

Helping Answer Needs by Developing Specialists (HANDS) in Autism: Year Four Training Evaluation and Fidelity



Iryna Ashby, Melissa Stuart, Naomi Swiezy, Patricia Korzekwa, Stacie Pozdol, & Heather Coates

HANDS in Autism, Indiana University School of Medicine

Abstract

The mission of HANDS in Autism (Helping Answer Needs by Developing Specialists in Autism) is to provide practical and applicable information to a variety of caregivers from an ABA-based framework and to provide an option for training that promotes practical learning opportunities through an innovative and intensive hands-on and coaching experience. Participants in the weeklong training program provided daily feedback on several aspects of the training, including rating the thoroughness of information presented, the materials provided, and the hands-on experiences. In addition, both training staff and participants were rated on their fidelity to the training curriculum. During the five days of training topics regarding program design, assessment, environmental control, behavior intervention, and skills teaching were presented. Results pertaining to the participants' satisfaction with the training and the fidelity of both the participants and training staff are presented. Conclusions regarding implications, future research, and limitations will be discussed.

Background

Since 2004, the HANDS (Helping Answer Needs by Developing Specialists) in Autism training model has been striving to meet the growing need of professionals working with children on the spectrum to deepen knowledge of ABA principles and best practices and to promote their application in school settings. The HANDS Model curriculum allows participants to learn in an active environment through didactic, intensive hands-on practice, coaching, and feedback sessions with further utilization of these principles in real-life situations in the structured HANDS classroom with student participants of different ages and developmental profiles.

To verify that the HANDS training model can effectively meet the needs of the trainees, the ability of the training staff to follow the guidelines outlined in the curriculum, the effectiveness of demonstration of specific strategies taught during the training, and the participant satisfaction with the training were measured. These measures help us demonstrate that the HANDS in Autism model is practical and appreciated by training participants, what enables us to argue for the use of this model in other settings.

Hypotheses

Participant ratings of the training program across several variables will demonstrate overall satisfaction with the training and provide feedback for improving subsequent training sessions.

Participants and training staff will be able to demonstrate high fidelity to the training program. Specifically, participants will adhere to the strategies being taught and staff will adhere to the training curriculum.

Both high satisfaction and high fidelity will suggest that this model is both practical and well-received by participants.

Methods and Participants

Thirty-one (N = 31) professionals who work with children across the autism spectrum attended and completed training sessions conducted during the summer of 2008: 12 in session I, 7 in session II, and 12 in session III. Across all sessions, 17 special educators, 6 instructional assistants/paraprofessionals, 4 therapists (speech or occupational), 2 administrators, and 2 general educators attended.

At the end of each training day for a five-day period of each of three training sessions, participants were asked to complete an evaluation of the material covered that day and their overall experience for that day. In addition, two lead HANDS trainers assessed both participant and staff fidelity to the training program curriculum on each specific day.

The following areas were included in the curriculum of every training session:

- **Day 1: Diagnosis & Best Practices** – Diagnostic criteria for autism spectrum disorders, data-driven and ABA-based practices, and HANDS Philosophy and Model introduction
- **Day 2: Structure & Choreography** – Visual and physical structure, role distribution and collaboration with classroom staff and other entities in the educational system
- **Day 3: Assessment and Behavior Intervention**– Informal, curriculum-based, and standardized assessment, data collection and analysis, development of IEP and BIP goals and objectives, behavior reduction
- **Day 4: Teaching** – 1:1 teaching, independent work systems, development and adaptation of teaching materials
- **Day 5: Social Skills** – Social development, assessment of individual strengths and needs, developing and implementing social skills goals

Measures & Coding Procedures

Program Evaluation Data

Participants were asked to rate their daily satisfaction with different components of the training and for the overall training on a five-point scale (1 = Not at all satisfied; 5 = Very much satisfied). Factors evaluated for each training day include:

- Outlining goals and objectives
- Hands-on group activities
- Observing HANDS Staff
- Didactics/Lectures
- Materials provided
- Feedback/coaching provided
- Quality of the speakers
- Facilities
- Knowledge of staff
- Hands-on classroom activities
- Level of knowledge
- Multi-media

Program Fidelity Data

Training Participants. For the duration of the training, participants were divided into three teams of three to five participants for breakout sessions, hands-on activities, brainstorming activities, etc. The HANDS lead trainers rated each team on their fidelity to the program curriculum based on a 5-point scale (0 = Not true; 5 = All true). Factors evaluated for each team include:

- Individualizing task for child
- Generalization of previous days skills
- Using data to inform task
- Correct prompting used
- Adherence to goals and objectives
- Engagement in the daily tasks
- Adherence to daily roles
- Use of behavior strategies

HANDS Staff. Each day, the HANDS lead trainers assessed the staff's fidelity to the training program. The staff as a whole was rated on a 5-point scale (0 = Not Completed; 5 = Completed). Factors evaluated for each training day include:

- Use of daily morning meeting
- Explained daily roles/goals
- Review of schedules/assignments
- Maintained structured environment
- Presenting full lectures
- Modeled skills correctly
- Use of multi-media
- Adherence to training schedule

Ratings for both participants and staff were then summed across items and divided by the total number of points possible to get a per cent fidelity score, and further averaged between the two raters.

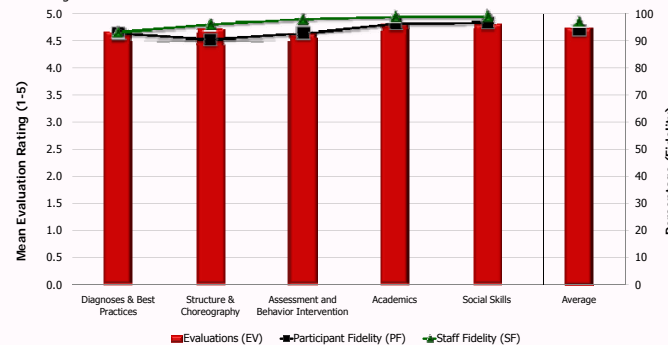


Figure 1. Mean participant evaluation ratings, participant fidelity, and staff fidelity per cent scores across all 3 sessions.

Table 1. Mean staff and participant fidelity scores and mean evaluation ratings by session.

	Session 1			Session 2			Session 3		
	SF (%)	PF (%)	EV	SF (%)	PF (%)	EV	SF (%)	PF (%)	EV
Diagnosis & Best Practices	91.14	87.92	4.77	89.55	95.51	4.82	99.09	94.76	4.68
Structure & Choreography	95.68	89.91	4.77	94.17	87.22	4.85	98.33	94.22	4.76
Assessment & Behavior Intervention	99.17	91.68	4.67	99.17	94.38	4.79	95.83	92.25	4.70
Teaching	96.67	97.50	4.77	100	94.58	4.89	100	96.88	4.77
Social Skills	98.18	96.44	4.77	99.09	96.88	4.91	100	96.67	4.81
Average	96.17	92.69	4.75	96.39	93.71	4.85	98.65	94.96	4.74

NOTES: SF = Staff Fidelity Score; PF = Participant Fidelity Score; EV = Evaluation Rating.

Results

Across all five days of the training of each of three training sessions, participants reported being greatly satisfied (M = 4.73, SD = .08). While not statistically significant (p > .05), participants generally rated Assessment and Behavior Intervention day lower compared to other days. This day involves intense didactic material and hands-on work with the students. In addition, these are areas of distinct expectation of classroom staff, while little explicit instruction is often provided. As such, this is not a comfort zone for many.

Across all three sessions and all five days of training, both participants (M = 93.79%, SD = 2.64) and training staff (M = 97.07%, SD = 2.45) were able to maintain high rates of fidelity to the training curriculum. Though not statistically significant, it is important to note anecdotally that staff fidelity was lower on the first day of sessions 1 and 2. The former may be explained by the fact that the training flow underwent significant changes from the previous year, what may account for the difference in approach and rating, and the latter, by the fact that more changes were introduced between the first and second sessions to accommodate the needs outlined in evaluation forms by participants. Another anecdotal point is that the participant fidelity increased throughout the duration of the training session, what can serve as an additional support that participants may have considered the training as useful and applicable to their settings, and were able to maintain higher fidelity to the training curriculum.

Conclusions & Future Directions

Overall, it appears that participants were highly satisfied with the training program and both participants and staff were able to maintain high levels of fidelity to the training curriculum. Using these results, the HANDS training program was revised again to incorporate more activities and less lecture-based instruction, and more reinforcement of primary principles. As an example of such revision, general didactic information and training (e.g., Diagnoses and Best Practices) will be offered in the form of a web-based training as a pre-requisite prior to an actual summer session in subsequent years.

Results presented above suggest that the HANDS in Autism model of professional training is highly satisfactory to participants, easy for participants to follow, and easy for staff to implement based on received training.



For more information, visit our website at www.handsinautism.org

This program is facilitated by Grant Number E11/CCU524062-01 from the Centers of Disease Control and Prevention and other charitable organizations. The ongoing efforts of the project are primarily and currently supported through a grant from the Center for Exceptional Learners, Indiana Department of Education under Part B of the Individuals with Disabilities Education Improvement Act (P.L. 108-446). Its contents are solely the responsibility of the authors and do not necessarily represent the official views of our sponsors.

The Picture Communication Symbols ©1981-2005 by Mayer-Johnson LLC. All Rights Reserved Worldwide. Used with permission.

