency (CVD), occurs when an individual has a restricted color spectrum that affects the perception of color. Birch (2012) reviewed the three types of colorblindness: red-green, blue-yellow, and the complete absence of color. Red-green CVD is the most common form and is more prevalent in males occurring in 8% of European males, 4% of European females, between 4% and 6.5% of males and 0.7% and 1.7% of females of Chinese and Japanese ethnicity, and 6%-7% of males of African ethnicity (Birch, 2012).

CVD In the Classroom
The use of color in medical curriculum can pose challenges to learners with CVD. Serrantino, Meeks, Jain, Clifford, and Brown (2015) used their experience developing clinical accommodations, the existing literature, and interviews with CVD learners to address the needs of learners with CVD. In the classroom, the authors suggested that faculty avoid using color to distinguish or note items on presentations and exams. Instead, they should denote or highlight key concepts using arrows or numbers in black ink. As well, they suggested that faculty switch from red to green laser pointers and utilize assistive technology, such as a Daltonizing algorithm, that converts red, green, or blue parts of slides to an identifiable color. Color transparency overlays or specialized glasses, such as Enchroma were also suggested methods to mitigate CVD related barriers (Serrantino et al., 2015).

In certain coursework, most notably during histology, students with CVD may struggle due to difficulty differentiating between colored stains on slides. Al-

¹ The University of California, San Francisco; ² Johns Hopkins School of Medicine
though histology faculty often argue that size, shape, and contextual cues—not color—are the key attributes needed for identifying and distinguishing tissues and structures, research has shown that using high quality grayscale versions of histological images alongside color images allows students with CVD “to discern structures that would otherwise be obscured by surrounding cells or other tissue components” (Rubin, Lackey, Kennedy, & Stephenson, 2009, p. 87). Pramanik, Khatiwada, and Pandit (2012) also suggested that faculty use alternative color staining (not red/green), a grayscale microscope or attached grayscale monitor, and teach with a focus on configurations and other indicators versus using color to differentiate items. Serrantino et al. (2015) also suggested that extra time, as a formalized disability accommodation under the Americans with Disabilities Act (ADA), might be appropriate for students with CVD to reduce barriers by providing time to locate non-color key identifiers.

CVD In the Clinic

Students with CVD may experience deficits in the clinical setting where students are trained to identify indicators using color, for example, when identifying oral and throat lesions, different tissues (as in surgery), jaundice, or titration end-points (Pramanik et al., 2012). A medical student with CVD may experience disadvantages in cases where a pivotal observation is necessary, such as slight changes in color, patterns of rashes, or failure to identify stage one pressure ulcers (Mughal, Ali, Aziz, Mehmood & Afzal, 2013). As part of his work, Spalding (1999) interviewed 25 physicians with color deficiency and while each reported variations of difficulty based on their respective fields of medicine, several common challenges in observation were evident across all specialties.

In a study of 270 male histopathologists and medical laboratory scientific officers with CVD, Poole, Hill, Christie, and Birch (1997) found that those with CVD made more errors in slide identification than subjects with normal color vision and that the severity of color deficiency was positively correlated with the number of mistakes. As well, subjects with a severe red-green color deficiency made significantly more errors than those with moderate or slight deficiency. Other studies of medical personnel found statistically significant differences between practitioners with CVD and those with standard color vision in their ability to identify (through photographs) fresh versus old blood, rashes, and the position of bacilli in a stained slide (Campbell, Griffin, Spalding, & Mir, 2005).

Assistive tools may be needed to ensure safe practice in the clinic. For example, to mitigate the difficulty distinguishing fresh blood or bile in urine, feces, sputum, and vomit, Spalding (1999) suggested that students measure and monitor blood and fluid levels in patients, pay attention to lighting and shading versus color, (e.g., redness in ear or throat) and that when reading blood and urine test strips, a reflectance meter is used to confirm results. Spalding (1999) also suggested that students with CVD should give more attention to a patient’s history prior to exam and that using touch, close observation, or cross-checking (e.g., confirming observations that require color with laboratory tests, peer consult, or other means of confirmation) is essential for all students, but especially those with CVD.

Universal Design for Instruction

The concept of universal design, originally formulated in architecture, promoted the design of buildings to take into account all its diverse users from the outset (Mace, Hardie, & Place, 1990). Scott, McGuire, and Foley (2003) extended this idea, and those of higher education researchers, creating a nine-principle framework (see Appendix A) to aid faculty planning, known as Universal Design for Instruction (UDI). As in the original architectural concept, the aim of UDI is to minimize the amount of individual accommodations and adjustments that need to be made for diverse learners, instead creating a learning environment with enough flexibility to include all learners from the outset (Scott et al., 2003). This work provides promise for addressing the needs of students with CVD, particularly given the frequency of incidence of CVD in the general population.

Depiction of the Problem

Despite the prevalence of CVD in the general population, and the potential challenges that come with it, most medical school programs do not orient their curriculum and training practices accordingly, with the needs of persons with CVD in mind. Traditionally, CVD has not been regarded as a disability, however, in the context of health sciences education, there are times when CVD places learners at a substantive disadvantage. When students with CVD experience difficulty learning in classroom and lab settings, or miss critical incidents in the clinic—due to dependence on color indicators in training methods—it can result in patient safety issues and diagnostic errors. In the absence of a UDI-informed approach, and an awareness of the deficits present with CVD, these students might be referred to Disability Services (DS) offices.

Whether CVD constitutes a disability, and therefore should be addressed by DS providers similar to other conditions, is not clear-cut. Under the Americans with
Disabilities Act (ADA) a disability is defined as, “a physical or mental impairment that substantially limits one or more major life activities” (§12102, 2008). Traditionally CVD has not been regarded as a disability. However, in the context of health sciences education, there are times when CVD places learners at a substantive disadvantage in the classroom and clinical settings.

Participant Demographics and Institutional Partners/Resources

In the Fall Quarter of 2013, a United States medical school enrolled six students with CVD. All reported difficulty during their first year Essential Core courses identifying slides in histology, following laser pointers, and completing histology and practical exams within defined time limits. Disability Services (DS) staff partnered with Essential Core faculty (first and second year didactic courses) to identify barriers and develop interventions. In order to make the courses more accessible, UDI principles were applied where possible to remove CVD specific barriers in curriculum and testing. Moving forward, the medical school agreed to adopt these practices for all courses.

Description of Practice

The DS office worked with Essential Core faculty, and consulted with the students with CVD to determine what elements of the curriculum and classroom experience were dependent on color. Wherever possible, the medical school followed several key UDI principles. Specifically, UDI Principle 1: Equitable use, “Instruction is designed to be useful and accessible by people with diverse abilities. Provide the same means of use for all students; identical whenever possible, equivalent when not,” Principle 2: Flexibility in use, “Instruction is designed to accommodate a wide range of individual abilities. Provide choice in methods of use,” and Principle 4: Perceptible information, “Instruction is designed so that necessary information is communicated effectively to the student, regardless of ambient conditions or the student’s sensory abilities” (Scott et al., 2003, p.44). The instructors switched all laser pointers from red to green, allowing students to follow lecturer emphasis of critical information or images on PowerPoint slides. As well, the use of red to denote important concepts on teaching materials such as PowerPoint slides, exams, and microscope slides was switched to black. To increase the visibility of differing structures on slides for teaching and during exams, instructors took high-resolution black and white photos of all histology slides and displayed them alongside the microscope for all students to reference. Finally, students with CVD were provided an accommodation of 15 minutes of extra time on the histology portion of their exams.

The researchers developed the Recommended Strategies for Addressing CVD in Medical Education (see Appendix B). Students were individually educated about potential difficulties that may arise in the clinic as a result of CVD, and were provided with the aforementioned guidance by their DS provider. Students were encouraged to report back to DS with any difficulties they encounter to discuss potential solutions and/or accommodations.

Evaluation of Observed Outcomes

The DS office did not experience resistance from faculty in their suggestion to adopt UDI-informed practices, likely a testament to the strong working relationship that has been developed between DS and faculty through the intensive interactive process followed to determine accommodations, ongoing faculty training, and collaborative work resolving student issues. Course coordinators for the first and second year Essential Core courses, as well as anatomy and histology faculty reported implementing these changes easily, noting little to no impact on their preparation time for lecture or exams. After the UDI-informed interventions were in place, students with CVD reported they were able to readily access traditionally color-dependent course material, and that they had learned critical strategies for identifying structures in images without reliance on color. Faculty reported that these changes would be easy to carry into future years.

Implications and Portability

CVD can result in multiple difficulties in a health science curriculum where color is a critical identifier. In an effort to ensure a learning environment that is accessible to the widest variety of students, programs should consider a universal design approach to removing barriers in the curriculum. Adopting the principles of UDI in medical education reduces the need to determine whether students with CVD are considered disabled, reduces the need for individual accommodation, removes barriers for students with CVD, and is a sustainable and inexpensive approach to inclusion. Implementing UDI-informed practices in medical education promotes accessibility of the curriculum for all students, regardless of any specific disability-related needs. DS providers and learning specialists are well positioned to advise faculty on implementing UDI principles that focus on meeting the needs of diverse medical learners.

In the course of developing this practice, the DS providers and medical school administrators realized
that it would be helpful to bring greater awareness about the possible implications of CVD to medical students. Understanding how to mitigate deficits caused by CVD is vital to ensuring that students are able to practice safely, with confidence. Poole et al. (1997) suggested screening medical students for CVD. This practice arguably allows students to have greater understanding of the barriers they may encounter, and opportunity to develop alternative strategies for addressing their CVD in learning and clinical practice. As well, Pramanik et al. (2012) suggested that identification and intervention in the entry stages of medical education are best because students are most receptive to advice about their CVD during this time. After implementing the UDI-informed practices, the DS office worked with Student Health to ensure that screening for CVD would be made available to medical students. In following the UDI Principle 9: Instructional Climate, “Instruction is designed to be welcoming and inclusive” (Scott et al., 2003, p.44), the school developed a statement for the student handbook to welcome open disclosure and exploration of CVD. The statement encourages students to self-identify to their clinical instructors to ensure they receive direct feedback with less emphasis on color, and encourages students to seek screening:

Colorblindness or Color Vision Deficiency (CVD) is a common condition that can affect your ability to detect certain clinical indicators. If you believe you have CVD, please alert your instructor. Instructors and students can work to craft appropriate strategies for the didactic and clinical settings. Students who suspect they have CVD, but are uncertain, can undergo screening for CVD with Student Health.

Limitations for this intervention include the small sample size and single institution design. This practice was implemented in response to the needs of six students at one medical school. Future research might look to understand whether there are tangible benefits for all students when a UDI-informed approach is taken to changing instruction in medical and other health science programs, to reduce dependence on color. Future research is needed to explore the benefits of implementing early screening for CVD for all medical students, and the effectiveness of a welcoming statement in the student handbook to encourage disclosure.

While CVD has not traditionally been viewed as a disability under the ADA, the authors argue that in the health science context this condition can be disabling. Given the prevalence of CVD in the general population, health science institutions should adopt a universal design approach to ensure that all students are able to access health science curricula. Programs should also offer screenings for CVD in order to provide students with CVD an opportunity to better understand the severity of their condition and plan for both classroom and clinical adjustments. Together, these approaches enhance patient safety by destigmatizing the experience of CVD, and ensuring that students move into clinical practice as health professionals with nuanced skills and the ability to apply sound clinical judgment to patient care.

References


About the Authors

Lisa M. Meeks received her B.A. degree in psychology from The University of Central Florida and Ph.D. from Cleveland State University. Her experience includes working as a disability resource provider for several universities and as a consultant to educational, governmental and private industry stakeholders. Lisa is currently an assistant professor of medicine and director of student disability services at the University of California, San Francisco School of Medicine. Her research interests include disability as a form of diversity, culturally competent education, and professional communication around disability in professional health science settings. Lisa is co-founder and President elect of the Coalition for Disability Access in Health Science and Medical Education. She can be reached by email at: lisa.meeks@ucsf.edu.

Neera R. Jain received her B.S. degree in Rehabilitation and Human Services, and her M.S. degree in Rehabilitation Counseling from Boston University. Her experience includes working in vocational rehabilitation at NYU's Rusk Institute of Rehabilitation Medicine, in Disability Services leadership at Columbia University and the University of California, San Francisco, and managing a free legal service for disabled people, Auckland Disability Law. Neera is currently a doctoral student at the University of Auckland’s Faculty of Education and Social Work, a consultant at UCSF Student Disability Services, and a board member for the Coalition for Disability Access in Health Science and Medical Education. She can be reached by email at: njai104@aucklanduni.ac.nz.

Kurt R. Herzer received his B.A. degree in public health from Johns Hopkins University, MSc in Social Policy from the University of Oxford, and Ph.D. from Johns Hopkins Bloomberg School of Public Health. His experience includes working in the Office of Health Reform in the Department of Health and Human Services in Washington DC, the World Health Organization in Geneva, Switzerland, and for a federal advisory commission on postsecondary education for students with disabilities. He is currently an MD candidate in the Johns Hopkins School of Medicine. His research interests include healthcare quality and policy. He can be reached by email at: kherzer@jhmi.edu
## Appendix A

Principles of Universal Design for Instruction (Scott et al., 2003, p.44)

<table>
<thead>
<tr>
<th>Principle 1: Equitable use</th>
<th>Instruction is designed to be useful to and accessible by people with diverse abilities. Provide the same means of use for all students; identical whenever possible, equivalent when not.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principle 2: Flexibility in use</td>
<td>Instruction is designed to accommodate a wide range of individual abilities. Provide choice in methods of use.</td>
</tr>
<tr>
<td>Principle 3: Simple and intuitive</td>
<td>Instruction is designed in a straightforward and predictable manner, regardless of the student’s experience, knowledge, language skills, or current concentration level. Eliminate unnecessary complexity.</td>
</tr>
<tr>
<td>Principle 4: Perceptible Information</td>
<td>Instruction is designed so that necessary information is communicated effectively to the student, regardless of ambient conditions or the student’s sensory abilities.</td>
</tr>
<tr>
<td>Principle 5: Tolerance for error</td>
<td>Instruction anticipates variation in individual student learning pace and prerequisite skills.</td>
</tr>
<tr>
<td>Principle 6: Low physical effort</td>
<td>Instruction is designed to minimize nonessential physical effort in order to allow maximum attention to learning. Note: This principle does not apply when physical effort is integral to essential requirements of a course.</td>
</tr>
<tr>
<td>Principle 7: Size and space for approach and use</td>
<td>Instruction is designed with consideration for appropriate size and space for approach, reach, manipulations, and use regardless of a student’s body size, posture, mobility, and communication needs.</td>
</tr>
<tr>
<td>Principle 8: A community of learners</td>
<td>The instructional environment promotes interaction and communication among students and between students and faculty.</td>
</tr>
<tr>
<td>Principle 9: Instructional Climate</td>
<td>Instruction is designed to be welcoming and inclusive. High expectations are espoused for all students.</td>
</tr>
</tbody>
</table>
Appendix B

Recommended Strategies for Addressing CVD in Medical Education

Awareness and screening
1. Provide CVD statement to incoming medical students to build awareness.
   “Colorblindness or Color Vision Deficiency (CVD) is a common condition that can affect your ability to detect certain clinical indicators. If you believe you have CVD, please alert your instructor. Instructors and students can work to craft appropriate strategies for the didactic and clinical settings. Students who suspect they have CVD, but are uncertain, can undergo CVD screening with student health.”
2. Provide free and confidential screening for CVD

Classroom and lab
1. Use black font for all classroom presentations; denote special items with arrows or number/letter identifiers versus color.
2. Use green laser pointers (in place of red)
3. Provide high quality grayscale prints of slides
4. Make assistive technology available for students with CVD:
   a) Colored Overlays
   b) Specialized glasses (e.g., Enchroma)
   c) Color converting software programs (e.g., Daltonizing algorithm)
5. Use alternative color staining (not red or green)

Clinical strategies for students with CVD
1. Use a reflectance meter when reading test strips
2. Cross-checking with colleagues for color dependent diagnosis
3. Focus on shade versus color
4. Focus on patient history and report of symptoms as a cross-checking mechanism for clinical exam observations
JPED Author Guidelines

Manuscripts must be submitted electronically as attachments via email to jped@ahead.org

Content
Manuscripts should demonstrate scholarly excellence in at least one of the following categories:

• Research: Reports original quantitative, qualitative, or mixed-method research.
• Integration: Integrates research of others in a meaningful way; compares or contrasts theories; critiques results; and/or provides context for future exploration.
• Innovation: Proposes innovation of theory, approach, or process of service delivery based on reviews of the literature and research.
• Policy Analysis: Provides analysis, critique and implications of public policy, statutes, regulation, and litigation.

Format
All manuscripts must be prepared according to APA format as described in the current edition of The Publication Manual, American Psychological Association. For responses to frequently asked questions about APA style, consult the APA web site at http://apastyle.org/faqs.html

• All components of the manuscript (i.e., cover page, abstract, body, and appendices) should be submitted as ONE complete Word document (.doc or .docx).
• Provide a separate cover letter asking that the manuscript be reviewed for publication consideration and stating that it has not been published or is being reviewed for publication elsewhere.
• Manuscripts should be double-spaced and range in length between 25 and 35 pages including all figures, tables, and references. Exceptions may be made depending upon topic and content but, generally, a manuscript’s total length should not exceed 35 pages.
• Write sentences using active voice.
• Authors should use terminology that emphasizes the individual first and the disability second (see pages 71 - 76 of APA Manual). Authors should also avoid the use of sexist language and the generic masculine pronoun.
• Manuscripts should have a title page that provides the names and affiliations of all authors and the address of the principal author. Please include this in the ONE Word document (manuscript) that is submitted.
• Include an abstract that does not exceed 250 words. Abstracts must be double-spaced and located on page 2 (following the title page). Include three to five keywords below the abstract.
• Tables and figures must conform to APA standards and must be in black and white only. All tables and figures should be vertical and fit on the page; no landscape format. If Tables and/or Figures are submitted in image format (JPEG, PDF, etc.), an editable format must also be submitted along with a text description of the information depicted in the Table/Figure. This will be provided as alt format in the electronic version of JPED, making Tables/Figures accessible for screen readers.

How to Submit Manuscripts
All manuscripts (research and practice briefs) must be submitted to JPED at this email address: jped@ahead.org and must include the following:

• Subject Line: JPED Manuscript Submission
• Body of Email: Include a statement that you are submitting a manuscript for consideration for the JPED. Include the title of the manuscript and your full contact information.
• Attach to the email:
  o Your complete manuscript, prepared as directed above
  o Cover letter as outlined above

You will receive an email reply from Richard Allegra (Managing Editor of JPED) to confirm receipt of your submission within 5 – 7 business days.

Upon Acceptance for Publication
For manuscripts that are accepted for publication, Valerie Spears (JPED Editorial Assistant) will contact the lead author to request:

• A 40-50 word bibliographic description for each author, following the template that Valerie will send you.
• A signed and completed Copyright Transfer form that she will send you.
• Manuscript submissions by AHEAD members are especially welcome. The JPED reserves the right to edit all material for space and style. Authors will be notified of changes.

Practice Brief Manuscripts
JPED invites practitioners and/or researchers to submit Practice Briefs that can inform readers of innovative practices that could, in time, become the basis of an empirical study. Practice Briefs will describe new or expanded programs, services, or practices that support postsecondary students with disabilities. Practice Briefs are not research articles. Manuscripts that involve data analysis beyond the reporting of basic demographic data or evaluative feedback should be submitted as research articles. The overall length of a Practice Brief will be limited to 12 double-spaced pages, which includes separate title page, abstract, and references pages. Tables and/or figures may be submitted, too, above and beyond the 12 page limit.

Please submit all components of a Practice Brief (i.e., cover page, abstract, body, appendices) as a single Word document. These manuscripts should use the following headings/sections:

• Title Page: Title not to exceed 12 words. Identify each author and his/her campus or agency affiliation. State in your email cover note that the work has not been published elsewhere and that it is not currently under review by another publication.
• Abstract: The abstract needs to answer this question: “What is this paper about and why is it important?” The abstract should not exceed 150 words.
• Summary of Relevant Literature: Provide a succinct summary of the most relevant literature that provides a clear context for what is already known about your practice/program. If possible, describe similar practices on other campuses. Priority should be given to current
Guidelines for Special Issues

JPED publishes one special issue per year (normally Issue 3, published in the fall). Special issues feature a series of articles on a particular topic. JPED welcomes ideas for special topical issues related to the field of postsecondary education and disability. The issue can be formatted as a collection of articles related to a particular topic or as a central position paper followed by a series of commentaries (a modified point/counter point). Authors who wish to prepare a special issue should first contact the JPED Executive Editor at jped@ahead.org.

The authors should describe the topic and proposed authors. If the series appears to be valuable to the readership of JPED, the Executive Editor will share an Agreement Form to be completed and returned by the Guest Editor. The Executive Editor may provide suggestions for modification to content or format. The Guest Editor will inform authors of due dates and coordinate all communications with the contributing authors. Each special edition manuscript will be reviewed by members of the JPED editorial board members. The Guest Editor and the Executive Editor will be responsible for final editing decisions about accepted manuscripts.

Book Review Column Guidelines and Procedures

Please contact the JPED Executive Editor at jped@ahead.org to suggest books to be reviewed or to discuss completing a book review. Contact and discussion should be done before the book review is completed in order to expedite the procedures in the most efficient and fairest way possible.

Content and Format

In general, the book review should present:

1. An overview of the book, providing the book’s stated purpose, the author’s viewpoint, and a general summary of the content.
2. An evaluation of the book, elaborating on the author’s objectives and how well those objectives were achieved, the strengths and weaknesses of the book along with the criteria you used for making that assessment, and the organization and presentation of the book. Recommendations should specify to whom you would recommend the book, why, and how you would suggest the book be used, and address its potential contribution to our field.

At the end of the review, please list your name and institutional affiliation.

Submission

The length of a book review can range from 800 - 1200 words. Please send in an email attachment in MS Word, double-spaced to jped@ahead.org per instructions above in “How to Submit Manuscripts.” After the review is submitted, the Executive Editor or designee will edit the manuscript and follow up with you about the publication process.

Publication Statistics

The Journal of Postsecondary Education and Disability is published four times a year. All back issues are archived and accessible to all at: http://ahead.org/publications/jped. In addition, nearly 3,000 individuals subscribe to the Journal. JPED’s acceptance rate is approximately 30%. The Journal does not track its impact factor.