Participant Experiences in an Employment Mentoring Program for College Students with Visual Impairments

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Structured abstract: *Introduction:* Mentors can help college graduates with visual impairments (that is, those with blindness or low vision) prepare for and seek employment in their chosen fields by serving as role models and sharing their experiences with mentees. Identifying mentoring activities and discussions most valued by mentees with visual impairments will facilitate the design of future mentoring programs. *Methods:* A nationwide mentoring program for college students with legal blindness was implemented using an experimental longitudinal research design. Career mentors with legal blindness worked with mentees to develop knowledge and skills related to securing employment. Data included engagement in job-seeking activities, most helpful aspects of the mentoring relationship, and a participant evaluation of the program. *Results:* Most mentees indicated that program activities and discussions related to visual impairment (for instance, disclosure and accommodation planning) and field-specific issues (such as career exploration and professional development) were of greatest value. Participants evaluated the program positively. *Discussion:* Mentees valued knowledge, support, encouragement, and career guidance provided by mentors. Mentors valued the opportunity to contribute to the growth of young professionals with visual impairments. *Implications for practitioners:* Students with visual impairments find value in specific aspects of mentoring relationships, and mentors are eager to work with students seeking employment. Topics and activities for future mentoring programs should include disclosure, accommodations, blindness skills, and job-search skills. Level of visual impairment and the career field should both be considered when pairing mentors with students with visual impairments preparing for employment.

Career mentoring allows experienced professionals to share knowledge and advice with young job-seekers facing barriers to employment. Mentoring relationships are

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beneficial for college-aged populations (Campbell & Campbell, 2007; Crisp & Cruz, 2009), and contribute to improving career outcomes (Allen, Eby, Poteet, Lentz, & Lima, 2004; Kram, 1985). Because persons with visual impairments (that is, those who have blindness or low vision) experience distinct challenges associated with their disability and pursuing competitive employment (Coffey, Coufopoulos, & Kinghom, 2014; Crudden & McBroom, 1999; McDonnall, Zhou, & Crudden, 2013), we developed and implemented a mentoring program for college students with legal blindness. This report presents evaluative feedback from participants.

Mentoring is effective in preparing young adults for successful employment (Burke, Burgess, & Fallon, 2017; Whitely, Dougherty, & Dreher, 1991). Career mentoring has been used as a strategy for improving vocational outcomes for a variety of groups, including women (Burke et al., 2017), minorities (Santos & Reigadas, 2002), medical and graduate students (Frei, Stamm, & Buddeberg-Fischer, 2010; Tenenbaum, Crosby, & Gliner, 2001), and persons with disabilities (Daughtry, Gibson, & Abels, 2009). Although mentoring programs are widely used (Eby, Allen, Evans, Ng, & DuBois, 2008), systematic research identifying effective components of mentoring programs is limited (Eller, Lev, & Feurer, 2014).

Empirical evidence supports the positive effect of mentoring on the academic and employment outcomes of young people (DuBois, Holloway, Valentine, & Cooper, 2002). Mentoring improves students' self-confidence, social skills, and preparedness for college and employment (Lindsay, Hartman, & Fellin, 2016). Programs of longer duration, structured activities with a planned curriculum, trained mentors, and contents tailored to program objectives have been particularly successful for students with disabilities (Lindsay et al., 2016).

Mentoring programs for visually impaired youths are often implemented by state and municipal service organizations for people who are visually impaired, special schools for blind students, and consumer and advocacy groups. For example, the American Foundation for the Blind (AFB) offers a mentoring program through AFB CareerConnect (2017). Although research on the effectiveness of such programs is limited, the findings are promising. One study indicated that mentoring increased career decision-making efficacy, hope for the future, and positive attitudes about visual impairment among visually impaired young adults (Bell, 2012). However, the literature lacks an evaluation of specific components that make mentoring programs most beneficial for this population.

Some common employment barriers affect individuals with any form of disability; however, there are specific issues that are unique to job-seekers who are visually impaired. For example, recommendations for when and how to disclose a disability to potential employers often differ based on disability type (Parry, Rutherford, & Merrier, 1995; Pearson et al., 2003). Additionally, visually impaired college students often lack early work experience (Newman, Wagner, Cameto, & Knokey, 2009; Newman, Wagner, Cameto, Knokey, & Shaver, 2010), limiting their exposure to career role models, knowledge of the job market, and opportunities to develop "soft skills" and self-

confidence (Carter, Austin, & Trainor, 2011; Vondracek & Porfeli, 2003).

Furthermore, visually impaired persons may experience difficulty navigating job websites and online applications that are not accessible (Lazar, Olalere, & Wentz, 2012). These job-seekers must also consider and negotiate workplace accommodations during the job-application process (Butterfield & Ramseur, 2004; Cleveland, Barnes-Farrell, & Ratz, 1997) and have good assistive technology skills, and many must overcome transportation barriers (Crudden & McBroom, 1999; McDonnall & Crudden, 2009). Working with a mentor with experience in navigating these unique challenges can be especially beneficial.

Given that mentoring relationships have the potential to reduce employment barriers, it is important to systematically investigate the most beneficial components of career mentoring programs for individuals with visual impairments. Future programs will benefit from an evaluation of how to maximize program participation, value, satisfaction, and retention.

This report explicates information from an experimental study of a mentoring program designed for college students with visual impairments who are transitioning to employment. As a result of the program, mentees significantly increased their job-seeking assertiveness and showed improvement in career adaptability and self-efficacy (O'Mally & Antonelli, 2016). This report details the experiences, perspectives, and program evaluation of the mentees and mentors who participated in that study.

An in-depth examination of participant experiences in the program is provided, which includes information about engagement in activities and discussion topics, beneficial aspects of the mentoring relationship, and an evaluation of the program. The following specific research questions were explored: What career preparation activities and discussion topics do mentors and mentees with visual impairments engage in during the mentoring process? What specific career preparation activities and discussion topics do mentees find most helpful? and What aspects of the mentoring relationship do participants consider most valuable?

Methods

Design

In a randomly controlled trial design, college students with legal blindness were assigned to either work with a mentor or to a comparison group. The comparison group was included in the experimental design for analytic purposes, but is not relevant for the focus of this report; see O'Mally and Antonelli (2016) for details.

Participants

A nationwide sample included 26 mentees, 26 mentors, and 25 comparison students. Recruitment information was dispersed in over 3,000 personalized e-mails and telephone calls to a variety of organizations with access to students and professionals with visual impairments, as well as through radio interviews, social media, national and regional conference presentations, press releases, paid advertising, newsletters, and electronic mailing lists. Targeted efforts included contacting representatives from all state vocational rehabilitation agencies, student support service representatives at universities and colleges (including all historically Black colleges and universities), the Association on Higher Education and Disability, multicultural groups, and nonprofit organiza-

tions, and working closely with an advisory council board and consumer groups such as the American Council of the Blind, AFB, and the National Federation of the Blind.

National recruitment was used to develop a pool of interested college students and career mentors, both self-identifying as legally blind. An eligibility survey collecting demographic information was used to select participants. Eligibility requirements for students were: legal blindness, U.S. residency, under age 35 years, graduating from college or graduate school within one year, and seeking employment after graduation. Mentors were legally blind, living in the United States, and were either employed or recently retired. The majority of participants were White (70.59% of students and 80.77% of mentors), and women made up over 60% of the sample. Most students were undergraduates (72.55%), ranging in age from 20 to 35 years ($M = 25.88$, $SD = 4.35$). Mentors ranged in age from 25 to 63 years ($M = 48.00$, $SD = 10.13$), and most had graduate degrees (72.96%); approximately 81% were employed and 19% were retired.

Materials

Mentors and mentees received the *Employment Mentoring Manual* (National Research and Training Center on Blindness and Low Vision [NRTC], 2016a) that provided information about the benefits of mentoring, codes of conduct, and guidance for successful mentoring relationships. The manual recommended activities and discussion topics such as career planning, blindness skills, and job-seeking strategies. The *Resource Sheet for Job Seekers* (NRTC, 2016b) provided a list of websites related to career preparation for visually impaired individuals.

Measures

To assess the effect of the mentoring relationship, the following measures were administered at the beginning and end of the study: the Job-Seeking Self-Efficacy Scale, adapted from the JSSE scale for individuals with physical disabilities (Barlow, Wright, & Cullen, 2002), measured participants' self-efficacy in job-seeking; the Assertive Job Hunting Survey (Becker, 1980) measured assertive job-hunting behaviors and attitudes; and the Career Adaptability Scale, a subscale of the Career Futures Inventory (Rottinghaus, Day, & Borgen, 2005), measured participants' adaptability in their career choices and circumstances. At the end of the study, participants reported their employment status and job-search activities. Employed students provided details about their employment and job satisfaction. Participants rated their job satisfaction using adapted versions of the Abridged Job Descriptive Index (AJDI; Stanton et al., 2002), the Abridged Job in General Scale (AJIG; Russell et al., 2004), the Intention to Quit Scale (Parra, 1995), and the Intent to Leave Scale (O'Reilly, Chatman, & Caldwell, 1991).

Data collected in the following measures are the primary focus of this report.

Monthly reports

Monthly reports completed by mentees included the number of hours spent meeting in person, number of e-mail contacts, and number of telephone calls with mentors. These reports allowed researchers to maintain contact with mentees and address communication issues.

Quarterly reports

Quarterly reports were completed by mentees and mentors. The mentoring relationship was evaluated, and participants reported the activities and topics that were addressed during the prior three months. Topics and activities were listed, and participants selected those they engaged in during the quarter, including: accommodation planning, orientation and mobility skills, disclosure, social skills, transferring technology skills to a work environment, transportation, career counseling, résumé building, interview skills, job-search strategies, job-shadowing, and networking. Mentees rated the level of helpfulness of each item (not helpful, somewhat helpful, very helpful, or did not occur). Participants also reported additional discussion topics, activities, or materials mentors shared with mentees.

Program satisfaction

Mentors and mentees rated 28 statements about the mentoring relationship on a 1 (strongly disagree) to 10 (strongly agree) scale. Items addressed the professional style of the relationship, personal and professional compatibility, logistics (for example, ease of communication, transportation, and scheduling), and the importance of meeting in person. Participants reported additional information, including intent to remain in contact after the program, sharing of resources, flexibility, commitment, and contributions to the mentoring relationship. Participants provided comments regarding valuable aspects of the mentoring relationship and suggestions for improving the program.

Early-exit survey

Participants who withdrew from the study early responded to a brief questionnaire to explain their reasons for doing so.

Procedures

Upon approval for human subjects research from the university's institutional review board, eligible students completed consent forms and were randomly assigned to either work with a mentor (intervention group) or to receive traditional career-preparation resources (comparison group). Mentees were matched with mentors based on career interests and location when possible; however, due to difficulty in finding local mentors, some distance-mentoring pairs were created. Mentees received gift cards as incentives to participate, and mentors volunteered their time.

Participants completed a one-hour distance orientation session with research staff members who detailed expectations for involvement in the project, reviewed the *Employment Mentoring Manual* (NRTC, 2016a), addressed questions, and provided suggestions for handling potential issues in the mentoring relationship. Mentees completed pretest measures electronically prior to orientation. After completing orientation, each mentor pair was introduced via conference call, and staff members were available to assist with communication difficulties over the course of the study. Mentees residing within a one-hour commute of their mentors were expected to meet in person monthly. Project staff members monitored participant contacts and activities reported by participants over the course of the year, and participants completed final measures at the end of the study.

Table 1
Mentee participation and ratings for helpfulness of career activities and discussion topics.

Activities and discussion topics	% who participated in activity	% who rated activity very helpful
Disclosure of visual impairment	100.0	87.5
Importance of social skills in the job field	87.5	79.2
Career options	95.8	79.2
Accommodation planning	100.0	75.0
Networking with friends, family, acquaintances, and professionals in the field	100.0	70.8
Technology skills translated to a work setting	79.2	66.7
Transportation options	87.4	62.5
Building of résumés and prep of application materials	95.9	58.3
Interview etiquette	83.4	58.3
Practicing potential questions and responses for interviews	75.0	50.0
Orientation and mobility skills	70.8	45.8
Job-search techniques	87.4	45.8
Practicing transferring technology skills to a work setting	75.1	45.8
Participating in job-shadowing activities	62.5	29.2

Note: Values indicate the percentage of mentees who rated that activity "very helpful" at least once in the year, and the percentage of mentees who reported engaging in that activity at least once in the year (n = 24 mentees).

Analyses were conducted to assess engagement with and responses to the program by mentees and mentors. Common themes and notable participant experiences that were not well captured by other variables were included in this report. Open-ended responses were independently coded by two raters, and inconsistencies were discussed to reach consensus.

The retention rate for the study was exceptionally high (92%). Of the original 26 mentor-mentee pairs, 2 pairs withdrew from the study due to incompatibility.

Results

Contact and activities with mentors

To evaluate engagement in the mentoring process, we measured frequency of contact and participation in activities throughout the study. Data were summated for each mentee over one year. Mentees reported an average of 34.21 (SD = 29.04) e-mails and 15.04 (SD = 12.62) telephone contacts with their mentors for the year. E-mail contact remained fairly stable over the year, while telephone contact decreased and plateaued after approximately four months (from more than two calls per month to less than one). Local pairs (n = 9) spent an average of 10.89 (SD = 11.44) hours meeting in person; however, the number of meetings declined gradually over the year (month 1, M = 1.7 hours; month 12, M = 0.44 hours). Distance pairs (n = 15) maintained telephone and e-mail communication comparable to local pairs.

Mentees indicated the activities they engaged in with their mentors each quarter. Table 1 provides the percentages of mentees who engaged in each activity during the study. Mentees engaged in most activities, with the lowest percentage participating in job-shadowing (62%), which is unsurprising given the number of dis-

tance pairs. Nearly all pairs discussed disclosure, accommodation planning, networking, résumé, career exploration, and application preparation. Additionally, Table 1 provides the percentage of mentees who rated each activity "very helpful" in at least one quarterly report. The topics rated "very helpful" by the highest number of mentees were disclosure, social skills, career options, accommodation planning, and networking.

Mentees reported additional career-related activities in open-ended responses. The most common responses were related to career-specific skills ($n = 14$) such as professional feedback or advice on produced works; and field-specific skill development, as in the comment, "My mentor has been very helpful just in listening as I've worked through applications and make [career choices]. She's also been vital in helping me think through my [professional work] in different ways." A second common theme was early career issues ($n = 12$), with topics including applying education to a work setting, obtaining professional certifications, and dealing with on-the-job situations. One mentee reported, "[My mentor] gave me numerous helpful [field]-related tips as well as career tips in general that didn't necessarily have to do with accessibility."

Mentors shared web resources ($n = 10$) with their mentees, including accessible job-search websites, accommodation information, articles, and professional development opportunities. One mentee stated, "My mentor has looked up many things for me like wrongful termination because that was a concern of mine. He also sent me information about dog guides in the work setting and helped me job[-]search. I have applied to several of the places he found for me."

Mentors provided other resources and information for visual impairment skills ($n = 7$), such as disclosure and assistive technology. One mentee noted, "[My mentor] shared a form that she used to introduce herself to [field] professionals. This letter is quite helpful because it explains how she will be doing her job, and it explains what they can expect from her." Professional development was frequently addressed through activities and shared materials, with one mentoring pair collaborating to present their work at a conference.

Evaluation of the Mentoring Relationship

Mentees and mentors provided comments and rated various aspects of the mentoring program, including expectations, logistics, and attributes of mentors. Table 2 lists mean ratings for select items. Ratings for items related to the quality of the mentoring relationship were high for both mentees and mentors, such as ratings for the statement, "I looked forward to interacting with my mentor," $M = 8.63$ ($SD = 1.93$), and the statement, "I felt comfortable interacting with my mentee," $M = 8.87$ ($SD = 2.20$) on a 10-point scale.

Participants identified aspects of the mentoring relationship they found most valuable. Advice, support, and confidence boosts ($n = 9$) offered by mentors were most frequently mentioned among mentees. One mentee said, "[My mentor] was willing to push me to do my best, or to help me in certain areas that needed improvement." Another commented, "[My mentor] showed me how to put my fears aside and go after what I want." Mentees

Table 2
Mentor and mentee ratings for evaluation items.

Evaluation items	Mean (*SD*)			
	Mentors	Mentees overall	Local mentees	Distance mentees
Relationship/rapport				
I felt comfortable interacting with my mentor or mentee	8.87 (2.20)	8.96 (1.37)	9.22 (0.97)	8.80 (1.57)
I looked forward to interacting with my mentor or mentee	8.48 (2.25)	8.63 (1.93)	8.89 (1.36)	8.47 (2.23)
My mentor or mentee and I will keep in touch after the project is over	7.35 (2.57)	7.92 (2.81)	7.89 (2.52)	7.93 (3.06)
Match/expectations				
My mentoring relationship seemed one-sided*	2.65 (2.35)	3.75 (3.15)	2.78 (2.11)	4.33 (3.58)
It was difficult to communicate with my mentor or mentee*	2.91 (2.81)	4.17 (3.42)	4.11 (3.82)	4.20 (3.30)
My mentor or mentee and I had different expectations for meeting the goals of the project*	3.22 (2.61)	3.50 (2.13)	3.33 (2.35)	3.60 (2.06)
Logistics/process				
Meeting with my mentor or mentee face to face was important to me	4.43 (3.42)	5.54 (3.37)	8.00 (2.18)	4.07 (3.13)
My mentor or mentee responded to communication in a timely manner	7.87 (2.42)	7.08 (3.28)	7.44 (3.17)	6.87 (3.44)
Geographic location of my mentor or mentee made the relationship difficult to maintain*	3.48 (2.92)	4.71 (3.43)	3.00 (2.92)	5.73 (3.39)
Mentor attributes				
My mentor was knowledgeable about the field	N/A	8.79 (1.64)	8.67 (1.73)	8.87 (1.64)
My mentor gave me a realistic view about my field of interest	N/A	8.04 (2.49)	7.89 (2.47)	8.13 (2.59)
My mentor gave me specific tips or resources that will help me in my career	N/A	7.33 (2.97)	7.00 (2.55)	7.53 (3.27)
My mentor is someone I can turn to with career questions	N/A	8.13 (2.92)	8.11 (2.47)	8.13 (3.25)

Note: * = a negatively worded item.
The scale was 1–10, where 10 = strongly agree, 1 = strongly disagree. Local mentees are defined as living within a one-hour travel time from mentor, distance mentees as more than one hour.

also valued discussing work-related issues and assistance with job searches ($n = 12$), indicated in statements such as, "Getting real-world feedback from a professional in my field who has similar struggles due to a degree of blindness [was most valuable]."

Mentors frequently reported valuing mentee willingness to learn ($n = 12$), the opportunity to contribute to the success of mentees ($n = 7$), and the overall mentoring relationship ($n = 7$). One mentor commented, "My mentee was very talented in his field and very motivated. I enjoyed getting to know him, seeing some of his work." Another mentor noted the personal value and importance of mentoring programs, "This was one of the most rewarding experiences I have had in a long time.

Since blindness is a low-incidence disability, we don't usually meet a lot of [professionally successful] blind people. This program needs to multiply."

Mentees were also asked to describe the most helpful thing they learned during the mentoring process. Responses were positive, with most falling into one of three broad categories: job-seeking skills, including practicing interviewing and disclosure ($n = 9$); realistic goals and career choices ($n = 5$); and how to manage work environments ($n = 4$). One mentee said, "My mentor asked me interview questions that were focused on how I would address my disability in the interview process. This was really helpful." Another commented that the most helpful component was advice from their mentor, such as: "[To] focus on my strengths and build strong relationships with other team members [at my workplace]." Other comments concerned having a positive outlook about visual impairments, including statements such as "Learning to accept myself as I am, especially my blindness. This journey of acceptance began with accepting that I need to use my white cane in public. Hearing about [my mentor's] daily use, even [in professional settings], encouraged me to use it and see it as second nature," and "To not let my disability get in the way of success."

Evaluation of the Mentoring Program

In quantitative ratings of program logistics and the mentoring process, the satisfaction of participants was high (See Table 2). Mentees expressed agreement with statements such as, "My mentor responded to communication in a timely manner," $M = 7.08$ ($SD = 3.28$); and, "My mentor was knowledgeable about the field [in which I was interested]," $M = 8.79$ ($SD = 1.64$).

Participants provided suggestions for improvements or additional resources for future programs. Most responses ($n = 12$) were neutral (for example, "No improvement needed"), but some suggestions addressed program customization, including improving match compatibility (location, professional goals, and visual impairment levels and skills, $n = 5$), and the level of involvement of staff members (with some recommending more and others less, $n = 6$). Additionally, some mentors ($n = 4$) commented that personal issues and scheduling problems created some difficulty (for instance, "It could have been better at a different time in my life, and transportation was an issue for the both of us"). Some participants ($n = 6$) also wanted opportunities to connect with other program participants to share information. Finally, mentees were asked to list additional topics they would have liked their mentors to address. Responses focused on field-specific work issues ($n = 6$), including negotiating compensation, contracts, and building portfolios.

Because the design of the study required mentors to be legally blind and working in the same field as the mentee and because both distance and local pairs were included, we measured participant rankings of the importance of each of these characteristics in pairing mentees with mentors. The mentor's being legally blind was ranked most important by the majority of mentors (56.5%) and mentees (47.8%). Sharing the same career field was ranked as most important by 39.1% of mentors and 30.4% of mentees. The fewest number of mentors (4.3%) and men-

tees (26.1%) ranked geographic proximity as most important.

Discussion

Many of the activities mentees identified as being most helpful and engaging in the most related to managing blindness in the job-search process and in the work environment. Of the topics that mentees most frequently rated very helpful, three were visual impairment–specific (disclosure, accommodation planning, and assistive technology skills). These themes were also reported by participants in open-ended responses about shared materials and the most helpful aspects of the program. These findings reinforced the importance of these topics noted in previous literature (for example, Butterfield & Ramseur, 2004; McDonnall & Crudden, 2009; and Parry et al., 1995). Mentees rated the development of social skills as very helpful, an issue identified in research as a prevalent concern for students with visual impairments transitioning to employment (McDonnall & Crudden, 2009). Participant experiences in this study underscore the value of mentoring within a visual impairment–specific framework.

In addition to addressing visual impairment–specific issues, mentees reported benefiting from engagement in general employment-preparation activities with mentors, such as improving job-search skills (for instance, finding job openings, preparing résumés, and submitting applications), and professional development (such as obtaining certifications and developing portfolios), as well as field-specific concerns of career exploration and networking. Mentees identified early career issues, such as navigating the workplace and career-building, and field-specific professional development concerns as important and valuable topics. In light of this finding, it may be important that mentoring programs for transition-age job-seekers extend into employment to support early career establishment.

Evaluation of the mentoring program was highly positive. Mentees valued the advice and guidance mentors offered, particularly their personal experiences, the resources they shared, and the discussions they had regarding challenges and solutions in navigating employment with visual impairment. Mentors valued their contribution to the growth and success of their mentees, as well as the opportunity to foster a relationship with another visually impaired person in their respective fields. Although feedback was generally positive, recommendations for program improvement included greater customization of the mentoring match and the level of involvement of staff members, and providing opportunities for group interaction.

Match proximity did not affect frequency of communication, activities, or program satisfaction. Distance and local mentoring both led to benefits, which is valuable information for developing programs where face-to-face meetings are not feasible. Most participants agreed that it was most important for mentors to be legally blind, closely followed by being in the same profession, with location ranked as least important.

Limitations

One important limitation of this study was that all measures used self-report, which carries a potential for imprecision (Stone, Bachrach, Jobe, Kurtzman, & Cain, 1999). Similarly, although efforts were made to objectively interpret narra-

tive comments, these remained subjective by nature and should be interpreted with caution. Next, because this program was designed as an experimental research study, the rigidity of selection criteria limited sample size, which may affect generalizability. Finally, although efforts were made to match mentees with mentors as closely as possible, factors that were not strictly controlled in the study such as proximity, degree of exact position or career match among pairs, and varying levels of mentor involvement may have affected mentee experiences.

Implications and future directions

This research offers valuable information for practitioners working with transition-age youths with visual impairments. Based on the experiences of those who participated in this study, it would be beneficial to incorporate the two most critical factors—visual impairment and field-specific knowledge—in the development of future mentoring programs for visually impaired job-seekers. Whenever possible, these factors should be considered in the selection of mentors and in materials and topics covered throughout the relationship. For the latter, the *Employment Mentoring Manual* (NRTC, 2016a) developed for this program is publicly available.

Future research that involves systematically interviewing successful mentoring pairs would be advantageous, as would comparing the effect of local versus distance mentoring using a larger sample. More research is warranted with this population to investigate, in greater depth, best practices in mentoring to support the transition to competitive employment of college graduates with visual impairments.

References

Allen, T. D., Eby, L. T., Poteet, M. L., Lentz, E., & Lima, L. (2004). Career benefits associated with mentoring for protégés: A meta-analysis. *Journal of Applied Psychology, 89*(1), 127–136.

American Foundation for the Blind (AFB). (2017). *CareerConnect.* Retrieved from http://www.afb.org/info/living-with-visionloss/for-job-seekers/make-connections/123

Barlow, J., Wright, C., & Cullen, L. (2002). A job-seeking self-efficacy scale for people with physical disabilities: Preliminary development and psychometric testing. *British Journal of Guidance & Counseling, 30*(1), 37–53.

Becker, H. A. (1980). The Assertive Job-Hunting Survey. *Measurement and Evaluation in Guidance, 13*(1), 43–48.

Bell, E. C. (2012). Mentoring transition-age youth with blindness. *Journal of Special Education, 46*(3), 170–179.

Burke, R. J., Burgess, Z., & Fallon, B. (2017). Benefits of mentoring to Australian early career women managers and professionals. *Equal Opportunities International, 25*(1), 71–79.

Butterfield, T. M., & Ramseur, J. H. (2004). Research and case study findings in the area of workplace accommodations including provisions for assistive technology: A literature review. *Technology and Disability, 16*(4), 201–210.

Campbell, T. A., & Campbell, D. E. (2007). Outcomes of mentoring at-risk college students: Gender and ethnic matching effects. *Mentoring & Tutoring, 15*(2), 135–148.

Carter, E. W., Austin, D., & Trainor, A. A. (2011). Factors associated with the early work experiences of adolescents with severe disabilities. *Intellectual and Developmental Disabilities*, *49*(4), 233–247.

Cleveland, J. N., Barnes-Farrell, J. L., & Ratz, J. M. (1997). Accommodation in the workplace. *Human Resources Management Review, 7*(1), 77–107.

Coffey, M., Coufopoulos, A., & Kinghom, K. (2014). Barriers to employment for visu-

ally impaired women. *International Journal of Workplace Health Management, 7*(3), 171–185.

Crisp, G., & Cruz, I. (2009). Mentoring college students: A critical review of the literature between 1990 and 2007. *Research in Higher Education, 50*(6), 525–545.

Crudden, A., & McBroom, L. W. (1999). Barriers to employment: A survey of employed persons who are visually impaired. *Journal of Visual Impairment & Blindness, 93*(6), 341–350.

Daughtry, D., Gibson, J., & Abels, A. (2009). Mentoring students and professionals with disabilities. *Professional Psychology: Research and Practice, 40*(2), 201–205.

DuBois, D. L., Holloway, B. E., Valentine, J. C., & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal of Community Psychology, 30*(2), 157–197.

Eby, L. T., Allen, T. D., Evans, S. C., Ng, T., & DuBois, D. (2008). Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals. *Journal of Vocational Behavior, 72*(2), 254–267.

Eller, L. S., Lev, E. L., & Feurer, A. (2014). Key components of an effective mentoring relationship: A qualitative study. *Nurse Education Today, 34*(5), 815–820.

Frei, E., Stamm, M., & Buddeberg-Fischer, B. (2010). Mentoring programs for medical students—A review of the PubMed literature 2000–2008. *BMC Medical Education, 10*(32), 1–14.

Kram, K. E. (1985). *Mentoring at work: Developmental relationships in organizational life*. Glenview, IL: Scott Foresman and Company.

Lazar, J., Olalere, A., & Wentz, B. (2012). Investigating the accessibility and usability of job application web sites for blind users. *Journal of Usability Studies, 7*(2), 68–87.

Lindsay, S., Hartman, L. R., & Fellin, M. (2016). A systematic review of mentorship programs to facilitate transition to post-secondary education and employment for youth and young adults with disabilities. *Disability and Rehabilitation, 38*(14), 1329–1349.

McDonnall, M. C., & Crudden, A. (2009). Factors affecting the successful employment of transition-age youths with visual impairments. *Journal of Visual Impairment & Blindness, 103*(6), 329–341.

McDonnall, M. C., Zhou, L., & Crudden, A. (2013). Employer attitudes towards persons who are blind or visually impaired: Perspectives and recommendations from vocational rehabilitation personnel. *Journal of Rehabilitation, 79*(3), 17–24.

National Research and Training Center on Blindness and Low Vision (NRTC). (2016a). *Employment Mentoring Manual*. Mississippi State University, MS: Author. Retrieved from http://blind.msstate.edu/docs/employment_mentoring_manual.pdf

National Research and Training Center on Blindness and Low Vision (NRTC). (2016b). *Resource Sheet for Job Seekers*. National Research and Training Center on Blindness and Low Vision, Mississippi State University, MS: Author. Retrieved from http://blind.msstate.edu/docs/resource_sheet_for_job_seekers-update_2016-12-02.pdf

Newman, L., Wagner, M., Cameto, R., & Knokey, A.-M. (2009). *The post–high school outcomes of youth with disabilities up to 4 years after high school. A report of findings from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved from https://www.nlts2.org/reports/2009_04/nlts2_report_2009_04_complete.pdf

Newman, L., Wagner, M., Cameto, R., Knokey, A.-M., & Shaver, D. (2010). *Comparisons across time of the outcomes of youth with disabilities up to 4 years after high school. A report of findings from the National Longitudinal Transition Study-2 (NLTS2)*. Menlo Park, CA: SRI International. Retrieved from https://www.nlts2.org/reports/2010_09/nlts2_report_2010_09_complete.pdf

O'Mally, J., & Antonelli, K. (2016). The effect of career mentoring on employment outcomes for college students who are

legally blind. *Journal of Visual Impairment & Blindness, 110*(5), 295–307.

O'Reilly, C., Chatman, J., & Caldwell, D. F. (1991). People and organizational culture: A profile comparison approach to assessing person-organization fit. *Academy of Management Journal, 34,* 487–516.

Parra, L. F. (1995). *Development of an intention to quit scale.* Unpublished manuscript, Bowling Green State University, Bowling Green, OH.

Parry, L. E., Rutherford, L., & Merrier, P. A. (1995). Coming face to face with disability: Human resource managers' perspectives. *Journal of Education for Business, 70*(5), 290–296.

Pearson, V., Ip, F., Hui, H., Yip, N., Ho, K. K., & Lo, E. (2003). To tell or not to tell; Disability disclosure and job application outcomes. *Journal of Rehabilitation, 69*(4), 35–38.

Rottinghaus, P. J., Day, S. X., & Borgen, F. H. (2005). The Career Futures Inventory: A measure of career-related adaptability and optimism. *Journal of Career Assessment, 13*(1), 3–24.

Russell, S. S., Spitzmüller, C., Lin, L. F., Stanton, J. M., Smith, P. C., & Ironson, G. H. (2004). Shorter can also be better: The Abridged Job in General Scale. *Educational and Psychological Measurement, 64*(5), 878–893.

Santos, S. J., & Reigadas, E. T. (2002). Latinos in higher education: An evaluation of a university faculty mentoring program. *Journal of Hispanic Higher Education, 1*(1), 40–50.

Stanton, J. M., Sinar, E. F., Balzer, W. K., Julian, A. L., Thoresen, P., Aziz, S., . . . Smith, P. C. (2002). Development of a compact measure of job satisfaction: The Abridged Job Descriptive Index. *Educational and Psychological Measurement, 62*(1), 173–191.

Stone, A. A., Bachrach, C. A., Jobe, J. B., Kurtzman, H. S., & Cain, V. S. (Eds.). (1999). *The science of self-report: Implications for research and practice*. Mahwah, NJ: Lawrence Erlbaum Associates.

Tenenbaum, H. R., Crosby, F. J., & Gliner, M. D. (2001). Mentoring relationships in graduate school. *Journal of Vocational Behavior, 59*(3), 326–341.

Vondracek, F. W., & Porfeli, E. J. (2003). The world of work and careers. In G. R. Adams & M. D. Berzonsky (Eds.), *Blackwell handbook of adolescence* (pp. 109–128). Malden, MA: Blackwell.

Whitely, W., Dougherty, T. W., & Dreher, G. F. (1991). Relationship of career mentoring and socioeconomic origin to managers' and professionals' early career progress. *Academy of Management Journal, 34*(2), 331–351.

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