

# CLM Sessions at IABA 2013

## # 19 Symposium

05/25/2013 (Saturday)

1:00 PM - 2:20 PM

205 A-B (Convention Center)

AUT/EDC; Service Delivery

BACB CE Offered. CE Instructor: Daniel E. Hursh, Ph.D.

### **Evaluating Autism Treatment Programs**

Chair: Dana Cihelkova (West Virginia University)

Discussant: Betty Fry Williams (Whitworth University)

BACB CE Offered. CE Instructor: Daniel E. Hursh, Ph.D.

## # 37 Panel Discussion

05/25/2013 (Saturday)

1:30 PM - 2:50 PM

M100 F-G (Convention Center)

EDC; Applied Research

BACB CE Offered. CE Instructor: Janet S. Twyman, Ph.D.

### **Behavioral Approaches to Complexity and Generativity**

Chair: Janet S. Twyman (E.K. Shriver Center, University of Massachusetts Medical Center)

BACB CE Offered. CE Instructor: Janet S. Twyman, Ph.D.

## # 179 Poster Session

05/26/2013 (Sunday)

12:00 PM - 2:00 PM

Exhibit Hall B (Convention Center)

**An Impact Pathway Analysis for the Competent Learner Model** (EDC; Theory)

DANA CIHELKOVA (West Virginia University), Daniel E. Hursh (West Virginia University), Vicci Tucci (Tucci Learning Solutions, Inc.)

## # 376 Symposium

05/27/2013

3:30 PM - 4:50 PM (Monday)

M100 H-I (Convention Center)

EDC/DDA; Service Delivery

BACB CE Offered. CE Instructor: Autumn Kaufman, M.S.

### **Effects of the Competent Learner Model on Reducing Problematic Behavior and Increasing Skill Acquisition Across Three Public School Settings in Rural Virginia**

Chair: Autumn Kaufman (Commonwealth Autism Services)

Discussant: Vicci Tucci (Tucci Learning Solutions, Inc.)

BACB CE Offered. CE Instructor: Autumn Kaufman, M.S.

# CLM Sessions at IABA 2013

## Abstracts

### # 19 Symposium (Saturday)

#### Evaluating Autism Treatment Programs

**Chair:** Dana Cihelkova (West Virginia University)

**Discussant:** Betty Fry Williams (Whitworth University)

**BACB CE Offered:** CE Instructor: Daniel E. Hursh, Ph.D.

#### **An Example of Discrete Trials Training Outcomes From the WVU Autism Clinic**

EMILY MORRIS (The Center for Excellence in Disabilities at West Virginia University),  
Susannah Poe (West Virginia University)

**Abstract:** The purpose of this presentation is to demonstrate the effectiveness of discrete-trials training (DTT) for young children with autism by presenting clinical data from the intensive Autism Service Delivery Clinic in Morgantown, WV. Skill acquisition data from three clients younger than 6, all with diagnoses of autism will be presented. Clients to participate spend between 12 and 18 hours a week at the clinic. About 66% of their time in the clinic is spent engaged in DTT programming. Additional time is split among recreational activities, group instruction, and more naturalistic training strategies. Data will include intake assessments (either the ABLLS or VB-MAPS) and follow up data at 6-12 months after the start of the intervention. The same assessment used at intake will be used during the follow up assessments. In addition, cumulative records of mastered skills will be presented for each client. Only skills acquired using a DTT format will be included in the cumulative records. Clinical implications including comparisons of DTT to alternative instructional methods (verbal approach and Competent Learner Model) will be discussed.

#### **The Impact of the Competent Learner Model at the Vista School**

KIRSTEN K. YURICH (The Vista School), Dana Cihelkova (West Virginia University), Daniel E. Hursh (West Virginia University), Krina Durica (The Vista School), Emily Strausbaugh (The Vista School), Vicci Tucci (Tucci Learning Solutions, Inc.)

**Abstract:** This study evaluated the impact of the Competent Learner Model (CLM) on the development of children with autism spectrum disorders. The main objective of the CLM is to assist teachers and/or parents while they endeavor to establish learner repertoires that facilitate students' successful involvement in their home and/or school environments. The CLM is fully implemented at the Vista school. The study measured changes in the children's behavior from their initial enrollment at the school until two years later using the Vineland Adaptive Behavior Scales, Second Edition, The Gilliam Autism Rating Scale, and the Preschool Language Scale. The incorporation of the CLM curriculum led to significant improvement in students' adaptive behavior, personal, school community, interpersonal, play and leisure, coping, socialization, auditory comprehension, and expressive language skills. The CLM was especially successful in development of expressive language and auditory comprehension as measured by the Preschool Language Scale and in development of socialization as measured by Vineland Adaptive Behavior Scales, Second Edition. Expressive language and auditory comprehension had a large effect size ( $r = 0.7$ ) and socialization had a moderately large effect size ( $r = 0.6$ ) indicating the statistical and practical importance of the changes in the children's behavior.

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## # 19 Symposium (continued) Evaluating Autism Treatment Programs

**Using Single-Case Research to Evaluate Autism Treatment Programs** DANIEL E. HURSH (West Virginia University), Dana Cihelkova (West Virginia University)

**Abstract:** Single-case research designs have been the hallmark of the means by which applied behavior analysis has demonstrated the impact of behavior-analysis-based interventions on socially important human behavior. Persons with autism were among the first to be treated by behavior-analysis-based interventions. The effects of these interventions were demonstrated using single-case research designs. The growth of the incidence of autism spectrum disorders has provided many more opportunities for applied behavior analysis to demonstrate its usefulness. Most of these demonstrations employed single-case research designs. The use of systematic replications is a single case research tactic that serves as a means for isolating the features of interventions essential for treatment effectiveness. The incorporation of single-case research designs into the evaluation of autism treatment programs has provided the means to move from isolated interventions to sets of interventions that have become the applied behavior analysis based autism treatment programs.

## # 179 Poster Session (Sunday)

**(27). An Impact Pathway Analysis for the Competent Learner Model** (EDC; Theory) DANA CIHELKOVA (West Virginia University), Daniel E. Hursh (West Virginia University), Vicci Tucci (Tucci Learning Solutions, Inc.)

**Abstract:** For the conceptualization of the Competent Learner Model (CLM) we have developed a Theory of Change. The poster conveys graphical representation of the dynamics between the CLM assumptions and the CLM outcomes and thus theoretically explains how the CLM achieves the expected outcomes. In general, the CLM operates on positivist epistemological beliefs therefore the CLM assumes that the universe is a lawful and orderly place. The CLM assumes that persons' behavior and the environmental events related to that behavior can and should be objectively observed, described, and quantified via systematic data collection so that students' behavior can be established, strengthened, and maintained or weakened. The key CLM conceptual assumption is that human behavior is constantly changing but can be analyzed and modified by finding the functional relations among teacher behavior, student behavior, and other environmental events. The CLM postulates that in order for students' personal, social, and academic behavior to be maintained in everyday circumstances, a set of seven behavioral repertoires must be established, strengthened, and maintained. The CLM suggests that development of the seven Competent Learner Repertoires (observer, listener, talker, reader, writer, problem solver, and participator) will result in appropriate personal, social, and academic functioning of students in everyday circumstances.

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## # 37 Panel Discussion (Saturday)

### **Behavioral Approaches to Complexity and Generativity**

Chair: Janet S. Twyman (E.K. Shriver Center, University of Massachusetts Medical Center)

KENT JOHNSON (Morningside Academy)

VICCI TUCCI (Tucci Learning Solutions, Inc.)

APRIL M. BECKER (University of Texas Southwestern Medical Center)

JANET S. TWYMAN (E.K. Shriver Center, University of Massachusetts Medical Center)

**Abstract:** Numerous studies have demonstrated that Applied Behavior Analysis and explicit behavior analytic teaching methods are effective in strengthening, weakening, maintaining, or generalizing behaviors of significance. However, is explicit teaching the always the best or most efficient way to develop independent functioning and generalized responding, and can this approach target all the skills learners require for success in schools, homes, and community environments? Can we arrange or engineer instructional conditions that occasion novel behavior without explicit instruction? This panel will discuss applied, theoretical, and conceptual topics related to generativity, adduction, application, discovery learning and behavioral cusps, and methodologies such as fluency that promote these topics. Engineered generativity and complex responding examples will be provided across species, learner characteristics, and skills. Research opportunities will also be discussed.

**Keyword(s):** generative instruction, novel behavior, contingency adduction, discovery learning

## # 376 Symposium (Monday)

### **Effects of the Competent Learner Model on Reducing Problematic Behavior and Increasing Skill Acquisition Across Three Public School Settings in Rural Virginia**

Chair: Autumn Kaufman (Commonwealth Autism Services)

Discussant: Vicci Tucci (Tucci Learning Solutions, Inc.)

The Application of the Competent Learner Model to Reduce Problematic Behavior With a Naive Learner: Case Study NA SHONNET R. BRAND (Commonwealth Autism Service), Shawn M. Ramsay (Shenandoah County Public Schools), Cathy Scutta (Cathy Scutta Coaching and Consulting)

Overview of the Learner: Implementation of the Competent Learner Model began with the learner in the Fall of 2011. He was enrolled as a 1st grade student in a public elementary school in rural Virginia. The student was using a combination of symbols, gestures, and some vocals (English and Spanish) in limited frequency and effectiveness to communicate. The learner engaged in frequent problematic behaviors, including climbing (i.e., Attempts or occurrences of one or two feet off floor or body elevated on a table, counter, air conditioner, desk or chair), aggression toward others, property destruction and elopement. A modified daily schedule (i.e., 30 minutes of home-based instruction and 30 minutes of school-based instruction per day) was put in place for the learner in the special education resource room with a 2:1 staff to student ratio. Overview of Procedures: All four components of the Competent Learner Model were implemented for this learner. These components include learner assessments and curriculum, online

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## # 376 Symposium (continued)

### **Effects of the Competent Learner Model on Reducing Problematic Behavior and Increasing Skill Acquisition Across Three Public School Settings in Rural Virginia**

course of study for staff, and on-site coaching in the classroom. The learner was placed into Lesson One of the curriculum. The targets for this initial lesson were manding for items or actions using any form of motor behavior, remaining in close proximity of instructors and accepting highly preferred items. The team participating in the online course of study included the learner's special education teacher, paraprofessionals, SLP and OT. They began completing one unit per month in the fall of 2011. The coaching component also began in the fall, with modeling of behavior interventions and learner formats, implementation of concepts learned in the course of study, and the use of staff fidelity checklists. Data: By the Spring of 2012, an increase was observed in skill acquisition from 2 repertoires to 6 repertoires, and in communication frequency and type. The development of the Problem Solver (mand) Repertoire was observed as learner NA made distinct sounds during preferred activities and distinctly asked for preferred items across people and places. An increase was observed in mean occurrence of 8.5 mands per 30 minute session to 18 mands and tacts per 30 minute session. In regards to reduction of problematic behaviors, participation across learning environments, staff, peers and items also occurred. The learner's climbing behavior occurrences decreased in frequency from 5 occurrences per hour to 0 occurrences per hour.

**Seeing is Believing; Alternating Conditions Across Interventions to Demonstrate the Effectiveness of the Competent Learner Model to Reduce Self-Injurious Behavior. Case Study KGN** CHRISTINE M. WELGAN (Commonwealth Autism Service), Marilyn Keener (Frederick County Public Schools), Autumn Kaufman (Commonwealth Autism Services)

**Abstract:** Overview of the Learner: Competent Learner Model implementation began with the learner in April of 2012. He was enrolled as a second grade student in a center-based regional program in Virginia with no formal communication system in place and limited items and activities that he enjoyed. He engaged in high rates of head banging (i.e., fist to head, head to wall, and head to floor). The intensity of the behavior was such that his mother suffered a broken nose. Overview of the procedures: Learner assessment and curriculum, online course of study for staff, and on-site coaching in the classroom occurred for the learner and staff. The learner was placed into Lesson One of the curriculum. Targets for this lesson were manding for items or actions using any form of motor behavior, remaining in close proximity of instructors and accepting highly preferred items. Coaching included modeling and prompting of behavioral interventions and curriculum formats, and implementing concepts from the course of study. Data: Implementation of Lesson 1 showed immediate gains. Interval data were collected in collaboration with the teacher to demonstrate program effectiveness and increase her compliance to implementing the strategies. Each occurrence of head banging (hitting the head with hands or banging head on floor or wall) was counted as 1 response. A random alternating conditions design was used comparing intervals between Lesson 1 targets and baseline. During the baseline condition, staff members blocked head banging and did not reinforce subtle mands. Each interval lasted 5 minutes. A range of 8-132 occurrences of head banging were observed across alternating conditions. Rate of head banging decreased from 26.8 per minute in April of 2012 to 0.38 per minute by October of 2012.

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## # 376 Symposium (continued)

### **Effects of the Competent Learner Model on Reducing Problematic Behavior and Increasing Skill Acquisition Across Three Public School Settings in Rural Virginia**

In regards to skill acquisition, the learner increased from no mands in April 2012, to using motor responses (i.e. reaching/leaning towards desired items and staff) to request items and actions and returned items to staff's hands to indicate when he was finished. Tolerance of staff proximity increased as shown by decreased pinching and head banging. In April 2012, pinching and head banging occurred within one second of a staff standing within 2 feet of the student. Pinching decreased to near zero rates; while staying in proximity of staff occurred for up to 14 minutes. Duration of time spent with helmet on at school decreased from 7 hours daily in April 2012 to 30 minutes daily in October 2012.

### **The Power of Learning: Decreasing High Frequency Problem Behavior to Participatory Behavior in a Public School Setting: Case Study AK LINDY JACOBS (Rockingham County Public Schools), Kari Zupancic (Commonwealth Autism Service), Kate Masincup (Commonwealth Autism Service)**

**Abstract:** Overview of the learner: A.K. was an 8 year old 2nd grade student enrolled in a multiple disabilities elementary school classroom in Virginia. Prior to intervention, AK did not participate in any instructional conditions. Specific problematic behaviors included aggression toward staff, non-compliance, property destruction, and elopement. Overview of the procedures: The Competent Learner Model was implemented in A.K.'s classroom in October 2011. All instructors and service providers participated in the online Course of Study, with in-situ coaching provided by 2 coaches. The weekly classroom coaching included modeling and coaching of learner assessment, data collection, behavioral interventions and curriculum formats, coaching to assure mastery and implementation of Course of Study concepts, and weekly team meetings to problem solve and monitor progress. In October 2011, the learner was placed into Lesson One of the curriculum. The targets for this initial lesson were manding for items or actions using any form of motor behavior, remaining in close proximity of instructors and accepting highly preferred items. Data: By April 2012, the learner had made significant gains across six skill repertoires. The learner increased participation skills across instructional conditions, across instructors, and across learning environments and materials while showing significant reductions of problematic behaviors. In October 2012, the learner engaged in problematic behavior which included aggression, property destruction, non-compliance, and elopement up to 65% of the school day. By April 2012, problematic behaviors were reduced to less than 8% of the day. Specifically, the learner engaged in aggression toward staff up to 89 times per day. By April 2012, instances of aggression were no more than 5 times per day with 3 data probe dates in April completely absent of aggression. Property destruction, which occurred up to 28 times per day, reduced to no more than 5 times per day with 3 data probe dates in April completely absent of property destruction. Instances of both non-compliance and elopement were significantly reduced. Elopement occurred up to 30 times per school day and non-compliance occurred up to 104 times per school day. Non-compliance was reduced to 5 instances in April 2012 from 21 instances per day in the fall of 2011. By April of 2012, the learner had entered Lesson 6 of the curriculum and had shown mastery of lesson criteria across 6 repertoires.