The HANDS (Helping Answer Needs by Developing Specialists) in Autism training model has been developed with primary consideration provided to an intensive, hands-on training rooted in ABA principles and practical practices. Participants learn in an active environment through didactic, intensive hands-on practice, coaching, and feedback sessions. Ultimately, participants are asked to apply these principles to diverse real-life situations during structured classroom interactions with student participants differing in age and developmental profiles.

To determine the effectiveness of the HANDS in Autism model, participants were assessed through demonstration of their ability to retain, understand, and apply curriculum material. Specifically, participants were observed during hands-on activities in which interactions with student participants were coded for correctness in applying the skills taught. The skills targeted for this poster include the appropriate use of positive attention and errorless learning prompting strategies. Additionally, participants provided products and written samples demonstrating their knowledge and application of skills (e.g., choreography, physical and visual structure, assessment, grouping). Upon receiving feedback, participants worked to adapt approaches and to revise products accordingly. These adapted behaviors and products were then reevaluated to determine the incorporation of immediate feedback. Through these observations, in-situation activities, and product samples, we were able to determine that the HANDS in Autism model was an effective program for increasing knowledge and practical application of skills relevant to professionals working with children with ASD.

**Methods and Participants**

Thirty-two (N = 32) professionals attended one of three week-long training sessions conducted during the summer of 2008. In attendance were 18 special educators, 6 instructional assistants/paraprofessionals, 4 therapists (speech or occupational), 3 administrators, and 2 general educators. The participants were split into three groups per session consisting of 3-5 members each. Data are reported with respect to group (n = 9). The training curriculum included several modules covering a variety of topics (e.g., assessment, choreography, social/communication skills). Each module included a didactic section, as well as an activity and a hands-on experience with coaching and feedback. The focus of this poster is on the interactions between the participant and student during the hands-on practice sessions. Two skills presented for this poster include positive attention to the student participants (% appropriate and rate per minute) and prompting through errorless learning strategies (% of each type of prompt used during the session). Additionally, products created by participants for use with the students were rated using scales created for this project for the following areas: goals and objectives, incorporation of students’ strengths and interests, teaching/prompting abilities, use of physical and visual structure, and miscellaneous (including behavior strategies, data collection, following instructions, etc.).

**Background**

The HANDS (Helping Answer Needs by Developing Specialists) in Autism training model has been developed with primary consideration provided to an intensive, hands-on training rooted in ABA principles and practical practices. Participants learn in an active environment through didactic, intensive hands-on practice, coaching, and feedback sessions. Ultimately, participants are asked to apply these principles to diverse real-life situations during structured classroom interactions with student participants differing in age and developmental profiles. To determine the effectiveness of the HANDS in Autism model, participants were assessed through demonstration of their ability to retain, understand, and apply curriculum material. Specifically, participants were observed during hands-on activities in which interactions with student participants were coded for correctness in applying the skills taught. The skills targeted for this poster include the appropriate use of positive attention and errorless learning prompting strategies. Additionally, participants provided products and written samples demonstrating their knowledge and application of skills (e.g., choreography, physical and visual structure, assessment, grouping). Upon receiving feedback, participants worked to adapt approaches and to revise products accordingly. These adapted behaviors and products were then reevaluated to determine the incorporation of immediate feedback. Through these observations, in-situation activities, and product samples, we were able to determine that the HANDS in Autism model was an effective program for increasing knowledge and practical application of skills relevant to professionals working with children with ASD.

**Results**

There was no statistical difference in performance by group or training session (all p > .01). Therefore data were collapsed and reported across all three training sessions. For the skills observed, there was an improvement from the beginning of training to the end of training on both percent of appropriate positive attention (15.1±9%) and rate of positive attention (5.6±2.4) although these values are not significant (p > .05), most likely due to the low sample size. There was no appreciable decrease in the number of verbal prompts used; however, it appears as if a wider variety of prompts was used including more use of gestural prompts as the week went on.

For the ratings, all but one of the interaction types and all of the content areas received average ratings over 4 out of 5. The best performing interaction types were the Informal Assessment (M=4.38, SD=.31) and the Promoting/Teaching (Participant Materials) (M=4.38, SD=.35). The worst performing interaction type was Prompting/Teaching (HANDS Materials) (M=3.93, SD=.28). The content area with the highest ratings was Goals & Objectives (M=4.72, SD=.35). The content area with the lowest ratings was Teaching and Prompting Ability (M=3.22, SD=.35).

**Conclusions & Future Directions**

There was less improvement in errorless learning prompting strategies compared to positive attention indicating that this may be a particularly difficult skill to master. The best performing interaction sessions appeared to be those where participants created the materials themselves. Perhaps they feel more comfortable when able to practice and develop the materials prior to the interaction as opposed to going into the situation without adequate time or familiarity with materials. The Final Activity shows participants providing somewhat worse in prompting and in the rate of positive attention given. It is important to note that because this was the participants’ final training session, HANDS staff were instructed to provide no feedback or coaching. Additionally, the groups presented their activity in front of the rest of the participants and included all members of the group as opposed to the other hands-on interactions where only one member was accountable for the success of the child. Discomfort with being observed, the lack of feedback, and having to rely on other members to provide prompts may in part explain the poor performance compared to the performance in others interaction types. These concerns were rated highly although the Teaching & Prompting Ability was rated the lowest. This could be due to the performance anxiety of being in a strange situation with people observing and providing feedback on performance. The low sample size did not allow for more comparisons including interaction type by content area.

Future directions of the program include the development of a quasi-experimental model involving the randomization of potential participants into different training formats (including a wait-list control) to better examine the effects of one content area and training modality over another.

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