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From Face-to-Face to Virtual Instruction: Developing Competencies to Administer a Standardized Assessment During COVID-19

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Abstract

The public health response to the COVID-19 pandemic necessitated that face-to-face (F2F) teaching and learning strategies be adapted to the virtual environment. This article describes a 7-step method successfully used to rapidly adapt an established and valid 4- to 6-week F2F training program into a 10-week virtual format for prospective SIS-A assessors to develop assessment competencies. Strategies used to validate the adapted curriculum, instructional materials, instructional strategies, and guidance materials are discussed, as are the perspectives of the inaugural virtual training cohort. The evidence for and implications of greater adoption of technology in social work teaching, learning, and practice are considered.

Keywords: training, virtual, adapt, assessment, technology, SIS-A, supports

Introduction

While online learning has increased dramatically for social work students (Dillingham & Mitchell, 2019; Gibson & Carroll, 2019) and professionals (Ausbrooks & Travis, 2017; Lambert, 2020), the COVID-19 pandemic of 2020 accelerated the adoption of virtual mechanisms to provide preservice training and professional development in the field (Kourgiantakis & Lee, 2020). The technological transformation of social work education had begun taking shape prior to the pandemic (Campbell, Lucio, & Abel, 2019) with the acknowledgement of emerging best practices to virtually engage learners and achieve learning goals (Farrel et al., 2018). Broadly, the strategies for virtual education are either *synchronous*—that is, occurring in real time, with the possibility of live student–instructor interaction—or *asynchronous*—that is, taking place through learning activities in which instructors and students are not simultaneously present. In their meta-analysis, Farrel et al. (2018) reported that there is substantial evidence that virtual education is optimized by integrating both strategies,

with asynchronous activities providing opportunities to reflect, analyze, and apply new knowledge and synchronous activities offering occasions to motivate and engage students and promote critical thinking.

The Council on Social Work Education's (CSWE) educational and accreditation standards describe the core competences that all social workers must have (CSWE, 2015). Several studies have demonstrated (a) the efficacy of virtual education in developing these core social worker competencies (Joiner, 2018; McCulloch, Cuckler, Valdes, & Hughes, 2020), (b) the advantages of team teaching (Camp & Egbert, 2018), and (c) what strategies create a feeling of cohesion among students in distance education (Miles, Mensingan, & Zuchowski, 2018).

Virtual training can be effective in promoting mastery of new and complex material. Moskaliuk, Bertram, and Cress (2013) demonstrated that virtual training can effectively support knowledge acquisition for complex tasks that require team collaboration. Fairburn, Allen, Bailey-Straebler, O'Connor, and Cooper (2017) demonstrated that clinicians can gain new competencies through web-based training, and the American Association on Intellectual and Developmental Disabilities (AAIDD) demonstrated that social workers and other disability professionals who were trained virtually to administer a support-need assessment remotely performed assessments with equivalent fidelity and reliability to those who received face-to-face (F2F) training and performed the assessment F2F (Thompson, Carlson, & Shaw, 2020).

Assessment Tool

AAIDD is the oldest and largest professional association concerned with intellectual and developmental disabilities. Through its three peer-reviewed journals, catalog of books and assessment tools, and educational programs, AAIDD engages its multidisciplinary members, the public, and other

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leaders within the disability community on issues that are important to people with disabilities and their families. One assessment tool published by AAIDD is the *Supports Intensity Scale—Adult Version*[®] (SIS-A[®]; Thompson et al., 2015). The SIS-A is a valid, reliable, standardized, and widely used assessment tool designed to measure and describe the pattern and intensity of supports that a person with intellectual and developmental disabilities (IDD) age 16 years or older needs to be successful in community settings. The assessment is performed via a semi-structured interview with at least two people who know the individual well (respondents); the individual with IDD is encouraged to participate in the interview, which typically takes 2 to 3 hours to complete, and results in a quantitative profile of supports across six life domains. Collectively, scores from these six domains provide a composite standard score which identifies the individual's level or intensity of support needs. The SIS-A also collects important, but not standardized, information about any (a) exceptional medical and behavioral issues and (b) strategies used to advocate for and protect themselves.

Each year, approximately 46,000 SIS-A assessments are conducted by more than 700 qualified assessors across 21 U.S. states and Canadian provinces. One motivation for jurisdictions to conduct large-scale assessment programs is to create “an evidenced-informed and logically defensible basis for estimating the distribution of public funds (i.e., resource allocation) that are available to provide services and supports for people with IDD” (Thompson, Schalock, and Tassé, 2018, p. 3). AAIDD provides its standardized SIS-A assessment training at the invitation of jurisdictions (states or provinces) or agencies while incorporating references to their unique acronyms, systems, and policies.

The SIS-A is a tool that meets the requirements for periodic, evidence-based assessment of individuals for Medicaid-funded services. Shogren, Thompson, Shaw, Grandfield, and Hagiwara (2018) have demonstrated the stability of SIS-A scores across a two- to three-year period in adults with intellectual and developmental disabilities. AAIDD recommends that individuals should be reassessed approximately every three years unless substantial changes in the person's

life would prompt a reassessment of support need; and in the years between assessments, support needs should continue to be monitored and documented. Because SIS-A scores, in conjunction with other variables, may be used in making funding decisions that may span one or more years, it is vital that the assessments are properly performed and that reassessments occur on time or in response to substantial life changes.

To assure that SIS-A assessments provide reliable measures of support needs, prospective assessors must complete and pass a standardized training protocol developed and copyrighted by AAIDD. The training protocol is designed to build discrete competencies in assessment and use of the tool itself through group classroom-style instruction, study of material review, small-group guided practice in use of the assessment, independent practice, and performance of an assessment with sufficient skill and fidelity to receive a qualification level (novice, beginner, qualified, or advanced). In addition, all SIS assessors must requalify annually to maintain their recognition as qualified assessors.

To maintain a cadre of sufficient size to meet the needs of states and provinces for qualified assessors, each year approximately 350 new assessors must be trained, and all other assessors requalified. All SIS-A trainings, annual requalifications, and assessments were performed entirely F2F prior to the pandemic; however, the inadvisability of F2F activities following the COVID outbreak in early 2020 created an urgent need to pivot SIS-A training and assessment practices. To ensure that an adequate number of qualified assessors continued to be available to jurisdictions, AAIDD needed to rapidly develop, implement, and validate an effective virtual instructional program to build discrete competencies among prospective assessors and to develop guidelines for standardized, remotely conducted SIS-A assessments.

F2F Training Program

The F2F assessor training program consists of interactive group and individual educational sessions presented in three phases—orientation, guided practice, and qualification—conducted over 4 to 6 weeks; the training schedule is influ-

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enced by variables such as the size of the training cohort, trainer availability, holidays, and inclement weather. The size of the cohort drives the number of trainers used; team teaching is used with a cohort of 15 or more. The learning goals are to develop prospective assessors' knowledge and competencies to ensure that they will accurately perform the standardized assessments. The benefit of developing and deploying competent and qualified assessors is that reliable SIS data can be gathered, which may then be used to meaningfully inform support planning at the individual level and inform funding decisions at the jurisdictional level.

Phase I (Orientation) is conducted in a classroom setting using lectures and small-group activities across three days. Instruction for the first two days introduces (a) content and the philosophy and values underpinning the concept of support need and (b) standardized assessment administration protocols. The third day uses small-group activities to apply new knowledge and promote the development of competencies in standardized assessment.

Phase II (Guided Practice) is conducted on a one-to-one or small group-basis in 4-hour-long sessions to prepare trainees to conduct independent practice assessments, generally over 1 to 2 weeks. Coaching is used to develop effective communication styles, assessment skills, and interview techniques and to instill accuracy in scoring and score interpretation. Participants take turns administering elements of the assessment, followed by a debriefing session for trainees to reflect, ask questions, and anchor their new knowledge and insights. Following this phase, 2 to 3 weeks are set aside for trainees to conduct at least four independent practice interviews to gain experience with a greater diversity of interview scenarios and respondents. One-to-one coaching is provided via email or conference call.

Phase III (Qualification) consists of a 4-hour session that includes a 1-hour-long preliminary one-to-one coaching session with the trainer to address any concerns or questions that arose during the independent practice assessments and to clarify the expectations and requirements for successful performance on the final evaluation. Following the coaching, the trainee then inde-

pendently administers the assessment under observation and participates in a debrief where the trainer reviews their observations on the assessment and provides their evaluation of the competencies demonstrated by the trainee.

Broadly, the competencies required for qualification to administer SIS-A assessments are the demonstration of (a) effective and appropriate interview techniques and facilitation skills and use of ratings, core concepts, and assessment mechanics and (b) proficiency in eliciting valid and reliable data from respondents and facilitating inter-respondent agreement on individual items. Following the completion of Phase III, assessors may be qualified at the novice, beginner, qualified, or advanced levels.

Method

The training program described above was rapidly adapted from an F2F to a virtual format using a seven-step process that included input from content experts, multi-pronged validation of software, curriculum modification, and newly developed instructional materials. Steps 1–5 were accomplished in only 4 weeks. The reliability and validity of the assessments conducted remotely by those trained virtually were established through an independent study (Thompson et al., 2020). The steps and strategies used to adapt the training program are described below.

Step 1: Planning and Decision-Making

The training team first developed an overarching project plan and timeline to guide the work of adapting the F2F training and launching the virtual training. The team responsible for the F2F training program held a series of meetings to determine how to adapt the program's essential training activities to the virtual environment. First, the team considered and determined the optional virtual instructional strategies for the program, including adjustments to the curriculum timeline, introduction of team teaching, and adaptation of instructional materials. The team determined that the virtual training program could be delivered in 10 weeks (the F2F program is delivered over a 4- to 6-week period). Next, the team considered various learning management systems (LMSs), video-conferencing platforms, and instructional design modules and identified the best

fits to support the virtual training program. Finally, the initial plan for the delivery of the virtual training program was reviewed and revised to accommodate the evolving COVID-related concerns.

Step 2: Establishing Ease of Use

The LMS selected for the virtual training, Schoology, was chosen for its accessibility, utility, and success in schools and higher education institutions. In addition, Schoology supports team teaching, offers multiple learning delivery modalities, and can track attendance, grading, and notifications. Tutorial mock-ups and resources were uploaded to the LMS, and its features were tested from the perspective of trainees and determined by the training team to be easy to use. Management personnel from the agency that would be the first recipient of the virtual training program were also recruited to test the LMS for its ease of use. The agency staff's independent confirmation of the LMS's ease of use validated the choice of the platform for use with prospective assessors.

Step 3: Transforming Instructional and Content Delivery

The F2F curriculum, materials, and educational strategies have resulted in the production of highly qualified and reliable assessors (Thompson et al., 2015). The five-phase ADDIE (analyze, design, develop, implement, evaluate) instructional design model (Patel, Margolies, Covell, Lipscomb, & Dixon, 2018), influential in the F2F training, was used as a framework to adapt and optimize the instructional strategies and materials for the virtual environment. In addition, the ADDIE framework was used to respond to the virtual training needs of prospective trainees, many of whom verbalized a preference for F2F training and a lack of self-confidence with virtual learning, as reported by agency management staff. The ADDIE instructional design model was supplemented with the additions of "Peace Rooms" (like group office hours) and small group sessions.

Anderson, Airasian, Cruikshank, and Rath (2001) suggested that to maintain trainees' continued engagement in learning across a 10-week period, significant adaptations to training content and its presentation would be essential. Examples of adaptations include additional reading materials and demonstration videos and the introduction

of knowledge check-ins after each training module.

Step 4: Developing Guidance Documents

The team developed new guidance documents and scripts to introduce the LMS to trainees and to increase the comfort of both trainees and respondents with the video-conferencing platform (Zoom). Zoom was selected as a matter of convenience; AAIDD already had the platform licenses and trainees were at least familiar with the software through their employer. Examples of these documents include an introduction script, an assessor checklist for guided practices and qualifications, and guidance for conducting virtual interviews. On the basis of their individual experiences as trainers, training team members determined that guidance documents would be helpful to (a) clarify and define frequently used terms distinguishing different interview formats (in-person, virtual, remote) and communication modes (video conference, teleconference, online platforms) and (b) guide document sharing; scheduling; preparation of respondents for the virtual structured interview; and ensure the performance of assessor tasks before, during, and after the interview. Following the development of draft guidance documents, feedback and validation on their clarity, appropriateness, and likely usefulness were secured from a cohort of recently trained assessors.

Step 5: Orienting the Inaugural Cohort of Virtual Trainees

Prior to introduction of the curriculum, instructors facilitated a 2-hour orientation webinar to review Schoology and Zoom platforms; engage trainees; and prepare trainees for the program's 10-week, three-phase virtual training program.

Step 6: Delivering the Inaugural Training Program

A group introductory meeting was held at the beginning of each training phase, and a weekly Peace Room meeting provided a forum for trainees to clarify their understanding of content and techniques. The Peace Room also promoted engagement, social interaction, and cohort cohesion. The virtual training program's phases are described below.

Phase 1: Orientation. Phase 1 was delivered across a 2-week period. For Week 1, the entire

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cohort attended two 2-hour-long instructional presentations each day of the workweek. For Week 2, the cohort broke into small groups; each small group met for two 2-hour-long interactive and experiential learning sessions each day of the week.

Phase 2: Guided practice. Phase 2 was delivered across a 3-week period. The training team scheduled two or three guided practice sessions each weekday for small groups. For each 2½-hour guided practice session, the instructor coached trainees to develop their skills and competencies in conducting virtual SIS-A assessments. Between Phases 2 and 3, trainees were required to complete at least four independent practice assessments with the SIS-A.

Phase 3: Qualification. Phase 3 was delivered across a 4-week period, with a similar schedule and format to Phase 2. In Phase 3, each trainee conducted a virtual SIS-A assessment independently while observed and rated by a trainer, who then debriefed the trainee and awarded them their qualification level. Preliminary group meetings and debriefs were included with each training phase.

Step 7: Evaluating the Training

A post-training evaluation survey was completed by trainees (with a 97% response rate), validating the effectiveness of several adaptations made for the virtual format. The 40-person training cohort consisted of social workers and other disability professionals, of which 32 were new trainees, five were previously trained assessors, and three were management representatives of the agency. Thirty-six (90%) trainees identified their role as being assessors, 5% identified as managers, and 5% did not respond. Within the cohort, 73% identified as female, 15% as male, and 12% did not report a gender. Thirty-eight percent (38%) were between the ages of 25 and 34 years, 38% were between ages 35 and 44, 21% were between ages 45 and 54, and 3% were over age 55 or did not report an age. Regarding their highest level of education, 69% reported holding a bachelor's degree, and 31% reported holding a master's degree.

Post-training survey responses overwhelmingly endorsed satisfaction with (a) pretraining activ-

ities, where 82% found communication of training goals and objectives before the start of the course helpful; (b) course structure, where 71% found the course's flow and sequences and separation between course phases to be helpful; and (c) their engagement in the training phases: Orientation (79%), Guided Practice (89%), and Qualification (92%). The majority of respondents (over 80%) approved of the course content and course delivery mechanisms, and over 90% of respondents rated the skills of the instructors to be good or excellent. While over 75% of respondents indicated that the LMS was easy to use, a notable 62% reported they did not care for the amount of time spent learning to use the LMS platform. Responses to two open-ended questions on what was most- and least-liked in the virtual training program confirmed the quantitative responses: respondents overwhelmingly favored trainers' knowledge, skills, and qualities, and indicated a dislike of learning how to use Zoom and Schoology.

A four-part question asked respondents to reflect on any differences between their expectations and the reality of the learning experience. Interestingly, while 17% of trainees indicated that they would not take another virtual course, 92% reported that they achieved the program's overall learning goals, 92% reported that their knowledge and skills had improved because of the course, and 74% reported that their expectations were fulfilled.

Finally, the qualification rates from this virtual training program were compared with those of a F2F training program performed in 2017 with a similar training cohort employed by the same agency. The qualification distribution levels (novice, beginner, qualified, or advanced) and qualification rates from the virtual and F2F trainings were nearly identical (93% and 94%, respectively). Although not evaluated, the confidence of trainees in their ability to conduct the SIS-A assessment itself, regardless of the training format, is assumed to reflect their resultant qualification level. While this one example is not sufficient to draw any conclusions, the consistency of the qualification rates observed across the training formats seems promising.

It is also interesting to note that informal feed-

back from trainers indicated that their transition from F2F teaching to a virtual teaching was more time intensive than anticipated as it required them to master virtual teaching strategies, become familiar with virtual teaching aids, and more intentionally manage their own time and self-care in response to the demands of learners who were less confident in a virtual training environment. Trainers also reported finding teaching online to be more stressful than F2F and noted difficulties in setting and respecting self-imposed boundaries for “quitting time.”

Discussion

There is a growing body of literature on the use of technology in social work education. The implementation and initial outcomes of this rapid adaptation of an F2F training program into a virtual format represents an early implementation of the growing evidence base. The seven-step adaptation process described here resulted in a virtual training program that built discrete competencies among prospective assessors. Some reflections on the use of technology for effective teaching, learning, and practice, and the practical implications for social workers and others, are as follows:

- In the virtual training environment, as with F2F teaching, learning styles vary widely, and some trainees will require more individualized teaching strategies than will others to achieve desired learning outcomes. To sustain trainee engagement and accommodate different learning styles, a variety of instructional activities and techniques are essential to the effective delivery of virtual training. In addition, as in F2F training, a variety of strategies are needed in the virtual environment to support trainees in mastering complex content and demonstrating competencies.
- Synchronous instructional activities, in addition to their proven techniques to transfer knowledge and build rapport, are valuable in maintaining constancy across episodes of asynchronous learning. In particular, the small-group instruction and debriefings and the Peace Room described in this adaptation were beneficial in preventing or redirecting learning drift among trainees.
- The virtual training environment can be structured to effectively model and coach

competencies. As described above, easily available electronic platforms were used to develop competencies in engagement, facilitation, professionalism, professional judgment, and critical thinking among trainees in the virtual environment.

- Team teaching is particularly suited to the virtual environment; not only does an instructional team offer greater flexibility in scheduling small-group and one-to-one activities, but the approach is also scalable. The schedule of the training program can be easily maintained with small and large cohorts alike by adjusting the number of trainers, thus maintaining a low trainee-to-trainer ratio and advancing trainees’ investment and involvement in their own learning process.
- Virtual teaching formats have the potential to lead to instructor burnout unless the parameters for trainee engagement are clarified. In particular, trainers and trainees must have the same expectations for instructor access and availability (a) to respond to emails and schedule group meetings, (b) for the length of individual debrief sessions, and (c) to provide “help-desk”-level technical support to learners.

Conclusion

In the aftermath of the COVID pandemic, advancements in—and comfort with—technology will continue to evolve. By the end of this decade, there is no doubt that technological innovations will significantly change the ways in which we teach, learn, and practice. While this note from the field describes the successful rapid adaptation of an existing curriculum, the next stage of inquiry might be to identify successful strategies for building entirely new curricula in the virtual environment.

References

- Anderson, L. W., Airasian, P. W., Cruikshank, K. A., & Raths, J. (2001). Introduction. In L. W. Anderson & D. R. Krathwohl (Eds.), *A taxonomy for learning, teaching, and assessing: A revision of Bloom's Taxonomy of Educational Objectives* (pp. 3–11). New York: Longman.
- Ausbrooks, A., & Travis, R., Jr. (2017). Information communication technology (ICT) and social work: Moving social work education and practice into the 21st century. *Professional Development: The International Journal of Continuing Social Work Education*, 20(2), 25–35. Retrieved from <http://www.profdevjournal.org/articles/202025.pdf>
- Camp, S., & Egbert, S. C. (2018). Team teaching via video conferencing: Practical strategies for course design and delivery. *Professional Development: The International Journal of Continuing Social Work Education*, 21(1), 3–12. Retrieved from <http://www.profdevjournal.org/articles/211003.pdf>
- Campbell, M., Lucio, R., & Abel, E. M. (2019). Traditional pedagogy through the lens of technology. *Professional Development: The International Journal of Continuing Social Work Education*, 22(2), 25–35. Retrieved from <http://www.profdevjournal.org/articles/222025.pdf>
- Council on Social Work Education, Commission on Educational Policy & Commission on Accreditation. (2015). *2015 educational policy and accreditation standards for baccalaureate and master's social work programs*. Retrieved from https://www.cswe.org/getattachment/Accreditation/Accreditation-Process/2015-EPAS/2015EPAS_Web_FINAL.pdf.aspx
- Dillingham, J. L., & Mitchell, E. T. (2019). Technology in practice: Implications for social work educators and programs. *Professional Development: The International Journal of Continuing Social Work Education*, 22(2), 36–42. Retrieved from <http://www.profdevjournal.org/articles/222036.pdf>
- Fairburn, C. G., Allen, E., Bailey-Straebler, S., O'Connor, M. E., & Cooper, Z. (2017). Scaling up psychological treatments: A countrywide test of the online training of therapists. *Journal of Medical Internet Research*, 19(6), e214. Retrieved from <https://www.jmir.org/2017/6/e214/>
- Farrel, D., Ray, K., Rich, T., Suarez, Z., Christenson, B., & Jennigs, L. (2018). A meta-analysis of approaches to engage social work students online. *Journal of Teaching in Social Work*, 38(2), 183–197. Retrieved from <https://doi.org/10.1080/08841233.2018.1431351>
- Gibson, K., & Carroll, M. J. (2019). Social work field education — Changing with the times. *Social Work Today*, 19(2), 20–23. Retrieved from <https://www.socialworktoday.com/archive/MA19p20.shtml>
- Joiner, J. M. (2018). Cyber social work: Is the profession ready? *Professional Development: The International Journal of Continuing Social Work Education*, 21(1), 41–51. Retrieved from <http://www.profdevjournal.org/articles/211041.pdf>
- Kourgiantakis, T., & Lee, E. (2020). Social work practice education and training during the pandemic: Disruptions and discoveries. *International Social Work*, 63(6), 761–765. Retrieved from <https://doi.org/10.1177/0020872820959706>
- Lambert, C. P. (2020). Telebehavioral health: Now a social work imperative. *Social Work Today*, 20(5), 18–21. Retrieved from <https://www.socialworktoday.com/archive/Fall20p18.shtml>
- McCulloch, E., Cuckler, A., Valdes, E., & Hughes, M. C. (2020). Effectiveness of online training and supervisor feedback on safe eating and drinking practices for individuals with developmental disabilities. *Intellectual and Developmental Disabilities*, 58(2), 111–125. Retrieved from <https://doi.org/10.1352/1934-9556-58.2.111>
- Miles, D., Mensingan, J., & Zuchowski, I. (2018). Harnessing opportunities to enhance the distance learning experience of MSW students: An appreciative inquiry process. *Social Work Education*, 37(6), 705–717. Retrieved from <https://doi.org/10.1080/02615479.2018.1447557>
- Moskaliuk, J., Bertram, J., & Cress, U. (2013). Impact of virtual training environments on the acquisition and transfer of knowledge. *Cyberpsychology, Behavior, and Social*

- Networking*, 16(3), 210–217. Retrieved from <https://doi.org/10.1089/cyber.2012.0416>
- Patel, S. R., Margolies, P. J., Covell, N. H., Lipscomb, C., & Dixon, L. B. (2018). Using instructional design, analyze, design, develop, implement, and evaluate, to develop e-learning modules to disseminate supported employment for community behavioral health treatment programs in New York State. *Frontiers in Public Health*, 6, Article 113. Retrieved from <https://doi.org/10.3389/fpubh.2018.00113>
- Shogren, K. A., Thompson, J. R., Shaw, L. A., Grandfield, E. M., & Hagiwara, M. (2018). Detecting changes in support needs over time. *American Journal on Intellectual and Developmental Disabilities*, 23(4), 315–328. doi: 10.1352/1944-7558-123.4.315.
- Thompson, J. R., Bryant, B. R., Schalock, R. L., Shogren, K. A., Tassé, M. J., Wehmeyer, M. L., Rotholz, D. A. (2015). *Supports Intensity Scale—Adult Version (SIS—A) user’s manual*. Silver Spring, MD: American Association on Intellectual and Developmental Disabilities.
- Thompson, J. R., Schalock, R. L., & Tassé, M. J. (2018, October). *How support needs can be used to inform the allocation of resources and funding decisions* (AAIDD White Paper). Retrieved from the American Association on Intellectual and Developmental Disabilities website: https://www.aaid.org/docs/default-source/sisdocs/supportneeds.pdf?sfvrsn=a88b3021_0
- Thompson, J. R., Carlson, S. R., & Shaw, L. (2020, October). *Comparing SIS—A assessments administered using face-to-face and virtual interviewing formats* (AAIDD Research Brief). Retrieved from the American Association on Intellectual and Developmental Disabilities website: https://www.aaid.org/docs/default-source/sis-docs/sis-a-research-brief_v8.pdf