Training Student Practitioners to Implement a Language Skills Curriculum and Assessment for Children with Autism

Becky F. Barron & Linda M. Muckey
Southern Illinois University

Background

- Children with ASD experience deficits in the areas of language and cognition
- Therapeutic procedures based off the principles of applied behavior analysis (ABA) can reduce these deficits
- Promoting the Emergence of Advanced Knowledge (PEAK) is an evidence based language and cognitive skills curriculum and assessment package designed for children with autism (Dixon et al., 2017; Dixon, 2016). Each module focuses on a different modality of learning: Direct training, generalization, equivalence-based instruction, and relational training
- The purpose of the following study was
  - To train student practitioners in an ABA undergraduate and graduate Autism course to administer language and cognitive assessments
  - To train student practitioners to implement language skill acquisition programs
  - To assess the effect of these training procedures on in-clinic implementation and treatment planning for children with Autism Spectrum Disorder

Methods

Participants: 23 college students (12 graduate, 11 undergraduate; 4 male, 19 female; 20 ABA, 2 SLP, 1 Therapeutic Rec students)

- Phase 1 Materials: Students were provided written instruction, video examples, and all necessary materials to complete the assessment
- Phase 1 Procedure: In partners, students completed all 4 PEAK pre-assessments and video recorded their process. Researchers scored them on implementation fidelity
- Phase 2 Materials: Students were provided written instructions and video examples for 3 programs from each PEAK module (12 programs total). Students were required to find their own implementation materials
- Phase 2 Procedure: Students were instructed to complete all programs with a child (with DD or neurotypical) and video recorded their process. Researchers scored them on implementation fidelity
- Phase 3 Materials: PEAK Comprehensive Record Booklet and live video example of child with ASD receiving PEAK assessments
- Phase 3 Procedure: A12 graduate students were required to watch a video example of a child with ASD receiving the PEAK pre-assessments. They were required to score the implementer’s fidelity, complete components of the PEAK Comprehensive Record Booklet for behavioral issues and assessment results, and then write a treatment plan for language acquisition and challenging behavior reduction based on the results B11 undergraduate students were required to attend 5 sessions at the on-campus autism clinic. For the first 2 sessions they needed to observe the client with their current therapist. The following 3 sessions they were required to implement the programming.

Results

Part 1: All student practitioners achieved 90% or higher on implementation fidelity across all 4 PEAK pre-assessments. Inter-observer agreement (IOA) was collected for 30% of student videos at 93% reliability in scoring. Average fidelity of implementation by module and overall performance is broken down in Figure 1.

Part 2: All student practitioners achieved 85% or higher on implementation fidelity across all 4 PEAK module programs. Examples of programs included learning opposites, matching colors, guessing, and conversational skills. Average fidelity of implementation by module and overall is broken down in Figure 2.

Part 3: All participants successfully completed the required phase 3. Participants indicated changes in social validity and preparedness scores from pre- and post course. All participants indicated in the post-test that they felt prepared to implement both assessment and treatment program to children with ASD following the training in the course. Additionally, all the participants indicated that the training would be useful for their future careers as ABA therapists or BCBAs.

Conclusion

Student practitioners in an undergraduate and graduate Autism course:
- Were effectively trained to implement language and cognitive assessments
- Were trained to implement language and cognitive skill acquisition programs with children with ASD
- Conducted assessments and implementation of programs with relatively high levels of implementation fidelity
- Reported that these training procedures may better prepare them for future careers in working with children with ASD or DD
- It may be beneficial to use these types of training procedures when teaching student practitioners how to best implement procedures with fidelity and confidence

References


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