

The published version of this document can be found [here](#). This article was originally published by the Journal of Rehabilitation, volume 92, 1st issue, and the following article spans pages 38-47.

**Providing Exposure and Education About Blindness and Low Vision:
An In-Person Meeting Versus an Interactive Video**

Michele C. McDonnall¹, Karla Antonelli¹, and Emily G. Marett²

¹National Research & Training Center on Blindness & Low Vision, Mississippi State University

²College of Business, Mississippi State University

Michele C. McDonnall  <https://orcid.org/0000-0002-0942-1210>

Karla Antonelli  <https://orcid.org/0000-0002-4018-8760>

Emily G. Marett  <https://orcid.org/0000-0002-2431-4173>

Correspondence concerning this article should be addressed to Michele C. McDonnall, PO Box 6189, Mississippi State, MS 39762. Email: m.mcdonnall@msstate.edu

Abstract

Negative employer attitudes are a long-standing barrier to employment for people who are blind or have low vision (B/LV). Research suggests that both education about and exposure to people who are B/LV may improve these attitudes. The purpose of this exploratory study was to compare two successful approaches to increase knowledge and improve attitudes about people who are B/LV: a one-on-one, in-person meeting with a blind rehabilitation professional and an interactive educational video featuring many B/LV people. The study utilized data obtained in three previous experimental studies to conduct within-person repeated measures ANOVAs to calculate effect size estimates (partial eta squared). The 90% confidence intervals for the effect sizes were compared across four outcomes (task knowledge, explicit attitudes, implicit attitudes, intent to hire) to explore whether the effects associated with one approach were larger than the other. Effect sizes associated with the two approaches were not significantly different for three of the four outcomes; only the increase in task knowledge over time was greater for interactive video viewers than for in-person meeting participants. Rehabilitation professionals should consider utilizing the interactive video when working with employers, preferably as a supplement to meeting with them.

Keywords: blind, low vision, employer attitudes, employer interventions, video-based education

Providing Exposure and Education About Blindness and Low Vision: An In-Person Meeting Versus An Interactive Video

Although people with disabilities have experienced gains in inclusion and awareness over the past decades, people who are blind or have low vision (B/LV) in particular still face barriers to employment (Goodman et al., 2024; Kalargyrou et al., 2021; Zissi et al., 2007). Many people have a general fear about vision loss (Scott et al., 2016). Employers' lack of awareness of accommodations used by people with B/LV negatively impacts attitudes toward them (McDonnall et al., 2014). People who are B/LV themselves report that negative employer attitudes and discrimination are a major barrier to obtaining employment (Coffey et al., 2014; Salomone & Paige, 1984; Silverman et al., 2019; Steverson, 2020).

Researchers have explored predictors of employer attitudes toward hiring people who are B/LV. Better employer attitudes toward this population were found to be associated with (a) knowledge about how B/LV people perform typical work tasks and belief in their knowledge about this (even if inaccurate), (b) previous communication with vocational rehabilitation, (c) having a personal relationship with someone who is B/LV, and (d) having hired someone who is B/LV in the past (McDonnall et al., 2015; McDonnall & Cmar, 2022; McDonnall & Crudden, 2018). This research supports the idea that exposure to people with B/LV, either through employment or personal relationships, has a positive effect on attitudes toward employing them. The findings are consistent with Allport's (1954) intergroup contact hypothesis, which posits that contact with members of a minority group will reduce negative biases and stereotypes toward that group.

Researchers implemented an experimental study to investigate the impact of a meeting between a vocational rehabilitation (VR) professional and an employer on the employer's knowledge, attitudes, and intent to hire (McDonnall & Antonelli, 2020, 2022). The researchers

examined whether the vision status of the VR professional (sighted vs. blind) or the approach used (educational or relationship building – referred to as “dual customer”) influenced outcomes in a 2x2 experimental design. The dual customer approach involves treating the employer or business partner as a customer of the VR agency, in addition to the individuals with disabilities the agency serves (Anderson et al., 2006; West-Evans & Butler, 2016). The researchers found that a one-hour, one-on-one meeting was sufficient to significantly improve all outcomes. There was no significant difference in outcomes based on the approach used, and no differences were observed based on vision status for explicit (or self-reported) attitudes, knowledge, or intent to hire improvements (McDonnall & Antonelli, 2020). However, employers who met with a blind professional had greater improvements in implicit (or unconscious) attitudes (McDonnall & Antonelli, 2022).

Given that an educational approach to the meeting was effective, research was conducted to investigate the viability of a video-based educational intervention to improve employer attitudes. Researchers conducted randomized controlled trials to test the impact of viewing an interactive video about people with B/LV. Participants who viewed the interactive video exhibited large improvements in knowledge and attitudes, as well as medium-sized increases in intent to hire people with B/LV (McDonnall et al., 2025). Although benefits of in-person interactions have been identified (Akhter, 2024; Bohns, 2017; Gerber & Green, 2000; Ghoshal, 2023; Zhao et al., 2023), we believe this new research is promising, considering our perceived logistical advantages of video-based education methods compared to in-person facilitated meetings. Video-based education is affordable, more scalable, and has the advantage of ensuring consistent information delivery. In-person facilitated meetings will naturally vary in how the message is delivered, depending on the professional's presentation abilities, knowledge level, and

the emphasis they may unintentionally place on different topic areas. Interactive video-based training also allows participants to seek answers on more sensitive topics without fear of shame or concern about the appropriateness of their questions.

While the video-based educational intervention shows promise, we do not know whether one delivery approach (in-person meeting vs. video) is more effective than the other. This is an important area of research, as the adoption of virtual education and training has grown significantly since the pandemic (Gross et al., 2023). Much research in this area has focused on in-person versus online/virtual, rather than specifically video-based, training or education. Many studies, including a meta-analysis of 45 experimental studies, found little to no difference in increases in knowledge or other outcomes between in-person and online/virtual training (Benjamin et al., 2008; Cheung et al., 2023; Ichikura et al., 2024; Means et al., 2013; Neuenschwander et al., 2013). The meta-analysis did find that blended learning (a combination of online and in-person experiences) was significantly more effective than in-person only learning (Means et al., 2013). In a systematic review of nine studies that investigated the effectiveness of multiple e-learning methods (e.g., online tutorials, video recordings, virtual patient cases) for orthopedic surgery training, researchers found that three-quarters of the studies reported greater knowledge increases for e-learning approaches compared to standard teaching methods (Tarpada et al., 2016). Conversely, a recent study found that knowledge gains for a community-based healthy relationship curriculum were greater for in-person sessions than synchronous virtual training sessions (Gross et al., 2023).

In a meta-analysis, researchers evaluated 105 experimental studies that investigated the effects of video on learning in higher education and found that video-based learning resulted in a small but significantly greater increase in knowledge than other teaching methods (Noetel et al.,

2021). This increase in knowledge was even smaller, but still significant, when considering only teacher-led sessions compared to video. The study also found that adding videos to existing teaching methods (rather than replacing teaching methods with video) resulted in much stronger learning benefits. This meta-analysis focused only on college students and did not isolate video learning for comparison with in-person learning; only a few studies were identified that directly compared in-person education with video-based education. In one study, researchers compared four teaching methods (i.e., video recording, in-person teaching, live-stream teaching, and audio recording) and found no difference in participant test scores between the video recording and in-person teaching methods, although both groups had higher scores compared to the audio recording group (Tolonen et al., 2023). In contrast, researchers compared the effectiveness of identical training for emergency responders, delivered either online via video or in-person, and found that in-person training resulted in greater knowledge gains (Davidson et al., 2025).

This previous research suggests that video-based education is effective, but evidence regarding its effectiveness compared to in-person education is mixed. Given the many perceived advantages of video-based education compared to in-person education, it is important to understand the relative effects of viewing an interactive video compared to in-person meetings for employer education. As a first step, the purpose of this study is to explore the relative effects of a one-on-one, in-person meeting with a professional who is B/LV to viewing an educational, interactive video featuring people who are B/LV on improving knowledge, attitudes, and intent to hire. The research question guiding this study was: Are the effect sizes of observed improvements in outcomes when utilizing an educational, interactive video similar to those observed after one-on-one, in-person meetings?

Method

Participants and Data Collection

This study consisted of a secondary cross-study comparative analysis utilizing data from three previous experimental studies (McDonnall et al., 2025; McDonnall & Antonelli, 2020, 2022). All participants are from the three previous studies, which involved experimental investigations of two distinct interventions intended to improve knowledge and attitudes about employing individuals with B/LV. Data collection for the studies was completed using an online survey platform. Each of the studies was reviewed by the Mississippi State University Institutional Review Board. Studies 1 and 2.2 were granted an exempt determination, and Study 2.1 was approved after a full review. In all three studies, informed consent was obtained from each participant electronically at the beginning of their pretest survey.

Study 1: Professionals with In-Person Meeting

Participants. We partnered with a large financial services company in the southeastern United States to implement Study 1 (McDonnall & Antonelli, 2020). Participants were managers and human resources staff members employed by the company ($N = 59$). Eligibility criteria included being involved in making hiring decisions for the company and not having previously hired an employee who was B/LV. A company representative shared study information with potential participants, identified participants, and scheduled the intervention between the participants and a rehabilitation professional. Participants were randomly assigned to meeting times corresponding to one of four experimental conditions based on two factors: approach used for the meeting (2 levels: educational or dual customer approach), and vision status of rehabilitation professional (2 levels: sighted or blind). For the present study, we included only the 31 participants who met with the blind rehabilitation professional to incorporate the component of exposure to someone who is B/LV. Only 29 participants had data for the follow-up

survey.

Data Collection. Data was collected in late 2017. Participants completed the study measures in a pretest survey within the week before their scheduled meeting with the rehabilitation professional. Meetings were held at the partner company's offices over one week. Participants then completed the posttest survey within the next day to two weeks after their meeting, and the follow-up survey approximately four months later.

Intervention Description. The one-on-one, in-person meetings, which lasted approximately one hour, were conducted by the rehabilitation professional using one of two scripts (one for each approach type) created for the project. The educational approach script began with some brief questions about the hiring manager's position and work in the company, then focused on providing information on blindness and low vision for the remaining time. Information included general facts about blindness and low vision, how B/LV people could perform work tasks, social interaction with a person who is B/LV, and concerns an employer might have about hiring a person who is B/LV. The dual customer approach script focused on inquiring about the hiring manager's work and the positions they typically hired for, hiring needs and concerns, and other information, which allowed the rehabilitation professional to begin establishing a relationship with the hiring manager. The rehabilitation professional was directed to allow for a natural conversation and answer any questions while keeping as true to the script as possible. See McDonnall and Antonelli (2020) for more details about the Study 1 intervention.

Study 2.1: Future Hiring Professionals Viewing Interactive Video

Participants. Participants were students enrolled in upper-level human resources management courses at a university in the southeast (conceptualized as future hiring professionals; McDonnall et al., 2025). They were invited by their professor to participate in the

study for class credit. Students who declined to participate were offered alternative credit opportunities. Participants in the original study were randomly assigned by the survey platform software to one of three study conditions: two intervention groups (one that viewed the interactive video, titled *Questions About Vision Loss* (QAVL) in its entirety and one that viewed a limited version of QAVL), and a control group that viewed an interactive video about general workplace and human resources topics. For this study, we included all 95 participants who viewed QAVL in a combined group of the two intervention conditions, as the study found no differences in outcomes for the two groups (McDonnall et al., 2025).

Data Collection. Data was collected in the spring of 2023. Participants completed all study activities in the classrooms of their human resources management courses with researchers present. Researchers provided instructions according to a written protocol for all group sessions. Participants began the session by completing the pretest survey in the online survey platform, which randomly assigned and routed them to the appropriate QAVL video. Participants then independently viewed QAVL for 30 to 40 minutes (depending on their time spent on the pretest), until they were directed to stop and complete their immediate posttest survey. Participants were free to navigate QAVL and select topics of interest after viewing the introduction video, as described below. Following these initial sessions, three months later, participants completed the follow-up survey in the same classrooms.

Intervention Description. QAVL was developed to provide information about blindness and low vision and employing people who are B/LV, presented by individuals who are B/LV. We determined questions to include in QAVL with input from several sources: vocational rehabilitation professionals and college students in management classes provided insights about questions and concerns that employers have expressed or might be expected to have, and

individuals with B/LV provided questions they often get from sighted people. With this input, we identified a list of 41 questions to include and answer in the video. We then identified any appropriate existing videos that addressed the questions, created scripts for answers to other questions to be recorded by the video's host, and invited people with B/LV to provide answers to additional questions. We also recorded an introduction to the video covering the most pertinent information on blindness and low vision that we wanted all viewers to see, such as prevalent myths and facts, and alternative techniques and technology used on the job or in daily life. The content for the introduction was based on the educational script used in Study 1. We pilot tested the video with college students and adults, and made revisions based on their engagement and feedback. The final version of QAVL includes 117 individual videos that provide answers to the available questions, with several questions having multiple videos for the viewer to choose from.

QAVL starts with the approximately 14-minute introduction video segment, which can be viewed in its entirety or reduced to as little as 7 minutes, based on interactive elements within the video. After the introduction, the viewer is presented with the main menu of three topic areas to choose from: employment-related questions (e.g., What should I know about interviewing someone with vision loss?), general questions about blindness and low vision (e.g., Do all blind people read braille?), and curiosity questions (e.g., How do you perceive or experience beauty?). When the viewer selects a main topic, a list of subtopics is available, and within each of the subtopics are the lists of questions for which the viewer can select video answers. Viewers can navigate back to previous menus at any time to make other selections in any of the topics or subtopics. Individual video answers are all provided by people with B/LV, and they vary in length from 30 seconds to 5 minutes, with most being between 1 to 3 minutes in length. Total view time for the entire QAVL video is 3 hours and 43 minutes. See McDonnall et al. (2025) for

additional details about QAVL.

Study 2.2: Professionals Viewing QAVL

Participants. For Study 2.2, participants were professionals who were currently or previously involved in making hiring decisions for their organizations (McDonnall et al., 2025). We recruited participants from local area businesses, professional organizations, civic groups, and the authors' university through email invitation, event advertising, and visits to local professional and civic organization meetings. Participants were advised of the study procedures and offered a \$35 gift card for participation. Participants in the original study were randomly assigned by the survey platform software to one of two study conditions: one viewing QAVL in its entirety, and a control group, viewing an interactive video we designed similarly to QAVL, with publicly sourced video choice options related to neurodiversity in the workplace (e.g., How to empower autistic talent in the workforce). As with Study 2.1, for the purposes of this study, we included only those 32 participants who viewed QAVL.

Data Collection. Data was collected from the fall of 2023 through the spring of 2024. Data collection sessions were held in university and college campus meeting rooms, offices, and classrooms, and at participants' facilities. Group sizes ranged from individual sessions to a group of 19. Participants completed all study activities in a single session. As with Study 2.1, researchers were present for sessions and provided instructions according to the written protocol for all group sessions. Participants began the session by completing the pretest survey in the online survey platform, which then randomly assigned and routed them to the QAVL video. Participants then independently viewed QAVL for 30 to 40 minutes (depending on their time spent on the pretest), until they were directed to stop and complete their immediate posttest survey. Participants were again free to navigate QAVL and select topics of interest after viewing

the introduction video.

Intervention Description. The interactive video intervention for Study 2.2, QAVL, was the same as described for Study 2.1.

Measures

The pretest surveys for each of the three studies included questions about basic demographics and hiring experiences, and provided a definition of the terms used (i.e., “legally blind,” “vision loss”), and that these terms included people with a range of low vision to complete blindness. Participants completed the following knowledge and attitude outcome measures at all data collection time points for each respective study.

Task Knowledge

We assessed knowledge about how people with B/LV could complete five common work tasks. Participants were first asked to respond yes or no to whether they knew how a person with B/LV could accomplish particular work-related tasks, such as use a computer for email, internet, or standard software. Participants who responded yes were asked to specify how the person could perform the task. Responses were then scored for accuracy using an established rubric from previous studies using these items (McDonnall et al., 2014; McDonnall & Crudden, 2018), that was updated as needed based on technology changes at the time of data collection. Three researchers independently scored the responses while remaining unaware of group assignment or testing time point. Scores were compared, and the researchers discussed any discrepancies to reach consensus. Responses for the five items were scored from 0 to 2 points, with 2 points for complete, correct responses and 1 point for partially correct responses; total scores could range from 0 to 10.

Employer Attitudes Toward Blind Employees Scale (EABES)

The EABES (McDonnall, 2014a, 2017) measures explicit attitudes (i.e., attitudes that a person is aware of and can express) toward blind people as employees. This scale includes 11 Likert agreement scale items with statements such as, “People with vision loss would be able to perform work of the same quantity as sighted people at my company.” Participants rate their agreement on a 0 to 6 scale, from *Strongly Agree* to *Strongly Disagree*, and responses are summed for a possible range of scores from 0 to 66, with higher scores indicating more positive attitudes. The EABES’s evidence for validity is based on confirmatory factor analyses and high internal consistency reliability for its two subscales, one regarding the productivity of employees who are B/LV (.92), and one regarding potential difficulties of hiring an employee with B/LV (.84) (McDonnall, 2017; McDonnall & Cmar, 2022).

Implicit Association Test – Blind/Visually Impaired (IAT-BVI)

The IAT-BVI (McDonnall & Antonelli, 2018) measures implicit attitudes (i.e., attitudes that are unconscious or that a person may not be aware of) about the competence of blind people. Implicit association tests (IATs) measure the degree of bias, or automatic associations, a person may have regarding a group or idea (e.g., gender) related to an evaluation or attribute (e.g., science career). IATs use a timed sorting task that is performed on a computer, where participants quickly sort a displayed image or word into categories using assigned keys on a keyboard. The premise of the IAT is that the more quickly a person can sort two categories together to the same assigned key (e.g., man/science) compared to the opposite pairing (woman/science), the stronger the association or bias toward that pairing is believed to be. The IAT-BVI was developed using eight images of blind or sighted people in natural settings to be sorted with eight individual words that describe competence or incompetence. IAT scores are created by measuring the participant’s reaction times for the sorting task and creating a

difference score (D), which ranges from -2 to 2. Values closer to zero indicate less bias in either direction, and closer to 2 indicate greater bias or more negative attitudes regarding the pairing in question (i.e., in this case, the competence of a blind person). For Study 1, we partnered with the creators of the IAT (Greenwald et al., 2003) at Project Implicit to host and score the IAT-BVI on their digital platform, which participants completed along with their online survey. For Studies 2.1 and 2.2, we used open-source tools available from iatgen.org (Carpenter et al., 2019) to embed the IAT-BVI in our online survey software and to score the data.

Intent to Hire

We assessed participants' level of intention to hire a person with B/LV using a modified instrument from a previous study (Fraser et al., 2011) based on Ajzen's (1991) Theory of Planned Behavior. The measure instructs participants to assume a qualified B/LV applicant has applied to their company and rate three items on a numerical scale with anchors of *Unlikely* to *Likely*. Items include statements such as "I am ready to hire an individual who is blind or has low vision." In Study 1, responses were provided on a scale from 0 (*Unlikely*) to 7 (*Likely*). In Studies 2.1 and 2.2, responses were provided on a scale from 0 (*Unlikely*) to 6 (*Likely*), for a possible range of scores from 0 to 18. To enable mean and standard deviation (SD) comparisons between Study 1's 0-7 scale and Study 2.1 and 2.2's 0-6 scale, Study 1's scores were linearly rescaled to a 0-6 metric (all means and SDs multiplied by 6/7). Standardized effect sizes are unaffected by the difference in scale. Higher scores indicated a higher level of intent to hire. Internal consistency reliability was high (.91) for this measure, and confirmatory factor analysis provided evidence for its validity (McDonnall & Lund, 2019).

Data Analysis

Data analysis was conducted with SAS 9.4 software. Repeated measures analysis of

variance (ANOVA) tests calculating within-person change over time were completed, comparing pretest scores to posttest scores (Study 1 vs. Study 2.2) or pretest scores to posttest and follow-up scores (Study 1 vs. Study 2.1). Effect sizes, specifically partial eta squared (η^2) values, and their 90% confidence intervals were calculated based on sums of squares results from the ANOVAs. Partial η^2 values and confidence intervals were examined to compare effect sizes between Study 1 and (a) Study 2.1 and (b) Study 2.2. If the confidence intervals did not overlap, there was a significant difference between the effect sizes of the two studies.

Results

Participant Characteristics

Participants' gender, race, and ethnicity are provided in Table 1. Information on age was collected in a categorical format for Study 1: 6.5% of participants were aged 25 to 34, 29.0% were 35 to 44, 16.1% were 45 to 54, and 48.4% were 55 to 64. For Study 2.1, ages ranged from 18 to 28 years, and their average age was 21.15 ($SD=1.61$). For Study 2.2, ages ranged from 30 to 79 years, and their average age was 43.31 ($SD=11.58$).

Study 1 versus Study 2.1

Comparisons between Study 1 and Study 2.1 were based on measurements at three time points (pre, post, and follow-up). Participants who met with a blind rehabilitation professional in Study 1 had significant improvements in Task Knowledge ($F(2,56) = 3.87, p = .03$), EABES scores ($F(2,56) = 10.99, p = .001$), Intent to Hire ($F(2,56) = 3.26, p = .046$), and improvements that closely approached significance in IAT-BVI scores ($F(2,54) = 3.14, p = .05$). Participants who viewed QAVL in Study 2.1 had significant improvements in Task Knowledge ($F(2,188) = 59.41, p < .0001$), EABES scores ($F(2,188) = 85.25, p < .0001$), Intent to Hire ($F(2,188) = 29.41, p < .0001$), and IAT-BVI scores ($F(2,168) = 6.10, p = .03$). Means, standard deviations, and

effect sizes (partial η^2) with 90% confidence intervals are provided in Table 2. The Task Knowledge effect size for QAVL was larger than for the in-person meeting; there were no significant differences for the effects associated with the three other variables.

Study 1 versus Study 2.2

Comparisons between Study 1 and Study 2.2 were based on measurements at two time points only (pre, post). Participants who met with a blind rehabilitation professional in Study 1 had significant improvements in Task Knowledge ($F(1,30) = 5.72, p = .02$), EABES scores ($F(1,30) = 14.49, p < .001$), Intent to Hire ($F(1,30) = 6.89, p = .01$), and IAT-BVI scores ($F(1,29) = 4.54, p = .04$). Participants who viewed QAVL in Study 2.2 had significant improvements in Task Knowledge ($F(1,31) = 26.14, p < .0001$), EABES scores ($F(1,31) = 25.30, p < .0001$), and Intent to Hire ($F(1,31) = 10.98, p = .002$). Their IAT-BVI score changes were not statistically significant ($F(1,31) = 2.48, p = .13$). Means, standard deviations, and effect sizes (partial η^2) with 90% confidence intervals are provided in Table 3. There were no significant differences in effect sizes for any of the outcome variables.

Discussion

This exploratory study examined the magnitude of improvements observed in three experimental investigations involving two distinct interventions designed to achieve a common objective: enhance participants' knowledge of and attitudes toward the employment of individuals who are B/LV. We utilized effect sizes, specifically partial η^2 , to make comparisons. Study 1 involved a one-on-one, in-person meeting with a blind rehabilitation professional (McDonnall & Antonelli, 2020, 2022), while Study 2 involved viewing an interactive video (QAVL) featuring a blind professional and other B/LV people answering common questions about B/LV (McDonnall et al., 2025). The previous studies documented that both interventions

were effective, and we wanted to explore and compare the size of the effects associated with each approach.

The present study did, in fact, find that the effect size estimates for the improvements in four outcome measures were not significantly different, with one exception: the task knowledge effect size associated with QAVL viewing was significantly larger than that of the one-on-one, in-person meeting when evaluating effects over time. A potential reason for the greater knowledge gain of QAVL viewers is that the meetings were not all solely focused on providing education. Approximately half of the meetings utilized a relationship-building approach rather than an educational approach, as discussed in detail in McDonnall and Antonelli (2020). Although most differences were not statistically significant, effect size estimates were noticeably larger for QAVL viewers than for meeting participants for three of the four outcome measures. Small sample sizes led to low precision in the estimates and relatively wide confidence intervals, particularly in Study 1 and Study 2.2.

Several benefits of in-person interactions over virtual ones have been suggested, such as better communication, enhanced ability to build relationships and trust, greater persuasive power, and improved concentration and participation (Akhter, 2024; Bohns, 2017; Gerber & Green, 2000; Ghoshal, 2023; Zhao et al., 2023). Although only one study in an adult learning context was identified that found in-person delivery to be more effective than video-based training (Davidson et al., 2025), there are a number of reasons that a one-on-one, in-person meeting might be more effective than an interactive video for educating employers about blindness and low vision. The rehabilitation professional has the opportunity to make a personal connection when meeting employers, and the interaction and information provided can be tailored to the individual. For example, if the employer were a bank manager, the rehabilitation professional

could focus on education about how blind people perform work tasks specific to typical banking positions. The rehabilitation professional can also address the employer's specific concerns that may arise during the meeting.

Despite these advantages, our findings suggest that the QAVL interactive video may be as effective as an in-person meeting at improving our specific outcome measures. Our findings are consistent with previous research that either found no difference between video-based and in-person learning or a slight benefit to video-based learning (Noetel et al., 2021; Tolonen et al., 2023). There are several potential advantages to using a video-based intervention. QAVL includes the basic educational information meant to be imparted during the in-person meeting, plus answers to many other common questions people have about B/LV. The viewer can focus on receiving answers to the questions of most interest to them. The viewer also has the opportunity to be exposed to more B/LV people in the videos, as opposed to just one B/LV person in the meeting (or none if the rehabilitation professional is not B/LV). Finally, the anonymity of viewing the video, compared to an in-person meeting with an unknown individual, may allow the person to be more relaxed and absorb more information because they are not managing a social interaction at the same time, as suggested by studies documenting lower cognitive load, or better cognitive load control, for video-based education (Fan et al., 2024; Noetel et al., 2021; Schneider et al., 2018; van Gog et al., 2005).

Limitations and Future Research Directions

The limitations of this study should be acknowledged. We compared the effect size estimates of separate studies with different sample populations, conducted years apart, rather than a single experimental study that directly compared the two approaches. Although two of the studies included managers or professionals involved in hiring decisions, the study with the

largest sample included college students who we expect will become future hiring professionals. These sample differences could be associated with different baseline knowledge, experiences, and responses to the interventions. The substantial time between the data collection periods of the studies could be associated with cultural shifts in attitudes and knowledge, and advancements in assistive technologies available to B/LV certainly occurred during this period. In addition, being separate studies, aspects of the studies did not align exactly: the length of the interventions was different (in-person meeting lasted one hour and QAVL interaction lasted 30 to 40 minutes), and the length of time between post-test and follow-up was different (approximately 4 months for Study 1 and 3 months for Study 2.1). All of these limitations constrain the generalizability of our findings. The statistical approach used – comparing partial η^2 effect sizes and their confidence intervals across independently conducted studies – cannot account for these differences. Effect size comparisons of this kind are hypothesis-generating rather than confirmatory, and should not be interpreted as equivalent to a direct statistical test of intervention effectiveness. Finally, given that our study used a secondary cross-study comparative approach and the studies did not match in several respects, our results are not definitive but simply provide support for the idea that the two approaches have a similar effect.

An experimental study directly comparing the two employer education approaches is needed to provide evidence that one approach is more effective than the other. Given the popularity of video and the advantages already outlined for utilizing a video to provide employer education, we believe that research in this area is warranted. The population for additional research should include people who are actively involved in making hiring decisions for their organizations. Ideally, future research could go beyond the survey-based outcomes used in these studies and evaluate the actual hiring of B/LV individuals following employer education

interventions. Additionally, professionals who support the hiring of people with other types of disabilities may consider creating educational, interactive videos to utilize with employers and evaluating their effectiveness.

Implications for Practitioners

Our findings suggest that one-on-one, in-person meetings are not the only means to increase knowledge and improve employers' attitudes about hiring people who are B/LV. A one-on-one, in-person meeting with a rehabilitation professional and viewing the QAVL interactive video were both effective at increasing knowledge and improving attitudes about hiring people who are B/LV. We recommend that rehabilitation professionals who work to promote the hiring of people with blindness or low vision utilize QAVL in their interactions with employers. Prior research suggests that utilization of videos, in *addition to* traditional educational methods, provides the most benefit (Means et al., 2013; Noetel et al., 2021). Thus, professionals may have greater success if they utilize QAVL in addition to traditional one-on-one meetings with employers to promote the hiring of people with B/LV.

Building relationships with employers is recognized as an effective strategy for rehabilitation professionals to encourage the hiring of individuals with disabilities (Anderson et al., 2006; Luecking, 2008; Wehman, 2017; West-Evans & Butler, 2016), and long-term relationships can lead to hiring multiple individuals over time. QAVL cannot replace relationship building, but it can be used as a valuable tool to support interactions with employers. For rehabilitation professionals who work with individuals with a wide variety of disabilities and do not know much about B/LV, it offers employer education that the professional may not feel confident providing due to limited experience with the population. Most rehabilitation professionals are sighted; thus, their interactions with employers will not provide exposure to

people who are B/LV, which, according to the contact hypothesis (Allport, 1954; Pettigrew & Tropp, 2006) and supported by this research and other research (McDonnall, 2014b; McDonnall et al., 2013), is important. For them, QAVL offers an easy, convenient way to provide employers with vital exposure to this population.

In reality, there are a limited number of vocational rehabilitation professionals who work with people who are B/LV and who have the expertise and the time to develop relationships with employers. Education for employers is essential, as research has repeatedly documented that employers have more concerns about hiring people who are blind than people with other disabilities (Chen et al., 2016; Gilbride et al., 2000; Goodman et al., 2024; Inglis, 2005). For rehabilitation professionals with limited time for these efforts, QAVL could be an invaluable resource to share with employers to provide education and improve attitudes. It is also a resource that employers could seek out and utilize on their own when considering an applicant who is B/LV.

Practitioners can consider several other potential uses for QAVL beyond encouraging employers to hire people who are B/LV. The video could be useful to coworkers of a new B/LV employee who are not knowledgeable about blindness/low vision to help them feel more comfortable (if necessary) and discreetly obtain answers to their questions. Additional audiences that may benefit from viewing QAVL are professionals from other fields who interact with B/LV people (e.g., health care providers, counselors, teachers) and family members. QAVL is available on the National Research and Training Center on Blindness and Low Vision website at <https://www.blind.msstate.edu/questions-about-vl>. We encourage professionals to utilize the video to provide education to employers and other audiences. We also welcome feedback, both in terms of how the video can be improved and how you find it to be useful.

Disclosures and Statements

Funding: The contents of this manuscript were developed under a grant from the U.S. Department of Health and Human Services, NIDILRR grant 90RTEM0007. However, these contents do not necessarily represent the policy of the Department of Health and Human Services and should not indicate endorsement by the Federal Government.

Ethics statement: The Mississippi State University's Institutional Review Board for the Protection of Human Subjects in Research (IRB) reviewed the research studies from which the data used in this article were collected. Two studies were determined to be exempt from IRB oversight and one study was given a full board review and approved.

Conflicts of interest: We have no known conflict of interest to disclose.

Use of artificial intelligence: AI was used to find relevant articles for the literature review. All articles were reviewed by the lead author before being cited.

Data availability: Data will be made available upon request.

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Table 1*Participant Demographic Characteristics for Study 1, Study 2.1, and Study 2.2*

Variable	Study 1		Study 2.1		Study 2.2	
	<i>(n = 31)</i>		<i>(n = 95)</i>		<i>(n = 32)</i>	
	<i>n</i>	%	<i>n</i>	%	<i>n</i>	%
Gender						
Female	23	74.2	48	50.5	23	71.9
Male	8	25.8	47	49.5	9	28.1
Hispanic or Latino	–	–	6	6.3	1	3.1
Race ^a						
White	24	77.4	82	86.3	28	87.5
Black or African American	7	22.6	10	10.5	4	12.5
Asian	–	–	4	4.2	–	–
American Indian or Alaska Native	–	–	1	1.1	–	–
Native Hawaiian or Other Pacific Islander	–	–	1	1.1	–	–

Note. A dash (–) in the column indicates no participants in that category.

^a Instructions for race indicated to select all that apply, so total *n* and % may exceed 100%.

Table 2*Study 1 versus Study 2.1: Means, Standard Deviations, and Effect Sizes for ANOVA Results*

Variable	Mean (SD) Pre	Mean (SD) Post	Mean (SD) Follow-up	Partial η^2	90% CI
Task Knowledge					
Study 1 ^a	1.00 (1.16)	1.79 (1.82)	1.38 (1.59)	.121	(.008, .241)
Study 2.1 ^b	0.66 (1.41)	3.05 (2.36)	2.21 (2.56)	.387	(.295, .459)
EABES					
Study 1 ^a	33.10 (9.61)	37.66 (8.68)	38.52 (9.63)	.282	(.112, .408)
Study 2.1 ^b	30.13 (11.11)	41.76 (11.08)	38.11 (11.21)	.476	(.389, .541)
IAT-BVI					
Study 1 ^c	0.81 (0.32)	0.61 (0.33)	0.66 (0.36)	.104	(.000, .222)
Study 2.1 ^d	0.67 (0.45)	0.54 (0.35)	0.56 (0.35)	.068	(.015, .129)
Intent to Hire					
Study 1 ^a	7.98 (3.79)	9.55 (3.34)	8.92 (3.94)	.104	(.001, .220)
Study 2.1 ^b	7.27 (3.90)	9.89 (4.29)	9.91 (3.88)	.238	(.150, .315)

^a *N*=29. ^b *N*=95. ^c *N*=28. ^d *N*=85.

Table 3*Study 1 versus Study 2.2: Means, Standard Deviations, and Effect Sizes for ANOVA Results*

Variable	Mean (SD) Pre	Mean (SD) Post	Partial η^2	90% CI
Task Knowledge				
Study 1 ^a	0.97 (1.14)	1.71 (1.79)	.160	(.012, .344)
Study 2.2 ^b	1.94 (2.29)	4.56 (3.16)	.458	(.228, .600)
EABES				
Study 1 ^a	33.74 (9.73)	38.39 (8.86)	.326	(.106, .496)
Study 2.2 ^b	41.31 (12.68)	49.34 (10.28)	.449	(.220, .594)
IAT-BVI				
Study 1 ^c	0.80 (0.32)	0.62 (0.33)	.135	(.003, .320)
Study 2.2 ^b	0.56 (0.46)	0.42 (0.39)	.074	(.000, .241)
Intent to Hire				
Study 1 ^a	8.07 (3.69)	9.65 (3.26)	.187	(.023, .371)
Study 2.2 ^b	9.50 (4.22)	11.66 (3.95)	.262	(.064, .438)

^a $N=31$. ^b $N=32$. ^c $N=30$.