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## #308 International Poster Session

5/24/2009

5:30 p.m.- 7:00 p.m.

North Hall A

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### **1. Some Effects of Pace of Instruction on Problem Behavior During Discrete Trial Instruction.**

(Applied Behavior Analysis) CRYSTAL N. BOWEN (Marcus Autism Center), Amber L. Valentino (The Marcus Autism Center), M. Alice Shillingsburg (Marcus Institute), Nathan A. Call (Marcus Autism Center and Emory University School of Medicine)

**Abstract:** Discrete trial instruction (DTI) is a method commonly used in intervention for children with language deficits. The current research supports the effectiveness of DTI for this population; however, the research on the specific parameters utilized during DTI is limited. Current literature suggests that manipulation of the Inter-trial Interval (ITI), or pace of instruction, can influence the number of trials to criterion, final performance, and stability during teaching situations (Holt and Schafer, 1973). Although research does not suggest a specific ITI to create an ideal pace of instruction, research has suggested that pace of instruction is a variable that can be manipulated and can influence responding. As suggested by Koegel et al., utilizing this information can be important in selecting the optimal interval for teaching children with autism. In the current study, we used a multi-element design to assess the effects of pace of instruction on the rate of problem behavior during language intervention (DTI) in a classroom setting. Additionally, we assessed whether the pace of instruction or the rate of reinforcement during fast paced instruction that affects problem behavior during DTI.

### **2. Teaching Relaxation Strategies and Appropriate Break Requests to an Adolescent Girl with Autism.**

(Service Delivery) NICOLE RENE LAUDONT (University of Kansas), Wesley H. Dotson (University of Kansas), Justin B. Leaf (University of Kansas), Jan B. Sheldon (University of Kansas), James A. Sherman (University of Kansas)

**Abstract:** Adolescents with autism sometimes display a number of inappropriate social behaviors in group instructional settings. The participant in this study was a teenage girl with autism who often became agitated when interacting with her peers during the meeting of a social skills group. Her agitated behaviors included crying, stomping her feet, making remarks (“Be quiet!, Quit talking to me!”), and storming out of the room. The girl was taught two skills during individual, one-on-one instruction. The teacher used a teaching interaction procedure to teach the girl how to request a break from the group (asking to get a drink) and relaxation strategies (deep breathing, etc.). Measures were taken of the girl’s acquisition of each of the behaviors during teaching, and of the girl’s agitated behaviors when she was interacting with her peers. The girl mastered both skills taught, and following teaching instances of crying, stomping, and other frustration behaviors during the social skills group decreased.

### **3. CANCELLED: Discrete Trial Teaching versus Natural Environment Training.** (EDC; Applied Behavior Analysis) MINA N BENJAMIN (Texas State University - San Marcos), Meghan Houseman (Texas State University - San Marcos)

**Abstract:** Many studies have shown effectiveness of Discrete Trial Training (DTT) as well as Natural Environment training (NET) for students with autism, however review of these studies suggests a need for further research in the comparison of the two along with examination of efficacy when the two techniques are used in tandem. We looked at whether discrete trial teaching or natural environment teaching would yield the best results for a six-year old boy with autism. Both DTT and NET were used to teach “wh” questions to Johnny\*. An alternating treatments design was used, with treatments counterbalanced weekly. The number and level of prompts required for acquisition of the correct response from Johnny were recorded and compared for DTT and NET. Research is in progress, therefore, additional data to be collected. Results will be shared at this poster session. \* Child’s real name not used

#### **4. Evaluating the Effectiveness of an Error Correction Procedure on Expressive Skill Acquisition**

**Trials.** (EDC; Applied Behavior Analysis) AMANDA KUSTERER (Spiritos School)

**Abstract:** Many studies have been completed on the effectiveness of errorless learning, chaining, and fading procedures to aid in skill acquisition. This study examined using a correction procedure after the student had answered incorrectly once or had failed to answer at all. This correction procedure or one similar to it is needed to help those students who are older and transitioning to a natural teaching setting where applied behavioral analysis techniques are not always used.

This error correction procedure was tested across several skill acquisition trials using a case study that followed a multiple baseline across behaviors model. During the control, the child was asked to expressively label unfamiliar pictures and words. Throughout the control trials the child was not corrected or told the correct answer if answers were incorrect. During intervention trials, the child was also asked to expressively label the item or word with the exception that when answers were incorrect he was corrected using the correction procedure. A picture or word was considered correct once the child could label it on the first trial. Daily percentage of accuracy data was graphed for the item and word sets both with and without the correction procedure.

**5. Effects of Conditioning Visual Tracking on Discrimination Tasks for a Child with Autism.** (EDC; Applied Behavior Analysis) NICHOLAS HAMMOND (Chicago School of Professional Psychology), Denise E. Ross (Chicago School of Professional Psychology)

**Abstract:** This study tested the effects of a pairing procedure to condition visual tracking for a 9-year old boy with autism. During baseline, the number of learn units to criterion was measured for instructional tasks that required attention to visual stimuli. Following baseline, an edible reinforcer was placed under one of two or three semi-opaque containers on a table and the containers were rotated before giving the participant an opportunity to select and then consume the reinforcer after tracking it. This pairing procedure continued until the participant correctly selected the rotated container for 90% of response opportunities. Baseline data on the number of learn units to criterion for visual tasks were collected again following the pairing procedure. Results suggest that the participant required fewer learn units to criterion on visual instructional tasks following the pairing procedure. Additional data are being collected.

#### **6. CANCELLED: Embedding Generalization of Concepts Taught Using Discrete Trial Instruction.**

(EDC; Applied Behavior Analysis) JANET A. BUTZ (Collaborative Autism Resources & Education), Janet A. Butz (Collaborative Autism Resources & Education), Sara Staszkesy (Tomball Independent School District), Deborah Roth (Tomball ISD), James G Ryan (Tomball ISD)

**Abstract:** Embedding Generalization of Concepts Taught Using Discrete Trial Instruction

This study focused on a first grade student with autism enrolled in a public school program for students with autism. Before public school he received individualized instruction using ABA at a private agency for forty hours weekly for two years. The parent indicated the student also participated in other therapies simultaneously.

Based on the data received from the agency the student had mastered several concepts. Upon entering public school a maintenance check indicated that these were not generalized to the public school setting.

The purpose of this study was to demonstrate how the public educators re-taught three concepts that the agency data showed he had previously mastered by ensuring that generalization across settings, instructors, and stimuli occurred and was maintained over the course of the year.

The concepts identified to be re-taught were receptive labeling of capital letters; receptive labeling of school items; and non-verbal imitation two-part chains.

The methodologies used to re-teach these concepts to generalization will be discussed. Discrete trial training was implemented across the school day to promote generalization.

Follow-up data revealed that student maintained the re-taught concepts across settings and they were generalized to the home.

### **7. An Application of Computer-Based Training on Facial Discrimination in Autistic Children.**

(Applied Behavior Analysis) AMY SCHREMBBS (Allegheny College), Rodney D. Clark (Allegheny College)

**Abstract:** The efficacy of the computer software program Facesay® in helping to teach the discrimination of emotion in facial expression was compared to non-computer based teaching techniques in children ages 7-11, diagnosed with autism, using a multiple baseline design. The participants in the present study were introduced to non-computer based teaching techniques consisting of a story and facial puzzles as well as computer-based teaching techniques via the Facesay® software program. The participants were assessed on their ability to correctly match picture-words to pictures of emotion using the Ekman and Friesen series of photographs. The data indicate a general improvement in the participant's ability to discriminate emotion from facial expression, although in some participants the level of improvement was greater than others. The data also generally showed that the participant's who completed more sessions of computer-based teaching techniques did better overall on the final matching task. Overall, the results suggests that protracted exposure to the Facesay® program will likely produce marked increases in the ability of autistic children to discriminate facial expressions.

### **8. Assessing Generalization of Skills Across People and Settings in Young Children with Autism.**

(TBA; Applied Behavior Analysis) KIM KLEMEK (BEACON Services), Joseph M. Vedora (BEACON Services)

**Abstract:** Establishing the generalization of skills taught during 1:1 instructional settings across a variety of settings and people is one step to ensuring that those skills are socially valid and improve the quality of life for children and families. Stokes and Baer (1977) offered a variety of methods for teaching generalization, such as sequential modification and training sufficient exemplars. This study compared the procedures of sequential modification and training sufficient exemplars to establish generalization across settings and people. Responding to one-step instructions was taught to two different children with ASD to assess which method resulted in fewer trials to mastery criteria across settings and people. Results supported previous research demonstrating that planning instruction to include generalization component results in efficient acquisition of skills across settings and people. They also support the systematic transfer of skills from educators to parents in the home setting to ensure that skills being trained in the discrete trial context can be utilized in the child's natural environment.

### **9. Using Precision Teaching to Improve Fine Motor Component Skills in a 4 Year Old Boy with Autism.**

(Applied Behavior Analysis) JENNA RUDO-STERN (Private), Kelly J. Ferris (Organization for Research and Learning), Kristin N Wilkinson (Organization for Research and Learning)

**Abstract:** Designing instruction for children with autism should not only be effective, but also efficient. Programming for changes in composite skills as a result of intervention on component skills should be the interventionist's goal. Interventionists should program for skills which will help students "learn to learn." The "Big 6 Plus 6" (Desjardins, 1980) fine motor skills address component movements essential for a range of instructional, adaptive, and play skills. This data-based poster will illustrate the relationship between increasing the fluency of a one of the Big 6 Plus 6 Skills that resulted in a contingently improvement in composite play skills. A four year-old boy with autism received fluency-based instruction to increase his frequency of free/do grasp, reach and release with each his right and left hand. After reaching predicted frequency aim (Fabrizio & Moors, 2003) for this Free/Do learning channel changes in the boy's toy play were measured. Data on Free/Do grasp, reach and release for each hand will be presented on the Standard Celeration Chart as well as data on the measured changes in the boy's toy exploration and appropriate play.

### **10. Behavioral Momentum and the Acquisition of Phonemes in Children Diagnosed with Autism.**

(Applied Behavior Analysis) KRYSTINE CARDENAS (Behavior Analysis, Inc.), David Garcia (Behavior Analysis Inc.), Vanessa Garcia (Behavior Analysis, Inc.), Tiffany Szymanski (Behavior Analysis, Inc.)

**Abstract:** For many practitioners working with children with developmental disabilities, a major component in most interventions is the development of the child's verbal repertoire. However, even as the child's verbal repertoire develops, certain phonemes are not acquired as readily as others contributing to difficulty with pronunciation as well as in the shaping of new words. This study evaluates the effectiveness of a procedure that utilizes behavioral momentum to facilitate the acquisition of specific phonemes in relation to where the phoneme is articulated within the mouth. Three individuals with autism participated in the study. An initial assessment of target phonemes was conducted for each participant and used to determine which specific phonemes would be taught during the treatment phase using a multiple baseline across low-p requests (phonemes). Preliminary data suggest behavioral momentum is an effective method for producing new phonemes when place of articulation is the same for the high-p and low-p request. (Additional data to be collected)

**11. False Positives in the Assessment of Severe Self-Injury and the Role of Restraint Removal.** (DDA; Applied Behavior Analysis) Lynn G. Bowman (Kennedy Krieger Institute), AMBER ELIZABETH MENDRES (Kennedy Krieger Institute), Samantha Hardesty (Kennedy Krieger Institute), Ifat Bilitzer (Kennedy Krieger Institute), Kellianne M. Montgomery (Kennedy Krieger Institute)

**Abstract:** Assessment of severe self-injury (e.g., head punching) can be difficult to assess, especially for individuals who wear restraints. Restraint removal may result in a free range of responding, which can be dangerous (Mace, 1992) and may result in unclear patterns of responding across experimental conditions. In the current study, two functional analyses were conducted with a 19-year-old female diagnosed with autism and profound mental retardation who had a history of wearing arm restraints. During the functional analysis conducted without restraints, self-injurious behavior (SIB) was high and undifferentiated across all conditions suggesting that SIB was maintained by automatic reinforcement. However, in a subsequent functional analysis conducted with restraints, responses were high across all conditions except for the alone condition. An attention analysis was then conducted to further investigate potential social contingencies that may be maintaining self-injury. Results of this assessment indicated that SIB was maintained, in part, by access to attention. Implications of this study suggest that undifferentiated patterns of responding across conditions during restraint removal may require further investigation to rule out an automatic reinforcement function. Reliability data were collected for at least one-third of observations and averaged above 80%.

**12. Comparison of Differential Reinforcement and Blocking for the Treatment of Stereotypy in Learners with Autism.** (DDA; Applied Behavior Analysis) TINA RIVERA (Douglass Developmental Disabilities Center), David Kieval (DDDC), Nathan Lambright (Rutgers University), Amy Hansford (Rutgers University), Shara Marrero (Rutgers University), Jill A. Szalony (Rutgers - DDDC), Kimberly Sloman (Rutgers University), Robert LaRue (Douglass Developmental Disabilities Center)

**Abstract:** Stereotypical behaviors, such as hand flapping or rocking, represent classic symptoms of autism. While these behaviors are often benign in nature, in many cases they can interfere with academic instruction, impede social interactions, and in severe cases, produce tissue damage. Common interventions for stereotypical behavior include differential reinforcement systems and blocking procedures (or combinations of both). The purpose of the current investigation was to evaluate the relative effectiveness of blocking and differential reinforcement procedures on the stereotypical behavior of learners diagnosed with autism. In the current investigation, learners were exposed to two different differential reinforcement procedures (DRO & momentary DRO) and a blocking procedure (response interruption and redirection). Data were collected on the relative rates of stereotypical behavior as well as other maladaptive behavior (i.e., aggression, disruption, self-injurious behavior). Results indicated that the intervention component that resulted in the most significant reductions in behavior was the blocking/response interruption procedure. This study has considerable implications for the evaluation practices of behavioral intervention plans in educational settings for with individuals with autism as well as the use of blocking procedures in the absence of additional reinforcement strategies in addressing stereotypic behaviors.

**13. A Comparison of Descriptive Analysis and Functional Analysis within a Treatment Integrity Framework.** (CBM; Applied Behavior Analysis) TONYA M. MARSTELLER (West Virginia University),

Claire St. Peter Pipkin (West Virginia University), Allison Tetreault (West Virginia University), Raquel Alo (West Virginia University)

**Abstract:** Descriptive analysis is a common method for developing hypotheses about consequences that maintain problem behavior. However, research comparing the results of descriptive analyses with those of functional analyses has repeatedly demonstrated that the two methods do not reliably identify the same function. The current study compared the results of descriptive analysis and functional analysis by analyzing the descriptive analyses within a treatment integrity framework. Two elementary-aged boys diagnosed with autism and their mothers participated. The results of both analyses identified the same function for problem behavior in each participant. The function of problem behavior for one participant was attention. The function of problem behavior for the second participant was escape. These results indicate that analyzing descriptive analyses by assessing treatment integrity of caregiver responses may be an effective tool for identifying the function of problem behavior.

#### **14. Using Antecedent Stimulus Control to Reduce Hand Flapping in a Preschooler with Autism.**

(DDA; Applied Behavior Analysis) SHARON T. HYNES (Emory University), Amity Parr Featser (Emory University), Gail G. McGee (Emory University School of Medicine), Michael J. Morrier (Emory University School of Medicine)

**Abstract:** Young children with autism often engage in nonfunctional self-stimulatory behaviors that clearly distinguish them from their typical aged peers (Durand & Carr, 1987). In order to receive optimal benefit from inclusive early intervention, children with autism should engage in age-appropriate behaviors that enable them to interact with their typical classmates (McGee et al., 1999). This poster describes an antecedent stimulus control package (Cooper et al., 2007) to teach a young boy with autism to reduce his hand flapping behavior. Following a procedure developed at the Southwest Autism Resource Center (D. Openden & S. Denno, personal communication, October 10, 2008), the child will be taught to hand flap only while standing in a specific area of the room. For every instance of hand flapping, treatment staff will redirect the child to this area. The “base” will then be systematically faded to encourage the child to engage in ongoing classroom activities. It is hypothesized that data (to be collected) will demonstrate a reduction in hand flapping, as well as a reduction in time spent on base and increased engagement in classroom activities. This poster will provide early interventionists a positive method for reducing self-stimulatory behaviors in an inclusive treatment center.

#### **15. Studies of Risperidone in People with Autism: Selectivity and Social Validity.** (Applied Behavior Analysis) LINDSAY PORTER (Western Michigan University), Kelly P. Bradley (Western Michigan University), Amy Durgin (Western Michigan University), Marc A. Weeden (Western Michigan University)

**Abstract:** Risperidone (Risperdal), an atypical antipsychotic drug, is approved for treating “irritability” in people with autism and is commonly prescribed for members of this population. This project examined recently published studies (2000-2008) in which risperidone was prescribed to decelerate challenging behavior in people with autism to determine whether a) drug effects on appropriate responding were reported, and b) social validity data – that is, information relevant to the acceptability of the goals, procedures, and outcomes of the study – were reported. Neither was commonly reported, which is an apparent weakness in this literature.

#### **16. The Effects of Embedding Choice in Instructions on Compliance and Challenging Behavior.**

(DDA; Applied Behavior Analysis) TAIRA LANAGAN (Center for Autism and Related Disorders), Adel C. Najdowski (C.A.R.D., Inc.), Jonathan J. Tarbox (Center for Autism and Related Disorders, Inc.)

**Abstract:** Previous research has demonstrated that choice may be manipulated in various ways in order to alter challenging behavior and compliance with instruction, including choice between reinforcers and choice among various elements of tasks such as task materials, location, and sequence (Kern, et al., 1998). Cole and Levinson (2002) improved the challenging behavior and task completion exhibited by two boys with developmental disabilities by embedding choice within the presentation of instructions, in the context of two particular tasks. The purpose of this study was to replicate and extend this procedure by applying it to both structured discrete trial training (DTT) and to all therapist requests across the participant’s daily behavioral

intervention sessions. Data were collected on percentage of compliance and challenging behaviors during both the DTT and less-structured assessments.

**17. Desensitizing a Child with Autism to Noise-Making Toys.** (Applied Behavior Analysis) CAITLIN BRUCE (Foundation for Autistic Childhood Education and Su), Kristin Miller (F.A.C.E.S.)

**Abstract:** Research suggests that people with ASD (Autism Spectrum Disorder) may exhibit significantly higher levels of anxiety than the general population (Bellini, 2006). One way this may be manifested is through a specific phobia (American Psychological Association, 1994), which is a phobia of a specific object or place. This is a case study of a 3-year-old male (diagnosed with ASD) who has a history of exhibiting fearful reactions (such as screaming, crying, and running away from object) to toys that moved and/or emitted noise. We chose to implement a procedure of contact desensitization, which exposes an individual to a phobic (avoided) stimulus by gradually shaping approach responses (Ricciardi, Luiselli, & Camare, 2006). The behavioral objective of this study is the spontaneous approach and manipulation of one of these objects by the child, which will be shaped by reinforcing increasingly longer increments of time in which the child interacts with the toys.

**18. Examining Effects of a “Low-Dosage” Intervention to Increase On-Task Behaviors of a Child with ASD.** (DDA; Applied Behavior Analysis) SHALONDA BROOKS (Auburn University), Kelly D. Schleismann (Auburn University), Jennifer M. Gillis Mattson (Auburn University)

**Abstract:** In addition to the core symptoms associated with Autism Spectrum Disorders (ASD), children with ASD often present with other behavioral symptoms (i.e., aggression, short attention span, and hyperactivity) (Newschaffer, 2007; Tsai, 1996) which are related to poor school performance. As such, improving on-task behaviors is a common goal for many children with ASD, especially those in mainstream or integrated classrooms (Gena & Kymissis, 2001). When a child with ASD also presents with severe levels of hyperactivity, this behavioral goal becomes more challenging in these settings. This case design included one male participant with ASD who was exhibiting poor on-task behaviors and showing poor performance in a classroom setting with no support staff (e.g., paraprofessionals) putting him at risk for failure in this setting. An intervention was designed and implemented in an after school clinic that occurred two days per week. Once skills were acquired prompts were faded and incidental teaching and differential attention were used to help the skill generalize to a more naturalistic environment. Frequent observations of on task behavior in the classroom were conducted to assess rate of generalization and modify accordingly. Challenges of designing an intervention to generalize to a mainstream classroom setting will be presented.

**19. Comparing the Results of an Analogue and Naturalistic Functional Analysis.** (Applied Behavior Analysis) STEPHANIE ORMAN (The May Institute)

**Abstract:** A functional analysis involves the manipulation of environmental conditions in order to assess a functional relationship. This analysis can be conducted in an analogue or naturalistic setting. Research has demonstrated that conducting a functional analysis in an analogue setting is effective at identifying function because more variables can be controlled. However, results may not always be transferred to the natural environment because the variability of the natural environment is excluded in the analogue setting. In this study the results of a functional analysis conducted in an analogue setting were compared with the results of a functional analysis conducted in the natural environment of the classroom. Results of the analysis in the analogue setting were undifferentiated across three conditions (attention, escape, and control) with the individual exhibiting low and variable rates of behavior. In the natural setting a fourth condition was added, access to tangibles. Results of the analysis in the natural setting were differentiated, with the individual exhibiting the highest rates of behavior during the tangible condition and moderate to low rates in the escape condition. These results suggest conducting a functional analysis in a natural setting may yield more usable information when compared to an analogue setting.

**20. A Stimulus Control Procedure to Decrease Motor Stereotypy.** (DDA; Applied Behavior Analysis) ALISON STOTHARD O'CONNOR (Alpine Learning Group), Jessica Prieto (Alpine Learning Group), Barbara Hoffmann (Alpine Learning Group), Bridget A. Taylor (Alpine Learning Group)

**Abstract:** We extended the Brusa and Richman (2008) study that used a stimulus control procedure to decrease stereotypy. We used a changing criterion design to examine effects of the presentation of a stimulus that had been conditioned via discrimination training on reducing stereotypic motor movements with books. Initial assessment indicated high rates of stereotypy with books (e.g., folding the pages, turning the book). Discrimination training sessions taught the participant that when presented with a green card, stereotypy was permitted and when presented with a red card, stereotypy was not permitted. In the red card condition stereotypy was blocked and the participant was prompted to engage appropriately with books. After the participant demonstrated the ability to discriminate red (only appropriate play) versus green (stereotypy permitted), experimental sessions began. During intervention, presentation of a red card signaled appropriate book play. Upon meeting criterion of playing appropriately in the absence of stereotypy for the target duration, the instructor presented the green card signaling that the participant could exhibit stereotypic motor movements. Data represent the duration that the participant looked at the book appropriately before engaging in stereotypy; this duration was increased over time. IOA data were collected during 30% of the intervention sessions.

**21. Pre-session Exposure as a Treatment to Reduce Automatically Reinforced Behavior.** (DDA; Applied Behavior Analysis) KATELYN ANNE MARKS (May Institute), Gary M. Pace (The May Institute), Mark J. Palmieri (The Center for Children with Special Needs)

**Abstract:** Highly repetitive stereotypic behavior is a common interference in an individual's ability to contact the natural learning environment (Vaughan & Michael, 1982). Functional assessment is an empirically supported procedure for identifying behavior function. Once the maintaining variable is identified, a function based treatment can be developed (Iwata, Dorsey, Slifer, Bauman, & Richman; 1982/1994, Carr & Durand, 1985). In the current investigation, an 18-year-old female diagnosed with tubular sclerosis was exhibiting high rates of visual stimulation that was assessed to be maintained by automatic reinforcement. The study utilized a treatment that created an abolishing operation for visual stimulatory behavior by exposing the participant to materials that evoked high levels of stimulation before a work session. A reversal procedure was applied to assess treatment effectiveness. The participant was provided with varying durations of pre-session visual stimulation prior to academic sessions in order to determine what interval would most effectively reduce visual self-stimulatory behaviors during academic demands. The results of the treatment evaluation indicated that 5 minute pre-session visual stimulation was the most effective. The data also suggest that therapeutic intervals may vary based on each individual's needs.

**22. The Use of Stimulus Control to Reduce Vocal Stereotypy Emitted by a Child with Autism.** (EDC; Applied Behavior Analysis) Ashley Greenwald (University of Nevada, Reno), CHRISTINE ANNE WALSH (University of Nevada, Reno), Shannon Springer (High Sierra Industries), W. Larry Williams (University of Nevada, Reno)

**Abstract:** This procedure examined the effects of stimulus control on the vocal stereotypy of an 8-year-old girl with Autism. The participant in this study had a strong history of engaging in vocal stereotypy during all hours of the day. Direct observations and parent reports indicated that this vocal stereotypy was automatically maintained. Prior to implementation, the young girl was engaging in vocal stereotypy at an average frequency of 30 times per hour, across all settings. The procedure involved the use of two different colored posters, one red and one green. To aid in discrimination, the initial cards had the words "Quiet" and "Okay" written on them, respectively. The intervention utilized a multiple baseline across settings (e.g., academic, toy play, and movie watching). After the initial training phase, the size of the cards were slowly faded until the child wore a piece of colored jewelry of the corresponding stimulus color. Preliminary results indicate that the vocal stereotypy came under control of the colored stimulus and as a result, vocal stereotypy was reduced to manageable levels, as indicated by the parents.

**23. Construction and Implementation of a Time-Out Area in a Public School Setting.** (DDA; Applied Behavior Analysis) LACEY R BAILEY (Penn State University- Harrisburg), James Nicholson Meindl (The Ohio State University)

**Abstract:** A unique behavior program was created in a public school setting to reduce aggressive/destructive behavior of an 8-year-old boy with Asperger's Disorder. Prior the program he was attending mainstream

classes with his same-age peers. The program involved removing him from mainstream placement and providing treatment in a private classroom which contained a time-out area constructed specifically for his program. Utilizing a token economy, DRO, and time-out area, his target behaviors were reduced significantly from baseline. Within 4 months, he was faded into his mainstream classes and marked social, academic, and behavioral improvements were seen.

#### **24. The Effects of ABA Treatment for Children with Autism in Wuhan, China.**

(CBM; Experimental Analysis) HAI-QING XU (Hubei Maternal and Children's Health Care Hospital), Hong-Bo Chen (Hubei Maternal and Children's Health Care Hospital), Hong Wang (Hubei Maternal and Children's Health Care Hospital), Feng Wang (Hubei Maternal and Children's Health Care Hospital), Li-Hua Ding (Hubei Maternal and Children's Health Care Hospital), Sharon W. Chien (SEEK Education, Inc.), Hua Zhang (Hubei Maternal and Children's Health Care Hospital), Xiao-Qin Luo (Hubei Maternal and Children's Health Care Hospital)

**Abstract:** We aim to present the effects of Applied Behavior Analysis (ABA) treatment for children with autism in Wuhan, China. A total of 80 children with autism aged from 2 to 8 years were enrolled from Hubei Maternal and Children's health care Hospital (China) between April and October 2008. With the continue support and supervision from Seek Education (USA), we give these children intensive ABA treatment. The training time was 40 hours per week, 3 months as one course and lasted for 3- 6 months. Before and after treatment, the children were evaluated with ABLLS-R. It was observed that rapid progress were made by them in language, social and play skills, and restricted and repetitive behaviors as well as other related deficits in cognition and adaptive behavior of ABLLS. Also, there was a noticeable improvement in our teacher's training skills and theoretical level. These achievements were definitely recognized by the parents. Wuhan ABA based intervention center is making headway and welcomed by professionals and special families. It is highly expected that there will be more favorable outcomes in ABA in China.

#### **25. Outcomes of Behavioural Treatment at a Centre Combined with Mainstream Placement for Children with Autism.** (CSE; Service Delivery) ALISON SHARLAND (Highfield Centre), Sigmund Eldevik (Highfield Centre), J. Carl Hughes (Bangor University, Wales)

**Abstract:** A new model of provision has been developed for children with autism at Highfield Centre which combines behavioural intervention at the centre with part-time placement in preschool or school (depending on the child's age). The Highfield Centre trains and certifies all staff involved in treatment. The children typically follow ca 40 hours a week and it is individually determined how much time should be spent on working with targets in school and at the centre each week. Effects of this model were evaluated using a pre-post test design. Participants were three children who had been diagnosed with autism and attended Highfield Centre. Outcome data after two years of treatment are presented.

#### **26. ABA for Children Under 36 months with ASD.** (DDA; Applied Behavior Analysis) PETER M. VIETZE (Montclair State University), Leah Esther Lax (Hand In Hand Development), Kimberly K. Kamhi (Hand in Hand Development), Elizabeth A. Diviney (Hand In Hand Development), Alayna B Berkowitz (Montclair State University)

**Abstract:** As a result of the refined DSM criteria for diagnosis of Pervasive Developmental Disorders, there is an increase in referrals for evaluation in Early Intervention Programs. More than 40 children younger than 36 months were enrolled in an Applied Behavior Analysis program for 2 ½ hours a day, 5 days a week. Most of the children had been given a diagnosis of PDDNOS or PDD, Autistic Disorder. The majority of the children had Cognitive scores exceeding one SD below the mean. At the beginning of the program, children the Assessment of Basic Language and Learning Skills (ABLLS) was administered. All children showed very low scores initially. At the time they left the program, usually due to having met the age-out criterion, the ABLLS was again administered. ABLLS performance data were scored as percentage of domain completed successful. All of the children improved and the mean percentage of improvement was statistically significant for the group as a whole. Discussion of child and family characteristics that are related to successful performance include length in program, language environment and parental involvement.

**27. Reduction of Sleep Variability in an Adolescent with Autism Through the Implementation of a Behavioral Sleep Protocol.** (DDA; Applied Behavior Analysis) BRADLEY RICHARDS (Eden II Programs), Frank R. Cicero (Eden II Programs)

**Abstract:** Sleep problems are frequently reported in individuals on the autistic spectrum. The present case study describes the assessment and treatment processes that were used to regulate a variable sleep pattern in an adolescent with autism living in a group residence. Baseline data were collected on hours of sleep per night. In baseline, only 27% of nights fell in the range of ideal sleep (between 7-9 hours per night). Overall sleep was variable with 27% falling below 7 hours and 14% falling above 11 hours. A treatment package consisting of a sleep/wake schedule, bedtime routine, bedroom restriction, contingent effort for awakening and redirection was designed based on an analysis of nighttime behaviors and baseline sleep patterns. Data were collected for a period of 6 months after treatment. Treatment data revealed a 133% increase in ideal range sleep (27% of nights in baseline compared to 63% of nights in treatment). In addition, sleep variability decreased with only 10% falling below 7 hours and only 2% falling above 11 hours. Data will be discussed in terms of their impact on the field with regard to refining behavioral assessments, treatment components and data analysis procedures for sleep related issues.

**28. Increasing Sleep Duration in a 2-Year-Old with PDD-NOS: A Training Parent Intervention.** (DDA; Applied Behavior Analysis) GILAH HABER (BEACON Services), Joseph M. Vedora (BEACON Services), Robert K. Ross (BEACON Services)

**Abstract:** Many parents of children with autism report that their children have difficulty sleeping. According to Williams, Sears, & Allard (2004), the prevalence of sleep problems in children with autism ranges from 44%- 83%. For some parents, implementing interventions which require them to remain out of the room or to limit their responding when the child wakes up can be difficult to implement. Clinicians need to consider parent capacity to implement interventions and modify procedures to build parent ability to implement emotionally challenging interventions. The present study evaluated the effectiveness of a parent-training package to increase sleep duration in a two-year-old with PDD-NOS. Training sessions involved teacher modeling with verbal explanation, practice with oral feedback, and written guidelines in the form of a self-monitoring checklist. Follow up sessions occurred weekly by phone or in-person. The parents implemented the procedures (experimenter not present). Data were collected on sleep duration and disruptive behaviors (crying and screaming). Results indicated that the child fell asleep more quickly without his parents present, his sleep duration increased and there was decreased frequency and duration of disruptive behavior. Implications of parent-training models and interventions targeting sleep disturbances are reviewed.

**30. Conditioned Book Observing and the Effects on Stereotypy and Passivity with Children with Autism.** (DDA; Applied Behavior Analysis) OSWALDO OCHOA (The Chicago School of Professional Psychology - Ch), Lori Ann Aguirre (The Chicago School of Professional Psychology), John W. Eshleman (The Chicago School of Professional Psychology), Denise E. Ross (Chicago School of Professional Psychology)

**Abstract:** The study examined the use of a book conditioning protocol and its effects on stereotypy/passivity during a free play operant. Two nine-year-old students with an autism spectrum disorder participated in the study. The independent variable consisted of a book conditioning procedure and the dependent variable was the duration of book observing responses within a 5-minute free play probe. A multiple probe across participants design was used for the study. Results showed that both students did not meet criterion levels for book observing responses but book observing responses increased as stereotypy/passivity responses decreased compared to baseline levels. The findings support previous research regarding conditioning procedures and their effects on stereotypy/passivity with an extension of the procedures within a home context.

**31. Pivotal Response Training Predictive Profile for Younger Children with Autism.** (Applied Behavior Analysis) ALLISON B. CUNNINGHAM (University of California, San Diego), Laura Schreibman (University of California, San Diego), Aubyn C. Stahmer (Rady Children's Hospital, San Diego), Lynn Kern Koegel (University of California, Santa Barbara), Robert L. Koegel (University of California, Santa Barbara)

**Abstract:** Previous research has identified a behavioral profile effective at identifying older children with autism who are likely or unlikely to respond positively to Pivotal Response Training (PRT). One study found that 36- to 70-month old children demonstrating high levels of non-verbal stereotypy and avoidance, and low levels of verbal stereotypy, toy play, and approach behaviors, were less likely to respond to PRT than those exhibiting the opposite behavioral profile prior to treatment (Sherer & Schreibman, 2005). A follow-up study demonstrated that this profile was not predictive of response to Discrete Trial Training (Schreibman, Stahmer, Cestone-Bartlett, & Dufek, 2008), suggesting the profile was specific to PRT. In the current study, to further investigate the parameters of the profile's predictive validity, we assessed 17 minimally verbal or nonverbal 20- to 36-month old children receiving PRT over 6 months. The original profile was not predictive of treatment responsivity in this younger sample. While the levels of some of the profile behaviors were similar to those in the original study, the within group variability was high. The PRT Predictive Profile may require adaptations in order to be appropriate for addressing treatment responsivity in younger-aged samples. Possible explanations for this outcome will be discussed.

**32. Analysis of Changes in Joint Attention Performance after One Year of EIBI.** (DDA; Applied Behavior Analysis) TESSA PIANTEDOSI (New England Center for Children), Lauren Dannenberg (New England Center for Children), Rebecca P. F. MacDonald (The New England Center for Children)

**Abstract:** Joint attention is the sharing of an event or object in the environment with another social partner through coordinated eye gaze and gestures. Joint attention has recently been recognized as a possible predictor in the early onset of autism. This purpose of this presentation will be to report on changes in joint attention for 52 children with autism ages 2, 3, and 4 upon entry into an EIBI preschool program and after 1 year of intervention. Joint attention responding was assessed across 3 tasks and increases were greatest for children who entered treatment when they were 3 years old or younger. Joint attention initiation was measured across 3 tasks including toy activation and book tasks. A composite score which included all three component skills of gaze shift, gestures and verbalizations was calculated to measure level of performance. Data showed that increases in joint attention were seen for the majority of children. These findings will be discussed as they relate to the importance of early intervention for children with autism.

**33. The Effects of General Praise Statements versus Behavior Specific Praise Statements on Skill Acquisition in Young Children with Autism.** (DDA; Applied Behavior Analysis) TYRA P. SELLERS (Utah State University), Thomas S. Higbee (Utah State University)

**Abstract:** One of the core components of an ABA-based instructional program for young children with autism is the use of positive reinforcement (e.g., praise and tangibles) for occurrences of correct responding (Lovaas 1981 and 2003, Sundberg & Partington 1998, Leaf and McEachin 1999, and Green and Luce 1996). Many programs implementing ABA-based interventions instruct staff to use specific praise statements that include language about the specific appropriate behavior, as opposed to general statements. However, a review of the major published ABA-based instructional programs (Lovaas 1981 and 2003, Sundberg & Partington 1998, Leaf and McEachin 1999, and Green and Luce 1996) and manuals for children with autism, as well as a search of published research examining general versus specific praise statements, yielded no empirical evidence to support the idea that specific praise is superior to general praise statements in increasing skill acquisition and correct responding in children with autism. The purpose of this study is to compare the effects of general and specific praise statements on speed of skill acquisition in 2 preschool aged children with Autism in an intensive ABA preschool program. Results will be discussed in the context of recommendations for practice as well as future research.

**34. Increasing Appropriate Sibling Play in the Context of a Turn Taking Routine.** (DDA; Applied Behavior Analysis) TARA JANE MATTSON (BEACON Services), Robert K. Ross (BEACON Services)

**Abstract:** Many parent of children with autism who have more than one child, report concerns about the amount and quality of play between their child with autism and their typically developing siblings. The absence of the adaptive play skills and the occurrence of problem behavior when siblings spend time together can result in poor family quality of life. The fear that aggression or other problem behavior will occur if siblings are left unsupervised can interfere with and even prevent parents from leaving children unsupervised for even brief periods of time. The current study describes the use of a turn taking procedure in the context

of a play routine to increase both specific targeted play skills and to increase the duration of cooperative play. Two siblings, one with and one without autism participated and data on outcomes for both children are presented. Results are discussed not only in terms of data on targeted behaviors, but also on the impact on family quality of life and other collateral gains.

**35. Outdoor Recess: Increasing Social Interactions Between Preschoolers with Autism and Their Typical Peers.** (DDA; Applied Behavior Analysis) MICHAEL J. MORRIER (Emory University School of Medicine), Gail G. McGee (Emory University School of Medicine), Amalia Jarvis (Emory Autism Center), Julie F. Laderberg (Emory Autism Center), Jennifer Montgomery (Emory Autism Center)

**Abstract:** Recent emphasis on focusing on academic gains at an early age has reduced children's ability to engage in physical education opportunities at all ages (Lovaas, 1987; NCLB, 2001). With this reduction in recess and physical activity, children are becoming obese at alarming rates (CDC, 2008), and this is especially true for children with disabilities, who often times receive no physical exercise (NCPAD, 2007). When programs do provide physical activity, it usually does not focus on promotion of social interactions between peers. This poster will describe an outdoor games and exercise curriculum designed to promote social interactions between preschoolers with and without autism. Fifty-four children, 18 with autism and 36 typically developing, ages 24-60 months participated. Data will be collected daily using a multiple-baseline across classrooms design, through a 15-sec partial interval system, 10-sec observe/5-sec record. Data demonstrated that children with autism increased their proximity to peers, social bids received from peers, and focus of engagement on peers from baseline levels. This curriculum can be easily adapted for other preschool and early childhood providers that wish to structure their outdoor curriculum to better address the social deficits characterized by children with autism, while also providing daily physical activity.

**36. Teaching Adolescents with Autism to Respond to Joint Attention Using Music Activation.** (DDA; Applied Behavior Analysis) KRISTEN HEAVEY (New England Center for Children), Rebecca P. F. MacDonald (The New England Center for Children)

**Abstract:** Joint attention deficits are often found in individuals with autism and related disorders. Responding to joint attention involves the discrimination of another person's gaze direction. Klein, et al. (in press) taught following a gaze using the activation of remote controlled mechanical toys. The purpose of this study was to replicate the toy activation training procedure using adolescent girls and remote controlled boom boxes. A multiple baseline design across 3 adolescent participants with autism was used to teach following a gaze. Training was designed using a delayed cue prompt with music activation as both a prompt and a consequence. As training progressed, music activation was increasingly delayed following the experimenter's gaze shift cue. All participants met mastery criteria during training and were able to follow the experimenter's gaze shift before music was activated. Probe sessions showed maintenance of this skill over time. Teaching children with autism joint attention skills may lead to better language, play, imitation, and social abilities later in life.

**37. Increasing Independent Participation During Social Skills Groups in Children With Autism Spectrum Disorders.** (DDA; Applied Behavior Analysis) KELLY D. SCHLEISMANN (Auburn University), Shalonda Brooks (Auburn University), Jennifer M. Gillis Mattson (Auburn University)

**Abstract:** A common impairment of Autism Spectrum Disorder (ASD) is a deficit in social interactions (APA, 2000). Social skills groups may be an effective means of increasing appropriate social behaviors (Licciardello, Harchik, & Luiselli, 2008). However, their effectiveness depends on the extent to which individuals participate in the group activities. The use of activity schedules might augment social skills training in group settings, as they have been successfully used to increase independence during transitions, maintain engagement in social activities, and enhance social interactions (Krantz & McClannahan, 1997; Schmit, Alper, Raschke, & Ryndak, 2000; Stromer, Kimball, Kinney, & Taylor 2006). The purpose of the current study was to increase independent participation in group events through the use of schedule books containing pictures depicting the sequences of events and specific actions of songs and activities. Four school-aged males with an ASD who attended a twice-weekly social skills group were recruited for this study. Baseline data showed low rates of independent social behavior for each participant. As participants' behavior improved, the notebooks were faded to allow for independent group participation. Results, limitations, and implications are presented.

**38. Identification of Functions of Prosocial Behaviors in Children with Autism Spectrum Disorders.** (DDA; Applied Behavior Analysis) MAUREEN A. CONROY (Virginia Commonwealth University), Staci Carr (UniqueKids, Inc.), Abigail Vo (Virginia Commonwealth University)

**Abstract:** Functional analysis is an effective tool in evaluating the environmental contributors to aberrant behavior (Carr et al., 1999; Iwata et al., 1982/1994), yet have not been extensively applied to other forms of behavior. This poster will present findings from a federally funded research project that has investigated the use of functional analysis methodology to analyze the functions of prosocial behavior in 30 children with ASD. Participants were children aged 3 – 9 years who have been diagnosed with ASD and have demonstrated impaired social skills. Procedures included a series of alternating treatments designs analyzing the potential functions of participants' prosocial behavior (e.g., attention, tangible, escape) in comparison to control conditions. Data collected indicate that functional analysis methodology successfully identified one or more functions of various forms of prosocial behaviors in 86% of the participants (with 14% displaying an undifferentiated pattern). This data will be presented along with examples of function-based treatments, demonstrating the efficacy of this assessment procedure for improving the rate of prosocial behavior for young children with ASD.

**39. Using Simultaneous Prompting and Computer-Assisted Instruction to Teach Storywriting to Children with Autism.** (EDC; Applied Behavior Analysis) ROBERT PENNINGTON (University of Kentucky), Ann Katherine Griffen (University of Kentucky), Jason L. Gibson (University of Kentucky)

**Abstract:** The No Child Left Behind Act (NCLB) and the Individuals with Disabilities Education Improvement Act 2004 (IDEA) mandated that children with low incidence disabilities be provided with access to the general education curriculum. This presents a significant challenge to educators working with students with autism spectrum disorders (ASD), especially in the area of written expression. Unfortunately, there is a paucity of research on writing interventions for this population. In the current study, the researchers used a multiple probe across participants design to assess the effects of simultaneous prompting (SP) and computer-assisted instruction (CAI) on the story writing skills of 3 elementary students with ASD in a public school setting. Results indicated that SP and CAI were effective for all 3 students. Additionally, students demonstrated maintenance at 2 and 4 weeks following training and generalization across a novel set of stimuli and two different response topographies (i.e., vocal story telling, handwriting).

**40. The Effect of Teaching Attending to a Face on Joint Attention Behavior on Young Children with an Autism Spectrum Disorders.** (Applied Behavior Analysis) TINA ROVITO GOMEZ (City University of New York/ Brooklyn College), Dr. Ira L. Cohen (New York State Institute for Basic Research in Dev), Laraine McDonough (City University of New York/Brooklyn College)

**Abstract:** Rogers (2001) has reported that infants later diagnosed with an autism spectrum disorder (ASD) showed an absence or low rate of looking at the faces of others, a finding consistent with other studies. To increase the frequency of this behavior in children with an ASD (with potential beneficial effects on other social behavior), preferred visual stimuli were used to serve as the reinforcer for looking at the face of the experimenter, and reinforce following the experimenter's gaze toward a target (response to "Joint Attention" bid). Three males with an ASD (confirmed with ADOS-G), ages 2 to 3, and language ages from 0 to 2 months (PLS-3) participated. It was hypothesized that when the child learned to attend to the face of another, he would develop increased eye contact, interact more with the experimenter, and generalize this behavior to others thereby increasing the probability of the emergence of appropriate social behavior. Results indicated an increase in attending to the face of the experimenter and an increase in following the experimenter's face (head turn) toward a distant target as compared to baseline levels. Post treatment measures with a novel experimenter also indicated an increase in target responses compared to baseline levels.

**41. How to Improve and Understand the Effectiveness of Behavior-Analytic Controlled Trials?** (VRB; Applied Behavior Analysis) Luis A. Perez-Gonzalez (University of Oviedo, Spain), JAVIER VIRUÉS-ORTEGA (ABA SPAIN)

**Abstract:** During the last two decades the effectiveness of applied behavior analysis-based interventions for children with autism has been studied extensively. A recent meta-analysis of the studies conducted with group-based methodology indicated strong verbal behavior gains when this literature is analyzed collectively. However the significance of these findings in identifying the effectiveness of specific teaching procedures is limited due to: (a) the standard assessment tools used in this literature were developed outside the realm of behavior analysis, and (b) treatment fidelity is generally not assessed systematically. The latter factors make hard to associate the features of behavioral intervention with scale score gains. This study presents preliminary data on the assessment of a group of children with developmental disabilities who underwent standard psychometric assessments upon study start along with the systematic assessment of behavioral repertoires. In addition, a treatment fidelity protocol was developed and tried. These methodological developments may increase the behavioral significance of behavior analysis-based trials. Namely, the validity of standard assessments could be traced behaviorally.

**42. Promoting Social Learning at Recess: Using Structured Playground Activities to Increase Social Skills for Children with Autism.** (EDC; Applied Behavior Analysis) Joseph Gentry (Southwest Autism Research & Resource Center), LORI BETH VINCENT (Southwest Autism Research & Resource Center), Daniel Adam Openden (Southwest Autism Research & Resource Center (SARRC))

**Abstract:** Playgrounds at elementary schools are often unstructured places where engaging in appropriate social interactions can be challenging for children with social deficits. With no structure or support, children with autism will often spend recess time alone or engaging in non-functional activities, which undoubtedly leads to fewer friendships and potential bullying. By structuring and facilitating activities for all children on the playground, children with social challenges are provided the needed support to engage with their typical peers. In the current study, a multiple baseline design was used to measure increases in social engagement and initiations with peers for multiple students diagnosed with autism. The intervention was overseen on the playground during lunch time recess by a trained behavior analyst for grades kindergarten through fifth. Daily activities and data collection were facilitated for each target student and his or her peers. Results indicate significant increases in social engagement and increases in social initiations.

**43. Effects of Verbal and Written Performance Feedback on the Treatment Integrity of Behavior Support Plans.** (EDC; Applied Behavior Analysis) MARISSA GYNN (Bergen County Special Services), Sharon A. Reeve (Caldwell College), Cindy Cochran (Bergen County Special Services)

**Abstract:** Treatment integrity is an important yet often neglected part of effective behavior-analytic interventions. Performance feedback has been often shown to increase treatment integrity. This study sought to replicate and extend the findings of Coddington, Fienberg, Dunn, and Pace, (2005) in which immediate performance feedback led to high levels of treatment integrity. The present study used a multiple-baseline across 3 teachers embedded in a changing conditions design to assess the effects of verbal and written performance feedback then written performance feedback alone on the treatment integrity of behavior support plans. The results showed that verbal and written performance feedback led to a substantial increase in treatment integrity. These levels were maintained during the written performance feedback alone condition and remained high when the schedule of performance feedback was thinned. Thus, the performance feedback procedures implemented in this study produced an effective and time-efficient strategy for increasing and maintaining treatment integrity of behavior support plans.

**44. Empirical Identification of Behaviors Associated with Successful Learning in Pre-School Group Settings.** (EDC; Applied Behavior Analysis) SARAH KINGERY (BEACON Services), Ann Filer (BEACON Services), Robert K. Ross (BEACON Services)

**Abstract:** Many children with autism have been shown to benefit from and acquire skills within the context of 1:1 instruction. However, the vast majority of instruction in public school settings takes place in small or large group formats. It is clear that the absence of the skills necessary to be an effective learner in small group settings needs to be remediated. However, very little empirical research has been done to identify the important group learning skills. The absence of the identification of these skills makes it difficult to effectively prepare children with autism for group learning environments. The current study describes the findings of systematic observations of “successful” learners in typical pre-school settings. The data are presented in terms

of: specific student behaviors associated with learning in small and large group instructional formats, and the classroom conditions that successful group learners function within. These conditions are specified in such terms as; teacher distance when providing instructions, duration of time between teacher-student interactions and average duration of on-task performance.

**45. Identifying Relationships between Curricular Profiles and Assessment Outcomes.** (DDA; Applied Behavior Analysis) EMILY B BISEN-HERSH (Temple University), Jessica Dodge (Temple University), Betsy Wurstner (Temple University), Christina M. Peters (ReMeD Rehabilitation), Matthew Tincani (Temple University), Philip N. Hineline (Temple University)

**Abstract:** Early Intensive Behavioral Intervention (EIBI) has been recognized as an effective intervention strategy for individuals with Autism Spectrum Disorder. A key factor in optimizing child outcome of such interventions may be the identification of useful categories of learner profiles, including a distinction between “early” and “advanced” learners. One way of defining these categories is through analysis of curricular profiles and outcome measures. To assess the characteristics of these classifications, a curriculum checklist of 190 instructional programs common to EIBI approaches was developed. The frequency of occurrence for each of these programs was compared across students with Autism between ages 3-7 years old, who are receiving EIBI within public school classrooms. Beginning with a set of ten students’ records of instruction, a provisional categorization was developed, to which additional students’ data were then subjected. Through this comparison, “early learner” and “advanced learner” program sequences were provisionally identified. Their patterns of progression through instructional sequences will be described in relation to individual child scores on assessments of communication, social, and academic skills. Assessments include the Autism Diagnostic Observation Schedule, Brigance Inventory of Early Development-II, and the Vineland Adaptive Behavior Scale.

**46. Tracking the Adjustment of Adolescent Students with Autism in Secondary Supported Inclusion Programs: Three Case Studies.** (Applied Behavior Analysis) OLIVIA ALEXANDRE (ONTABA), Joel P. Hundert (Behaviour Institute)

**Abstract:** There is a broad movement to educate children with developmental disabilities within general education. Although many studies describe the nature of supports and adjustment of children with developmental disabilities attending preschool or elementary school, there have been few studies for children attending secondary school. The purpose of this study was to examine environment-behavior interactions and ecological contexts in which student behaviors occur across three inclusion models. Three adolescent males with autism were observed and measures of student and educational assistant (EA) behavior were collected in general education and resource classrooms. Results indicated that in all three environments, student engagement was higher when EA focus was directed toward the student and, similarly, problem behaviors tended to decrease. Engagement levels did not differ across inclusive environments and, in fact, engagement in general classrooms was lower than in resource classrooms. Thus, full inclusion was not observed to have a direct academic benefit for students with autism. The findings suggest that full inclusion into secondary schools is not sufficient by itself to improve the intellectual development of students with autism, and environmental variables are important factors in determining adjustment. Hence, more evidence-based methods of inclusion must be examined at the secondary education level.

**47. Assessment of Behavior Imaging Technology in the Classroom.** (CBM; Service Delivery) UWE REISCHL (Boise State University), Ronald Oberleitner (Caring Technologies, Inc.), Conrad Colby (Boise State University)

**Abstract:** Functional behavior assessment is important in the educational process of children with autism. A 12-month pilot study was conducted to evaluate the benefits of a new behavior imaging technology called “BI Capture”. Thirty-two participants in eight educational settings were provided access to the BI Capture technology that allows teachers to capture and store behavior on digital video before, during, and after noticing selected events in their classroom. Twenty nine users responded to a web-based questionnaire addressing specific technology functionality / usability issues, and their perception of clinical relevance. The results indicated that the vast majority of users were in favor of using such a technology in classroom settings and believed such a technology would be widely accepted by the teaching profession when improvements in

student behavior are documented and then used to improve teaching methods. Some respondents suggested that a potential obstacle to the implementation of such a new technology in schools may include opposition from parents with regards to privacy issues. These findings supported the development of marketing strategies to help introduce the BI Capture technology to the autism community nationally and internationally. This poster presentation will illustrate quantitative and graphical summaries of the key findings of this study.

**48. The Effect of Priming Conducted during Home Sessions on Following Inclusive Classroom Routines for a Child with Autism.** (EDC; Service Delivery) JANE LEE (Behaviour Institute), Joel P. Hundert (Behaviour Institute)

**Abstract:** Children with autism who are placed in general education classrooms can often have difficulty meeting academic and social goals without the implementation of specific interventions. Priming holds promise as an effective intervention to support children with autism in general education classrooms by pre-exposing the child to certain routines through the application of teaching strategies in a setting other than the general education classroom. The purpose of this study was to investigate the use of priming at home during IBI therapy sessions as an intervention to improve the routine-following behaviours of a child with autism in the general education classroom. A multiple baseline across classroom routines was conducted to probe the generalization of hand-raising behaviours, verbal responding during group circle, and independent work to the classroom setting following the implementation of priming interventions in the home. Results suggest that priming was effective in improving the target behaviours without the use of additional interventions within the classroom setting.

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### #309 International Poster Session

5/24/2009

5:30 p.m.- 7:00 p.m.

North Hall A

CBM

**49. Predictors of Child Behavior Problems in a Sample of Substance Abusing Parents Found to Neglect Their Children.** (EAB; Experimental Analysis) Karen Herdzik (University of Nevada, Las Vegas), MICHAEL M HADERLIE (University of Nevada, Las Vegas), Tom Ray (University of Nevada, Las Vegas), James Glover (University of Nevada, Las Vegas), Erica Marino (University of Nevada, Las Vegas), Brad Donohue (University of Nevada, Las Vegas), Daniel N. Allen (University of Nevada, Las Vegas), Holly B. LaPota (University of Nevada Las Vegas)

**Abstract:** Research literature suggests that children of substance-abusing parents are at risk for undesired behaviors such as noncompliance, aggression, bullying, delinquency and substance use. Little is known about the factors in this population that contribute to such problems. The current study will examine the relationships between various parental and family characteristics and parent-reported behavior problems in children of substance abusing parents. The sample consists of mothers referred to Family Behavior Therapy services to treat co-occurring parental substance abuse and child neglect. Data was gathered immediately prior to treatment. Independent variables include mental health diagnosis, parental demographic characteristics, level and frequency of parental substance abuse, parental stress, life satisfaction, and cognitive factors such as educational level, reading level, and presence of cognitive impairments. The dependent variable is child behavior problems as measured by the Eyberg Child Behavior Inventory. Analyses will include a correlation matrix and multiple regressions. It is expected that behavior problems increase as the severity of stressors increase. Treatment and public policy implications will be discussed.

**50. The Effects of Systematic Desensitization on a Phobic 15-year-old Male with Autism: A Case Study.** (AUT; Applied Behavior Analysis) KENDRA BEAUDET-DOMMER (Gonzaga University), K. Mark Derby (Gonzaga University), Kimberly P. Weber (Gonzaga University), Anjali Barretto (Gonzaga University)

**Abstract:** Childhood anxieties are often associated with avoidance and discomfort and are completely natural to arise when in distressing situations; it's when these fears affect daily functioning are they classified as phobias. A specific type of phobia is social anxiety; the fear of social situations that involve interaction with other people. While many phobic individuals suffer from social impairments, relatively few end up in treatment for their problems and less than 20% seek professional help. The purpose of this study was to assess the effects of a systematic desensitization intervention program on a phobic 15-year-old male with Autism who had a specific phobia for persons who coughed or expressed cold symptoms. This study explores how relaxation techniques such as diaphragmatic breathing exercises and hand-held stress reduction coupled with a step-by-step hierarchical intervention serve as treatment in reducing social anxiety and aberrant behaviors in a family situation.

**51. Social Skills Training for Japanese Adolescents with School Maladjustment: Empirical Results.** (EDC; Applied Behavior Analysis) WATARU NODA (Kwansei Gakuin University), Kanako Otsui (Kwansei Gakuin University), Katsunori Takeshima (Kwansei Gakuin University), Yoshihiro Tanaka (Kwansei Gakuin University), Takashi Mitamura (Kwansei Gakuin University), Naoshi Ito (Kwansei Gakuin University), Junko Tanaka-Matsumi (Kwansei Gakuin University)

**Abstract:** We developed an ABA-based social skills training program to benefit adolescents with prolonged school refusal and related adjustment problem in Japan. More than 180,000 children and adolescents in Japan refuse to attend school each year. The present study was conducted to train adolescents in social skills with a history of severe school refusal problem. We examined the effect of a 6-month social skills training program through multiple measures. Participants were 17 adolescents (aged from 16 to 17) with school refusal and related social adjustment problems. Training consisted of instruction, modeling, behavioral rehearsal, and reinforcement/feedback. Results showed that the training program was effective in improving the participants' social skills measured by self-report, staff-ratings, and role-play assessment. In this presentation, we report the results specifically of assertion skills training. We also report factors contributing to individual differences in group- training outcome. The results demonstrate the feasibility of developing a package social skills training program for Japanese adolescents with severe school refusal problems and meet the needs of the community in behavioral action research. This project was commissioned by Osaka Prefectural Government as part of the Family Rebuilding Project in 2007.

**52. Step-Wise Exposure Therapy to Improve Functioning Across Stimulus Domains in an Adolescent with Developmental Delays.** (DDA; Service Delivery) MELISSA COLLISON HENDRICKS (Kennedy Krieger Institute), Leanna J. Herman (Kennedy Krieger Institute), Adrianna M. Amari (The Kennedy Krieger Institute), Keith J. Slifer (The Kennedy Krieger Institute/ Johns Hopkins Unive)

**Abstract:** The benefits of exposure therapy to treat social phobia and reduce avoidance of medical procedures in youth with developmental delay are well documented. This case demonstrates the promise of these techniques when applied in a step-wise fashion to increasingly distressing stimulus domains. Exposure therapy was implemented with an adolescent with developmental delays who avoided three distinct situations: taking medication, having blood drawn, and social encounters with strangers thought to have resulted from a trauma experienced three years earlier. Treatment involved graduated exposure using counterconditioning, stimulus fading, discrete-trial skills training, and differential reinforcement of coping, approach and cooperation. The combined techniques were applied from least to most distressing targets to achieve, reinforce, and build upon behavioral success. Parent skills' training was incorporated throughout treatment to prompt appropriate practice and enhance generalization and long-term maintenance of gains. Results demonstrate that treatment was successful in ameliorating behavioral avoidance of daily pill swallowing, periodic blood draws, and social situations with unfamiliar others. Data will be presented and findings that support the effectiveness of exposure therapy to promote positive behavior change across domains will be discussed.

**53. Increasing Children's Daily Physical Activity Levels With The H.A.P.P.E. Classroom Project.** (EDC; Service Delivery) CATH ADELE PRICE (Murdoch University, Western Australia), David J. Leach (Murdoch University, Western Australia)

**Abstract:** Aim: Can children increase their habitual levels of physical activity and is there a measurable effect on healthy development and well-being? To answer this, the present research conducted an eight week audit of typical Australian children's physical activity levels and evaluated a three week school based intervention to increase physical activity- The H.A.P.P.E. Classroom Project.

Method: A convenience sample of 49 primary school students aged 8-10 years took part. An intervention group of 27 students (m = 17, f = 10) received the HAPPE program for 3 weeks. The control group consisted of 22 students (m = 14, f = 8) in a parallel class at the same school. The number of steps per day was recorded using pedometers. The intervention consisted of providing individual and group graphical feedback of pedometer data, setting weekly class targets, individual daily targets, and providing contingent reinforcement for meeting targets. The intervention took place in the children's regular classrooms.

Results and Conclusion: Following the 3-week intervention and 1-week of follow-up boys achieved a 37% increase and girls a 34% increase in their activity levels across weekdays and weekends compared to initial baseline levels. The control group also showed an overall increase of 11% (boys) and 5% (girls). Measures of changes to body composition, physical fitness and ratings of personal well-being are reported.

**54. An Evaluation of Treatment Preferences for Children Evaluated in an Outpatient Clinic for Noncompliant Behavior.** (Applied Behavior Analysis) Jayme Mews (University of Iowa), PATRICK ROMANI (University of Iowa), David P. Wacker (University of Iowa), Kelly M. Schieltz (University of Iowa)

**Abstract:** The present study evaluated the treatment preferences of children with hypothesized escape maintained noncompliance. Participants were 2 children, ages 5 and 7 years, evaluated within a behavioral outpatient clinic for problem behavior. Trained behavior analysts conducted all procedures in clinic therapy rooms observed by the children's parents. Inter-observer agreement was assessed across 30% of all sessions and averaged above 90%. During Phase 1, a treatment package for escape maintained behaviors was implemented for completing demands and included escape extinction, contingent access to preferred activities, a timer, and a visual schedule. During Phase 2, the treatment package used in Phase 1 was implemented but without timers and visual schedules. Phases 1 and 2 were conducted within a multi-element design. During Phase 3, a concurrent operants design was used to evaluate participants' preferences for the treatment packages. Participants were given three opportunities to choose their treatment of choice. During all phases, problem behavior did not occur and both participants completed all demands. During Phase 3, one participant selected the package described in Phase 1 whereas the second participant selected the package described in Phase 2. These results show that children can indicate preferences for specific versions of treatments.

**55. Effect of the Behavior-Nonspecific Reinforcement in Dyads Mother-Child with a History of Physical Abuse.** (EAB; Applied Behavior Analysis) ARIEL VITE SIERRA (Universidad Nacional de México), Raquel Corrales (Universidad Nacional de México)

**Abstract:** A growing body of knowledge suggests that the degree to which a mother is sensitive to social behavior child relates to the tendency of children to behave properly. This suggests that the rate of reinforcement of a type of conduct (approximations prosociales) may influence the rate of another type of conduct (compliance). However, many studies have used correlational designs. Therefore, a test that distinguishes naturalistic the possible causal role of maternal responsive on the rate of infant prosocial behavior could examine whether differences in child behavior correspond to differences in parental behavior at a level intra individual. Hence, the objective of this study was to evaluate the effect of non-specific behaviors reinforcement in the interaction dyads mother-child. Behavior-nonspecific reinforcement was defined as the history of reinforcement obtained by children for prosocial and aversive behaviors unrelated to mother instructions. Participated five dyads mother-child with a history of physical abuse. We used an experimental design intra-subject and procedures such as teaching behavioral instructions, modeling, and visual feedback. The results are analyzed in terms of the value of non-specific behaviors reinforcement within the context of social exchanges moment-to-moment, between mothers and their children with a history of physical abuse.

**56. Co-regulation of the Balance to Promote the Social Approximations in Abusive Mother-Child Dyads.** (EAB; Applied Behavior Analysis) ARIEL VITE SIERRA (Universidad Nacional de México), Rubén Parra (Universidad Nacional de México)

**Abstract:** The purpose of this study was testing the efficiency of a program based on the coregulation of the balance to foment the social approximations in abusive mother-child dyads. Participated nine dyads mother-child, an experimental design of the type ABC was used, and in the intervention such procedures of behavioral change were applied as shaping, visual feedback and instructions. Herrnstein's matching law was used to analyze covariations between mothers' attention and the children's. This analysis was followed by correlational and sequential probability analyses to determine linkages between these 2 child responses and the children's willingness to compliance their mothers' instruction. Results showed consistent matching between mothers' social attention and the children's production of prosocial approaches and acts of compliance. An index of the proportions of these two responses also covaried with the children's compliance probabilities, and the prosocial approach component was the direct covariate. These findings are discussed within an interactional synchrony framework in which children's willingness to compliance their mothers is influenced by opportunities for the dyad to engage each other in specific forms of social interaction.

**57. Examination of the Relationship Between Parental Dissatisfaction with Children and Child Maltreatment Potential.** (EAB; Service Delivery) KELSEY MICHAEL BRADSHAW (University of Nevada Las Vegas), Suzanne Gorney (University of Nevada Las Vegas), Rhiannon Rager (University of Nevada Las Vegas), Stephanie Oakley (University of Nevada Las Vegas), Karen Herdzik (University of Nevada, Las Vegas), Brad Donohue (University of Nevada, Las Vegas), Daniel N. Allen (University of Nevada, Las Vegas)

**Abstract:** Previous research has shown dissatisfaction often acts as an antecedent condition to aggressive and avoidant behaviors. However, there are no measures that assess dissatisfaction across a wide array of behavioral domains. Understanding behavioral response sets for which dissatisfaction is identified may act to prevent severe aggression (i.e. child abuse) or avoidance (i.e. child neglect) in parents referred to agencies for child maltreatment. The Parental Satisfaction with Child Scale (PSCS) is a 12-item scale that measures broad areas of parental satisfaction in areas identified in the literature to be related to child maltreatment (i.e. communication, relationships, child compliance, family involvement, school activities); all with regard to children. The PSCS measures satisfaction in percentages on a continuum ranging from unhappy (0%) to happy (100%). It is divided into two sections. The first section is designed for rating all children regardless of age, while the second section is designed for children older than 18 months. The present study will demonstrate the relationship between specific areas of parental satisfaction, as measured by the PSCS, and potential for maltreatment, as measured by the Child Abuse Potential Inventory, to best predict potential abuse. Implications of this study will be discussed in light of the results.

**58. Using Biofeedback (Deep Breathing and Muscle Relaxation) In Decreasing Physical Tics in Qatari children with Intellectual Disability.** (DDA; Experimental Analysis) HAKAM M. KAIR (Shafallah Center for Children With Special Needs), Moayad Muneer Altamimi (Shfallah Center for Children with Special Needs), Sameera Abdo Althebyani (Shafallah Center for Children with Special Needs)

**Abstract:** We used deep breathing and muscle relaxation technique to decrease physical tics in a 12- year-old Qatari – boy diagnosed with mild intellectual disability. The child attends a day program at Shafallah Center or children with Special needs in Doha-Qatar. He exhibited high frequency physical tics in the form of forced jumping and body jerking in a standing position and body jumping and body jerking in a setting position. Psychotropic medications including Haldol and Tegretol were used before relaxation techniques were introduced. Then we faded these medications while introducing Respadol and Klonodin. With the new medications we introduced breathing and muscle relaxation in an (ABCD) experimental design. The (A) condition represented baseline but involved Haldol and Tegretol. The (B) condition involved fading out Haldol and Tegretol while introducing Respadol and Klonodin. In the (C) condition we stopped Haldol and Tegretol and continued Respadol and Klonodin Finally in the (D) condition we continued Respadol and Klonodin and introduced muscle relaxation technique to decrease physical tics. Results will show a decrease in physical tics.

**59. The Effects of Positive Behavior Support Plan for Students with Behavioral and Emotional Disturbances in Public School** (EDC; Service Delivery) I TING CHEN (National Changhua university of Education), Shu-Chun Hung (Changhua County Tai-he elementary school), Pei-Ju Lai (Changhua County

Tai-he elementary school), Tsung-Ju Wu (National Changhua University of Education), Hua Feng (National Chang-hua University of Education)

**Abstract:** This paper will display the effects of functional behavior assessment (FBA) and positive behavior support plan (PBS) for 3 students with behavior and emotional disturbed in regular public schools. A multi-disciplinary team, which included special education teachers, regular school teachers, clinic psychologists, and a psychiatrist collaborated together to conduct FBA and then designed positive intervention strategies for 3 targeted students. For public school system in Taiwan, the ways to implement behavioral intervention systematically are developing. This study showed positive outcome for the 3 targeted students. With the successful intervention, the model to implement PBS is set-up for future intervention. The implementing model, the outcome measurement, and the social validity will be discussed in the study. Suggestions for future research and practice of BPS will be discussed, too.

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### #310 International Poster Session

5/24/2009

5:30 p.m.- 7:00 p.m.

North Hall A

CSE

**60. Behavioral Intervention for Overweight Children to Improve Eating, Physical and Daily Habit Self-Efficacy.** (EDC; Service Delivery) NA-YOUNG SHIN (Yonsei university, Seoul, Korea), Joo-hee Kim (Yonsei University, Seoul, Korea), Kyong-Mee Chung (Yonsei University, Seoul, Korea), Justin Y. Jeon (Department of Sport and Leisure Studies, Yonsei University, Seoul, Korea)

**Abstract:** The purpose of this study was to examine the effectiveness of 7 day summer camp designed to teach weight management for children with BMI more than 22. The camp program consisted of physical activities, nutritional education and behavioral intervention. Behavioral intervention, including daily dietary record, instructions on dietary and daily habit, how to reinforce, how to overcome the obstacle and making a behavior contract, were held 50 minutes a day. Participants were 15 boys and 17 girls, from 10 to 12 years old. Eating, physical and daily habit self-efficacy of children was reported by both children themselves and their parents. These measures were assessed by child dietary self-efficacy scale, weight efficacy life-style questionnaire, physical self-efficacy and the daily habit questionnaire developed by researchers. A repeated measure ANOVA was used to analyze the data. Results indicated significant increase in daily habit and physical self-efficacy after the camp. No significant difference was found for weight life-style efficacy and dietary self-efficacy. Daily habit self-efficacy was continued to increase at follow-ups. Moreover, parents reported that their children's weight life-style and daily habit self-efficacy were improved significantly. Clinical and research implications were discussed along with practical issues.

**61. Prevalence of Chronic Fatigue Syndrome (CFS), in Students of Psychology and Medicine Careers in Mexico.** (CBM; Applied Behavior Analysis) NORMA COFFIN (National Autonomous University of Mexico UNAM), Monica Alvarez Zuñiga (National Autonomous University of Mexico), Francisca Bejar Nava (National Autonomous University of Mexico), Blanca Estela Huitron Vazquez (National Autonomous University of Mexico), Constanza Miralrio Medina (National Autonomous University of Mexico), Lourdes Jimenez Renteria (National Autonomous University of Mexico), Clara Bejar Nava (National Autonomous University of Mexico), Leonard A. Jason (De Paul University)

**Abstract:** Jason (1998), states that initial research suggested that CFS was a relatively rare disorder. However, serious methodological problems in many of the early epidemiological studies of CFS cast doubt of these early findings. By the mid-1990's, findings from more representative epidemiologic studies indicated considerably higher CFS prevalence rates. These findings suggest that there might be from 145, 000 to 1, 084, 000 people with CFS in the States. In Mexico, no measure exists. CFS is not well attended. In the present pilot study, an instrument from the De Paul University was applied to students of Medicine and Psychology careers at the Iztacala Campus to know its prevalence. Since CFS handicaps people to concentrate and retain information, this study might contribute to academic and health areas. In this sample (N= 60), results show so far, a prevalence of fatigue (45.5%), muscular pain, lack of memory and concentration (27.3%) as "often";

and not sleeping (28%), as “always”. Psychology students report major prevalence in the different items. Concerning to perceive energy spared in the last week (in a scale from 1 to 100), a mean of 73.3% is reported, while the mean reported for real energy used was of 57%.

## **62. What the...Decreasing Inappropriate Language in a High School Special Education Classroom.**

(Applied Behavior Analysis) Tara A Glavin (HOPE Institute), VICTORIA IVORY PARKS (The Chicago School of Professional Psychology)

**Abstract:** Empirical data have shown group contingencies to be an effective intervention for behaviors that are maintained by more than one individual in a given setting. Our study utilized a group contingency to decrease inappropriate language among students in a high school special education classroom. Three ten minute Differential Reinforcement of Lower Rates of Behavior (DRL) sessions were conducted daily and each occurrence of inappropriate language was recorded. A DRL procedure was systematically decreased and implemented to reinforce instances of lower rates of the target behavior for the entire class. During intervention sessions, reinforcement was contingent upon the entire class meeting or staying below the criteria for inappropriate language used during each session. Opportunity for the class to engage in a ten-minute music and dance activity, at the end of the day was used to reinforce lower rates of inappropriate language. The data indicated a decrease in rates as a result of the group contingency intervention.

## **63. Supporting Family-Based Alternatives for Children with Challenging Behavior: A Qualitative Analysis of Service Providers' Needs.**

(DDA; Service Delivery) AMANDA L. LITTLE (University of Texas-Austin), Michael Tucker (EveryChild, Inc.), Nancy Rosenau (EveryChild, Inc.)

**Abstract:** Texas has more children placed in institutional settings than any other state (Texas Center for Disability Studies, 2008). Agencies are working to transition these children into family-based alternative settings. Because children who have been in institutional settings frequently have histories of engaging in challenging behavior, agencies and agency providers are often tasked with providing these families with the skills and tools they need to successfully support these children. Barriers such as inadequate training and lack of resources may render these agencies ill-equipped to support families. This qualitative study gathered information from service providers in the field in the state of Texas. Semi-structured interviews were conducted in an attempt to answer research questions related to the needs of service providers regarding how to most successfully support families in preventing challenging behavior in those children who are at risk and implementing behavior interventions for children already exhibiting challenging behavior. Themes developed, for example the need for system-wide implementation of behavior supports, will be presented to those attending the presentation. This study will impact the field due to its information gathered from services providers in which future intervention will be based.

## **64. Fixed and Variable Schedules of Reinforcement on Facebook.**

(EAB; Experimental Analysis) ELIZABETH GRACE EVELYN KYONKA (University of Canterbury), Andrew D. Hucks (University of Canterbury), Lavinia CM Tan (University of Canterbury)

**Abstract:** Computer literate individuals are using social network sites (SNSs) such as Facebook with increasing frequency and ubiquity, and increasingly, SNSs are attracting the attention of psychologists and other social scientists (boyd & Ellison, 2007). Facebook is a SNS introduced for university students in 2004. Content is user-driven: members provide photo and video content, belong to groups, declare themselves ‘fans’ and post messages of various sorts. The pervasiveness and adaptive functionality of Facebook make it a catalytic environment for widespread behavior change among students. In the present research, we compare effects of fixed- and variable-interval content delivery on participation in Facebook groups. In experimental settings, response rates are typically higher under variable than fixed schedules of reinforcement. Data to be collected will examine whether content delivered at fixed and variable intervals produces different rates of group membership change and message activity. A greater understanding of the reinforcing properties of Facebook activities will facilitate their use as an educational and informational tool.

## **65. Project Rise: Documenting Oral Reading Fluency Norms and Fluency Gains Among Students In Afterschool Programs.**

(EDC; Service Delivery) DAVID REITMAN (Nova Southeastern University), Jean Thaw (Nova Southeastern University), Kathylynn Pierre (Nova Southeastern University), Tanisha Valere

(Nova Southeastern University), Lyndsay Lennertz (Nova Southeastern University), Lori Hanson (The Children's Trust)

**Abstract:** Oral Reading Fluency (ORF) is widely considered to be an excellent predictor of variables such as reading comprehension and overall academic achievement. Following training from Project RISE (a quality improvement program funded by the Children's Trust), normative data were obtained by after school program staff and administrators from over 85 agencies and more than 200 programs in South Florida. ORF data gathered from over 15,000 children, show high rates of “frustrational-level” readers at the pre-kindergarten through 2nd grades (30-60%). Data obtained from a subsample of 4300 students show clear improvements in reading fluency (and sharp reductions in frustrational-level reading) though further study will be needed to isolate causal factors associated with improvements in ORF. Specifically, over an average of 219 days, mean student improvement in ORF was estimated at 30 WPM or approximately 1 wpm (i.e., .97 wpm) improvement each week. These data will serve as baseline data that can be used to evaluate the overall effectiveness of future intervention efforts designed to promote ORF and reading proficiency in the afterschool environment. Interestingly, in preliminary analyses, magnitude of ORF change was modestly related to grade level, with the largest gains realized among early elementary-aged students (e.g., grade 3).

#### **66. Does Antecedent Stimuli Influence Substance Use Differentially across Various Drug Types?**

(Service Delivery) RUWIDA ABDEL-AL (University of Nevada Las Vegas), Renee Just (University of Nevada Las Vegas), Merilee Milner (University of Nevada Las Vegas), Angela Prieto (University of Nevada Las Vegas), Karen Herdzik (University of Nevada, Las Vegas), Brad Donohue (University of Nevada Las Vegas), Daniel N. Allen (University of Nevada, Las Vegas)

**Abstract:** Drug use is often triggered by antecedent stimuli that vary across different drug types. Understanding how these antecedents can differ can shape how drug abuse treatment is developed and implemented. In order to evaluate the degree to which antecedent stimuli can affect drug use, sixteen empirically evidenced antecedent stimuli found in the literature to influence drug use (e.g., “how often do you get bored before drug use,” “how often do you drink alcohol before drug use”) were obtained. Drug users are given the opportunity to indicate which of these antecedents led to drug use. From the endorsed antecedent stimuli, a frequency measure is applied where drug users indicate how often the antecedent stimuli occurs (e.g., “almost always,” “sometimes,” or “almost never”) prior to drug use. An analysis of variance will be presented based on the frequency data collected indicating the variance of antecedent stimuli among various drug types.

#### **67. Presence of Suicidal Ideation and Depression in General Population at One Campus Clinic in Mexico.**

(CBM; Applied Behavior Analysis) NORMA COFFIN (National Autonomous University of Mexico UNAM), Monica Alvarez Zuñiga (National Autonomous University of Mexico), Blanca Estela Huitron Vazquez (National Autonomous University of Mexico), Constanza Miralrio Medina (National Autonomous University of Mexico), Clara Bejar Nava (National Autonomous University of Mexico), Francisca Bejar Nava (National Autonomous University of Mexico), Lourdes Jimenez Renteria (National Autonomous University of Mexico)

**Abstract:** This Clinic at campus Iztacala happens to be a school-clinic for Medicine and Psychology students. Hence, community services are provided in different areas, such as: Clinical Psychology, Medicine and Special Education. Thus, the major goal for this grant consists in finding out the prevalence of major depression and its relation with suicidal ideation, since therapies or medical treatments not always correspond to the initial complaint the patients report. In Mexico, social and economic factors have determined high levels of depression and suicidal ideation. However, in this clinic not always different questionnaires are applied to the initial patients in order to establish a more accurate initial diagnostic. This might affect the more appropriate service he should receive. Two validated instruments (BDI, Beck) & IOS (Casullo) were applied to all patients who were demanding for either service at this Clinic. In a sample of N=130, moderate and high levels of suicidal ideation were mostly reported; it is important to asset that most of this sample was requiring Clinical Psychology service (80%). For depressive levels, according to the BDI, moderate level is also the most reported (31.9%). Also, a correlation between both variables (depression and suicidal ideation), was found:  $r = .656; p < .001$ .

**68. CANCELLED: Evaluating the Effectiveness of Providing Motorists' Speed Feedback and Amber Roadside Incandescent Lighting to Reduce Speeding and Increase Pedestrian Yielding at Two University Crosswalks.** (Applied Behavior Analysis) JIM SHURBUTT (Western Michigan University), Stephany Dukes (Jacksonville State University), Ron Van Houten (Western Michigan University)

**Abstract:** It is sometimes the case that as a University increases enrollment it expands the size of its campus. This phenomenon is known as campus sprawl. A sprawling campus usually lacks peripheral parking around the campus but, rather, has parking around each of the academic and administration buildings. A potential problem attributable to the sprawl is an environment that is more conducive to driving rather than walking. This often lends to increased vehicle traffic throughout the campus and pedestrians attempting to cross at dangerous crosswalks. The current study evaluates the effectiveness of providing motorists with speed feedback and exposure to amber incandescent beacons to reduce speeding and increase motorists' yielding to pedestrians. The treatments are applied using a multiple baseline design to two mid-block crosswalks at a university campus possessing elements of campus sprawl. Each crosswalk traverses four through-lanes and a median lane of a roadway with an average daily traffic (ADT) count of 12,610 vehicles.

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**#311 International Poster Session**

5/24/2009

5:30 p.m.- 7:00 p.m.

North Hall A

DDA

**69. The Effects of Behavior Skills Training and Token Economy on Adults of Atypical Development.** (Applied Behavior Analysis) KELLY A. DANCHO (AdvoServ), Sally Rader (AdvoServ of New Jersey)

**Abstract:** The effects of behavior skills training (BST) have been assessed with a number of behaviors under a wide range of conditions (e.g., gunplay: Miltenberger, et al., 2004; abduction prevention: Johnson, et al., 2006; poison prevention: Dancho, Thompson, & Rhoades, 2008). Similarly, extensive research has been conducted on the effects of the token economy system (e.g., mining: Fox, Hopkins, & Anger, 1987; stuttering: Howie & Woods, 1982; dieting: Magrab & Papadopoulou, 1977). This investigation sought to expand the research on BST and token economy through assessing their effects on inappropriate social behavior with five adults of atypical development. Effective reductions in inappropriate social skills were not observed following BST and BST in situ. Reductions and decreased variability in socially inappropriate behavior were observed following the initiation of the token economy system. Interobserver agreement was assessed during a minimum of 30% of all sessions, and agreement ranged between 63 and 100% for all participants.

**70. Production Ratios and Reinforcement Schedule Thinning in Second-Order Schedules of Token Reinforcement.** (Applied Behavior Analysis) KATHRYN JANN (Kennedy Krieger Institute & UMBC), SungWoo Kahng (Kennedy Krieger Institute), Nicole Lynn Hausman (Kennedy Krieger Institute), Barbara Tomlian (Kennedy Krieger Institute)

**Abstract:** Token economies are second-order schedules of reinforcement commonly implemented to increase task completion in school and vocational settings. Basic research has shown that token-reinforced behavior is jointly affected by token- and exchange-production ratios (Bullock & Hackenberg, 2006; Foster & Hackenberg, 2004; Kelleher, 1957; Webb & Malgodi, 1978). Translational research is needed in the form of analogue clinical studies that assess responding while thinning token reinforcement. During the current study, rates of task completion and pre-ratio pauses exhibited by a 14-year-old male diagnosed with autism were assessed under a free-operant arrangement. Task completion was assessed during two conditions in which either the token- or exchange-production schedule was thinned. During baseline in both conditions, task completion resulted in no programmed consequence. Following token training, one production schedule was thinned in each condition while the other schedule was held constant at FR1. Data indicated that response rates decreased and pre-ratio pauses increased in both conditions as either schedule ratio was increased. Additionally, response rates were more sensitive to changes in the token-production schedule than the exchange-production schedule while the reverse was true for pre-ratio pauses. These findings build upon

basic and applied research by providing information on methods of thinning token-reinforced task completion.

**71. Fluency-Based Practices to Influence Frequency of Counselor Praise Statements.** (EDC; Service Delivery) KERIN ANN WEINGARTEN (The Chicago School of Professional Psychology), Kyosuke Kazaoka (The Chicago School of Professional Psychology), Kimberly A. Shontz (Trinity Services, Inc.), Michael Mecozzi (Trinity Services, Inc.), Thane A. Dykstra (Trinity Services)

**Abstract:** Trinity Services, Inc. is a non-profit evidence-based organization that provides a great deal of services to individuals with needs including but not limited to adult learning, behavioral-health, community living, and employment services. Within their behavioral-health unit, mental health counselors from varying fields and theoretical backgrounds assist individuals with a dual-diagnosis of a mental health need and mental retardation to live independent lives. Mental health counselors provide structured individual and group therapy to encourage psycho-educational learning and social activities. Therapy is contextual-behavior based and emphasizes the techniques of Dialectical Behavioral Therapy (DBT), Acceptance and Commitment Therapy (ACT), and Functional Analytic Psychotherapy (FAP). The mental health counselors served as Participants. Baseline data was collected on the Participants to assess the frequency of positive statements delivered to their clients during group therapy sessions as well as the variety of praise statements used. Next, Participants engaged in fluency-based timings in which they vocalized as many variations of praise statements in a set amount of time. These data will explore to which extend fluency-based practices of naming variations of praise statements may or may not generalize to praising their clients served.

**72. Parent Training for a Mother Who Has a Child with Developmental Disabilities.** (Applied Behavior Analysis) MIYUKI NOGUCHI (University of Oregon), Yoichi Gomi (University of Tsukuba, Japan) , Fumiyuki Noro (University of Tsukuba, Japan)

**Abstract:** The purpose of this study was to investigate the effects of parent training for a mother who has a child with developmental disabilities. The participant was a 40 years old woman. She had a 11-year-old boy who was diagnosed attention-deficit/hyperactivity disorder and pervasive developmental disorder. The mother reported that her child sometimes acted up and yelled in order to get things that he wanted. We conducted 30 minute sessions once a week (total 7 sessions). The contents of the training were positive attention (3 sessions), positive reinforcement practice (2 sessions), and positive reinforcement application (2 sessions). Data were collected by observation by the mother and parental skills self rating scale. The mother observed two behaviors; inappropriate demanding (for example yelling) and following an instruction. As a result, child's inappropriate demanding decreased and his following an instruction increased after the training. This effect maintained 4weeks after training. However, the evaluation of parental skills did not change. We will discuss the effects of this training and the validity of data collection.

**73. A Model for In-Home Intervention: Furthering the Continuum of Care for the Treatment of Severe Behavior.** (CSE; Applied Behavior Analysis) JASON T. CAVIN (Marcus Autism Center), Joanna Lomas (Marcus Autism Center), Nathan A. Call (Marcus Autism Center and Emory University School of Medicine)

**Abstract:** Traditional models of treatment for severe behavior have often included intensive services in settings other than the natural environment. Models such as these, while often effective, have limitations that include a lack of generalization of treatment from the clinic to home (Page et al., 2007), school, and community environments; poor external validity during assessments and treatment development; the absence of problem behavior in the treatment setting (Sterling-Turner & Robinson, 2001); and the length and cost of doing an inpatient admission. This poster will present a treatment model conducted in the naturalistic environment that expands on current models of service delivery and provides further options for the treatment of severe behaviors that range from in-home intervention to intensive day treatment. Data will be presented to illustrate the relative advantages and disadvantages of assessment and intervention in settings of varying levels of intensity; how providing services in more than one settings can be integrated into a complete continuity of service delivery; applications of different functional behavioral assessment methods in various settings; and the use of in-home intervention as a method of assessment and follow-up to inpatient admission.

**74. Functional Analysis of a Response Class Hierarchy Maintained by Attention in an Individual with Asperger's Syndrome.** (VRB; Applied Behavior Analysis) AINSLEY THOMPSON (Kennedy Krieger Institute), Heather K. Jennett (Kennedy Krieger Institute)

**Abstract:** Individuals who are high functioning or have good verbal repertoires may exhibit alternative behaviors, such as mands or other verbalizations, in a standard functional analysis (Iwata et al. 1982/1994) to the exclusion of problem behavior. Thus, modifications to the analysis must be considered when low rates of problem behavior occur. In the current study, we first observed low rates of problem behavior in the initial functional analysis conducted with an 8 year old female with Asperger's Syndrome. Subsequently, we assessed a possible response class hierarchy by evaluating the effects of extinction and attention on the latency of response class members following mands for attention. High rates of mands and low rates of problem behavior were observed initially when all mands were reinforced with attention. However, when mands were put on extinction, aggression, verbal aggression and disruption emerged. The results suggest that including verbal behavior in a functional analysis may help to assess the problem behavior of higher functioning individuals.

**75. Use of Restraints with Persons with Developmental Disabilities: A Review.** (CSE; Applied Behavior Analysis) STACY L. CARTER (ITU), Devender Banda (Texas Tech University)

**Abstract:** Restrictive behavioral procedures are frequently used to treat individuals who reside in health care and/or residential facilities (Jacobson, 1992). Restraint is a restrictive procedure which has been frequently documented to be effective for reducing the challenging behaviors of individuals with developmental disabilities (Matson & Keyes, 1988; Rolider, Williams, Cummings, & Van Houten, 1991). We reviewed several studies in which restraints were used with individuals with developmental disabilities. We examined several factors associated with the use of restraint procedures such as age, gender, severity of disability, disability type, length of placement, communication level [verbal or nonverbal], health status [e.g., diagnosed medical condition or no medical conditions], types of behaviors [e.g., self-injurious behaviors, aggressions, property destruction, elopement], and other factors that typically influence or lead to restraints in individuals with developmental disabilities. Results will be discussed and recommendations provided toward minimizing use of restraints. Suggestions for future research and ethical considerations will be provided.

**76. Outcome Study for Intensive Infant Development Program in Orange County, California.** (AUT; Service Delivery) JUNELYN LAZO (Center for Behavioral Sciences, Inc), Joyce C. Tu (Center for Behavioral Sciences, Inc.), Johanna F Lorca (Center for Behavioral Sciences, Inc.), Tricia M. Canton (Florida Institute of Technology)

**Abstract:** Twenty children who qualify for early start intervention services in the state of California participated in this study. They ranged in age from 15 months to 33 months when services were initiated. All twenty children demonstrated delays in the following areas: receptive language, expressive language, self-care, social-emotional, gross motor, fine motor, and cognitive/pre-academic. Each child received 12-20 hours per week of intensive services for a period of three months to one year. The outcomes were measured when the child turned 3-years-old and no longer qualified for early start intervention services through the Regional Centers of California. The outcome measures include the type of school placement, whether or not the participant received an autism diagnosis, and if the child qualified for Lanterman services in the state of California after turning 3-years-old.

**77. The Effects of Risperdal Dosage Times on Emotional Behavior.** (Applied Behavior Analysis) MELISSA M. SHULLEETA (Kennedy Krieger Institute), Samantha Hardesty (Kennedy Krieger Institute), Lynn G. Bowman (The Johns Hopkins University School of Medicine), Katharine Leigh Litman (Kennedy Krieger Institute)

**Abstract:** Dicesare et al. (2005) suggested that medication manipulations within functional analyses may serve as motivating operations for disruptive behavior. However, few studies have examined changes in emotional behavior during functional analyses (Hanley, Iwata, McCord, 2003). The purpose of the current study was to evaluate the effects of dosage manipulations on the emotional responses of a 14-year-old boy diagnosed with

q 10 chromosomal deletion and developmental disabilities. The participant was admitted to an inpatient facility for the assessment and treatment of problem behavior and was prescribed 2mg of Risperdal in the evening. A functional analysis of crying suggested that crying was maintained by access to soothing adult attention. However, following a medication time change (i.e., 2mg Risperdal delivered in morning), differences were observed in rates of crying. Medication manipulations were evaluated in a reversal design and results suggested that the time that the medication was administered affected crying. Evening dosages resulted in an average of 53% of crying during session while morning dosages resulted in 0% crying across all conditions. This study extends previous literature, suggesting that medication manipulations may affect outcomes of analyses when examining emotional behaviors. Reliability data were collected for one-third of observations and averaged above 80%.

**78. Discounting of Delayed Tokens and Consumable Reinforcers in Individuals with Developmental Disabilities.** (Applied Behavior Analysis) JENNIFER A HOYLE (James Madison University), Iser Guillermo DeLeon (Kennedy Krieger Institute), Michelle A. Frank (Kennedy Krieger Institute), Sherry L. Serdikoff (James Madison University)

**Abstract:** Interventions based on positive reinforcement are often with individuals diagnosed with developmental disabilities to decrease problem behavior or enhance performance in educational work. Although reinforcement procedures have been shown to be most effective in increasing appropriate behavior when a reinforcer is provided immediately following the targeted behavior, in order to make interventions more practical for use in daily living environments, reinforcement is often delayed. All else being equal, an imposed delay will typically render a reinforcer less effective, a phenomenon known as temporal discounting, and results from recent studies suggest that directly consumable, primary reinforcers are discounted more steeply than conditioned reinforcers. The primary objective of the current study is to determine behavioral sensitivity to manipulations of delay and magnitude of reinforcement for conditioned reinforcers and primary reinforcers. Specifically, the purpose of the current study is to examine whether conditioned reinforcers are discounted less steeply than food, a directly consumable, primary reinforcer. This is examined by manipulating the delay to reinforcement (while holding magnitude of reinforcement constant) and then by manipulating the magnitude of reinforcement (while holding delay to reinforcement constant). The data suggest more effective methods for designing training and teaching programs for individuals with developmental disabilities.

**79. Further Examination of Discriminated Functional Communication.** (Applied Behavior Analysis) YANERYS LEON (Kennedy Krieger Institute), SungWoo Kahng (Kennedy Krieger Institute), Nicole Lynn Hausman (Kennedy Krieger Institute), Jessica Smith (Kennedy Krieger Institute)

**Abstract:** Functional communication training (FCT) is often used as a treatment component for individuals who exhibit severe problem behavior. FCT generally consists of delivering the functional reinforcer contingent on the emission of a specific, socially acceptable response, while withholding the reinforcer contingent on problem behavior (i.e., extinction). One potential limitation of FCT is that once the communicative response is trained, individuals may request the relevant reinforcer at high rates. Multiple schedules have been demonstrated to be effective in facilitating schedule thinning and managing the rates of the communicative response (e.g., Hanley, Iwata, & Thompson, 2001). In such arrangements, arbitrary stimuli (e.g., picture cards) are correlated with different schedules of reinforcement (i.e., FR 1, extinction) and serve as discriminative stimuli for the availability of reinforcement. Kuhn, Chirighin, and Zelenka (in press) extended this line of research by teaching individuals to attend to naturally occurring stimuli (e.g., caregiver behavior) and differentially request reinforcement based on whether the caregiver was engaging in “busy” or “non-busy” behavior. The current investigation replicated the general findings of Kuhn et al. and extended the findings by generalizing the treatment gains to novel situations, settings, and therapists. Interobserver agreement was collected for one-third of sessions and averaged over 90%.

**80. Identification of a Response Class Hierarchy: Implications for Treatment.** (Applied Behavior Analysis) AMBER BORKOSKI (Kennedy Krieger Institute), David E. Kuhn (Westchester Institute for Human Development)

**Abstract:** Response-class hierarchies exist when termination of the reinforcer for one response results in the demonstration of other behaviors to produce the same reinforcer (Richman, et al., 1999). Research on response class hierarchies has shown that oftentimes individuals will initially engage in “mild” behaviors, but escalate to “intense” behaviors when initial responding no longer produce the putative reinforcer (Harding et al., 2001). In the current case example, caregiver attention was found to be the reinforcer maintaining the problem behavior of a 19-year old girl with Down’s Syndrome. An attention analysis was conducted to evaluate the differential effects of attention quality (i.e., verbal vs. verbal + physical) on problem behavior. No difference in responding was observed; however, only 1 topography of problem behavior was displayed. Subsequently, extinction was systematically applied to the behavior (s) most frequently observed. No change in behavior intensity was evident following the introduction of extinction; however, the participant began to display behaviors that required physical interruption, including disrobing and pica. Implications of these findings are discussed. Interobserver agreement data were collected for 50% of the sessions and averaged above 98%.

**81. Increasing Tolerance to Non-Invasive Medical Procedures.** (Applied Behavior Analysis) DENISE KUREK (Kennedy Krieger Institute), SungWoo Kahng (Kennedy Krieger Institute), Daniah Amir (Kennedy Krieger Institute), Chris Dillon (Kennedy Krieger Institute)

**Abstract:** Children diagnosed with developmental disabilities are commonly prescribed medications to augment the effects of behavioral interventions. Oftentimes, side effects of these medications (e.g., increase or decreases in blood pressure and heart palpitations) necessitate an individual’s compliance with noninvasive medical procedures. In the current investigation, we conducted a functional assessment of medical procedures with a 17-year-old boy with autism and severe mental retardation. This assessment indicated that problem behaviors were maintained by escape from the medical equipment. Treatment was then introduced, consisting of competing items and response cost for problem behavior. The participant was given 30-s access to preferred tangible items contingent on meeting increasing schedule requirements for equipment application. If a problem behavior occurred during the assessment, the competing item would then be removed. Results suggested that this treatment package was successful at decreasing levels of problem behavior associated with medical procedures, as well as increasing the amount of time medical procedures were tolerated. Reliability data were collected for one third of sessions and averaged above 80%.

**82. Functional Analysis and Treatment of Property Destruction in a Self Contained Classroom.** (EDC; Applied Behavior Analysis) REBECCA RENEE WISKIRCHEN (ACCEL), Bryan J. Davey (ACCEL)

**Abstract:** This study addresses the efficacy of a comprehensive functional analysis and treatment of aggression and property destruction at a private day school. A nonconcurrent multiple baseline design was used across therapists (teacher and occupational therapist) in a self-contained special education classroom setting. Functional analysis results showed higher rates of aggression during the tangible condition, while higher rates of property destruction were associated with the escape condition. Due to the adverse impact property destruction had on the participant’s educational progress the decision was made to address this behavior first. Treatment included the systematic use of 3-step prompting, differential reinforcement of alternative behavior (DRA), and differential negative reinforcement of alternative behavior (DNRA). Treatment analysis indicated that the treatment package eliminated property destruction across therapists. Interestingly, aggression, although not specifically targeted also decreased. Discussion points will include classroom-based functional analysis and treatment, and the importance of including multiple service providers in analysis and treatment.

**83. The Use of Chronotherapy to Treat Sleep Problems in an Individual with Developmental Disability.** (Applied Behavior Analysis) CAROLINA F. REYES (Kennedy Krieger Institute), Louis P. Hagopian (Kennedy Krieger Institute), Anna E. Chirighin (Kennedy Krieger Institute), Melissa Luke Gonzalez (Kennedy Krieger Institute)

**Abstract:** This year, Karakowaik et al, reported that parents with children with developmental disabilities and autism spectrum disorders perceive their children as having more sleep problems than those of typically developing children. Few studies have examined the efficacy of treatments in sleep problems, such as

frequent night wakes and irregular sleep onset times, in children (Piazza & Fisher, 1991). However, current literature suggests that sleep disturbances have been treated with reinforcement, contingency contracting, sedative hypnotic drugs to induce sleep, and faded bedtime with response cost (Piazza & Fisher 1991). Chronotherapy involves fading the patient's bedtime by systematically delaying it (Piazza et al., 1998). An initial schedule is set such that the individual alternates between scheduled sleep times and regular daytime activities. Systematic manipulations are subsequently made until an age-appropriate pattern is achieved. We evaluated chronotherapy in combination with medication to treat irregular sleep-wake patterns for a 7-year-old individual diagnosed with ROHHAD syndrome. The intervention in combination with medication was effective at stabilizing overall sleep resulting in increased sleep during nighttime and decreased day sleep.

**84. Increasing Appropriate Social Interactions in an Individual with Traumatic Brain Injury.** (Applied Behavior Analysis) LYNSAY CHRISTINE LUNDERS (St. Cloud State University), Chaturi Edrisinha (St. Cloud State University)

**Abstract:** There has been a lack of examination of teaching social skills training within a leisure context as well as the utilization of social skills interventions for individuals with traumatic brain injury (TBI). The current study focused on increasing appropriate social interactions, within a movie setting, for an individual with TBI through the use of a treatment package which consisted of pictorial question cards. The participant demonstrated minimal appropriate social interactions and rarely initiated any interactions with both staff and peers. Experimental control was demonstrated through the utilization of a multiple baseline across staff and a peer. Baseline consisted of the observation of spontaneous speech through the use of 10-s partial interval recording. Following baseline, training sessions were conducted which included a treatment package which consisted of presenting pictorial question cards to the participant to determine whether he could answer the question and answer it appropriately. Post treatment sessions were implemented to determine whether appropriate social interactions increased as a result of the treatment package. Results indicated that the use of the pictorial question cards increased the percent of appropriate social interactions. Specifically, the percent of appropriate social interactions were higher for sessions ran with peers than those with staff.

**85. Increasing Communication and Engagement in Functional Activities of People with Developmental Disabilities.** (Applied Behavior Analysis) ANDREA B. COURTEMANCHE (University of Kansas), James A. Sherman (University of Kansas), Jan B. Sheldon (University of Kansas)

**Abstract:** Developing functional communication and engagement in appropriate activities are often problems for teachers and other staff members who serve people with severe developmental disabilities. In the present study, three participants who were diagnosed with severe developmental disabilities were taught, using graduated guidance and shaping procedures, to: approach a teacher, gain the teacher's attention by lightly tapping the teacher on the shoulder, and display manual signs to gain access to one of three different highly preferred consequences. After participants were independently requesting the different preferred items, they were then taught to participate in several activities (e.g., daily living skills) within the home in order to gain access to the preferred item that they had requested. All participants learned to gain the attention of the teacher, ask for preferred items, and engage in home activities to obtain the preferred items. Additionally, as the participants learned how to request preferred items, their overall occurrence of problem behaviors decreased.

**86. Effects of Video-Based Preference Assessment on Subsequent Community Job Performance.** (EDC; Applied Behavior Analysis) ROBERT L. MORGAN (Utah State University), Erin Horrocks (Utah State University)

**Abstract:** Researchers investigated identification of high and low preference jobs using the video web-based assessment and subsequent job performance in preferred and non-preferred jobs. Using a stimulus preference assessment model, three young adults ages 18 to 20 with intellectual disabilities identified high and low preference jobs using the web-based assessment. Individual participants were then taught to perform the steps of high and low preference jobs in community locations with the assistance of a job coach. The order of 25-min sessions in preferred and nonpreferred jobs was randomized. A third daily session allowed the participant a choice of preferred or nonpreferred jobs. Two data collectors, unaware of high and low preference jobs, collected data on on-task behavior and productivity. Using an alternating treatments design,

researchers found that three participants (a) were engaged in tasks at higher rates on high preference versus low preference jobs, (b) produced more work output on high preference jobs, (c) usually selected high preference jobs in the “choice” session, and (d) identified the high preference job as the favored one at the conclusion of 8-10 sessions. Results were highly consistent with selections on the video web-based assessment.

**87. Increasing Chewing Skills in Children with Feeding Disorders.** (Applied Behavior Analysis) JANA FRESE (Munroe-Meyer Institute), Petula Vaz (Munroe-Meyer Institute), Cathleen C. Piazza (Munroe-Meyer Institute), Valerie M. Volkert (Munroe-Meyer Institute), Kristi Rivas (Munroe-Meyer Institute), Victoria Stewart (University of Nebraska Medical Center)

**Abstract:** Children diagnosed with pediatric feeding disorders often display oral motor deficits such as tongue thrusts, swallowing difficulties, or poor chewing skills. Many children with feeding disorders fail to advance to age appropriate textures (i.e., table food) due to chewing deficits. Although several studies have examined the effectiveness of treatments to increase consumption of pureed foods (e.g., Piazza, Patel, Gulotta, Sevin, & Layer, 2003; Reed et al., 2004), little research has evaluated treatments to increase chewing of table food. The purpose of the current investigation was to examine a procedure to increase chewing in two children who exhibited chewing deficits. During treatment, a ¼ inch by ¼ inch piece of table food was placed inside a clear plastic tube and a least-to-most prompting sequence was used to increase chewing on the tube. Once fully masticated, the food was removed from the tube and placed in the child’s mouth to swallow. Both children packed (i.e., did not swallow within 30 s) the masticated food; thus, a flipped spoon procedure was implemented to decrease packing behavior.

**88. Comparison of Analogue and In-Class Functional Analysis of Problem Behaviors exhibited in the Context of Demand Settings for Two Children with Developmental Disabilities.** (Applied Behavior Analysis) AMANDA ZANGRILLO (University of Southern Maine and Providence's Achieve!), Dana Trahant (Marcus Institute)

**Abstract:** We completed analogue functional analyses (FAs) and in-class FAs for two children referred for the assessment of problem behavior in the classroom setting. For both students, anecdotal reports indicated that problem behaviors occurred mainly in the context of academic demands; however, descriptive assessment results suggested that these behaviors were not maintained by negative reinforcement (i.e., escape from task demands). Analogue FAs yielded unclear or undifferentiated results. Additional FAs were conducted during academic activities reported to be associated with problem behavior. The in-class FAs yielded clear results suggesting that the students’ problem behaviors were each maintained by access to attention or access to tangible items. In addition to yielding clear results, the in-class analyses were completed more efficiently and allowed the student to remain in the academic setting during the assessment process. This study lends support for the use of FA methodology to be conducted in the student’s natural environment during on-going classroom activities.

**89. The Effects of Interspersal on the Sight Words Reading of Students with Moderate Mental Disabilities.** (EDC; Experimental Analysis) ANGELA THEUS (Indiana University Northwest)

**Abstract:** Provided its purpose is highly structured, peer tutoring is a useful and cost-effective method of instruction. Results have been positive with various ages of students and with students with and without disabilities. Little research has been done on the effects of peer tutoring on the reading skills of students with moderate disabilities. An effective method for teaching sight words includes the interspersal of known words with unknown words (Dunlap, 1984). Gickling and Thompson (1985) recommended interspersing 70% to 85% of known items with 15% to 30% of unknown items. This ratio of known to unknown information provided the most effective level of correct responses and was considered the instructional level. The purpose of this study was assess the effects of interspersing known and unknown words in teaching basic sight words to students with moderate mental disabilities utilizing peer tutoring. An alternating treatments design was used to determine whether students retained the words better with the Interspersal or Unknown conditions. Results indicate the interspersal method resulted in more learning for two of the four students. The other two students learned equally well in both conditions.

5/24/2009

5:30 p.m.- 7:00 p.m.

North Hall A

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**90. Acquisition of Operant Behavior in Long-Living Ames Dwarf Mice: Effects of Age and Frequency of Training.** (Experimental Analysis) GRANT THOMAS CORBETT (University of North Dakota), Kathryn Ann Feltman (University of North Dakota), Serena May Lackman (University of North Dakota), Adam Derenne (University of North Dakota)

**Abstract:** The Ames dwarf mouse is one of a small number of mammalian models of longevity. The mutation distinguishing these mice from their wild-type counterparts creates dwarfism but has also been linked with upregulation of defenses against neurodegeneration and other consequences of aging. Unclear is whether the Ames dwarf mouse can also serve as an animal model of successful behavioral aging. Relatively young and old Ames dwarf and wild-type mice were compared on several measures of operant behavior: a simple discrimination task, a DRL 10 s schedule of reinforcement, and a FI 30 s of reinforcement. In all cases, a nose-poke response in the appropriate aperture made available a dipper-delivered saccharin solution in an adjacent food cup. Comparisons revealed that relatively young wild-type mice were more efficient in acquiring reinforcement than relatively young dwarf mice. Relatively old Ames dwarf yielded similar performances to relatively old wild-type mice. In some instances, the relatively old Ames dwarf mice also responded more efficiently than relatively young Ames dwarf mice. The results suggest a partial retardation of central nervous system development in young Ames dwarf mice that can be remedied by training.

**91. Acquisition of Operant Behavior in Long-Living Ames Dwarf Mice: Effects of Social and Physical Enrichment.** (Experimental Analysis) SERENA MAY LACKMAN (University of North Dakota), Kathryn Ann Feltman (University of North Dakota), Adam Derenne (University of North Dakota)

**Abstract:** The Ames dwarf mouse is one of a small number of mammalian models of longevity. The mutation distinguishing these mice from their wild-type counterparts creates dwarfism but has also been linked with upregulation of defenses against neurodegeneration and other consequences of aging. Unclear is whether the Ames dwarf mouse can also serve as an animal model of successful behavioral aging. Relatively young Ames dwarf and wild-type mice were compared on several measures of learning, memory, and anxiety, including an elevated plus-maze, an open-field test, a T-maze, and a recognition of novel object task. Half of the subjects in each group were housed individually prior to data collection; the other half were raised communally and with physical enrichment. The research determined whether social and physical enrichment would overcome indications of central nervous system retardation in young Ames dwarf mice. Social and physical enrichment reduced anxiety as measured by the elevated plus-maze and open-field tests, and improved learning and memory as measured by the T-maze and novel object task.

**92. Sensitivity to Increasing Ratio Requirements on Progressive Ratio Schedules.** (Experimental Analysis) ANDRES H GARCIA-PENAGOS (West Virginia University), David P. Jarmolowicz (West Virginia University), Kennon A. Lattal (West Virginia University)

**Abstract:** Multiple contingencies have been shown to influence responding on progressive-ratio (PR) schedules. Jarmolowicz and Lattal (2008), have identified three consequences of responding in the conventional PR schedule: (a) the delivery of a reinforcer after the completion of the ratio-requirement; (b) an increase in the ratio-requirement for the next reinforcer after one is earned; and (c) an extension of the session with each response. An experiment was conducted to determine the sensitivity of responding to the increase in ratio-requirement. Specifically, pigeons responded on concurrent operant schedules wherein responding on one alternative resulted in the ratio-requirement for both alternatives to advance (yoked ratio requirement), whereas the ratio-requirement did not increase if the pigeon chose the other alternative. Responding was clearly differentiated in favor of the non-advancing alternative. This sensitivity in responding to the variation in the schedule parameters emphasizes the influence of increasing ratio-requirements on

responding under PR schedules. Discussion is made on the importance of a distinction between different procedures that progressively increase ratio requirements

**93. Characteristics of Responding Under a Progressive-Duration Schedule.** (Experimental Analysis)  
Kara Gulotta (MCLA), Patrick Malloy (MCLA), THOMAS P. BYRNE (MCLA)

**Abstract:** Laboratory rats were trained to respond on a progressive-duration schedule of water delivery. Under this schedule, the first reinforcer was delivered when rats exerted force on a response lever for duration of 2 seconds. The duration requirement increased by 2 seconds for each subsequent reinforcer delivery. Like responding under a progressive-ratio schedule, lever-pressing under a progressive-duration schedule may be sensitive to changes in motivational operations, and can therefore be used to assess effort. However, unlike progressive-ratio schedules, progressive-duration schedules include both temporal and motor-response requirements. In the current study, response rates, reinforcers earned, and breaking points were examined across various water-deprivation levels. This was done both by manipulating the number of hours of water deprivation and by allowing brief access to water just prior to experimental sessions.

**94. Assessing and Expanding the Behavior of Primates in Captivity.** (Experimental Analysis)  
KATHRYN LYNN TUCKER OBERRENDER (University of North Texas), Jay Hinnenkamp (University of North Texas), Zachary H Morford (University of North Texas), Katie L Kalafut (University of North Texas), Jesus Rosales-Ruiz (University of North Texas)

**Abstract:** In today's society, the issue of primates in captivity is of high importance to several groups, including those interested in animal welfare, ex situ conservation and laboratory research. The primary concern of housing primates, or any animal, is maintaining an environment which benefits all aspects of the individual's health. Behavioral research was conducted at the Heard Museum in McKinney, Texas with several non-native species, including a group of Common Brown Lemurs (*Eulemur fulvus*). Observation and data collection in the form of ethograms was based off the Captive Animal Activity Tracking (CAAT) system (Kalafut, Rosales-Ruiz, 2007), for assessing the behavioral health of captive American Black Bears (*Ursus americanus*). As part of this experiment, the behaviors and postures to be coded have been altered to accommodate social primates and vary according to the individual species. Baseline behaviors were observed and recorded in the presence of existing minimal environmental enrichment. After a baseline was measured, enrichment plans were implemented, and the results recorded and analyzed. Both groups underwent shaping procedures to train new and necessary behaviors, such as "crating" and "stationing". Results pending.

**95. Expanding Stimulus Classes through a Common Response.** (Experimental Analysis) ERICA FEUERBACHER (University of North Texas), Jesus Rosales-Ruiz (University of North Texas)

**Abstract:** Studies suggest that animals respond differentially to positive and negative instances of human beings (e.g., Herrnstein & Loveland, 1964). How such concepts can be formed, especially in a natural environment is not fully understood. Sidman's (2000) formulation of equivalence relations predicts that disparate stimuli can be united in a stimulus class through a common response. In this study, we investigated whether a common response could be used to expand the stimulus class of toys in a domestic dog. We first tested for the existence of a toy stimulus class, by placing toy and non-toy objects on the floor and cued the dog to retrieve the object. The results showed that the dog only retrieved toy objects. We then investigated whether we could expand the class by providing experiences similar to the ones with the toy class (e.g. tug on them). After such a manipulation, the dog did then retrieve the previously non-retrieved object. We further tested for a stimulus class by training a new response to one member of the toy class and testing for transfer of function to the other toys. The results are discussed in terms of procedures to build stimulus classes.

**96. The Role of the Existing Repertoire in the Generation of Novel Behavior.** (Experimental Analysis)  
APRIL M. BECKER (University of North Texas), Jesus Rosales-Ruiz (University of North Texas)

**Abstract:** It has been suggested that variable and novel behavior may come under operant control (Neuringer 1985, Pryor 1969). Other variables involved in the generation of wide repertoires of behavior include resurgence and adduction during extinction. In turn, resurgence and adduction depend on the available repertoire, which thus determines the amount of variability that may arise under extinction conditions or

variability contingencies. The purpose of this experiment is to show the role of the existing or newly created repertoire in the generation of novel topographies. Cats were first exposed to a condition where any interactions with an object were reinforced for three objects (ANY). With two objects, subjects were then exposed to a variation contingency (VAR). Subjects experienced an extinction condition with the third object. The subjects continued in each condition until stability was reached. Novel behavioral “atoms” were then trained using a shaping procedure and the VAR condition was re-imposed with one object at a time in a multiple baseline design to see if this newly trained behavior would be emitted or combined with other behaviors to produce novel responses as a function of the new training. Results are pending.

**97. Are all Conditioned Reinforcers Equal?** (Experimental Analysis) KATHRYN L KALAFUT (University of North Texas), Jesus Rosales-Ruiz (University of North Texas)

**Abstract:** There are several ways to create a conditioned reinforcer. Research suggests (Kalafut, Feuerbacher, Rosales-Ruiz, 2007) that the different ways of establishing a conditioned reinforcer may differ in the effects they have on behavior. In the following experiment a conditioned reinforcer was created by the traditional method of pairing. The sound of the clicker was immediately followed with the delivery of food. This method of pairing creates a dual function of conditioned reinforcer and discriminative stimulus for approaching the feeder (Kalafut, Feuerbacher, Rosales-Ruiz, 2007). A second conditioned reinforcer was created by pairing the word “bien” with the sound of the click, followed by food presentation. The function of “bien”, and other signals like it, is unclear. The following experiment tested whether a conditioned reinforcer created in this manner can sustain behavior (much like a “keep on going signal”), or if can serve to select behaviors, much like the traditional conditioned reinforcer. The subjects of this experiment were dogs. Results pending.

**98. Bipolar Modulation of Behavior in a Repeating Cycle Autoshaping Procedure.** (Experimental Analysis) DANIEL LEE HUTCHISON (Jacksonville State University), William L. Palya (Jacksonville State University)

**Abstract:** Previous research has demonstrated that responding to a short repeating sequence of stimuli in a fixed time schedule conforms to a bipolar gradient. The current research determined the degree to which the effect was sensitive to the interfood interval. This was done by altering the number of cycles presented across the interfood interval. The data showed that as the interfood interval increased the response rates reached asymptote more slowly, but the pattern of responding remained. Additionally, as more cycles were added to the trial the bipolar control of responding became more evident.

**99. Enrichment and History Effects on Behavior for Self-Administration of Caffeine in Rats.** (Applied Behavior Analysis) DEBRA J. SPEAR (SDSU), Stacy D Jacobson (South Dakota State University)

**Abstract:** Previous drug exposure and environmental conditions have an affect on drug self-administration. In the current experiment, rats experienced one of three fluid histories (1% caffeine solution, 1% saccharine solution, and water) and one of two housing conditions (isolated or enriched environment). Rats were autoshaped to lever press for food pellets with free access to water within the chamber. Housing history had a significant effect on the number of days to reach the FR 50 criterion (isolation averaged 17 days and enriched averaged 21 days). Although rats exposed to caffeine averaged 17 days, those with saccharin or only water averaged 19 days. However, there was not a significant main effect of fluid type, nor was there a significant interaction. Once behavior stabilized on an FR 50 schedule, there was a slight, but not statistical increase in polydipsic drinking for rats with an isolation history. Rats with isolation and caffeine history self-administered more caffeine than rats in an enriched environment. There was a significant interaction between histories with respect to lever pressing: caffeine history produced greatest responding for rats raised in isolation, however a history of only water produced the greatest number of lever presses for rats raised in an enriched environment.

**100. Behavioral Variability: Effects of Quinpirole and SKF 38393 on the “VARY” Contingency.** (BPH; Experimental Analysis) ERIN FAE PESEK (Auburn University), M. Christopher Newland (Auburn University)

**Abstract:** Response variability is an operant dimension of behavior that can be studied, measured, and manipulated. To examine the effects of dopamine specific drugs on this performance, Long Evans rats were first trained under a multiple VARY 8:4 FR 4 schedule. In the VARY 8:4 component, all four-response sequences that differed from previous 8 were reinforced. In the FR 4 component, any four-response sequence was reinforced. Discrimination between the two components was evidenced by high entropy (variability) in the VARY 8:4 component and low entropy in the FR 4 component. Drugs that exert action at specific dopamine receptor subtypes were then administered. Moderate doses of SKF 38393, a D1 receptor agonist, did not affect variability in either component. Quinpirole, a D2 receptor agonist, increased variability when it was low, as in the FR 4 component, in a dose-related fashion but had no effect when variability was high, as in the VARY 8:4 component.

### **101. Choice and Consumer Behavior: Evaluating Indifference Values Among Coffee Brands.**

(Experimental Analysis) CRISTIANO COELHO (Universidade Católica de Goiás), Murilo Sérgio Vieira Silva (Centro Universitário de Anápolis), Livia Carla Campos (Universidade Católica de Goiás)

**Abstract:** The present study aimed to estimate prices, quality and knowing, as well as indifference values among 500gr coffee packs. A questionnaire was applied to 30 participants buying in a supermarket in order to estimate how well known, and quality level of different coffee brands. These data permitted to estimate five levels of informative reinforce, and provided five coffees to be used in the experimental phase. This phase was carried out with other 30 participants: While one coffee's brand price remained constant at R\$7.00, the alternative brand's price adjusted up and down from R\$0.50 to R\$7.00 to obtain equivalences values, and test discount functions. These participants showed two patterns: exclusive preference for some participants and diminishing equivalence values related to coffees prices obtained in supermarkets, similar to data obtained with different methodologies. For participants with diminishing equivalence values, a power function described data. The present work provided high correlation rates among individual Knowing-Quality Mean (KQM), and equivalence values, indicating that the first measure may serve as a good preference predictor. The present work still tried to contribute to understand consumer behavior by incorporating a new methodology to access choice between products or brands.

### **102. On the Role of Responses to Sample Stimuli in Matching-to-Sample Tasks.** (VRB; Experimental Analysis) ERIK ARNTZEN (Akershus University College), Erik Arntzen (Akershus University College), Torunn Lian (Akershus University College), Ingvil Ro Tonnessen (Akershus University College), Guro Sylte (Akershus University College)

**Abstract:** In matching-to-sample tasks and research on stimulus equivalence classes, most of the existing papers have reported about inclusion of a response to the sample stimulus which is followed by the presentation of the comparisons. Some other studies have not reported about such a requirement, i.e., the sample is presented and then either simultaneously or after a short interval the comparisons are presented without any response requirement. We have done two experiments with groups of adults and children in which all of the participants have been exposed to both conditions (response requirement and no-response requirement to sample stimulus). In both experiments, half of the participants started with the condition including a requirement of a response to sample stimulus and the other half started with the condition with no response requirement. The results show that more children are responding in accord with equivalence in the condition with a requirement of a response to sample stimulus compared with the condition with no such requirement. However, in adult participants we did not find any difference between the two experimental conditions.

### **103. The Role of Pictures as Nodes in Equivalence Classes in Children.** (VRB; Experimental Analysis) CHRISTOFFER EILIFSEN (Akershus University College), Tore Vignes (Akershus University College), Erik Arntzen (Akershus University College)

**Abstract:** Some earlier studies have found that the use of pictures as nodes in different training structures have resulted in a higher yields of responding in accord with equivalence (e.g., Arntzen, 2004; Holth & Arntzen, 1998). Contrary these findings Smeets and Barnes-Holmes found that the use of pictures did not have such an effect, rather the opposite effect. We wanted to replicate the findings from Smeets and Barnes-Holmes (2005) and to expand the study by introducing more classes and other types of stimuli, both as

abstract stimuli and pictures. Experiment 1 would be a direct replication except that we exclude the specific instruction used in Smeets and Barnes-Holmes (2005). We found that the conditions with pictures as nodes were more effective in producing equivalence responding than the conditions with all abstract stimuli. Experiment 2 would be done with three 3-member classes and different types of stimuli. So far we have replicated the findings with an increasing number of classes. Finally, Experiment 3 would be done with three 5-member classes.

**104. Emergent Conditional Relations and Transfer of Function Using a Go/No-Go Procedure with Compound Stimuli.** (Experimental Analysis) LUIZA CHAGAS BRANDÃO (Universidade de São Paulo), Paula Debert (University of Sao Paulo - Brazil)

**Abstract:** Past studies established equivalence classes using a go/no-go procedure with compound stimuli. The present study investigated if this procedure also generates functional classes. This evaluation was conducted with one naive college student. During Phase I, each compound stimulus was presented successively at the computer screen for four seconds. Responses emitted in the presence of certain compound stimuli (A1B1, A2B2, B1C1 and B2C2) were reinforced; while responses emitted in the presence of others (A1B2, A2B1, B1C2 and B2C1) were not. Phases II and III were tests with new compounds (BA, CB, AC, and CA), resembling tests usually employed in equivalence studies. In Phase IV, two different responses were established in the presence of components A1 and A2. In Phase V, subject was instructed to emit one of the two responses to each of the other components of the compounds to verify transfer of function. Results showed that participant established equivalence classes but stimuli from the same class did not controlled the same responses. Additional data is being collected with other three participants. For these participants, transfer of function will be tested before testing emergent conditional relations in order to prevent negative results in transfer of function tests.

**105. Keyboard Typing Acquisition With an Automated Training Program Across Multiple Baselines.** (EDC; Applied Behavior Analysis) WENDY DONLIN (University of North Carolina Wilmington), Todd W. Knealing (Briar Cliff University), Mick J. Needham (Johns Hopkins University), Kenneth Silverman (Johns Hopkins University)

**Abstract:** Seventy two participants enrolled in a Therapeutic Workplace clinical trial received paid job skills training while undergoing a contingency management intervention to decrease opiate and cocaine usage. An automated computer program, described in Silverman, Wong, Grabinski, Hampton, Sylvest, Dillon et. al. (2005) was used present typing stimuli in one minute blocks. Participants typed each line, which contained three letters and pressed enter to move on to the next stimuli. Two correct keystrokes earned up to one cent, while three incorrect keystrokes lost one cent. The program recorded each keystroke; correct and incorrect keystrokes were reported to the participant after each block ended, as well as money earned for completing the trial. Thirty second probe trials were used to assess entire keyboard typing before training and at seven points during training. Letters were taught in specific combinations of four letters until a fluency of ninety correct responses per minute were reached, which was then followed by whole-keyboard probe segment. Participants earned on average \$0.27 for each probe trial. Probes revealed that rate of correctly typed letters for trained letter combinations always exceeded correct rates of untrained letter combinations, but rarely reached the maximum rates obtained during training. The greatest improvement for typing directly followed fluency training on for each of the combinations. However, performance of typing untrained letter combinations increased across trials as well, indicating that the act of typing small combinations of letters may improve performance on the entire keyboard.

**106. Follow-up Outcomes of Children in Kennedy Krieger Institute's Pediatric Feeding Disorders Program from 2001-2006.** (DDA; Applied Behavior Analysis) Rinita B Laud (Kennedy Krieger Institute), Charles S. Gulotta (Kennedy Krieger Institute), Peter Girolami (Kennedy Krieger Institute), Danielle N. Dolezal (Kennedy Krieger Institute), Carrie S. W. Borrero (Kennedy Krieger Institute), Elizabeth A. Masler (Kennedy Krieger Institute), Ping Wang (Kennedy Krieger Institute), AARON D. LESSER (Kennedy Krieger Institute)

**Abstract:** The Kennedy Krieger Institute's (KKI) Pediatric Feeding Disorders Program (PFDP) was one of the first interdisciplinary programs established to assess and treat pediatric feeding disorders. For children

admitted to this program, the etiology of food refusal behaviors varies from behavioral mismanagement to food refusal that is associated with multiple physiological disorders. In the most severe cases, chronic food refusal leads to a dependence on gastrostomy tube feedings in order to sustain a child's caloric needs. A typical admission to KKI includes comprehensive evaluation and treatment by a team of specialists from various disciplines including a gastroenterologist, behavioral specialist, nutritionist, occupational/speech therapist, and a social worker. Goals for behavioral interventions have included decreasing tube dependence, increasing food and liquid consumption, decreasing food selectivity by texture or type, decreasing inappropriate mealtime behaviors and training parents to maintain the gains made in the program. The purpose of this study is to describe the follow-up outcomes of a five-year sample (N=144) of tube dependent children receiving intensive treatment in KKI's inpatient and day treatment feeding program. Outcomes examined include change in percent tube dependence, weight status, oral intake, mealtime behavior, and parent satisfaction.

**107. Effects of Manipulating Earnings Budget on Choice Between High and Low Risk Options with Multiple Targets.** (Experimental Analysis) AMBER L. WATTS (Western Michigan University), Gabriel D Searcy (Western Michigan University), Adam E. Fox (Western Michigan University), J. Adam Bennett (Western Michigan University), Cynthia J. Pietras (Western Michigan University)

**Abstract:** Risky choice in 9 adult humans was investigated across procedural manipulations designed to model energy-budget manipulations conducted with non-humans. The purpose of the study was to investigate risky choice in humans under positive and negative earnings budgets when there was both a lower and upper requirement. An energy-budget was simulated by use of an earnings budget, wherein a participant needed to meet a minimum income requirement within a 5-trial block in order to keep the accumulated earnings. Falling below the lower requirement resulted in no payment. Meeting the upper requirement resulted in bonus earnings. Subjects were presented with repeated choices between high-variance and low variance options that delivered money. Preliminary results suggest that in the conditions when the bonus was present participants' responding was slightly risk prone.

**108. Preference for Reinforcers of Different Efficacies with Adults with Developmental Disabilities.** (DDA; Experimental Analysis) MAY S. LEE (University of Manitoba), Dickie C. T. Yu (St. Amant Research Centre and The University of Manitoba), Toby L. Martin (University of Manitoba & St. Amant Research Centre)

**Abstract:** In previous research on preferences and reinforcer effectiveness, the reinforcer tests followed preference assessments and typically only the most and least preferred stimuli were tested as reinforcers. Although studies have shown that preference and reinforcer efficacy are positively correlated, no study has studied this relationship by treating reinforcer efficacy as an independent variable. In this study, we first conducted reinforcer assessments to quantify the reinforcing efficacies of six food items using a single operant arrangement, FR-1 schedule reinforcement, and an ABAB research design. We then assessed preferences for all items using paired-stimulus preference assessments. The preference assessments identified one of the two strong reinforcers as an HP stimulus for both participants. Preference ranking of the strong reinforcers was consistent with reinforcer efficacy, but not for moderate and weak reinforcers due to a tendency for weak reinforcers to be ranked higher than expected. We recommend this approach for future research on the relation between preference and reinforcer efficacy.

**109. Comparison of Responding Under Token and Tandem Schedules in a Clinical Setting: Manipulation of Production Schedule.** (AUT; Applied Behavior Analysis) JONATHAN SEAVER (The New England Center for Children), Jason C. Bourret (New England Center for Children)

**Abstract:** Relatively little work has been done evaluating the effects of second-order token schedules on response rates and patterns in clinical settings. In the current study, patterns of responding on second-order token and tandem schedules of reinforcement were examined. The participant was a student at a residential school for individuals diagnosed with autism. In Study 1, the token production schedule was held constant and the token exchange schedule was manipulated. In Study 2, the exchange schedule was held constant and the token production schedule was manipulated. Response requirements on the tandem schedule were yoked to the number of responses required for token exchange on the second-order token schedule. Implications in

terms of expected response patterns on token schedules used with humans in a clinical setting and overall clinical benefits of the use of token schedules are discussed.

**110. Applying Signal Detection Theory to the Study of Observer Bias: An Examination of Operational Definitions.** (DDA; Applied Behavior Analysis) ALYSON N. HOVANETZ (University of Houston, Clear Lake), Dorothea C. Lerman (University of Houston-Clear Lake)

**Abstract:** A number of factors may influence observer accuracy. One variable that has not been examined is the ambiguity of the behavior sample. Signal Detection Theory (SDT) provides a useful framework for the study of observer accuracy and bias in the presence of ambiguous samples. In a previous study, we evaluated the feasibility and utility of a laboratory model for examining observer accuracy within this framework. The current study extended our prior research by examining the impact of the operational definition on observer accuracy and bias. A total of 37 participants collected data on aggression while viewing videotaped segments of simulated child-teacher interactions. The segments consisted of clear and ambiguous samples and non-examples of the target behavior. All of the participants were exposed to conditions that have been shown to produce bias (brief feedback and contingencies for scoring accurately). Half of the participants were provided with a general definition of aggression, and the other half were provided with a more complete and detailed definition. The type of definition appeared to have a small but notable influence on response bias, as well as on the overall accuracy of the scoring.

**111. Contextual Control of Perceptual Behavior.** (Experimental Analysis) EMILY ALYCE BOWES-BLOOMQUIST (University of Nevada, Reno), Timothy C. Fuller (Washoe County School District), Linda J. Hayes (University of Nevada, Reno)

**Abstract:** Examination of effects on responding in ambiguous situations was observed through a training and test methodology. Training consisted of visual interaction with a contextual stimulus and its associated with a correct response to establish consistent responding in a non-ambiguous context. After consistent responding had been observed, the non-ambiguous contextual stimuli were then blended to create ambiguous contextual stimuli that shared equal properties of two previously trained stimuli. Both the ambiguous and non-ambiguous contextual stimuli were then presented in an ordered fashion. Responses were observed for any transfer of contextual function from the previously trained non-ambiguous stimuli.

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### #313 International Poster Session

5/24/2009  
5:30 p.m.- 7:00 p.m.  
North Hall A  
EDC

**112. Overcoming Rate-Busting Manipulative to Establish Fluent Math Facts.** (EAB; Applied Behavior Analysis) AUDREY MITTAN (Student)

**Abstract:** A second grade student's of manipulatives to complete basic math problems became a rate buster when it was not properly faded. Precision teaching procedures were used to establish proper stimulus control and increase math-fact rates. Data illustrate how firming preskills resulted in large rate increases.

**113. Teaching Shoe Tying Using a Large Scale Model.** (AUT; Applied Behavior Analysis) JILL HUNT (Judge Rotenberg Center), Matthew L. Israel (Judge Rotenberg Center), Michelle Harrington (Judge Rotenberg Center)

**Abstract:** In this study, we will discuss the use of specially created adaptive equipment in teaching shoe tying. We developed models with large scale representations of a shoe. Students became fluent on the skills, using the large shoe, and using small, pre-determined steps that are taught in a backward chaining sequence. Data will be plotted on a standard celeration chart. We will examine the generalization and long term retention of the skills taught using this adaptive equipment.

**114. Effects of Using Explicit Instruction in Phonological Awareness in Preschoolers At Risk for Reading Disabilities.** (Applied Behavior Analysis) Ashley Shaheen (Council for Exceptional Children), TEMPLE SHARESE LOVELACE (Duquesne University), Ralph Gardner III (The Ohio State University)

**Abstract:** The National Reading Panel (2000) suggests that reading is a fundamental skill and explicit instruction in five areas, including phonological awareness, are critical to the success of all students. Explicit instruction has also been found to be a reliable instructional method for use with at risk preschool groups in the area of early literacy (National Early Literacy Panel, 2007). This study analyzed the effects of explicit instruction in three skills related to phonological awareness: phonemic awareness, rhyme awareness and awareness of alliteration and used a multiple-baseline design across skills. Students were instructed in a small group format by the classroom teacher (primary researcher). A traditional assessment as well as a new computerized version of the assessment was compared. Results indicate that students responded favorably to explicit instruction in these areas and that the skills learned were maintained after instruction ceased. The computerized version of the assessment tool was found to be a reliable measurement tool with this group. Lastly, contributions of this study and future research will be presented.

**115. Improving Oral Reading Fluency in Elementary Students of American Indian Heritage with Learning Disabilities Using the Repeated Reading Instructional Approach.** (DDA; Applied Behavior Analysis) JENNIFER SUZANNE HEATH (Tiospa Zina Tribal School & The University of South Dakota), William J. Sweeney (The University of South Dakota)

**Abstract:** The purpose of this research demonstration project was to document the importance and effectiveness of a repeated practice procedures combined with Precision Teaching measurement approaches for assisting elementary students of American Indian ancestry who were diagnosed and enrolled in special education programs for students with learning disabilities and exhibited deficits in basic reading skills to improve their overall oral reading fluency. Few research studies focus on building oral reading fluency skills with students of American Indian ancestry, especially those exhibiting learning disabilities in the area of reading, and fewer yet combine Precision Teaching measurement approaches in the evaluation and effectiveness of repeated reading approaches to document gains in oral reading fluency. Besides the combination of Precision Teaching measurement methodologies to evaluate the relative effectiveness of these intervention procedures, few studies set out with the intent to document generalization and maintenance effect of these types of repeated practice procedures with students of American heritage enrolled in special education programs for students with learning disabilities. Students were selected from the special education program based upon identified reading deficits and the need to improve their speed and accuracy of reading decoding skills to assure that they were able to progress to more complex reading fluency related concepts. Students from these special education classes worked on a one-on-one or in small groups of 2 to 3 students with a trained and highly qualified special education teacher. This special education teacher used a combined one-minute repeated readings procedure with error correction as well as Precision Teaching evaluation approaches to document the students' progress at building oral reading fluency. Maintenance and generalization procedures were also implemented to document the generalization of reading fluency across multiple reading probes as well as the relative ability of the participants to maintain this oral reading fluency performance 2, 4, and 6 weeks after the completion of the repeated readings and error correction procedures. The Standard Celeration Chart and the student's daily performance were then evaluated at the conclusion of each repeated readings and error correction session. Implications and recommendations for use of these demonstration research activities for both students in general and special education settings as well as students of American Indian ancestry are also discussed.

**116. The Effects of Response Amplitude on the Acquisition of Vocal Verbal Repertoire Using Fluency-Building.** (Applied Behavior Analysis) TAMRY L JUNTUNEN (The Chicago School of Professional Psychology), John W. Eshleman (The Chicago School of Professional Psychology), Charles Merbitz (The Chicago School of Professional Psychology)

**Abstract:** Response amplitude has been largely under-researched in the field of Applied Behavior Analysis. Response amplitude indicates the force or intensity of a response and may be related to relative resistance to digression or extinction. Socially and academically it is important to be able to modulate the amplitude of speech. In this way, response amplitude holds social significance and justifies research in it's own right. In this

study, the relations among response amplitude and acquisition of vocal verbal behavior were evaluated using fluency-building. Eight graduate students served as participants in this study. Each participant was given SAFMEDS (flashcards) and assigned a specific response topography to emit during the practice and timing of the cards. Levels of fluency were then be compared across individuals and response topographies. The data are to be collected and analyzed. Results will be displayed on Standard Celeration Charts. The data may suggest that response amplitude contributes to the efficiency of acquiring vocal verbal behavior using fluency-building.

Key Words: SAFMEDS, fluency, vocal verbal, response amplitude, voice volume, graduate students

**117. Using Fluency Instruction and Culturally Relevant Material to Increasing Oral Reading Fluency of At-Risk Urban Learners.** (Applied Behavior Analysis) LENWOOD GIBSON (The Ohio State University), Gwendolyn Cartledge (The Ohio State University), Starr E. Keyes (The Ohio State University)

**Abstract:** Reading fluency is one of the five sub-skills identified by the National Reading Panel (NRP) as critical to overall reading achievement. Research suggests that there is a high correlation between reading fluency and reading comprehension. Although this is the case, many readers fail to meet benchmark levels for reading fluency and continue to struggle as their school reading requirements become more difficult. If explicit instruction on reading fluency is implemented with early primary students (i.e. first grade) it may be possible to prevent reading failure with these students. The current investigation is being conducted to examine the effects of fluency instruction on the oral reading fluency and comprehension of first grade, urban students that are at risk for reading failure. This activity will consist of the following components: sight word recognition, modeled reading, guided practice with corrective feedback, one-minute timed readings, and comprehension checks. To test if culturally relevant (CR) reading material has any substantial effect on the reading and comprehension of the participants, the fluency activity will alternate between CR stories and stories from a standard reading curriculum.

**118. A Comparison of Yoked to Double Yoked Learning Channels on Skill Acquisition, Generalization, and Retention.** (DDA; Applied Behavior Analysis) VANESSA MOLDES (The Chicago School of Professional Psychology), John W. Eshleman (The Chicago School of Professional Psychology), Traci Cihon (The Chicago School of Professional Psychology)

**Abstract:** The term “learning channels” was first coined by Ogden Lindsley in 1974 but they have been in use since 1969 (Lindsley, 1998). Learning channels can be described as behavioral throughputs which describe “the input or sensory modality involved with a stimulus and an output or behavior contained in the response” (Lin & Kubina, 2004, p. 1). The “in” part of the channel pertains to basic senses such as; think, touch, taste, sniff, see, hear and feel. The “out” part of the channel includes “movement cycle” verbs such as: aim, do, draw, mark, match, say, select, tap, and write. Learning channels have proven useful in the education system because they provide clear descriptions on how a student receives instruction and how the student is to respond to what is being presented. Haughton (1980) played an influential role in helping teachers develop a system for selecting learning channels by organizing sets of learning channels into matrices. The present study used a single-subject, multiple-baseline treatment design to evaluate and compare the learning, performance, generalization, and retention obtained from two yoked channels and one double yoked channel in teaching school-ages children with developmental disabilities universal symbols. The learning channels under investigation were: hearsee/say, hearsee/write, and hearsee/saywrite.

**119. Using Empirically Validated Reading Strategies to Improve Middle School Students' Reading Fluency of Classroom Textbooks.** (Applied Behavior Analysis) AMY C. SCARBOROUGH (Georgia State University), Laura D. Fredrick (Georgia State University)

**Abstract:** According to the National Center for Education Statistics (2007), twenty-seven percent of the nation’s 8th grade population scored below the basic reading level in 2006-2007. Reading fluency strategies are a viable practice for improving reading achievement yet seldom are they incorporated into the 8th grade curriculum. In this study, I will examine the effects of a comprehensive treatment package consisting of skill-deficit and performance-deficit strategies on oral reading fluency using students’ required grade-level social studies textbooks. Additionally, I will examine the extent to which fluency generalizes to the students’ reading of required literature textbook passages and passages from the Georgia Criterion-Referenced Competency

Tests Coach in Science and Social Studies. Specific components of the treatment package include repeated reading, listening passage preview, phrase drill error correction, and performance feedback with self-graphing. This study will contribute to the literature by using content-area texts with middle school students and by assessing generalization to other grade level, curricula materials.

To determine if a functional relation exist between the intervention and the students' reading visual, I will employ a multiple probe across participants design. Six to eight middle school students reading one to two years below grade level will participate. Visual inspection of the data will be used to determine if a functional relation exist. An independent observer will record students' responses for 25-30% of the sessions. I will calculate point by point interobserver agreement by dividing the total number of agreements by agreements plus disagreements and multiplying by 100.

**120. Evaluating the Effects of the REWARDS Reading Program on Fluency, Comprehension and Reading Achievement with Older Struggling Readers.** (Applied Behavior Analysis) KRISTALL J. GRAHAM (Ohio State University), Ralph Gardner III (The Ohio State University), Dorothy Morrison (The Ohio State University)

**Abstract:** This study examined the effects of the REWARDS program (Reading, Excellence, Word Attack and Rate Development Strategies) on the reading skills of 5 students across grades 4 through 10. REWARDS is a semi-direct instruction program that teaches students a strategy to decode longer words. The students in the study were considered to be at-risk or were diagnosed with a mild disability. The study took place in the Ohio State University Teaching and Learning reading clinic using small group instruction. The dependent variables included oral reading fluency, comprehension and overall reading achievement. The students were assessed using AimsWeb materials, generalization probes from grade level texts and the Woodcock Reading Mastery Tests. A multiple baseline design across 3 groups was utilized to assess changes in reading behavior. Results indicate that overall reading achievement increased for all of the participants. Fluency and comprehension did increase for some of the students, but there were high levels of variability in responding. Students reported that they enjoyed the program and felt that it helped them read bigger words.

**121. The Effects of Two Reading Interventions on Fluency and Comprehension with Students with Developmental Disabilities.** (DDA; Applied Behavior Analysis) MALIHA ZAMAN (University of Iowa), Bill Therrien (University of Iowa), Devender Banda (Texas Tech University)

**Abstract:** We implemented continuous reading and repeated reading interventions with two students to examine the effects of these reading strategies on their fluency and comprehension. Participants were 2 boys aged 13 and 14 years, diagnosed with developmental disabilities, and reading 3-4 grade levels below their current placement. The interventions were administered individually with both students in a school setting. We used a multiple baseline design across participants to evaluate the interventions. Interobserver agreement was calculated and the mean agreement was above 80%. During the intervention implementation, reading fluency was measured using instructional level reading materials. Treatment effects were assessed via Dynamic Indicators of Basic Early Literacy Skills (DIBELS) Oral Reading Fluency (DORF) passages and Maze comprehension passages which were at the students' grade levels. Results indicated that both students improved reading fluency in at least one of the reading intervention conditions relative to baseline in the grade level passages. Results also showed that repeated reading was a more effective treatment than continuous reading in improving fluency in instructional level passages for both students. Treatment effects on comprehension were also examined.

**122. Promoting Literacy with English Language Learners: Comparing a Small-group and One-on-one Reading Intervention.** (CSE; Applied Behavior Analysis) SARAH G ROSS (North Carolina State University), Elizabeth A Koenig (Syracuse University), Ho Yan Tsuen (North Carolina State University), John C. Begeny (North Carolina State University)

**Abstract:** In 2007, 50% of Hispanic 4th graders were reading below a basic level compared to 33% of the general population of 4th grade students. Because of the relatively recent rise in Hispanic students in the United States, it is important to develop reading interventions to aid in their literacy development. Reading fluency is considered one of the five essential early-reading skills students must develop. Because of the large

number of students in need of intervention, small-group interventions are a practical and time-efficient way of maximizing resources. This study utilized an alternating treatments design with five second grade English language learners to compare the effects of a small-group and one-on-one reading fluency intervention. Both interventions included Repeated Reading, Listening Passage Preview, and Phrase Drill/Error Correction. Words correct per minute (WCPM) gains were analyzed at an immediate pre-post level and at a pre-retention (2 days later) level using visual analysis and Hierarchical Linear Modeling (HLM). Discussions of our findings from both HLM and visual analysis should offer attendees increased conceptualizations for interpreting single-case design methodology.

**123. Effects of a Reading Fluency Intervention Program for At-risk Students Attending an After-School Program.** (CSE; Applied Behavior Analysis) JOHN C. BEGENY (North Carolina State University), Bridget Hier (North Carolina State University), Chelsea Bartel (North Carolina State University), Pamela Martin (North Carolina State University)

**Abstract:** Fluency—the ability to perform a task with speed and accuracy—is a critical aspect of skill acquisition for all behaviors. Within education, research has identified reading fluency as a critical component of effective early reading instruction. However, national data suggest that 40% of U.S. fourth-grade students are “nonfluent” readers. Implementing evidence-based, time-efficient, and procedurally standardized intervention strategies may help address this problem. This study evaluates the efficacy of a brief, procedurally standardized intervention called the Helping Early Literacy with Practice Strategies (HELPS) Program. The HELPS Program integrates numerous intervention strategies described and evaluated by behavioral education researchers, and previous studies have demonstrated the effectiveness of the HELPS Program with a range of first and second grade students. The purpose of this presentation is to report the effects of the HELPS Program with students across multiple grades who are at-risk for (or identified with) reading difficulties. As part of their involvement in an after-school program, participants received the HELPS Program 2-3 times per week for five months. Results indicated that the HELPS Program was generally effective, though we found individual differences in response to the intervention. The presentation will highlight the research methods, findings, implications, limitations, and future research directions.

**124. Relative Effects of Two Reading Interventions Aimed to Improve English Language Learners’ Fluency and Vocabulary.** (CSE; Applied Behavior Analysis) HO YAN TSUEN (North Carolina State University), Sarah G. Ross (North Carolina State University), John C. Begeny (North Carolina State University)

**Abstract:** In the United States, Spanish is the language spoken by the largest population of English Language Learners (ELLs). In 2007, national statistics indicate that only 17% of fourth grade Hispanic students were reading at or above a proficient level. In contrast, 43% of Caucasian fourth graders read at this level, marking a gross disparity between these two groups. Using a single-subject alternating-treatments design with Hispanic ELLs, this study investigated the relative efficacy of a brief vocabulary intervention and a brief reading fluency intervention, both of which were compared to a non-intervention control condition. Four Hispanic ELLs from a second-grade classroom in a rural southeastern school participated in this study. Students’ vocabulary development and oral reading fluency were measured following exposure to the alternating conditions. Results indicated that only the fluency intervention was more effective than the control condition, but only with respect to student improvements in reading fluency. Findings suggested that elementary-aged ELLs with limited vocabularies may require intervention of considerably greater intensity than those provided in this study. The relationship between fluency and vocabulary development for ELLs will be presented within the context of behavior analytic principles such as response opportunities and stimulus control.

**125. The Effects of Fluency-Building Compared to Accuracy-Only Conditions on Retention and Endurance.** (Applied Behavior Analysis) SHANNON S. FLEMING (The Chicago School of Professional Psychology), John W. Eshleman (The Chicago School of Professional Psychology), Denise E. Ross (Chicago School of Professional Psychology)

**Abstract:** The significance of fluency-building methods, compared to accuracy-only methods, of a skill as a predictor of positive, long-term educational outcomes has emerged as a salient issue in behavior analysis in recent years. The variables that determine fluency, what is required to produce fluency, and whether or not

training behavior to fluency is necessary represent important sources of controversy within the field of behavior analysis. The purpose of this study was to examine the effect rate of response has on fluency, endurance, and retention. A changing conditions design, which allowed for both a within and a between group comparison, was used across two groups of school-aged individuals with a verbal repertoire. A fluency-building and an accuracy-only condition comprised the independent variables. The correct and incorrect responses recorded as independent frequencies and the total time for all responses to be emitted comprised the dependent variables. Data is to be collected and the results of each participant will be displayed on both Standard Celeration Charts and Excel graphs.

Key Words: fluency, accuracy-only criterion, endurance, retention, school-aged children

**126. Teaching and Re-teaching Handwriting Skills: Promoting Fluency with Precision Teaching** (DDA; Applied Behavior Analysis) Federica Berardo (Tice Learning Center), Sara Andolfi (Tice Learning Center), FRANCESCA CAVALLINI (university of parma)

**Abstract:** The study details the efforts to re-teach handwriting skills to 5 children with a diagnosis of dysgraphia. The intervention focused on practicing handwriting tool elements. Participant were 5 boys (between the age of 8) with dysgraphia. The setting was located at Tice Learning Center in Italy. Skills were initially selected out of a list that are recommended for handwriting fluency (Freeman & Haughton, 1993 and Tice 2008, in press). We also used multiple-baseline to assess the effects of self-evaluation training on the legibility of cursive handwriting. All participants improved the legibility of their handwriting during the training. A systematic withdrawal of the training package demonstrated maintenance of treatment effects. For the most part, the students' handwriting remained at least 90% legible to judges following the systematic withdrawal of the training.

**127. Endurance and Application in Young Basketball Players: Effects of Fluency in Dribbling.** (EAB; Applied Behavior Analysis) Silvia Perini (Università di Parma), FRANCESCA CAVALLINI (Università di Parma)

**Abstract:** Binder (1982, 1984; Binder et al., 1990) has reported research on the ability of students to perform for extended periods of time as a function of initial performance frequency. The study examines the effects of initial dribbling frequency in a group of 25 subjects (18 children, mean 9 years and 8 young man, mean 19 years) on endurance and application. Coaches collected samples of each players from repeatedly dribbling (in four conditions: right hand, right hand and blind, left hand and cross over) in ascending sequence: 5 s, 10 s, 1 min. Graphical and statistical analysis shows the effects of duration on frequency and errors in fluent and not fluent players.

**128. Comparing Text Difficulty: Effects of Fluency Activity using Instructional and Frustration Passages with Second Graders.** (Applied Behavior Analysis) STARR E. KEYES (The Ohio State University), Gwendolyn Cartledge (The Ohio State University), Lenwood Gibson (The Ohio State University)

**Abstract:** Instruction in reading fluency is vital for developing proficient readers; however, reading programs often neglect to include this component for explicit instruction (Kame'enui & Simmons, 2001). Additionally, urban learners tend to start school with fewer reading skills (i.e. decoding, vocabulary), so it is imperative that teachers provide interventions that increase the reading skill of children in the primary grades, especially in fluency. This poster will report the effects of a fluency intervention using different levels of text difficulty on the oral reading fluency (ORF) of urban second grade students at risk for reading failure. The procedures include: sight word recognition, modeling, guided reading with corrective feedback, timed reading, and comprehension tests. An alternating treatments design will be embedded within a multiple baseline design to study the effects of fluency instruction and levels of text difficulty. Potential impact of this study include increasing ORF and comprehension skills of students at risk for reading failure, strengthening the use of fluency instruction in classrooms, adding to current knowledge about the effectiveness of fluency interventions for second grade students, and adding to the limited empirical studies using different levels of text difficulty to teach ORF. Data to be collected.

**129. Precision Teaching with Music Instruction: Are Fluent Fingers Music to Our Ears?** (Applied Behavior Analysis) ELIZABETH A MILES (Behavior Analyst)

**Abstract:** Music theory can be a difficult subject to teach, and often poses issues of skill mastery and retention. However, it is a crucial part of learning to play an instrument. The purpose of this study was to see if certain methods of study increases mastery and retention in music theory skills. The skills taught and tested were key signatures, time signatures, note names on, above, and below the staff via computerized lessons. An alternating treatment design was used with multiple subjects to compare teaching to fluency vs teaching to accuracy only. In the accuracy condition the participants were allowed to study until they reached an accuracy criterion and the fluency condition the participants were required to attain a fluency criterion. To test for retention, the students took a final quiz and then retested at two week intervals. Data will be collected on the duration required to complete each question on the quiz as well as their percent correct score under each condition.

**130. Increasing Writing Fluency in Two Third-Grade Students.** (Service Delivery) KATHLEEN BRIANA ASPIRANTI (University of Tennessee), Christopher Skinner (University of Tennessee), Sara J. McCane (University of Tennessee)

**Abstract:** Despite the emphasis on writing in schools, more students have difficulty with writing than with reading or math. In this study, a writing intervention with an A-B-C-B-C design was used to increase two struggling third-grade students' number of word written. In baseline, the students were given one minute to think about a prescribed topic and ten minutes to write on the topic. During the intervention phase, they were given 4 minutes to discuss the topic given and 10 minutes to write, along with reinforcement for increasing words written from the previous day. Next, the students thought for a minute and then wrote, but also followed the reinforcement contingency. Results showed that the students wrote more when they thought for a 1 minute before writing and were reinforced for writing more. These results are contrary to the popular belief that discussing the topic before writing will increase writing fluency. This study helps further the research on writing interventions for struggling students and will discuss the paradox between these findings and preconceived thoughts on writing interventions.

**131. Using the Taped-Problems Intervention and Reinforcement to Increase Math Fluency.** (Service Delivery) KATHLEEN BRIANA ASPIRANTI (University of Tennessee), Christopher Skinner (University of Tennessee), Sara J. McCane (University of Tennessee)

**Abstract:** Taped-problems is an intervention that works to increase students' basic math fluency, which is a possible predictor of later math skills. Taped-problems combines time delay and immediate academic feedback to increase high rates of active, accurate responding. In this study, a multiple-baseline across behaviors was used to evaluate the taped-problems intervention in an intact, rural first-grade classroom. Students responded to a tape that supplied basic addition problems and attempted to answer the problem before the answer was supplied on the tape. Students then received individual feedback and rewards based on improvements in fluency. Group rewards were given contingent upon class average fluency improving from the previous day. Results revealed increases in students' addition fact fluency (digits correct per minute) immediately after the intervention was applied to each set and no similar increases on sets still in baseline. Thus, taped-problems is an effective intervention to increase student's math accuracy and fluency and can be incorporated in other classrooms to help children learn basic math facts.

**132. The Effects of Electronic Self-Graphing on Reading Fluency for Elementary-Aged Students with Behavioral Disorders.** (Applied Behavior Analysis) SARAH LUCILLE RAMAGE (Weber State University), Natalie Allen-Williams (Weber State University)

**Abstract:** This poster presentation will display the results of a self-graphing intervention using a multiple baseline design. The participants involved in the project were elementary aged students with behavioral disorders. The dependant variable was the number of correct words per minute. Each student completed a one minute timing to determine fluency rate. The independent variable was the method used to graph student performance. The intervention involved the researcher initially graphing student performance without allowing the students to visually observe the results. As students were moved into intervention they graphed their own performance electronically and were able to visually assess their own performance. One student averaged an error rate of 11.71 prior to intervention. During intervention this student averaged an error rate

of 5.36. This same student averaged 23.00 words per minute correct prior to intervention and 26.54 words per minute correct once the intervention was in place. Complete student data will be present during the poster session. The authors will present all student data, teacher comments on the intervention, and suggestions for future research in an applied setting for students with behavioral disorders.

**133. Automated Text Messaging to Improve Teacher Reinforcement and Student Behavior in School.** (DDA; Applied Behavior Analysis) Daniel P Davidson (Another Perspective), ANDREW W. GARDNER (Behavioral Consultation Services of Northern Arizo)

**Abstract:** Differential Reinforcement of Other behavior (DRO) can be an effective approach to preventing challenging behaviors in school settings. But many such plans fail because of poor fidelity or follow through on the part of the teacher. This presentation details the process and results of using cell phone text messaging at prescribed intervals to remind a teacher to: a) record the student's behavior and b) reward the student for desirable behavior. Data will be presented on both the teacher's adherence to the reminders and the student's behaviors.

**134. An Evaluation of Treatment Integrity Failures on Token Economies.** (Applied Behavior Analysis) ELLEN NICOLE BROSH (West Virginia University), Claire St. Peter Pipkin (West Virginia University), Allison Tetreault (West Virginia University), Shari Marie Winters (West Virginia University)

**Abstract:** Particular types of treatment integrity failures, such as reinforcing problem behavior, are more detrimental to treatment outcomes than other types, such as failing to reinforce appropriate behavior. Little is known, however, about the impact of treatment integrity failures on behavior maintained by token economies, and most of the existing research has targeted rate as the primary dependent measure. The current study examined the differential effects of treatment integrity failures on the quality of academic writing maintained by token economies. Token economies were implemented at 100% and 50% integrity. Treatment integrity failures affected quality of writing, but the results were variable across participants. These results demonstrate that the integrity failures may have detrimental effects on multiple dimensions of performance.

**135. Evaluating Staff Training in an Inclusive Elementary Education Program.** (OBM; Service Delivery) VALORI N. BERENDS (Academy for Precision Learning), Lovelle T Suarez (Academy for Precision Learning)

**Abstract:** This study investigated the application of a precision teaching staff training protocol created for a home-based intervention program and applied in an inclusive elementary education program. Nine male and female staff members participated in the study. Approximately half of the staff members participating in the study possessed some degree of relevant experience from past employment. Staff ages ranged from 20 to 30 years. The study used a comparison design, and the program's clinical director measured staff members' knowledge and skill-building using a performance evaluation tool, assessments, and self-evaluative worksheets. Staff voluntarily scheduled evaluations, completed assessments and self-evaluative worksheets, and graphed their progress through the training. Staff received periodic opportunities to present their progress to the clinical director and earn performance-based pay for meeting training criterion. Findings of the study indicate future selection criteria for the inclusive elementary education program as well as considerations for training future staff in this setting.

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### #314 International Poster Session

5/24/2009  
5:30 p.m.- 7:00 p.m.  
North Hall A  
OBM

**137. Comparing functional assessment methods in pinpointing performance problems: Performance Diagnostic Checklist v. Behavioral Systems Approach.** (Theory) MARY ELIZABETH HERRON

(Appalachian State University), Ariel Grosshuesch (Appalachian State University), Tiffany L. Henderson (Appalachian State University), Timothy D. Ludwig (Appalachian State University)

**Abstract:** The Performance Systems approach (Rummler, 1990) and the Performance Diagnostic Checklist (PDC) (Austin, 2000) were used to diagnose problems in a distribution company. The two methods were administered independently to the Receiving and Inventory Control department of the organization. The results provided unique and overlapping contributions to pinpointing problem behaviors in need of an intervention. The results describe the effectiveness of each tool in pinpointing behaviors and guiding intervention selection. A new functional assessment was created to pinpoint antecedents, equipment and processes, and consequences to more accurately utilize the most effective aspects of the Performance Systems approach and the PDC.

**138. Apply Gilbert's (1978) Vantage Views to a Business Best Seller Book.** (TPC; Applied Behavior Analysis) YUKA KOREMURA (University of North Texas)

**Abstract:** This is an attempt to use vantage views by Gilbert (1978) to conduct content analysis to one of the best selling business books about organizational behavior.

In *Human Competence: Engineering Worthy Performance* (Gilbert, 1978), worthy performance is defined as “a function of the ratio of valuable accomplishments to costly behavior (p. 18).” It is determined in a context of a system of performance engineering. The performance matrix (Gilbert, 1978) is the representation of this particular system, and the first to the third leisurely theorems in Gilbert (1978) are the prerequisites to the fourth theorem, which describes performance matrix.

The fourth leisurely theorem contains six levels of vantage points and three stages of analysis, and they become rows and columns of the performance matrix. Six vantage levels are philosophical, cultural, policy, strategic, tactical, and logistics. The first step of completing the performance matrix is to know the vantage points for each level to get first stage of analysis, models of accomplishment.

In this paper, content of Lencioni's (2002) *The Five Dysfunctions of a Team* is descriptively analyzed to show what vantage level is emphasized in the book.

**139. Developing a Technology for Sustainability: What We Know and Where Do We Go From Here.** (TPC; Theory) JEFFREY M GORDON (University of Kansas), L. Keith Miller (University of Kansas)

**Abstract:** Programming for sustainability has been a long-standing issue in the field of applied behavior analysis. In recent years, more funding sources, grants, applied settings, and school districts have asked behavior analysts to outline how interventions could achieve sustainability without resources, money, or researcher support. Behavior analysts cannot easily answer this question, as there are no evidence-based technologies for programming for sustainability. Although sustainability's importance has been recognized, much of the knowledge is artisan, meaning that no technology has been developed to program systematically for sustainability. A review of *Journal of Applied Behavior Analysis*, *Journal of Organizational Behavior Management*, *Journal of Positive Behavioral Interventions*, and several other journals has revealed more than 700 studies discussing sustainability. Of these studies, approximately 20% reported sustainability; 15% reported non-sustainability; and 65% anecdotally reported some of the variables that affect sustainability, including reactivity, countercontrol, champions, and institutionalization. Given the evidence for sustainability, it appears that the field is on the cusp of developing an evidence-based technology for programming for sustainability. Therefore, it is up to those in the field to explore available resources and develop a reliable, evidence-based technology that allows researchers to program for sustainability.

**140. Ten Case Studies in the Long-Term Sustainability of Behavior Analytic Interventions.** (TPC; Applied Behavior Analysis) L. KEITH MILLER (University of Kansas), Thomas M. Welsh (Florida State University), Deborah E. Altus (Washburn University), Thomas J. Zwicker (CLG), Constance Tieghi (University of Kansas), Jeffrey M Gordon (University of Kansas), Veronica J Howard (University of Kansas), Hang Wu (University of Kansas)

**Abstract:** This poster describes 10 experimental analyses of effective client interventions, their corresponding survival programs and follow up probes. The settings/participants included a public middle school/teachers, a co-op dormitory/college students, a group home/adults with dd, a pre-school/child with autism, and a

private home/husband and wife. The conditions prevailing during the experimental analyses were post-research conditions simulated by withholding all researcher supports. The survival programs produced sustained implementation of the client interventions when treatment was in effect during those simulated post-research conditions. Upon completion of each experiment, the researcher left the setting with the survival programs in place. Follow up observations found sustained implementation with durations ranging from one half year to 23 years with one intervention surviving 14 years and then discontinued. The long term survival suggests that the simulation of post-research conditions was valid. The poster draws lessons for the study and programming of sustainability. Four of the experiments were published in JABA, one in ETC, and one in JPBI, one is under review, one is in preparation, and two are awaiting write-up.

**141. “Everyone Thinks of Changing the World, But No One Thinks of...” Organizational Citizenship Behavior.** (EAB; Applied Behavior Analysis) CYNTHIA MICHELLE FIFE (Virginia Polytechnic Institute & State University), E. Scott Geller (Virginia Tech), Rennie LeRoy Arnold (Virginia Tech University)

**Abstract:** Researchers and practitioners alike have long recognized the necessity of extra-role helping behavior (OCB) to organization survival and growth. However, despite the vast amount of research on the topic, a reliable, valid measure of OCB is yet to be developed for research and organizational use. The purpose of this study is the development and initial testing of a measure of OCB for use in further research. The development of the OCB survey in this study was based on LePine, Erez, & Johnson’s (2002) call for a social cognitive assessment of OCB which treats OCB as a unidimensional construct. The assessment will be pilot tested on undergraduate students at a large research university, and professionals employed in safety, real estate, and construction industries. Based on pilot test results, the OCB survey will be reduced in length and used for further research in the examination of the relationship between personality, situational cues, and performance of OCB. Following this research and refinement, researchers and organizations alike will have a reliable, valid assessment of OCB.

**142. The Role of Avoidance Contingencies in Organizational Settings.** (Applied Behavior Analysis) LEAORA L. WAGNER (Kennedy Krieger Institute), Lynn G. Bowman (The Johns Hopkins University School of Medicine), Samantha Hardesty (Kennedy Krieger Institute), Dawn E. Resau (Kennedy Krieger Institute), Louis P. Hagopian (Kennedy Krieger Institute), Sigurdur Oli Sigurdsson (University of Maryland, Baltimore County)

**Abstract:** The use of aversive control techniques is seldom explored within the field of Organizational Behavior Management; however, it can be a powerful mechanism to affect behavior change (Malott, 2001). The purpose of the current study was to evaluate the effectiveness of several components for increasing communication between behavioral therapists and direct care personnel working on a hospital unit. Participants included 16 graduate-level therapists who were required to provide information to direct care staff assigned to their patient prior to the start of each shift. During baseline on average only 21% of the time information was provided. Despite a group in-service and prompting for therapists, communication failed to improve (on average only 15% and 27% of the time information was provided respectively). Group feedback delivered electronically improved performance to approximately 70%; however, near 100% compliance was not achieved until individual electronic feedback was delivered by the clinical director. Minimal on-going electronic feedback (delivered approximately every 2 weeks) was necessary to maintain treatment gains over 40 weeks following introduction. Results suggest that feedback by upper management may have functioned as aversive control over staff communication (Daniels, 1989). Reliability data were collected for least one-third of observations and averaged above 80%.

**143. CANCELLED: The Impact of Pay on Feedback Solicitation in the Workplace.** (Applied Behavior Analysis) JULIE M. SLOWIAK (University of Minnesota Duluth), Alyce M. Dickinson (Western Michigan University)

**Abstract:** The frequency of feedback solicitation under hourly pay and individual monetary incentive pay conditions was examined. A two-group between-subjects design was used with 30 college students in each group. Participants attended three experimental sessions and entered the cash value of simulated bank checks presented on a computer screen. Results indicated that (a) participants who were paid individual monetary

incentives did not self-solicit feedback more often than those who were paid an hourly wage, (b) task performance was higher for individuals who were paid monetary incentives, (c) participants in both pay groups solicited feedback frequently, and (d) task performance was not related to feedback solicitation. These results suggest that the incentives did not make feedback more reinforcing even though the incentives were functional rewards, and the feedback was correlated with the amount of pay earned. These results also support the contention that it may be necessary to pair objective feedback with an evaluative component in order to enhance performance.

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### #315 International Poster Session

5/24/2009

5:30 p.m.- 7:00 p.m.

North Hall A

VRB

**144. The Effects of Writer Immersion on the Functional and Structural Components of Writing with Middle School Students.** (EDC; Applied Behavior Analysis) Yasmin J. Helou-Care (Teachers College, Columbia University), JINHYEOK CHOI (Teachers College, Columbia University)

**Abstract:** The purpose of this study was to test the effects of writer immersion and the responses emitted by a reader. Two 8th graders served as the participants who were in a self-contained classroom under the Comprehensive Application of Behavior Analysis to Schooling (CABAS®) model. The participants were chosen for this study due to their inability to write functionally and high structural errors. A delayed multiple probe across participant design was used to test the effects of writer immersion on the structural and functional components of written response. The dependent variables were the number of accurate structural components written during the pre- and post-probes, the number of components drawn by the reader during the pre- and post-probes, the percentage of accurate structural components of writing during the writer immersion phase, and the number of number of components completed by the reader during the writer immersion phase. The independent variable was a writer immersion package that included writer immersion, the yoked contingency of the reader, and teacher editing of structural components. Results of data demonstrated that participants' functional and structural components of writing increased across all two participants.

**145. The Effects of Peer Tutoring and Peer Monitoring on the Acquisition of Tacts and Math Formulas.** (EDC; Applied Behavior Analysis) Darcy M. Walsh (Teachers College Columbia University), ELISABETH L HAYES HAYES (Teachers College Columbia University)

**Abstract:** We tested the effects of peer tutoring on the acquisition of tacts of math formulas and United States Presidents for five Middle School students. The participants in the study were taught formulas for finding the area of polygons and tacting American presidents, as well as tacting sea creatures, using a delayed multiple design across participants. Four of the participants served as the tutee and the tutor and the fifth participant functioned as a monitor. Criterion was set to 90% for one session for correctly tacting. Results showed that all of the participants acquired tacts as a function of peer tutoring and peer monitoring.

**146. An Investigation of the Relationship between Reading and Tact Acquisition** (Applied Behavior Analysis) LISA GOLD (Teachers College, Columbia University), Jennifer Longano (Teachers College Columbia University)

**Abstract:** The purpose of this study was to test the effects of reading on tact and vocabulary acquisition. Three elementary students participated: included two 7 year old females and a 7 year old male. All the participants were selected based on their reading and reading comprehension abilities, which ranged from average to high average. Participant A, B, and C were all in a regular education second grade classroom. The study took place in a separate location from their classroom. The design of the study was a time lagged multiple probe design. The dependent variable was tact acquisition probes. Probes were conducted prior to and after each participant read a contrived story that incorporated a written description of the pictures used during the probe conditions. No pictures were used in conjunction with the story. The results showed that all

three participants acquired novel tacts and vocabulary following the reading of the contrived stories. Results also showed the potential relationship between reading and the tact acquisition.

**147. Reinforcing Functions of Making Sense Using Socially Relevant Stimuli.** (CBM; Experimental Analysis) ALISHA M WRAY (University of New Mexico), Michael J. Dougher (University of New Mexico)

**Abstract:** Researchers have devoted attention to the apparent human tendency to make sense of events in the environment (e.g., Gergen & Gergen, 1988; Janoff-Bulman & Frieze, 1983; Hayes, Barnes-Holmes, & Roche, 2001; Pennebaker & Seagal, 1999), and have proposed theoretically that this phenomena may function as a reinforcer. Making sense recently has been shown to function as a reinforcing event in a study that compared participants' preference for a solvable laboratory task with response-contingent reinforcement to a formally similar but unsolvable task, on which equal or greater amounts of reinforcement are presented independent of participant's performance (Wray, Dougher, & Bullard, 2008). The previous study used nonsense syllables and abstract symbols as stimuli to reduce the amount of confounding effects from the participants' learning histories, however making sense is embedded in a social context. Others have found that humans are better able to solve abstract problems when they are socially relevant (Cosmides & Tooby, 1992). This study examines whether the effects observed in Wray et al., (2008) can be replicated with the use of social stimuli, thus extending external validity.

**148. The Effects of Peer Tutoring on the Tutors Level of Responding to Tact Stimuli Through Observational Learning.** (EDC; Applied Behavior Analysis) ADAM DREYFUS (Columbia University Teachers College), Yasmin J. Helou-Care (Teachers College, Columbia University), R. Douglas Greer (Columbia University Graduate School and Teachers College)

**Abstract:** We used a multiple probe design across participants to examine the effects of peer tutoring on 4-middle school students diagnosed with emotional disabilities the acquisition of untaught tacts for the tutor through the delivery of learn units used to teach the tacts to the tutee. The dependent variable was the acquisition of tacts by the tutors as a function of observing the delivery of learn units to the tutees. The independent variable was the observational learning. Results showed that Participant A acquired the untaught tacts through observing the correction procedure provided to the tutee, whereas Participant B, C and D did not acquire the untaught tacts. While a functional relationship was not shown across Participants B, C and D, they may not have had the pre-requisite capability of observational learning in order to acquire the tacts of the peer through presentation of the learn unit within the peer tutoring procedure.

**149. Using Yoked Peer Contingencies To Induce Observational Learning Repertoires in Two Middle School Students.** (TBA; Applied Behavior Analysis) PEI-FANG WU (The Ohio State University), Lindsay J. Cherry (Teachers College, Columbia University)

**Abstract:** This study replicated Experiment I of Stolfi's (2005) study on testing the induction of observational learning repertoires as a function of peer-yoked contingencies. The purpose of this study was to test the effects of peer-yoked contingencies on the observational learning repertoires of two middle school students with behavioral disorders. The participant was taught to play a game using a game board with a peer, and the only way to win was by observing the peer's responses. The contingencies for reinforcement were yoked between the participant and the peer. The dependent variable in this study was a pure tact response that was learned as a function of observation. The independent variable was the peer-yoked contingencies. This study employed a delayed multiple probe design across participants. Results of this study showed a functional relationship between peer-yoked contingencies and the acquisition of observational learning repertoires. Both participants acquired observational learning repertoires after peer-yoked contingencies game board was implemented as an intervention.

**150. An Investigation of the Effects of Mood Induction on the Reinforcing Value of Consequences.** (Experimental Analysis) RACHEL FREUND (University of New Mexico), Michael J. Dougher (University of New Mexico)

**Abstract:** Verbal events, including those that change mood, have been suggested as motivating operations, but evidence for this claim is incomplete. Some evidence reveals the effects of these events on stimulus

control, but without a demonstration of their effects on consequences, it is inconclusive whether they are functioning as motivating operations. Studies have shown that after negative mood induction, participants attend to and recall more unpleasant events, whereas after positive mood induction they attend to and recall more pleasant events. Although it makes logical sense to infer that events that evoke mood function to potentiate certain reinforcers, empirical evidence is limited. This poster will present data from a mood-induction study of the differences in the reinforcing value of consequences within individuals across mood states. This study involved within-subjects manipulation of positive and negative mood states via self-statements and music. Afterward, responses on an explicit measure of pleasant activities, as well as reaction time performance on the Implicit Relational Assessment Procedure (IRAP) were measured. Data presented here will contribute to empirical verification of verbal events, specifically those with mood-altering effects, as motivating operations.

**151. The Effects of 2-Dimensional Visual Tracking on Listener Programs with 2-Dimensional Stimuli.** (Applied Behavior Analysis) SUNNY CHOI (Teachers College, Columbia University), Victoria Sterkin (Teachers College Columbia Univ.)

**Abstract:** We tested the effects of the 2-dimensional visual tracking procedure on listener programs with 2-dimensional stimuli. Participants were four kindergarten to first grade level students diagnosed with autism that had difficulties with visually tracking stimuli. A multiple baseline design across subjects was used in this study. The independent variable was the implementation of the 2-dimensional visual tracking procedure. The dependent variable was the total learn units to criteria for listener programs with 2-dimensional stimuli. Acquisition of visual control stimuli and decreased learn units to criteria were demonstrated for all participants as a function of the intervention.

**152. Transformation of Functions: Relational Frames of More-than and Less-than and the IRAP.** (TPC; Experimental Analysis) TAYLOR HARRIS (California State University, Fresno), Marianne L. Jackson (California State University, Fresno), Karl Oswald (California State University, Fresno), Lorin Lachs (California State University, Fresno)

**Abstract:** Sixty-four participants were taught more-than and less-than relationships among arbitrary nonsense syllables. After learning that one of the nonsense syllables corresponded to a particular mood (either happy or sad), participants were expected to derive relationships among the other stimuli and be able to indicate which stimuli reflected more intense moods based on the relational network initially trained. Participants underwent an IRAP procedure, which measured reaction times for rating each nonsense word as either same as or different than one of two target words (“Happy” or “Sad”). It was predicted that only the participants who were able to derive the initial more-than and less-than relations would respond faster to stimuli presented in consistent IRAP tasks than in inconsistent IRAP tasks. Furthermore, it was predicted that among participants who could derive relations, response latencies would reflect the hierarchy of the stimuli of the relational network. For example, when identifying nonsense words that had been trained to mean happy as same as HAPPY, participants would respond fastest to the nonsense word that meant “happiest” based on the relational network. Results are presented and discussed.

**153. CANCELLED: The Effects of Daily Intensive Tact Instruction on the Emission of Vocal Verbal Behavior.** (Applied Behavior Analysis) JALENE D. MORENO (Teachers College, Columbia University), Mika Fas (Teachers College, Columbia University), R. Douglas Greer (Columbia University Graduate School and Teachers College)

**Abstract:** We tested the effects of Daily Intensive Tact Instruction on students’ emission of vocal verbal behavior. Specifically, we measured the number of approvals, disapprovals, tacts, mands, conversational units, W/H questions, and sequelics emitted during probes in generalized settings. The generalized settings included the classroom during various academic subjects, the lunchroom, and the gymnasium where physical education was conducted. The Daily Intensive Tact Instruction involved increasing the participants’ tact instruction to 100-tact learn units above the daily learn units participants were receiving daily. Four eleven-year-old middle school students diagnosed with learning disabilities who all function on reader/writer levels of verbal behavior participated in the study. Participants were selected because of their insufficient number of emitted approvals, tacts, mands, conversational units, W/H questions, and sequelics in generalized settings. In a

delayed multiple probe design, we found that the intensive tact instruction was effective in increasing the number of approvals, tacts, mands, conversational units, W/H questions, and sequelics emitted in generalized settings for participants.

**154. Shaping Vocalizations in Dogs** (AUT; Applied Behavior Analysis) ROBIN M. KUHN (University of North Texas), Erica Feuerbacher (University of North Texas), Jesus Rosales-Ruiz (University of North Texas)

**Abstract:** This study investigates shaping vocalizations in dogs. Initial procedures included reinforcing any vocalizations and reinforcing vocalizations under a variability contingency. These procedures were compared using a reversal design during six successive two-minute conditions. To systematize measurement of vocalizations within the variability contingency, a response band was specified and responses were alternately reinforced inside and outside of the specified response band across five two-minute conditions. A final two-minute condition wherein any vocalization was reinforced culminated each session. A voice-recording program (Audacity™) was used in vivo to record data and to discriminate vocalizations meeting the reinforcement criterion. Results reveal that reinforcing any vocalizations produced economical stereotypic responding and reinforcing variability resulted in varied responding. Implications of this research can be brought to bear on other populations, most notably children with autism. These results are discussed in the context of speech production literature (e.g. Koegel, O'Dell & Dunlap, 1988; Kerr, Meyerson, & Michael, 1965) in non-vocal populations such as autism.