
Towards the Generalization of Social Skills for Learners with Autism Spectrum Disorder

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Abstract

Information on promoting generalization of social skills for individuals with autism spectrum disorder (ASD) may be somewhat limited due to the majority of published research studies assessing generalization as a secondary dependent measure within studies emphasizing acquisition (Bellini et al., 2007; Hughes et

al., 2012; Jones et al., 2014). Yet many individuals with ASD fail to perform essential social skills outside of instructional settings. One of the most critical and challenging goals facing instructors and other service providers for individuals with ASD is helping to promote generalized change in socially significant behaviors. However, prior to programming for the generalization of a targeted skill to other settings, people, and situations, full consideration of skill functionality is essential (Cooper, Heron & Heward, 2007). Designing technologies and interventions for individuals with disabilities necessitates observation and analysis of the combined factors from which their daily experience is comprised (e.g., characteristics of the disability, individual personality, support systems, culture, environment; Shakespeare, 2013). The current paper discusses consideration of the learner's experience in relation to designing, programming, and evaluating interventions and technologies that promote generalization of social skills, in addition to the use of evidence-based practices, barriers to implementation, and suggested future research pertaining to implementation science (Fixen et al, 2005).

Author Keywords

autism spectrum disorder; generalization; evidence-based practice; philosophy

ACM Classification Keywords

H.5.m [Information interfaces and presentation (e.g., HCI)]: Miscellaneous

Generalization of Social Skills for Adolescents with Autism Spectrum Disorder and Intellectual Disabilities

Despite numerous efficacious interventions for teaching social skills to individuals with autism spectrum disorder (ASD), generalization of skills is a barrier to social success for many youths with ASD (de Marchena, Eigsti and Yerys, 2015; Owen-DeSchryver et al., 2008; Shukla-Mehta et al., 2010). Concerningly, empirical examinations of social skills training for individuals with ASD tend to omit systematic assessment of generalization, which limits practitioners' ability to select intervention strategies likely to have broad impacts on social behavior (Bellini, Peters, Benner & Hopf, 2007; Hughes et al., 2013; Jones, Lerman and Lechago, 2014; Otero et al., 2015). Social skills deficits may adversely impact key aspects of successful adult life (e.g., obtaining and maintaining employment, relationships, independence, mental health; White, Keonig, & Scahill, 2007; Test, Smith & Carter, 2014). Therefore, empirically validated interventions that assess and mediate generalization of acquired social skills, including response maintenance are critical for individuals with ASD (Carter et al, 2014; Jones, Lerman & Lechago, 2014).

Planning for Social Skills Generalization

Most ASD studies dedicated to the promotion of generalization involve social skills interventions, as they are a defining characteristic of ASD (Bellini et al., 2007). Social skills displayed only in classroom settings will not support adolescents and young adults with ASD in achieving post-secondary success (e.g., employment, independent living; Haring 1988). In fact, generalization is critical to the success of social skills interventions and should be the criteria by which we assess their effectiveness (Bellini et al., 2007).

Prior to planning and programming for the generalization of targeted skills to other settings, people, and situations, full consideration of skill functionality is essential (Cooper, Heron & Heward, 2007). Social skills targeted for intervention are often chosen based on the level of age-appropriateness and normalization that they represent for learners with disabilities (e.g., Snell & Brown, 2006). But is normalization the goal?

At issue is the importance of a targeted skill relative to the health and welfare of the individual with ASD. Ultimately, a skill is not functional if reinforcement is not produced for the learner, regardless of how important or desirable teachers, family members, and other stakeholders may feel it is (Baer, 1999). A service provider's well-meaning choice may not reflect the preferences of the person with a disability (Bannerman et al, 1990). However, expressions of preference may reveal themselves in the form of resistance to certain teaching procedures or a lack of motivation to achieve specific targeted goals (Bannerman et al., 1990).

Designing technologies and interventions for individuals with ASD and other disabilities necessitates observation and analysis of the combined factors from which their daily experience is comprised (e.g., characteristics of the disability, individual personality, support systems, culture, environment; Shakespeare, 2013). It follows then, that planning for generalization of social skills involves selecting target behaviors, or skills that produce reinforcement for the learner in the training setting, and in the natural environment (Baer, 1999). Interventions and technologies designed to bring a truly functional skill to a high level of proficiency under cues and reinforcement (i.e., discriminative stimuli) relevant to generalization settings, stand a good chance of promoting generalization (Cooper, Heron & Heward, 2007).

Use of Evidence-based Practices

The identification and selection of intervention practices with scientific evidence of efficacy has become more accessible to practitioners due to recent systematic, comprehensive review of the intervention literature (Wong et al., 2014). Promoting the acquisition and generalization of social skills for youth with ASD necessitates that teachers and other service providers become familiar with evidence-based intervention strategies. Nevertheless, several factors may impact effective implementation of evidence-based practices (EBP). First, research supporting the effectiveness of EBPs does not resolve issues surrounding teacher training and preparedness for implementation with fidelity (Brock, Huber et al.,

2014). When surveyed, the majority of practicing teachers reported a lack of training on EBPs for students with ASD within their teacher preparation programs (Morrier, Hess, and Heflin, 2011). Of universities offering ASD-specific training, fewer than one fourth (21.2%) place significant emphasis on EBPs, and those that do rarely provide one-to-one coaching, or hands-on experience with students with ASD (Barnhill et al., 2013). Prevalent professional development practices within schools, such as stand-alone workshops, are typically not accompanied by ongoing coaching and feedback. Such professional development practices have demonstrated little effect in support of the accurate implementation of EBPs (Hall, Grundon, Pope, & Romero, 2010; Smith, Parker, Taubman, & Lovaas, 1992).

Based on previous experience and the requirements of their job, teachers may tend to consider feasibility over scientific research in terms of selecting EBPs to implement with their students (Cook, Tankersley, Cook, & Landrum, 2008). Regardless of the empirical evidence suggesting the effectiveness of the practice, if an EBP is incompatible with the existing school schedule, infrastructure, or classroom routine, it is unlikely that a teacher will devote much time to becoming acclimated to its procedures for implementation. Motivation to learn the practice may be further reduced if the teacher has previously observed other recommended practices fall out of use due to logistical constraints, or other external factors. Moreover, if other teachers do not endorse the practice, and the teacher cannot envision a positive outcome for the student in connection with its use,

enthusiasm for training and implementation of the practice will likely decline (Cook et al., 2014).

In addition, teachers report a lack of unpressured time, that is time free of pressure from other immediate needs and priorities (Collison & Cook, 2001). Many teachers find that they often have more responsibilities than they can attend to in a given day (Cambone, 1995). Under pressure, teachers' discretionary time may likely be spent addressing the most pressing responsibilities and deadlines, as opposed to considering new EBPs for improved teaching. To complicate matters, implementation of EBPs may require substantial time and effort.

In spite of the preceding barriers, the use of EBPs shows promise toward the promotion of improved outcomes for individuals with ASD. As such, development and empirical testing of interventions that effectively teach social interaction and mediate generalization of acquired skills is needed. If our goal is improved outcomes for individuals with ASD, it is essential for EBPs that promote social skills acquisition and generalization to be utilized and evaluated. Therefore, a need exists for the translation of EBPs from the research literature, to implementation with fidelity within classroom settings (Wong et al., 2014). Additional research is also needed to address the provision of professional development and support for fidelity of implementation of EBPs (Odom et al., 2014).

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evaluating the effects of video-based group instruction, combined with a peer mediated intervention, on generalization of previously acquired social skills for adolescents with autism and intellectual disability. Having served as a project manager for a 2-year development study examining the adoption and sustained use of video-based group instruction for adolescents with ASD within the high school setting, the researcher has also been involved in research examining video modeling as a method for teaching communication to pre-K children with ASD. Prior to her doctoral studies, the researcher served two Detroit-area districts as a special education teacher, curriculum coach and assistant school leader.

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