Iowa's Challenging Behavior Service: Creating Statewide Change Training School-Based Behavior Teams in the Area of Advanced Behavioral Assessment

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Introduction

- Iowa is divided into 9 Area Education Agencies (AEAs) that are responsible for delivering a variety of educational services to school districts, including behavior support.
- In 2009, the Iowa Department of Education (DE) supported an initiative for each AEA to develop a challenging behavior team to assess behavior and provide support in the student's educational setting. The initiative was replicated beginning in 2013 with Local Education Agencies (LEAs), or school districts, in Iowa. To date, 10 LEAs have participated in the training.
- The DE contracted with a team of behavior analysts from the Center for Disabilities and Development (CDD) at Iowa's University Center for Excellence in Developmental Disabilities (UCEDD) to provide training and consultation in applied behavior analysis.
- The DE's goals for the behavior teams were to gain skills to complete behavioral assessments, triage when the case was difficult or too resource intensive, and to build sustainability in the state by training additional staff.

Training Model

Didactic training

- Provided lectures on behavioral principles, assessment, and intervention through bi-monthly meetings using videoconferencing (e.g., Zoom).
- Trainees presented lectures on behavioral principles, assessment, and intervention via videoconferencing beginning their second year of training.

Hands-on training

- Full-day training sessions were offered 1-2 times per month for a total of 10-14 sessions during the school year.
- All trainings were in the school setting or in a clinic designed for behavior assessment at the UCEDD.
- Trainings included assessing students that had been referred to the training team due to their engagement in challenging behavior.

Skills Trained

Behavior Assessment Tools

- Data Collection
- Graphing
- Data Analysis (single-case design)

Behavior Assessments

- Descriptive Assessment (e.g., Lalli et al., 1993; Riffel, 2018)
- Preference Assessment (e.g., Fisher et al., 1992)
- Choice Analysis/Concurrent Operants Assessment (e.g., Harding et al., 1999)
- Functional Analysis (e.g., Iwata et al., 1982/1994, Northup et al., 1991)
- Antecedent Analysis (e.g., Carr and Durand, 1985)

Outcome Measures

Competency Measure: To graduate, individuals were required to reach the Advanced Level in the following areas (NIH Competencies Proficiency Scale, 2009):

- *Self-Report of Independence:* Trainees annually self-reported their level of expertise with behavior assessment skills until they met criteria for endorsing Advanced-Level skills in behavior assessment.
- *Knowledge Exam:* Trainees were administered an exam to test their knowledge in the areas of behavior principles and behavior assessment. The exam was administered yearly until they passed the exam with 82% accuracy, thus reaching the Advanced Level
- *Task Analyses:* Task analyses were created for each of the skill areas being trained. The trainee's level of independence in performing skills was evaluated at each training visit. Two demonstrations at the Advanced Level in each target skill were required to graduate.

Participants

Table 1. Summary of Participants

	Cohort 1 (AEA)	Cohort 2 (LEA)
Number of Teams Trained	9	10
Number of Graduates	34	12
Number of Current Trainees	N/A	14
Number who Discontinued	28	28

Table 2. Discipline of Trainees

Discipline	Cohort 1 Graduates	Cohort 2 Graduates/ Current Trainees
Post-Graduate Field of Study		
Administration	0	1
Behavior Analysis	1	1
Psychology	12	2
School Counseling	1	3
Social Work	14	3
Special Education	6	12
Speech Language Pathology	0	1
Bachelor's Field of Study		
Education	0	3
Completed Additional Coursework in Behavior Analysis Prior to Training	1	7

Table 3. Student Demographics

	Cohort 1 (AEA)		Cohort 2 (LEA)	
	Developmental Delay	No Known Dev. Delay	Developmental Delay	No Known Dev. Delay
0 - 9 years	157	172	38	105
10 - 21 years	123	44	31	31
Total Number of Students	496		205	

Training Outcomes

Figure 1. Average Number of Assessments Conducted

- The average number of student assessments conducted during training visits per team ranged between 12-20 assessments for Cohort 1 (AEA) and 20-28 for Cohort 2 (LEA).
- Trainees also practiced conducting assessments outside of training visits, summarized in Figure 1.

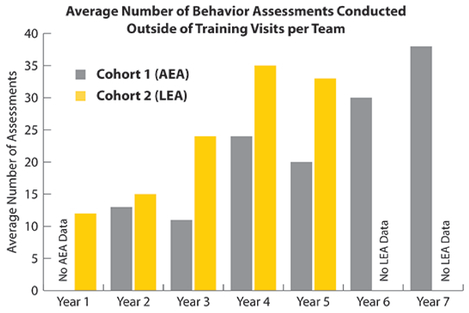


Table 4. Summary of Trainees' Progress on Outcome Measures

Cohort 1 (AEA)	BL	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7
Number of Trainees at the Advanced Level for *Self-Report of Independence*	1	2	9	15	4	3	0	0
Number of Trainees at the Advanced Level for *Knowledge Exam**	0	6	3	1	0	0	0	0
Number of Trainees at the Advanced Level for *Direct Observation*	N/A	1	4	16	9	4	0	0

* The Knowledge Exam was not ready until Year 3 of the training project, thus the reported numbers are for trainees who started in Year 3 or later.

Table 5. Summary of Trainees' Progress on Outcome Measures

Cohort 2 (LEA)	BL	Year 1	Year 2	Year 3	Year 4	Year 5	N/A
Number of Trainees at the Advanced Level for *Self-Report of Independence*	0	1	5	8	0	0	12
Number of Trainees at the Advanced Level for *Knowledge Exam*	5	8	6	0	1	0	6
Number of Trainees at the Advanced Level for *Direct Observation*	N/A	0	0	10	2	0	14

Student Outcomes

At the conclusion of the 2015-2016 academic year, we began to survey trainees regarding their practice with students who had been evaluated during a training session and the progress of these students.

- Students were selected from each team randomly
- Trainees received an email with the survey
- Trainees worked with the students' team as needed to complete the survey
- We received completed surveys on 38 students from AEA trainees and 85 students from LEA trainees

Figure 2. Changes in Student Behavior

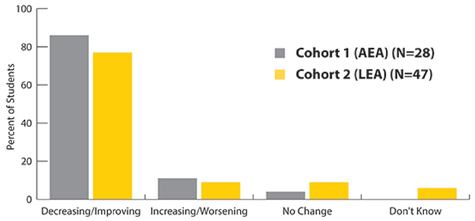
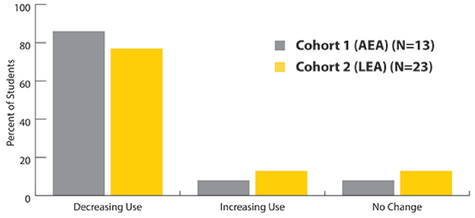


Figure 3. Use of Restraint and Seclusion



Results/Discussion:

The Iowa UCEDD, with support from the Iowa DE, has been training behavior teams across the state of Iowa for more than 9 years to improve the quality of functional behavior assessments (FBA) in school settings.

- Through this project, 701 students have been served and overall decreases in problem behavior, seclusion, and restraint have been reported.
- In addition, 19 teams have participated in the project, 46 individuals have reached the advanced level, and 14 are still in training.

The Iowa DE has also focused on building sustainability across the state and has provided the Iowa UCEDD with funding to execute this initiative.

- Thus far, each team that has graduated from this project has begun training on functional behavior assessment and intervention to improve skills of educators.
- To assist with training, the UCEDD facilitates an Advanced Behavior Certification team comprised of graduates from the AEAs to help ensure that the integrity of ongoing training provided by graduates remains high.
- The UCEDD also offers ongoing webinars in applied behavior analysis to provide continuous professional development opportunities to challenging behavior teams and their trainees.

In addition to building capacity in Iowa, the UCEDD has worked to improve FBA in other states and countries:

- In June 2015, the Iowa UCEDD consulted with Dr. Anu Dutt at the National Institute of Education in Singapore to develop training for educators in Singapore on FBA and intervention.
- Since 2015, the Iowa UCEDD has collaborated with consultants from the Treatment and Research Institute for Autism Spectrum Disorders at the Vanderbilt Kennedy Center who are working to improve FBAs in schools in the state of Tennessee.
- In 2016, the Iowa UCEDD began consulting with behavior analysts from the Autism Center for Excellence at the Virginia Commonwealth University and received a contract from them in 2017 to train a behavior team responsible for conducting behavioral assessments in the school setting.
- The Iowa UCEDD has also provided consultation in training FBA to Colorado, Illinois, South Dakota, Puerto Rico, and Australia.

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