

Video-based instruction in social-emotional skills for youth with intellectual disabilities in a summer vocational rehabilitation program

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Abstract

Social-emotional skills work collaboratively with academic skills to help students connect content to real-world challenges. For successful future employment, today's students will need to master social-emotional skills such as communication, collaboration, and problem-solving. Students with intellectual disabilities, however, possess severe deficits in mental capacity and emotional skills. For those students with intellectual disabilities, who already possess multiple employment and educational challenges; lack of social-emotional skills has been identified by their school-to-work transition support team members as a common barrier to employment.

Due to the COVID-19 pandemic, a vocational rehabilitation program for students with disabilities that would have included a face-to-face class of 40 participants was cancelled. As a substitute, a hybrid, Google Classroom-based delivery of a social-emotional skills intervention program was hosted at the computer lab of the vocational rehabilitation agency with only five student participants. Although a small group, almost all student participants increased their pro-social skills knowledge as well as were observed by their counselors to have improved their pro-social behaviors post-program. This case study provides some, but very limited, data to suggest that delivery of social-emotional learning curriculum by means of remote learning for students with intellectual disabilities should be further studied.

Keywords: Social-emotional learning, vocational rehabilitation, intellectual disabilities, COVID-19

Introduction

Social-emotional skills work collaboratively with academic skills to help students connect content to real-world challenges. These skills can be learned and practiced in both school and community settings

using social-emotional learning program interventions. Ideally, social-emotional learning programs should be taught at school, followed-up at home, and integrated into community settings (Jones & Kahn, 2017). Social-emotional learning programs aim to teach students how to successfully navigate relationships, manage emotions, and set goals through skill-based instruction in decision-making and self-management. In general, effective social-emotional learning interventions have resulted in positive effects on academic achievement and decreased health and behavioral problems in students, preparing them for later work and life success (Collaborative for Academic, Social, and Emotional Learning, 2019; Jones & Kahn, 2017).

In a meta-analysis, school-based programs for elementary through high school students were found to improve participant emotional management and overall health and wellness (Taylor et al., 2017). Developmentally, interventions for elementary school students should focus on foundational skills such as recognizing emotions. For middle-school and high school students, though, relationships beyond the family and into the community as well as transition-to-adulthood skills should be foci. Therefore, participation in the interventions by supportive, respectful adult mentors in a positive school-community climate is also important (Jones & Doolittle, 2017; Yeager, 2017). Kendziora and Yoder (2016) studied eight school districts that implemented comprehensive social-emotional learning programs and noted student improvement in social competence and academic achievement. Two other recent reviews of school-based interventions reported positive and long-lasting academic and behavior changes (Mahoney et al., 2018) as well as specific improvements in reading, math, and science scores (Corcoran et al., 2018).

Social-emotional skills and students with intellectual disabilities

For successful future employment across multiple industries, in addition to traditional job skills, today's students will need to master social-emotional skills such as communication, collaboration, and problem-solving (Soffel, 2016). Those who possess social-emotional skills are more likely to be employed and productive (Jones & Kahn, 2017). Students with intellectual disabilities, however, possess severe deficits in mental capacity and emotional skills with onset of those limitations occurring early on (American Association on Intellectual and Developmental Disability, 2019). For those students with intel-

lectual disabilities, who already possess multiple employment and educational challenges, lack of social-emotional skills has been identified by their school-to-work transition support team members as a common barrier to employment (Noel et al., 2017). Even for those with mild intellectual disability who have also received school-to-work transition support services, more education and support to improve social-emotional skills was recommended (Bouck & Joshi, 2014).

Possessing social-emotional skills is important for students with intellectual disabilities when adapting to workplace challenges and should be emphasized in employment interventions. Common strategies and interventions to teach social-emotional employment skills for students with disabilities have included technology-assisted methods and practicing a job in the community setting (Gilson et al., 2017). Intervention effect was moderate for those with intellectual disabilities, and the school setting was determined to be a better setting than the community for social-emotional interventions, though (Park et al., 2016). Finally, middle school students with disabilities who participated in school-based, social-emotional learning interventions also showed some positive outcomes. Bullying victimization decreased, supportive bystander behavior improved, grades increased a bit (Espelage et al., 2016), and bullying behaviors decreased (Espelage et al., 2015).

Video-based interventions for social-emotional employment skills

One technology-assisted method used to teach social-emotional employment skills for students with disabilities is video-based instruction. Video-based instruction is the use of media to promote participant modeling of a targeted behavior or skill. Recent reviews have noted that video-based small group instruction that includes short movie clips, positive reinforcement, and repetitive content may effectively teach social-emotional skills to people with intellectual disabilities (Bennett et al., 2017; Park et al., 2018). In another study, social perceptions skills after video-based group instruction for students with intellectual disabilities also seemed to improve for most participants (Stauch et al., 2018). Although one study noted improvements in social skills among teens with intellectual disabilities using this strategy, most studies were focused on younger students. There is a

lack of research on the effects of video-based strategies for middle- and high school-aged students (O’Handley et al., 2016). When high school students in another study were taught job-related social skills using individualized video-based instruction as part of a vocational rehabilitation program, most improved their skills over time. Study results also supported the use of video-based instruction in employment skills as part of a school-to-work transition program (Gilson & Carter, 2018).

The manualized Second Step Social-Emotional Learning curriculum uses video-based group instruction in the form of streaming video and activities to teach students relationship, academic, emotional regulation, and problem-solving skills in an active-learning fashion (Second Step Social-Emotional Learning, 2019). Specifically, each lesson in the curriculum starts with an introduction to the lesson topic, and story-based videos are shown and discussed following the teacher’s guide. Interactive activities are interspersed throughout encouraging students to review lesson concepts and practice lesson skills. Lesson summary and homework practice are the final activities.

It is recommended that video-based interventions be explored more in the area of social skills as well as in combination with additional activities for youth with intellectual disabilities (Park et al., 2018). The purpose of this project was to examine video-based instruction in social-emotional skills and its effect on social-emotional knowledge and prosocial behaviors of middle school-aged students with intellectual disabilities enrolled in a summer vocational rehabilitation program.

Methods

Sample

Five middle-school-aged students [three White boys, one African American boy, one White girl] with an intellectual disability were enrolled in a face-to-face, summer-long, vocational rehabilitation program sponsored by a disability support agency in rural Missouri. To qualify for the program, students’ parents/guardians had to attest that the student possessed below-average cognitive ability and limitations in one or more adaptive behaviors. However, the program was cancelled due to the COVID-19 pandemic. As a substitute activity, all were asked to participate in a hybrid (on-ground and on-line), video-

based program called Soft Skills for Middle School and Future Work. All were also invited to participate in this study. The hybrid program was held at the computer lab at the vocational rehabilitation agency, and the program followed all masking and distancing facility health requirements. All (100%) volunteered and completed the consent forms.

All four vocational rehabilitation program counselors [all middle-aged; three females, one male] from the agency were also asked to participate as mentors to guide student participants at the computer lab during the program as well as participate in this study. All (100%) volunteered and completed the consent forms.

Instruments

Pre-post-intervention student participant social emotional skill knowledge was assessed using the Knowledge Assessment (KA) accompanying the curriculum (Committee for Children, 2011). The 12-question, content-valid, multiple-choice quiz, posted online using Survey Monkey online survey platform, included questions directly related to the lesson content: Empathy and Skills for Learning, Emotion Management, and Problem Solving. Examples of questions included: 'Select the first two things you should do to calm down', 'Which of the following is not one of the problem-solving steps?' and 'What are some things you can do to keep a conversation going?' Scoring is number/percentage of correctly answered questions. If student participants needed assistance with reading or understanding the questions, their vocational rehabilitation counselors were nearby and available to provide help.

The Child Social Behavior Questionnaire/Teacher-Rating Version [CSBQ-T] was used by the vocational rehabilitation counselors to rate student participant pre-post observed pro-social/anti-social behaviors. Using a 5-point (4=Very Often to 0=Never) rating, counselors noted, for example, how often students shared items or physically hurt another. Each counselor answered the questionnaire to describe the student participant to whom they were assigned to mentor, with one counselor answering the questionnaires to describe two student participants assigned to them. Higher scores, with negative behaviors reverse-scored, describe more frequent pro-social behaviors.

Procedure

After Institutional Review Board approval and all consents and as-

sents, student participants completed a confidential, online, Pre-KA using Survey Monkey immediately before the first lesson of the hybrid intervention program. In addition, for each student assigned to them to mentor, counselors completed the online Pre-CSBQ-T after the first lesson of the intervention program once they observed their mentee's social skills and behaviors.

Due to COVID-19 pandemic, a summer long vocational rehabilitation that would have included a face-to-face class held weekly over four weeks at this disability service agency was cancelled. A hybrid intervention program, as a partial substitute, was hosted on-site at the disability support agency office where only agency staff and clients were allowed to enter after following all COVID-19 safety procedures. Each student participant was assigned a laptop computer from the agency, sat at a socially distant desk, and was assisted by a masked counselor staff member to guide and mentor them as they proceeded through the lessons. Students were taught a social-emotional learning curriculum by a trained facilitator using Google-Classroom delivery method. The streaming video and interactive lessons included the topics of: Empathy and Skills for Learning, Emotion Management, and Problem Solving. During the pandemic, the 45-minute lessons were presented virtually to student participants with their counselors nearby to assist if needed. Empathy and Skills for Learning Unit included content covering listening with respect, being assertive, understanding different perspectives, and joining in. Emotion Management Unit covered the topics of managing feelings, calming down after anger, and handling put-downs. Problem Solving Unit reviewed making a plan, solving problems, and dealing with peer pressure.

Post-intervention, student participants completed their confidential online Post-KA using Survey Monkey immediately following the last program intervention session. Counselor participants also completed a Post-CSBQ-T for each student assigned to them immediately following the last program intervention session.

Analysis

Because of the low number of participants due to program cancellation with the pandemic, only descriptive statistics were calculated for each student participant's KA and counselor-observed CSBQ-T sub-scale scores.

Results

Almost all (4/5, 80%) student participants improved their overall social-emotional skills knowledge in the areas of Empathy and Skills for Learning, Emotion Management, and Problem Solving. One student, however, missed two more questions on the post-test than the pre-test. Post-program, 60% (3/5) 'passed' the knowledge assessment (Table 1).

Table 1. *Student participant pre-post-Knowledge Assessment*

STUDENT	KA correct score (xx/12), /% - PRE	KA correct score (xx/12) /% - POST
1	03/12, 25%	08/12, 66.7%
2	03/12, 25%	09/12, 75%
3	05/12, 41.7%	06/12, 50%
4	07/12, 58.3%	05/12, 41.7%
5	10/12, 83.3%	11/12, 91.7%

In addition, although slightly, 60% (3/5) were observed by their counselors as increasing the frequency of pro-social behaviors. Two student participants were observed as staying the same (Table 2).

Table 2. Counselor-observed pre-post CSBQ-T sub-scale scores

Observed Student	PRE/POST Sharing things (x/4pts)	PRE/POST Befriending others (x/4pts)	PRE/POST Physically hurting others (x/4pts) [reverse-scored]	PRE/POST Psychologically hurting others (x/4pts) [reverse-scored]	PRE/POST Victim of bullying (x/4pts) [reverse-scored]	Student PRE-POST TOTAL
1	3/4-3/4	4/4-4/4	2/4-3/4	2/4-3/4	2/4-1/4	13, 14
2	3/4-4/4	3/4-3/4	3/4-4/4	4/4-3/4	2/4-1/4	14, 15
3	1/4-2/4	1/4-2/4	2/4-2/4	2/4-2/4	1/4-1/4	7, 9
4	3/4-3/4	1/4-1/4	4/4-4/4	4/4-4/4	2/4-2/4	14, 14

Note: Higher scores reflect higher frequency of pro-social behaviors as some questions were reverse-scored.

Discussion

Due to the COVID-19 pandemic, a vocational rehabilitation program for students with disabilities that would have included a face-to-face class of 40 participants was cancelled. As a substitute, a hybrid, Google Classroom-based delivery of the intervention program was hosted at the computer lab of the vocational rehabilitation agency with only five student participants. Although a small group, almost all student participants increased their pro-social skills knowledge and were observed by their counselors to have improved their pro-social behaviors post-program.

Results of this intervention are consistent with the literature that suggests that social-emotional learning interventions may help prepare students for future workplace success (Collaborative for Academic, Social, and Emotional Learning, 2019; Jones & Kahn, 2017). Students with disabilities are most at-risk for low employment, and these types of interventions are recommended to help overcome school-to-work transition barriers (Noel et al., 2017; Bouck & Joshi, 2014). Previous social-emotional learning interventions noted moderate effects for students with intellectual disabilities (Park et al., 2016); however, results of this study suggest only small and slight effects on knowledge and behaviors.

The small, although positive, effects in this study, however, were inconsistent with previous studies where use of video-based instruction demonstrated stronger improvements in social perception skills in those with intellectual disabilities (Bennett et al., 2017; Park et al., 2018; Stauch et al., 2018). In addition, the substitution of the Google Classroom curricular delivery method, similar to video as it is watched on the computer screen, may have also been an influencer. This community-based program did not demonstrate the high rates of improvements as shown in the school setting (Park et al., 2016). On the other hand, because their counselors were close by to support the student participants, a positive environment may have provided assistance (Jones & Doolittle, 2017; Yeager, 2017). Also, instructing the class daily, instead of weekly when conducted face-to-face, possibly made it easier for the students to remember previous lessons.

In addition, virtually conducting the social-emotional learning curriculum made it difficult to know the participants on a personal level. Some students were distracted by the computer screens. The computers seemed to create a barrier between the students and the Google Classroom-based teacher making it hard for them to engage for the length of the class. The students would often get distracted, talking to one another instead of paying attention to the curriculum. This led to the counselor disciplining the students. However, healthy social skills were being emphasized during the lessons, and students were socializing with each other. This conflict may have led to some confusion by the students about the most appropriate behaviors.

Not having the program face-to-face also increased variability in results, partially because the students relied on their counselors when they did not understand something. With the counselors nearby, the students were paying attention and may have known the counselors were observing them. If the class were conducted in person over four weeks as originally planned, the counselors would have been able to observe changes in the students over a longer period of time. If there would have been a longer observation period, it is believed that the students' observed behaviors would have improved more.

Conclusion

The present study addressed previous recommendations to further study the effects of video-based social-emotional learning interventions for middle school-aged students (O'Handley et al., 2016) in

general, and students with intellectual disabilities, in particular (Park et al., 2018). Although knowledge and behavior improved slightly, the promising results were very limited. Because of the low numbers of participants and limited geographic area of the study, study results cannot be generalized to all students with intellectual disabilities. With the counselors only receiving four days to observe behavior changes, it was difficult to recognize significant changes. Implementing the curriculum virtually created a gap between the participants and the teacher. Caution in drawing conclusions beyond the case participants is recommended.

Results of this case study provide some, but very limited, data to suggest that delivery of social-emotional learning curriculum by means of remote learning for students with intellectual disabilities should be further studied. Adding in-person social-emotional learning to the vocational rehabilitation program would benefit students' academic achievement and decrease their health and behavioral problems. If remote learning is implemented, much thought should be taken in choosing participants. Remote learning adds a new dimension to learning that requires the participants' attention and active participation. Interesting avenues for future research include researching both remote and in-person social-emotional learning curriculum, comparing the results of the two. Researching the effects of remote learning with a larger sample size or without their counselor nearby, or comparing different age groups are additional avenues for future study.

References

- American Association on Intellectual and Development Disability. (2019). <https://www.aidd.org/>
- Bennett, K. D., Aljehany, M. S., & Altaf, E. M. (2017). Systematic review of video-based instruction component and parametric analyses. *Journal of Special Education Technology*. Retrieved from <https://doi.org/10.1177/0162643417690255>
- Bouck, E. C., & Joshi, G. S. (2014). Transition and students with mild intellectual disability: Findings from the national longitudinal transition study - 2. Career development and transition for exceptional individuals. Retrieved from <https://doi.org/10.1177/2165143414551408>
- Collaborative for Academic, Social, and Emotional Learning. (2019). <https://casel.org/>
- Committee for Children. (2011). <https://www.cfchildren.org/programs/social-emotional-learning/>
- Corcoran, R. P., Cheung, A. C. K., Kim, E., & Xie, C. (2018). Effective universal school-based social and emotional learning programs for improvising academic achievement: A systematic review and meta-analysis of 50 years of research. *Educational Research Review*, 25, 56-72. Retrieved from <https://doi.org/10.1016/j.edurev.2017.12.001>
- Espelage, D. L., Rose, C. A., & Polanin, J. R. (2015). Social-emotional learning program to reduce bullying, fighting, and victimization among middle school students with disabilities. *Remedial and Special Education*. Retrieved from <https://doi.org/10.1177/0741932514564564>
- Espelage, D. L., Rose, C. A., & Polanin, J. R. (2016). Social-emotional learning program to promote prosocial and academic skills among middle school students with disabilities. *Remedial and Special Education*. Retrieved from <https://doi.org/10.1177/0741932515627475>

- Gilson, C. B., & Carter, E. W. (2018). Video-based instruction to promote employment-related social behaviors for high school students with intellectual disability. *American Association on Intellectual and Developmental Disabilities*, 6(3). Retrieved from <https://doi.org/10.1352/2326-6988-6.3.175>
- Gilson, C. B., Carter, E. W., & Biggs, E. E. (2017). Systematic review of instructional methods to teach employment skills to secondary students with intellectual and developmental disabilities. *Research and Practice for Persons with Severe Disabilities*. Retrieved from <https://doi.org/10.1177/1540796917698831>
- Jones, S. M., & Doolittle, E. J. (2017). Social and emotional learning: Introducing the issue. Princeton University. Retrieved from <https://www.jstor.org/stable/44219018>
- Jones, S. M., & Kahn, J. (2017). The evidence base for how we learn: Supporting students' social, emotional, and academic development. *The WERA Educational Journal*, 10(1). Retrieved from https://assets.aspeninstitute.org/content/uploads/2017/09/SEAD-Research-Brief-9.12_updated-web.pdf
- Kendziora, K., & Yoder, N. (2016). When districts support and integrate social and emotional learning (SEL): Findings from an ongoing evaluation of district wide implementation of SEL. Education Policy Center at American Institutes for Research. Retrieved from <https://eric.ed.gov/?id=ED571840>
- Mahoney, J. L., Durlak, J. A., & Weissberg, R. P. (2018). An update on social and emotional learning outcome research. *Phi Delta Kappan*, 100(4), 18-23. Retrieved from <https://doi.org/10.1177/0031721718815668>
- Noel, V. A., Oulvey, E., Drake, E., & Bond, G. R. (2017). Barriers to employment for transition-age youth with developmental and psychiatric disabilities. *Administration and Policy in Mental Health and Mental Health Services Research*, 44(3), 354-358. Retrieved from <https://doi.org/10.1007/s10488-016-0773-y>

- O'Handley, R., Ford, B. W., Radley, K. C., Helbig, K. A., & Wimberly, J. K. (2016). Social skills training for adolescents with intellectual disabilities: A school-based evaluation. *Behavior Modification*, 40(4). Retrieved from <https://doi.org/10.1177/0145445516629938>
- Park, J., Bouck, E., & Duenas, A. (2018). The effect of video modeling and video prompting interventions on individuals with intellectual disability: A systematic literature review. *Journal of Special Education Technology*. Retrieved from <https://doi.org/10.1177/0162643418780464>
- Park, E., Kim, J., & Kim, S. (2016). Meta-analysis of the effect of job-related social skill training for secondary students with disabilities. *Journal of Vocational Rehabilitation*, 44(1), 123-133. Retrieved from <https://doi.org/10.3233/JVR-150785>
- Second Step Social-Emotional Learning. (2019). Second Step. Retrieved from <https://www.secondstep.org/second-step-social-emotional-learning>
- Stauch, T. A., Plavnick, J. B., Sankar, S., & Gallagher, A. C. (2018). Teaching social perception skills to adolescents with autism and intellectual disabilities using video-based group instruction. *Journal of Applied Behavior Analysis*, 51(3). Retrieved from <https://doi.org/10.1002/jaba.473>
- Soffel, J. (2016). What are the 21st-century skills every student needs? Retrieved from <https://www.weforum.org/agenda/2016/03/21st-century-skills-future-jobs-students/>
- Taylor, R. D., Oberle, E., Durlak, J. A., & Weissberg, R. P. (2017). Promoting positive youth development through school-based social and emotional learning interventions: A meta-analysis of follow-up effects. *Child Development*, 88(4). Retrieved from <https://doi.org/10.1111/cdev.12864>
- Yeager, D. S. (2017). Social and emotional learning programs for adolescents. Princeton University. Retrieved from <https://www.jstor.org/stable/44219022>