DADD Express
Volume 31, Number 2 • Spring 2020
Council for Exceptional Children
A publication of the a unit of the Council for Exceptional Children
Focusing on individuals with autism, intellectual disability, and related disabilities

Teachers' Corner

Teaching Tips for Integrating ABA Principles in Today's Classrooms

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Over the past 40 years, interventions based on the science of applied behavior analysis have been highly effective in mitigating some of the challenges and developing adaptive and social behaviors for many populations (Swanson & Sachse-Lee, 2000) and are recommended as effective treatments for children with autism spectrum disorder (ASD; Dillenburger, Keenan, Doherty, Byrne, & Gallagher, 2012). The term *applied behavior analysis* (ABA) refers to treatment approaches that are implemented systematically following the principles of ABA, are applied as early as possible in the child's life, are usually provided in a student–teacher ratio of one-to-one, are individualized and comprehensive, target a great number of skills, and are used in conjunction with parent education services (Virués-Ortega, 2010).

Although many young children with ASD begin with an intensive individualized ABA program, often including 20–40 hours a week of one-on-one ABA support and oversight by a behavior analyst, the intent is not for students to continue this level of support indefinitely. Furthermore, ABA principles can be effectively integrated to support students across settings. When children transition from 1:1 ABA treatment to classroom settings, their level of success is often dependent on the extent to which ABA principles have been included as part of transition planning and are embedded in classroom routines, as well as to arrangement of the environment to reduce the need for 1:1 support. The purpose of this article is to provide teachers with practical tips for integrating instructional strategies based on ABA principles.

Teaching Practices

Examples of techniques in use that are ABA-rooted and have good classroom application include peer-mediated instruction, visual schedules, and priming. Each is defined and operationalized for teaching implementation below.

Use Peer-Mediated Instruction (PMI). Using other students as models, or *peer-mediated instruction*, is a useful strategy. Peer-mediated instruction is an evidence-based practice for teaching social skills to individuals (Reichow & Volkmar, 2010). PMI uses typically developing peers to interact with and help learners with ASD acquire social skills through interaction opportunities within classroom environments. Peers are systematically taught to engage learners with ASD socially in both teacher-directed and learner-initiated activities (Carter, Sisco, & Chung, 2012) and, in turn, peers and individuals with ASD are then given opportunities to engage in social interactions (McConnell, 2002).

Social skills targeted in PMI include the following: responding to others, reciprocity, interacting with others or in groups; organizing play; offering, giving, or accepting a play material to/from focal child; or providing assistance. In practical terms, you may select one of the peers to act as the peer model by giving that peer tasks such as holding all the crayons and waiting for your student to ask for one. Or, if you give an instruction and the student with ASD doesn't respond, have a peer repeat the instruction and/or get that student instead of the teacher or aide. For a detailed list of steps for developing PMIs, including how to select and train peers, prepare the materials and settings, as well as administer the intervention and collect data, see **https://vkc.mc.vanderbilt.edu/assets/files/resources/psiPeermedstrategies.pdf**.

Use Visual Cues/Schedules. *Visual cues* are physical representations of content with concrete characteristics such as pictures to show which activities will occur and in what sequence. *Visual schedules* are a type of visual prompt used to help individuals on the autism spectrum predict or understand upcoming events (see **https://www.unl.edu/asdnetwork/images/VisualSupports.pdf**). Visual supports help the learner maintain attention to the task, clarify expectations, and encourage participation.

A visual schedule can be created using photographs, pictures, written words, physical objects, or any combination of

these items, which can then enhance comprehension (Miranda & Erickson, 2000). Instead of verbally reminding students, they can be directed back to their schedule, thereby removing the need for constant reminders. A visual schedule can always be adapted to be age- and developmentally appropriate for each student. While a younger student can use pictures, an older student can use a text-based to-do list. Visual schedules can be used to promote transition between routines (such as moving from a classroom to a lunch setting) or within the student's daily activity routines (such as moving from group discussion to independent work). A variety of behavioral techniques (prompts and/or praise and rewards) can be used to encourage the student to use the schedule. Over time, the support provided can be faded so that students are able to use the schedules independently.

Use Priming. Priming is another useful ABA strategy that can be applied in a classroom. *Priming* permits the student to be exposed to the new content in a context free of the pressure to perform and links individual instruction to the larger group activities typical of the mainstream setting (Hart & Whalon, 2008). If you have a student that has difficulty in a specific content area, request the materials beforehand so that you can pre-teach or prime some of the content. In this way, when the teacher teaches the content during class, it will be easier for the student with ASD to attend to and follow the instructions in a group. This prior exposure promotes engagement while simultaneously decreasing disruptive behavior, and it levels the academic playing field. Priming can even provide the child with ASD an opportunity to assume the expert role when the content is introduced to the class as a whole (Werner et al., 2006).

Conclusion

There is growing evidence pointing to the usefulness of ABA-based approaches that serve as educational interventions for ASD and federal mandates (i.e., IDEA) that require educators to use evidence-based practices to improve academic and/or behavioral outcomes. It is hoped that the teaching tips described here can help guide teachers on how to effectively use approaches that reflect evidence-based ABA principles. ■

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