Research to Practice in Autism, Intellectual Disability, and Developmental Disabilities

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On January 18–20, 2012, the Council for Exceptional Children Division on Autism and Developmental Disabilities (DADD) sponsored its Thirteenth International Conference: Research to Practice in Autism, Intellectual Disability and Developmental Disabilities. The conference was held at the Deauville Beach Resort in Miami Beach, Florida. The DADD Board of Directors decided to devote this issue of Education and Training in Autism and Developmental Disabilities to conference papers. The conference brought together educators from school and college classrooms from all over the world. The conference included pre-conference training institutes and strands on assistive technology, autism/autism spectrum disorder, cognitive disability-best practices, differentiated instruction, and multiple disabilities. The conference provided many parents, teacher educators, researchers, teachers, and other practitioners an opportunity to gather to learn the most current information related to providing services for individuals with autism, intellectual disability, and developmental disabilities.

This special issue can enable those who attended the conference to see expanded papers, prepared by presenters, and also give those who were unable to attend an opportunity to benefit from the thoughtful work done by conference participants.

Presenters were asked to submit papers based on their conference presentations. Papers submitted were reviewed by the Guest Editors who selected the papers for publication. We think the selection of papers represents an interesting assortment of topics and formats ranging from discussion papers to data based research to descriptions of classroom techniques. The papers selected do not necessarily represent all the topics covered at the conference but they do give a good idea of the variety and quality of the presentations. We would like to thank those authors who submitted papers for their efforts in making this Special Conference Issue possible.

Effective practices in student data collection and implementation of data-based instructional decisions are needed for all educators, but are especially important when students have severe intellectual and developmental disabilities. Accomplishing IEP goals and meeting various state standards is a concern of many special educators. But how can teachers of students with severe intellectual and developmental disabilities meet this challenge? Although research in the area of data-based instructional decisions for students with severe disabilities shows benefits for using data, there is limited research to demonstrate teachers in applied settings can acquire the decision-making skills required. In the first article, “Data-Based Decisions Guidelines for Teachers of Students with Severe Intellectual and Developmental Disabilities,” Bree A. Jimenez, Pamela J. Mims, and Diane M. Browder report on the success of an on-line professional development training activity designed to equip special educators to make informed data-based decisions. Their results demonstrated how teachers from five states acquired...
a set of data-based decisions implementation guidelines through online professional development. Recommendations for practice and future research are included.

Acquisition of literacy skills can be a challenge for middle school students with moderate and severe disabilities including students with autism. In the next article, “Effects of a Treatment Package to Facilitate English/Language Arts Learning for Middle School Students with Moderate to Severe Disabilities,” Pamela J. Mims, Angel Lee, Diane M. Browder, Tracie-Lynn Zakas, and Susan Flynn describe a pilot study they conducted. Their investigation incorporated the development and use of a comprehensive literacy approach which included research based instructional practices to teach English/Language Arts skills to middle school students with disabilities. The participants in this investigation included five middle school teachers of self-contained classrooms and 15 middle school students with moderate and severe disabilities. The teachers taught eight scripted lessons that targeted middle school skills (vocabulary, comprehension of familiar and unfamiliar text, poetry, research and writing) aligned to English/Language Arts standards. A pre-post-test design was used to measure the targeted skills. In their article the authors explain each lesson element in detail. They report the results of the targeted skills and conclude with a thorough discussion of their findings including implications and direction for future research.

A key component to preparing young adults with intellectual disability for independent living is career/employment education, commonly referred to as vocational training. In this international study, “Teaching Café Waiter Skills to Adults with Intellectual Disability: A Real Setting Study,” Atilla Cakraytar examined the effectiveness of the Café Waiter Education Program (CAWEP) on café waiter skills (CAWAS), when using the least to most prompting for three adults with intellectual disability in a real setting. Café waiter skills included five main tasks incorporating 125 skill steps. Task analysis was developed by a professional café waiter, the café manager, a doctoral student in special education, and the principal investigator. The skill steps were tested with a study sample. Ordering and dishing up menu items, serving, and cleaning up were taught through training and maintenance sessions. Although the research setting was a special training area in the café, generalization and follow-up were studied in an actual café with paying customers. The study’s results indicate that the CAWEP, when carried out in a real setting where least to most prompting is used in training, is effective at teaching serving skills to adults with mild intellectual disability. The CAWEP is also effective at generalizing and maintaining such skills in real settings.

One of the many challenges confronting educators who teach young adults with autism spectrum disorders is how to enhance their students’ academic abilities. One evidence-based practice that has been shown to be effective across a wide range of functional and skill areas is video self-modeling. While a considerable literature base exists on VM/VSM to address the social communication, functional, vocational, and behavioral needs of this student population, studies targeting academic skills are only recently emerging. In their article “Using Video Self-Modeling Via iPads to Increase Academic Responding of an Adolescent with Autism Spectrum Disorder and Intellectual Disability,” Juliet E. Hart and Kelly J. Whalon incorporate an ABAB design to examine the effect of video self-modeling on the academic performance of a secondary student with an autism spectrum disorder and accompanying intellectual disability. Their research supports the use of video self-modeling as a viable instructional tactic for increasing the academic engagement of a secondary student during science instruction. Recommendations for teacher preparation in ASD and future research directions are discussed.

Video modeling can be a useful instructional tool for students with disabilities. In the next article, “Maintaining Vocational Skills of Individuals with Autism and Developmental Disabilities through Video Modeling,” Toni Van Laarhoven, Lauren Winiarski, Erika Blood, and Jeffrey M. Chan investigated whether watching a video of a vocational task during a two week break would assist students in maintaining the targeted work skill. Six students with autism spectrum disorder and/or developmental disabilities participated in this study. Each student was assigned
two work-related tasks in their employment setting. The students were measured on the performance of their two tasks prior to and after a two week break. One task was the video modeling condition in which the students watched a video of the task during a two week break. The second task was used as the control condition. The investigators report the positive results that were found related to student performance on both of their assigned tasks (i.e., the video modeling task and the control task). The authors also document the benefits of using video modeling for students with autism and developmental disabilities “to promote independence in employment settings.” Findings were surprising yet consistent across learners. Plausible explanations for the results are shared.

For students with intellectual disability, a functional life skills curriculum includes a focus on functional academics, vocational education, community access, daily life skills, financial skills, independent living, transportation, social/relationships, and self-determination. In this article, “Promoting Independence through Assistive Technology: Evaluating Audio Recorders to Support Grocery Shopping,” Emily C. Bouck, Rajiv Satyangi, Whitney Bartlett, and Pei-Lin Weng focused on the daily living skill of grocery shopping, utilizing a technology-based self-operating prompting system. Specifically, the study explored the effectiveness and efficiency of a low-cost, more commonly accessible technology to support grocery shopping skills in students with moderate intellectual disabilities—an audio recorder. Using a single subject ABAB design with three high school male students with moderate intellectual disability, the researcher explored student use of an audio recorder to identify and locate grocery list items in a grocery store. The results of the project suggest the students were able to use the audio recorders to correctly identify and locate 10-items from a grocery list. This study holds implications for practice as it suggests teachers could implement a relatively inexpensive and easy-to-use technology (i.e., audio recorders) and support students in grocery shopping in a more independent fashion than picture symbol lists.

Parental participation has long been considered a crucial component of special education. In “Parents’ Participation in Special Education in the Context of Implicit Educational Ideologies and Socioeconomic Status,” Priya Lalvani’s qualitative investigation of parents of children with diverse disabilities supports the notion that parents often perceive themselves as advocates for their children. Semi-structured interviews were conducted with 33 diverse parents of children with disabilities. The findings reveal the existence of special education discourses and practices that are entrenched in a deficit-based model and in implicit educational ideologies that sanction segregated education for many children with disabilities. Parents’ perception of themselves as advocates was a key theme. As educational decision makers, parents can play a particularly vital role in helping shape educational placement decisions; yet, Lalvani found differences in perception between parents from high and low socioeconomic groups. The findings shed light on the socioeconomic contexts in which family-professional partnerships and educational decision-making for children with disabilities are embedded.

In the next study, “Increasing Literacy Skills for Students with Developmental and Intellectual Disabilities: Effects of Integrating Comprehensive Reading Instruction with Sign Language,” Larissa Beecher and Amy Childre evaluated the impact of a comprehensive reading program, enhanced with sign language, on the literacy and language skills of three elementary school students with intellectual and developmental disabilities. Even though the components for effective comprehensive reading programs for students with intellectual disability and/or developmental disabilities have been established, gaps still exist in the literature. One identifiable gap relates to the role of supplemental visuals in supporting the development of basic literacy skills. Recent research describes varied use of visuals to support student literacy development, including pictures and gestures to demonstrate meaning of new vocabulary as well as gestures and mnemonic clues to teach letter-sound correspondence. Although visuals are effective for making abstract concepts concrete and for creating associations that enhance recall, the challenge of ensuring consistent use across instructors and settings exists. Sign language has been proven an ef-
fective strategy to support language acquisition for students with autism and sight word recognition for students with intellectual disability but sign language as a visual prompt has not been investigated in the context of a comprehensive reading intervention. The authors maintain that sign language offers increased consistency in implementation across personnel and settings and increased ease in instructional design as prompts do not require development as do print visuals. Results of this study indicate that all three participants showed growth in their literacy skills, specifically in the areas of letter identification, letter-sound knowledge, sight word knowledge, receptive vocabulary, and listening comprehension.

Research that incorporates preparing teachers to use Discrete-trials Teaching (DTT) for instructing students with autism spectrum disorder is limited. In the last article, “Efficacy of Individualized Clinical Coaching in a Virtual Reality Classroom for Increasing Teachers’ Fidelity of Implementation of Discrete Trial Teaching,” Krista Vince Garland, Eleazar Vasquez III, and Cynthia Pearl describe their investigation. The researchers examined the efficacy of training teachers on implementing DTT with fidelity using a virtual reality learning modality (TLE TeachLivETM). The participants in their study were four female graduate students who worked in public schools. The graduate students were instructed by one of the researchers on how to implement DTT. Instruction occurred face-to-face and in a virtual setting in the TLE TeachLivETM lab. The instructor also served as a DTT coach throughout the virtual sessions. The participants were measured on their implementation of the DTT as they taught a task to a male avatar who exhibited some characteristics of a student with autism. The fidelity of teacher implementation and the researcher’s coaching was also assessed. The authors report specific results of their study. They also discuss the benefits of coaching in TLE TeachLivETM and provide suggestions for future research.

The conference provided researchers and educators with the opportunity to explore current research, topical issues and best practices relating to autism, intellectual disability, and development disabilities. We hope readers of this Research to Practice Special Conference Issue find the information valuable and timely.