Three Important Things to Consider When Starting Intervention for a Child Diagnosed With Autism

Tony L. Vets, B.S., BCaBA, St. Mary's Residential Training School

Gina Green, Ph.D., BCBA-D, Association of Professional Behavior Analysts

We and our colleagues in the Applied Behavior Analysis (ABA) Center at St. Mary's Residential Training School in Alexandria, Louisiana have been charged with designing day programs for youngsters with intellectual disabilities, some of whom are also diagnosed with autism spectrum disorders (ASD). Here we discuss the main factors we consider when developing intervention programs for young elementary school-aged learners with those diagnoses.

First, we try to do a frank assessment of the resources available in the setting, including the skills of the practitioners who will oversee and deliver the intervention. The Behavior Analyst Certification Board® *Task List for Board Certified Behavior Analysts® Working With Persons With Autism®* (BACB, 2007) provides useful guidance. Due to the lack of graduate training programs in behavior analysis near the Center and other factors, the supervisory staff currently comprise a Board Certified Assistant Behavior Analyst (BCaBA) who is working to meet eligibility requirements to sit for the Board Certified Behavior Analyst (BCBA) exam (the first author) and two people who are working toward BCaBA certification. All of those individuals are supervised regularly on site and via videoconferencing by an experienced BCBA-D (the second author). Other experienced BCBA-Ds provide periodic on-site consultations. Most of the direct intervention is provided by paraprofessional staff (some with bachelor's degrees) who receive training in ABA principles and methods on the job from the Center supervisors, the supervising BCBA-D, and the consultants.

Another general resource consideration is the time available for intervention. At present, programming is provided in the ABA Center for 5 days each week, about 5 hours per day, for 11 months of the year. We try to take these general personnel and time constraints into consideration in choosing realistic intervention goals and objectives for each learner.

Three Specific Considerations in Designing an Initial Intervention Program

The first consideration is the learner's current level of functioning, strengths, and weaknesses. To guide this and subsequent evaluations of learner performance and to select intervention objectives, we find it essential to use a curriculum scope and sequence that includes all major skill domains (e.g., early learning, communication, social, motor, play and leisure,

self-care). We use a scope and sequence that the second author has developed by integrating information from a number of published curriculum guides for young learners with autism and related disorders (e.g., Lovaas, 2003; Romanczyk, Lockshin, & Matey, 1996; Taylor & Jasper, 2001; Taylor & McDonough, 1996), developmental research, and behavior analytic research. We begin by reviewing any diagnostic, developmental, and psychoeducational assessments that have been conducted by community professionals. Results of standardized tests, checklists, and caregiver interviews indicate how the learner's skills in certain broad domains (e.g., intellectual skills, communication skills, adaptive behavior) compare with those of typically developing children of the same age. The evaluation reports may also provide some information about problem behaviors and some recommendations regarding intervention goals and objectives.

Standardized test results and reports from caregivers and evaluators may give us a general idea of where a learner's entry skills fall in the scope and sequence for each curricular domain, but they do not tell us precisely what the learner does and does not do in everyday, real-world situations. That information is necessary for selecting intervention targets that will enable the learner to function as safely, successfully, and independently as possible in the short run (the second consideration for intervention planning) and in the more distant future (the third consideration). To obtain such information, we conduct direct observational assessments of the skills in each domain of the scope and sequence, starting at the level suggested by our review of previous evaluations. For instance, by reviewing the records on a 6-year-old learner, we may learn that on the Peabody Picture Vocabulary Test she matched dictated words to the corresponding pictures for some vocabulary items that are typically in a youngster's repertoire by age 3, but did not match any of the words and pictures on the test that are typically mastered by age 4. These results do not tell us how the learner responds to words spoken to her in everyday situations, so we might observe the learner to see which objects and pictures in her environment she seems to reliably "match" to words spoken by others. To get more precise information, we record the learner's responses on brief sets of trials using well-designed match-to-sample procedures in which the stimuli are dictated names and corresponding items or pictures of items

that the learner encounters in everyday environments and that are acquired readily by typically developing 3- and 4-year-olds. The latter information can generally be found in sources like speech-and-language or child development textbooks. Results of such assessments should give us a good indication of the learner's current "receptive vocabulary" skills for nouns. Given that information, reasonable short-term intervention objectives could include mastering spoken-word-to-object or -picture matching with a certain number of stimuli at the 3- or 4-year-old level that are functional for the learner. By "functional" we mean that increasing her receptive vocabulary is likely to enable the learner to obtain a variety of reinforcers without adult assistance (prompting) in the environments where she will live and learn during the next year. We would also use the curriculum scope and sequence to guide selection of long-term intervention objectives by considering other skills in the "receptive language" subsection of the communication skills domain that are exhibited by typically developing youngsters of the same age as our learner, and that are likely to enable our learner to function more successfully and independently several years in the future than she would if she did not acquire those skills. We find the concept of "behavioral cusps" helpful for selecting intervention targets that, if changed, will make further behavior change possible and will bring the learner's behavior into maximal contact with reinforcers now and in the future (Rosales-Ruiz & Baer, 1997). Of course, learner and caregiver needs and preferences are also considered in selecting intervention targets.

The same general tactics apply to problem behavior as well. After gleaning general information from record reviews, we might begin by observing the learner in situations where problem behaviors are reported to occur and recording environmental events that just precede and immediately follow observed occurrences. These are not the typical "ABC" narratives, but are more structured in that we try to record frequencies of specific antecedent and consequent events. Depending on the rate and severity of a behavior, we may then conduct a functional analysis (Iwata & Dozier, 2008) in an effort to identify controlling variables as a basis for designing interventions. We also conduct frequent empirical preference assessments (e.g., Fisher et al., 1992) to identify potential reinforcers for building functional skills.

Three Considerations in Adjusting an Intervention Program After One Year

The same considerations and tactics described previously, along with graphed data from ongoing direct observational assessments, are used to calibrate each learner's curriculum frequently throughout the year. Again, the curriculum scope and sequence serves as our "road map" for selecting new objectives

within each skill domain after earlier objectives are mastered, or when a learner's difficulty acquiring a skill suggests that she needs to work on one or more prerequisites (i.e., skills that precede that one in the curriculum sequence or that constitute components of the skill targeted initially). Selecting objectives for a learner's second year in the program is often easier than selecting initial objectives because the program staff have detailed data that they have collected on the rate with which the learner acquired skills in each domain, notes on adjustments in intervention targets and procedures, and their own observations of the learner during the first year of intervention. The learner's level of functioning is therefore determined by reviewing those data instead of assessments conducted by others. With those data in hand, and having gained skills and experience during the first year, staff should be in a good position to choose short- and long-term intervention objectives for the second year that are both realistic and meaningful for the learner.

References

- Behavior Analyst Certification Board. (2007). *Task List for Board Certified Behavior Analysts® Working With Persons With Autism®*. Retrieved from <http://www.bacb.com/Downloadfiles/AutismTaskList/708AutismTaskListF.pdf>
- Fisher, W. W., Piazza, C. C., Bowman, L. G., Hagopian, L. P., Owens, J. C., & Slevin, I. (1992). A comparison of two approaches for identifying reinforcers for persons with severe and profound disabilities. *Journal of Applied Behavior Analysis*, 25, 491-498.
- Iwata, B. A., & Dozier, C. L. (2008). Clinical application of functional analysis methodology. *Behavior Analysis in Practice*, 1, 3-9.
- Lovaas, O. I. (2003). *Teaching individuals with developmental delays: Basic intervention techniques*. Austin, TX: PRO-ED.
- Romanczyk, R.G., Lockshin, S., & Matey, L. (1996). *Individualized goal selection curriculum*. Different Roads to Learning. Available from <http://www.difflearn.com/category/s>
- Rosales-Ruiz, J., & Baer, D. M. (1997). Behavioral cusps: A developmental and pragmatic concept for behavior analysis. *Journal of Applied Behavior Analysis*, 30, 533-544.
- Taylor, B. A. & Jasper, S. (2001). Teaching programs to increase peer interaction. In C. Maurice, G. Green, & R. M. Foxx (Eds.), *Making a difference: Behavioral intervention for autism*. (pp. 97-162). Austin, TX: PRO-ED.
- Taylor, B. A., & McDonough, K. A. (1996). Selecting teaching programs. In C. Maurice, G. Green, & Luce, S. C. (Eds.), *Behavioral intervention for young children with autism: A manual for parents and professionals*. (pp. 63-177). Austin, TX: PRO-ED.