
#43 Poster Session

08/08/2009

6:00 p.m. - 7:30 p.m.

Sonja Henie Ballroom

AUT

1. Use of a Modified Azrin-Foxx Toilet Training Procedure with Young Children with Autism.

(DDA, Applied Behavior Analysis) FREDRIKA M. MIRANDA LINNÉ (Autism Center for Young Children)

Abstract: Independent, self-initiated toileting is an important skill which children with autism often find difficult to acquire. Many children are dependent upon a schedule or an adult to remind them to go to a toilet and never learn to respond to their physical signals. In the present study, a modified Azrin-Foxx toilet training procedure was used to establish self-initiated toileting skills in three children with autism and mental retardation. Data were collected with a modified version of the toileting skills subtest from the Assessment of Basic Language and Learning Skills-Revised (ABLLS-R, Partington, 2006) during baseline, treatment, and 3- and 6-months follow-up. The ABLLS-R contains questions about whether the child urinates in a toilet, has accidents (“wet pants”), independently uses a restroom, and requests to use a toilet when needed, in different environments. The questions are scored from a scale of 0 (the child lacks the skill) to 2 or 4 (the child has acquired the skill). All children have shown improved toileting skills and are able to self-initiate in at least one environment. Additional data to be collected.

2. Implementing PECS with one Child with ASD and his Parents in Turkey. (EDC, Applied Behavior Analysis) DERYA GENÇ (Anadolu University), Serhat Odluyurt (Anadolu University), Alper Kapan (Anadolu University)

Abstract: The purpose of this study is to introduce the Picture Exchange Communication Systems (PECS) to the parents who have children with autism and enable them to participate to implementation of PECS. This study is conducted with parents of a child with autism who attends to Developmental Disability Unit of the Research Institute for the Handicapped at Anadolu University, Turkey. A four-step parent training program was developed. Parent training sessions were administered at a meeting room in the Research Institute for the Handicapped. Information about features and phases of PECS were introduced during the first session. Parents watched several video clips representing the implementation of the PECS during this session. During the subsequent sessions information and videoclips about Phase I & II and Phase III in the PECS were given respectively. At the end of the each session, the acquisition level of the parents was tested with a written form. Furthermore, parents were asked to write the opinions about each session in a diary. Brief sessions will be arranged at the end and behaviors of the parents and the child were recorded. This is an ongoing study and the findings will be shared with the audience during the meeting.

3. Using Instructive Feedback to Increase the Efficiency of Learning for Young Children with Autism. (EDC, Applied Behavior Analysis) BRIAN REICHOW (Yale University), Mark Wolery (Vanderbilt University)

Abstract: Instructive feedback (IF) involves the presentation of additional nontarget stimuli during the consequent event of correct responding (Werts, Wolery, Holcombe, & Gast, 1995). The research on the effectiveness of IF suggests it is an effective instructional modification for increasing the efficiency of learning. The present study examined the effectiveness and efficiency of IF back by comparing two instructional arrangements of the progressive time delay procedure (PTD, PTD without IF and PTD plus IF presented during the consequent event of correct responses) using an adapted alternating treatment design. The participants of the study were 5 young children with autism. Four experimental manipulations demonstrated clear results - acquisition of all target stimuli and stimuli presented as instructive feedback, while two experimental manipulations provided mixed results. The results suggest (a) the inclusion of IF did not hinder the acquisition of target responses, (b) IF was an effective method of instruction for these children with autism, and (c) the inclusion of IF with the PTD procedure produced increased efficiency of

learning. The results are discussed within the constraints and limitations of the clear and mixed results and implications and recommendations for practice are provided.

4. Developing Knowledge and Skills online: An educational model for Improving outcomes for people with ASD. (EDC, Service Delivery) MICHAEL J REID (Institute of Applied Human Services)

Abstract: This research project evaluated the efficacy of an online learning model designed to increase knowledge and improve practice of professionals and direct support staff when supporting people who have ASD and other developmental disabilities. The learning model was developed to enhance learning outcomes in an online environment and is based in human learning theory. This model focuses specifically on the means by which information is presented and the structure and nature of the testing and re-testing process. Results demonstrated increased retention and recall of information when comparing a face to face seminar group with a matched group trained online using the learning model. Resulting data demonstrated a pronounced difference between the Seminar group and the online group. Initial testing scores were 41% higher than those of the Seminar group. While there was a decline in subsequent three, six and 12 month follow-up test scores for both groups, the online group performed consistently higher than the Seminar group. Twelve month follow-up data indicate test scores of more than 84% for the online group as compared to just fewer than 43% for the seminar group.

5. Effects of Video Modelling on Social Behaviours in a School Setting: Three Children with Autism. (EDC, Applied Behavior Analysis) KERSTIN MONTALTO (Rösjöskolan Sollentuna Sweden)

Abstract: This study examined the effects of video modeling intervention on social behavior e.g. social initiation, joint attention and conversation among three school aged children with autism. The children watched a videotape consisting of a student (typical peer) initiating contact with a teacher, sharing attention (joint attention) in some toys together and having some uncomplicated scripted conversation. Event recording was used to register social behaviors exhibited by the children after watching the video. A multiple baseline design across subjects was used to evaluate the intervention. An increase in social behavior occurred in 2 of 3 children. Assessment was made to evaluate the effects of generalizing and maintaining these skills in different settings and with different people. Performance criterion was met for one of three children. The importance of adopting and modifying video modeling for each participant is discussed. Suggestions are made regarding these adaptations in increasing social behaviors in children with autism.

The findings indicate that video modeling can be an effective interventional method in teaching social behavior to individual children with autism.

7. Training Teachers to Assess the Challenging Behaviors of Students with Autism Using Video Tele-conferencing. (Applied Behavior Analysis) WENDY A. MACHALICEK (Portland State University), Mark F. O'Reilly (University of Texas at Austin), Russell Lang (University of Texas at Austin), Mandy J. Rispoli (University of Texas at Austin)

Abstract: We examined the effects of performance feedback provided via tele-conferencing (VTC) on the acquisition of functional analysis procedures by six teachers. A university supervisor used VTC equipment (i.e., computers equipped with web cameras and broadband Internet) to provide immediate performance feedback to teachers learning to implement functional analysis conditions (i.e., escape, attention, and play) with students with autism. Multiple baseline designs across teacher-student dyads with embedded multi-element designs were used to evaluate the effects of performance feedback delivered via VTC on the percentage of functional analysis procedures implemented correctly. Results indicated that teachers learned to implement functional analysis conditions following training (M duration of training=75 min., range 60-95 min.) . Results were maintained for a number of weeks following the termination of performance feedback (M=5 weeks, range=4-9 weeks), but teacher performance declined thereafter. Video conferencing technology may provide supervisors with an efficacious way to deliver performance feedback to teachers learning research-based strategies.

8. Periodic Service Review (PSR) as a standard for improvement in Early Intensive Behavioral Intervention (EIBI). (OBM, Applied Behavior Analysis) ASTRI SYNNOVE VALMO (Center for Early

Intervention (STI)), Sigmund Eldevik (Center for Early Intervention, Oslo, Norway), Grethe Brandsar (Center for early intervention Oslo), Hege Tryggestad (Centre for Early Intervention (STI)), Tone Kristensen (Centre for Early Intervention (STI))

Abstract: Implementation of EIBI services in a public setting often face difficulties in sustaining the required framework needed to achieve high quality in each individual case.

Centre for Early Intervention (STI) in Oslo have developed a tool based on the Periodic Service Review (LaVigna, Willis & Shaull, 1994) to improve and monitor the quality of the implementation and factors crucial for quality in EIBI. The PSR is both an instrument, to help management assess the level of quality in the services they provide, and a system, to help improve that quality. Monitoring quality in our services includes procedural routines, criteria for testing, therapeutic skills? and regulating frameworks. We will present quality criteria, routines for data collection and empirical findings.

9. Development of Japanese Knowledge Test of ABA(KT-ABA) (TBA, Applied Behavior Analysis) SHINJI TANI (University of Osaka Human Sciences)

Abstract: Japanese Knowledge Test of ABA was developed to measure knowledge of ABA with direct care staffs who are working for persons with developmental handicap. The test consisted of 41 questions relating to basic knowledge of ABA such as reinforcement, stimulus control, prompt and fading, and so on. The data from 122 undergraduate students who learned psychology produced the following values: means=30.16, S.D.=0.45, Cronbach's α =.753. The correlation with KBPACK was calculated to examine the internal validity. The responders were 50 persons who were working developmental disabilities. The basic statistic values are, 25 men, 25 women, age range 23 to 65, means=43.02y, pearson r =.392 p <.01. The 13 teachers who were working with handicapped students received a 4.5-hour ABA lecture. Test scores before and after lecture were compared to examine external validity. Mean age of these teachers was 49.7 year old, S.D. was 9.26. Mean score of pre-test was 24.69(S.D.=4.31), and post-test was 35.53(S.D.=3.80), p <.01. This test was considered to have internal consistency, internal and external validity.

This research was supported by KAKENHI(Grant-in-Aid for Scientific Research (C) 19530880) .

11. Evaluation of a Group Instruction Model for Teaching PECS to Young Children With Autism. (VRB, Applied Behavior Analysis) DAG STRÖMBERG (Autismcenter för små barn, Stockholm), Ulrika Langh (Autismcenter för små barn, Stockholm)

Abstract: The Picture Exchange Communication System (PECS, Bondy & Frost, 2002) is a well-established method for increasing manding in individuals with autism and other developmental disorders. In this study, a group instruction model for teaching PECS was used in order to economize the treatment of several families at once. The effects of this model were examined, measuring the topography and frequency of manding in eight young children with autism. Parents and preschool teachers attended three group workshops at the habilitation center over a period of three months. Between group sessions, individual weekly treatment sessions were conducted by clinicians from the center. For each child, the topography and frequency of spontaneous manding with PECS or spoken language were measured using a) six questions from the manding skills subtest in the Assessment of Basic Language and Learning Skills – Revised (Partington, 2006) and b) videotaped ten-minute probes from the home or preschool setting. Data was collected during baseline, within two weeks after the intervention and at two months follow-up. Preliminary data show an increase of manding in all participants. Additional data to be collected.

12. An Assessment of Prompting Tactics to Establish Intraverbals in Children with Autism. (VRB, Applied Behavior Analysis) EINAR T. INGVARSSON (University of North Texas), Tatia Hollobaugh (Youngstown State University), Kellyn Joi Johnson (University of North Texas)

Abstract: At least three prompting tactics may be used to establish intraverbal responding in children with autism and other developmental disabilities: Echoic prompts (i.e., spoken word), tact prompts (i.e., picture), and textual prompts (i.e., typed word) . We implemented a three-step assessment to determine the most effective tactic on an individual basis. First, we carried out a pretest to identify common questions the children could not yet answer (e.g., “what animal says moo?”) . Second, we implemented a topography-strength assessment, in which the target answers (e.g., “cow”) were assessed as echoics, tacts, and textuales.

Finally, we used a combination of multielement and multiple baseline designs to evaluate the efficiency of each prompting tactic to establish intraverbal responding. The results of Experiment 1 showed that for all three participants, echoic and tacting repertoires were relatively strong, while their textual repertoire was limited. Tact prompts were most effective in establishing intraverbal responding with these participants, followed closely by echoic prompts. Experiment 2 replicated these findings with additional participants, while adding measures of preference for the prompting tactics. In addition, we evaluated the effects of providing additional history with less effective prompting tactics.

13. Training adjective synonyms using a MTS preparation. (VRB, Applied Behavior Analysis) LILL-BEATHE HALSTADTRØ (Trondsletten Habilitation Services, Norway), Eli Bjerke (Byasen College, Norway), Monica Halstadtrø (Byasen College, Norway), Erik Arntzen (Akershus University College)

Abstract: An essential part of vocabulary development is teaching words in related groups or as opposed to each other. People with autism usually have a limit synonym repertoire. We want to expand the knowledge about the use of MTS preparation by training different synonyms. The participant is a 17 year old boy diagnosed with autism. He is in a special education class for children\youths with autism in a public high school. His first language is Vietnamese and second Norwegian. We will argue that training synonyms is quite function since he has started to ask questions about meaning of different words. We want to train three 3-member classes and to add new members and classes. Thus, the purpose of the study was (1) to see if it was possible to train skills like identifying and categorizing adjectives, (2) how many new relations emerged during testing, and (3) investigate if there was a difference in reaction times to comparison stimuli when we included new members.

14. Intensity Of Mand Training By Parents And Its Influence On Language Development In Children With Autism. (VRB, Applied Behavior Analysis) SMITA AWASTHI (ABA India)

Abstract: Parents in four Indian families from different regions were provided mand training using the sign protocol for non vocal children with autism. All four families were monitored once a week for a period of 20 weeks. They were provided specific goals for mand trials after a preference assessment interview. Of the four, two parents were working and spent less hours / day in mand training, one working father and another at home mother worked systematically to increase the number of mands. Each child received 5 hours / week of therapy from a therapist. The outcome of the study suggests, parents who provided high intensity of mand training, worked systematically to increase the number of mand trials and contrived situations for manding, observed significantly quicker language development as compared to families which worked lesser number of trails on mands but spent the same amount of time on receptive and pre academic skills.

15. An intraverbal based training for color tacting with an autistic children. (VRB, Applied Behavior Analysis) Raffaella Giannattasio (IESCUM, ABA Italian Chapter), Giovambattista Presti (IULM University, Milan / IESCUM, ABA Italian Chapter), CRISTINA COPELLI (IESCUM, ABA Italian Chapter), Paolo Moderato (IULM University ITALY)

Abstract: We describe the case of a 7 years old autistic child where usual mass trial strategies with and without vocal SD failed. After systematic failure a training based on intraverbals was introduced. The procedure was structured as follows. Colors were introduced three at times in different steps. We started asking the child: "Tell me some colors" (without using any visual SD with the question) . The response "green, white, red" (the colors of the Italian flag) was shaped and reinforced. Master criterium was 90% of correct responses in three consecutive trials in two sessions. Concurrently to the emission of the intraverbal, paced to the child verbal response, one object per colour was then presented. Gradually the verbal SD was faded, so that only the object served as SD. While maintaining a high frequency of correct responses unrelated responses (first motor, then vocal) were introduced to fragment the intraverbal sequence. Through a 4 step sequence based on this procedure the child learned to tact all basic colors. Results demonstrate that also intraverbals can help developing color tacting.

16. Tantrums in an autistic child: where a symptomatic approach clearly fails. (DDA, Applied Behavior Analysis) RAFFAELLA GIANNATTASIO (IESCUM, ABA Italian Chapter), Giovambattista

Presti (IULM University, Milan / IESCUM, ABA Italian Chapter), Paolo Moderato (IULM University ITALY)

Abstract: A 3 year old autistic child suddenly showed a repertoire of tantrums in various situations, in house and outside, generally refusing to “enter” for example a room or a shop. This kind of behavior is usually addressed as symptoms within the frame of the autistic spectrum. Outside a BA setting, this view usually implies an impossible-to-do-something attitude. However a careful functional analysis might reveal a different picture.

The functional analysis with direct observation and analog assessment demonstrated that tantrums were under control of aversive conditions and maintained by general attention. Aversive conditions were created by reflexes of lights on floors, windows, water pools, and other reflecting surfaces.

Through systematic desensitization, differential reinforcement, and shaping the problem behavior was controlled. The case reported is an example of the need for a functional analysis of tantrum behavior, which may eventually lead to the identification of the sources of control. Where a traditional diagnosis, which sees problem behavior as a part of the autistic spectrum disorder, might fail in addressing the issue leaving the child and the parents helpless.

17. Reducing Aggression by Increasing manding for Attention in a 4 year old Autistic Child. (VRB, Applied Behavior Analysis) RAFFAELLA GIANNATTASIO (IESCUM, ABA Italian Chapter), Giovambattista Presti (IULM University, Milan / IESCUM, ABA Italian Chapter), Paolo Moderato (IULM University ITALY)

Abstract: A four year old autistic child showed aggressive behavior that ranged from pushing other kids, to painful heavy hugging as to make the arm of other kids blue, to punching. A careful functional analysis was conducted to identify the variables that affected aggression towards peers.

A training was developed to increase manding for attention and tangibles. MOs were different conditions with peers engaged in activities preferred by the child. SDs in these conditions were toys that the child used appropriately. Reinforcement was presented by pairing with peers and any small step towards collaboration was reinforced. Through MOs manipulation it was possible also to prompt manding to obtain the preferred toy and the attention of the group of peers. Group collaboration was also reinforced (token economy) . At the end of training the child was able to mand peers' behavior through a wide range of verbal topographies (e.g. “Look at me”, “Come here”, “Let’s play”) and was also able to mand properly for toys (e.g. “Please give me”, “May I have”) . Results demonstrate that increasing the manding repertoire for attention and tangibles reduced aggressions to peers.

18. Comparison of Visual Analysis Consensus and Overlap Methods for Quantitatively Synthesizing Single Subject Data. (Applied Behavior Analysis) BRIAN REICHOW (Yale University), Erin E Barton (University of Oregon), Matthew Douglas Busick (Vanderbilt University), Mark Wolery (Vanderbilt University)

Abstract: This study presents the findings of a follow up study to the findings of a comparison of visual analysis’s judgment of change and overlap methods for the quantitative synthesis of single subject data. The previous study found poor agreement between the visual analysis’s judgment of change between randomly selected A-B data sets. The follow up study presents the findings of a similar comparison when visual analysis of entire figures (not just A-B changes) were evaluated. Several computational methods were compared, including, the percentage of nonoverlapping data, the percentage of all nonoverlapping data, pairwise data overlap squared, percentage of data exceeding the median, and percentage of data exceeding a median trend. Results of the analysis will be described with reference to their application to the determination of evidence-based practices and the desirable characteristics of single subject experimental design synthesis methods.

#44 Poster Session

08/08/2009

6:00 p.m. - 7:30 p.m.

Sonja Henie Ballroom

EAB

19. Jump to Touch a Ball: Analysis of Video Records of a Dolphin. (Experimental Analysis)

SADAHIKO NAKAJIMA (Dep. Psychol., Kwansei Gakuin University), Yuko Imanaka (Kwansei Gakuin University), Tomomi Kimura (Kwansei Gakuin University), Hyangsun Chin (Kwansei Gakuin University), Michihiro Taki (Suma Aqualife Park in Kobe)

Abstract: We analyzed video records of dolphin training in an aquarium. A young dolphin was trained to jump up from water and touch a hanging ball with its snout. Our analysis based on the last stage of training, in which the target ball was fixed at approximately 3.5 m from the water surface, and each of 12 sessions ended with a successful ball-touch high jump after unsuccessful jumps. Our within-session analysis revealed that the inter-jump time interval was relatively constant except the final successful jump which had a long pre-jump interval, but that the snout-to-ball distance was a linear decreasing function of the number of successive jumps. Because only the successful jump was rewarded with a whistle and fish, the gradual approximation over unsuccessful, unrewarded jumps cannot be easily explained by positive reinforcement of correct jumping. Possible other, mutually not exclusive, explanations include (1) intrinsic motivation, (2) innate behavior, (3) error correction by intrinsic feedback, and (4) secondary reinforcement by a close view of ball. Also discussed is the implication of the long interval before the final successful jump.

20. Effects of energy-budget over risk-sensitivity in rats: Some empirical results. (Experimental Analysis) ÓSCAR GARCÍA-LEAL (Universidad de Guadalajara), Luis Alfaro Hernández (Universidad de Guadalajara), Maryed Rojas Leguizamón (University of Guadalajara)

Abstract: A free-choice experimental task with rats (*Rattus norvegicus*), that simulates extreme foraging conditions in natural environments, was used to study risk-sensitive foraging (RSF). During the experimental session, two energy sources provide different rate of energy. Each one provides the same amount of resources (in this case, water), through the experimental session, being manipulated the delay of water gained on both sources. We compared the preference for one or the other alternative, constant delay versus variable delay, when rats 1) have sufficient energy resources to survive independently of the water gained on the source chosen or, 2) their possibilities of survival depends on its choice. The results are similar as predicted by the Energy-Budget Rule (Stephens, 1981), emphasizing that the availability of energy resources is a relevant factor to explain risk-sensitive foraging not alone in smaller animals, but in bigger animals, at least rats, when the restriction in energy resources is severe.

21. Chronic Sucrose Intake Produces Escape Learning Impairment in Wistar Rats. (Experimental Analysis) ANA CAROLINA TROUSDELL FRANCESCHINI (University of Sao Paulo), Maria Helena Hunziker (University of Sao Paulo)

Abstract: Sensitivity to reinforcement is a crucial aspect of depression. A typical procedure in animal models is to expose rats to electric shocks that can be switched off by the emission of responses as jumping, running or nose-poking. During an experiment to compare two animal models of depression – learned helplessness and chronic mild stress - a group that received eight accesses to sucrose, among other manipulations, showed learning impairments when exposed to escape tests. To explore these findings, naive rats were divided into 5 groups: S1 (n=8), S2 (n=5), W (n=8), F (n=8) and N (n=6). Groups S1, S2, W, and F were deprived of food and water for 24h prior to 60min access to two bottles: one with water and the other with either a 1% sucrose solution (S1, F), 2% solution (S2) or water (W), group N received no treatment. After 10 fluid intake sessions, all animals were exposed to an escape learning test using shocks (max. duration 10s). Groups W and N learned the escape response while Groups S1, S2, F showed learning impairment. The chronic intake of sucrose reduced the sensitivity to negative reinforcement. This potentially impacts models that use sucrose consumption as depression, alcoholism, impulsive behaviors, etc.

22. Serial Effects in Food Preference: Interaction of Demonstration and Retention Intervals.

(Experimental Analysis) Edith Juarez-Maldonado (UNAM FES Iztacala), Benjamin Melchor-Hipolito (UNAM FES Iztacala), Guadalupe Ortega-Saavedra (UNAM FES Iztacala), Sara E. Cruz-Morales (UNAM FES Iztacala), ROCIO HERNANDEZ (FES - Iztacala; UNAM – Mexico)

Abstract: Social transmission of food preference studies have shown that rats may show serial position effects to a list of demonstrator rats. Demonstration time and retention interval between demonstration and testing produce distinctive effects. In nine groups, we compared three demonstration intervals and three retention intervals with Long Evans rats as subjects. We presented to observer rats a list of demonstrators previously fed with flavored food. Flavors were 2 % cocoa, 1 % cinnamon, and 1 % vanilla. The series presented to observers, were made of 12 different lists of three demonstrators each, with position of flavors counterbalanced for demonstration and testing. The three different demonstration intervals were 1, 2, and 5 min, for different groups and the retention intervals were 2, 4 and 24 hours. The results shown that demonstration interval may function as viewing time. Long intervals produced a primacy effect, rats recalled better the first item, and short demonstration intervals produced a recency effect, rats recalled better the last item, in the 4 h retention interval group. This result is similar to the increased accuracy observed in monkeys when viewing time for the list items is increased. The effects were produced in the 4 h retention interval group.

23. Numerosity Discrimination and Transposition in Pigeons Was Transposition Actually Cased by Numerosity? (Experimental Analysis) NAOYA KUBO (Komazawa University), Koichi Ono (Komazawa University)

Abstract: The purpose of this experiment is to examine whether pigeons could take place transposition based on numerosity. We also examine which factor, numerosity or total dot's area, is more effective for transposition. In training phase, pigeons were trained to discriminate smaller array between 1 black square (S+) and 3 black square array (S-). There were three types of test. First, two novel stimulus pairs (2-4, 3-6) were presented without any manipulation of dot size. Second, in the same 2-4 and 3-6 pair, total dot's area of the smaller array was enlarged to equal or more than larger array. Third, pairs with same number of dots were presented (2-2, 3-3) in which each of the total dot's area was mutually different. As a result of these tests, pigeons responded to smaller array when dot size was not manipulated, or when the total dot's area of the smaller array was not large more than three times of the larger array. These results suggests that transposition in pigeons can be occurred by numerosity, though, total dot's area influence pigeon's response if its impact is large enough.

24. Choice Between Two Shared Feeding Stations That Differed in the Number of Other Pigeons. (Experimental Analysis) TETSUO YAMAGUCHI (Osaka City University), Masato Ito (Osaka City University), Daisuke Saeki (Osaka City University)

Abstract: A novel operant box that contains two feeding stations was developed to assess the choice between two shared feeding stations that differed in the number of other pigeons. At one side of the feeding station (the constant feeding station), the pigeon always shared 4 food pellets with one other pigeon, whereas at the other side of the feeding station (the variable feeding station), the pigeon shared 4 food pellets with a variable number of pigeons, varying from 1 to 5 under four conditions. The pigeon made choices by moving between the two feeding stations. Each session consisted of 8 forced choice trials and 72 free choice trials. Each condition lasted for a minimum of 20 sessions. The results showed that as the number of pigeons at the variable feeding station increased, preference for that side of the feeding station decreased systematically and the generalized matching law was well fitted to the present data. All together, the present results extended the matching relation to shared rewards situation. Moreover, the matching relation obtained here is comparable to the matching relation obtained with reinforcement rate, amount, and delay.

25. Tit-for-tat Strategy Can Promote Pigeon's Choice of Shared Food Rewards in the Prisoner's Dilemma Game (Experimental Analysis) MASATO ITO (Osaka City University), Tetsuo Yamaguchi (Osaka City University), Daisuke Saeki (Osaka City University), Yuka Ohnishi (Osaka City University)

Abstract: Six pigeons chose between two feeding stations where food pellets were presented according to a payoff matrix of the prisoner's dilemma game. At the unsharing feeding station, subjects received five or one food pellets alone, whereas at the sharing feeding station, they received three or zero food pellets. The other player was a pigeon that was trained to choose between the feeding stations, or the computer (i.e., no other pigeons) : The other player's choices were determined by the tit-for-tat or random strategy. In conditions where the other player was a pigeon, a transparent wall was located between the subjects and the other pigeon

at the sharing feeding station to present the prescribed number of food pellets. All subjects were exposed to the four conditions (tit-for-tat / vs. computer, random / vs. computer, tit-for-tat / vs. pigeon, and random / vs. pigeon) . Each session consisted of eight forced-choice and 60 free-choice trials. Each condition was conducted 14 to 25 sessions. As a result, choice proportion for the sharing feeding station was significantly higher in the tit-for-tat than in the random strategy condition. This result indicates that pigeons can learn other player's strategy in the prisoner's dilemma game.

27. Water disturbance as a form of aversive stimulation for The Siamese Fighting Fish (*Betta splendens*): Preliminary studies on Escape and Avoidance. (Experimental Analysis) HERNAN CAMILO HURTADO PARRADO(University of Manitoba), Joseph J. Pear (University of Manitoba), Kimberly Froese (University of Manitoba)

Abstract: The procedure and data of a study that explored water disturbance as a form of aversive stimulus for the Siamese fighting fish (*Betta splendens*) are presented.

Because *Betta splendens* is native to calm water environments, water disturbance was tested as a possible form of aversive stimulation for this fish. On a 40x40x40 tank two strategies of water disturbance presentation were tested. On the first one, simultaneous and continuous air bubbles flows/currents were introduced on 3 corners of the tank, leaving the fourth corner as the “target area” where no bubbles were presented (i.e. no-disturbance area) and the fish was expected to spend more time. Across several sessions the position of the target area was changed, in all of them the fish kept its preference for that corner. On a second procedure the tank was divided in two equal size areas by means of a plastic wall, leaving an entrance in the center. On each session continuous air bubbles flows/currents were introduced in only one side of the tank, leaving the other side without disturbance. During several sessions the side of the water disturbance was alternated and in all of them the fish showed preference for the side with no-disturbed water.

28. Analysis of the transference of appropriate studying behavior to similar tasks. (EDC, Experimental Analysis) María Elena Rodríguez Pérez (Universidad de Guadalajara), MARÍA ANTONIA PADILLA VARGAS(University of Guadalajara)

Abstract: Previous research has suggested that appropriate studying behavior develops after several expositions to the task. A study was designed to analyze whether appropriate studying behavior is transferred to similar tasks. Eight university students were exposed to task 1 under free studying (base line condition) . Task 1 consisted in labeling the regions of the Moon map after reading a text with this information. Then, participants were trained in task 2 until performance criterion was reached (90% of correct answers) or during 6 sessions. Task 2 consisted in labeling the stars of the Orion constellation after reading a text with this information. Task 1 and 2 required the same skills to identify the parts of the whole. During training, participants were asked to use an appropriate studying behavior: to draw “Orion, the hunter” and use it to locate the stars that “form” the head, shoulders, etc. Finally, the base line condition was repeated to evaluate changes in the studying behavior. Data is reported considering the number of correct answers as well as the use of the appropriate studying behavior while reading the text: to draw “the Moon rabbit” and use it to locate the regions that “form” the head, tail, etc.

#45 Poster Session

08/08/2009

6:00 p.m. - 7:30 p.m.

Sonja Henie Ballroom

EDC

29. Analysis of the Education Program of a Special School, Korea. (Service Delivery) WON OK GU (Daegu University, South Korea), Mi Hyang Choi (Daegu Univ. South Korea), Jung Hee Park(Daegu Univ. South Korea), Sang Bok Lee(Daegu Univ. South Korea), Gyeong Hee Seo (Daegu University, South Korea)

Abstract: The current study examined the education program of a special school of Korea and make a suggestion based on the analysis for the future. 131 students who belong to kindergarten to high school

programs participated in the study. Data relative to their IEP documents, curriculum, assessment and evaluation were collected and analyzed. The results showed as follows. First, parents prioritized learning on reading, writing, and daily living skills when their children were on the lower grade. On the other hand, Parents had more increased needs on vocational training and transition program as their children grew. Second, the school had a featured program, "Functional and Integrated Living Curriculum" aimed to increase students' abilities on living, social adjustment, and career development and management. Third, the school utilized the national web-based system, "National Education Information System (NEIS)" and curriculum using a system developed by the school itself. These results suggest that a plan for realistic IEP application, the development of an effective school-level curriculum, and investigation on clients' satisfaction of education service are needed for the future.

31. Self-Management in the Individualized Education Planning Process. (DDA, Applied Behavior Analysis) LEASHA BARRY (University of West Florida)

Abstract: A multiple baseline design across five participants diagnosed with mild to moderate disabilities demonstrates the effect of employing self-management style interventions with children in relation to developing, planning, and achieving their educational goals as part of the individual education planning process. The collateral academic effects of implementing the intervention including assignment completion, assignment accuracy, academic preparedness, and academic engagement are also presented. The intervention was implemented in a self-contained special education classroom by a classroom teacher and teaching assistant, thus demonstrating the feasibility of application of such interventions in practice. Fidelity of intervention integrity and independent evaluation of reliability of all data collected provide additional strength to the study. Results indicate a functional relationship between the intervention and an increase in self-management skills in regard to developing, planning, and achieving educational goals as well as collateral academic effects. The success of the intervention has important implications for teaching practices and self-determination for individuals with developmental disabilities.

32. Pre-session Attention and Noncontingent Attention to Decrease Disruptive Talking-Out Behavior in General Education Classrooms. (DDA, Applied Behavior Analysis) STEPHANIE SOKOLOSKY (Texas Tech University), Devender Banda (Texas Tech University)

Abstract: We used pre-session attention and noncontingent attention with one student exhibiting talking-out behavior that disrupted his second grade general education class. The student was 7-years-old, diagnosed with Attention Deficit Hyperactivity Disorder (ADHD) with a speech delay. His disruptive talking-out behavior occurred in the general education classroom, where he was expected to participate in group activities. The functional analysis indicated that the behavior was maintained by social attention (peers and teachers). An ABAB design was implemented during the language lessons. Intervention included pre-session attention combined with noncontingent attention. Pre-session attention was provided prior to the instructional activities for 1-2 minutes. The noncontingent attention occurred at every 20 seconds during instruction. The general education classroom teacher used a timer and was able to conduct the classroom activities, as well as provide the student with attention (e.g., a smile, thumbs up, or "We're almost finished"). The student's disruptive talking-out decreased from a mean frequency level during baselines of 22.2, and 31.8, to a mean frequency level of 9.5 during the first intervention, and 6.6 during the second intervention. The teacher reported continued improvement following the conclusion of the documented intervention. Results are discussed and implications for practitioners are provided.

33. The Study on staff needs for executing Positive Behavioral Support through an investigation on challenging behavioral problems of children with developmental disabilities at nursery school level. (Applied Behavior Analysis) YUN HEE SHIN (Daegu Univ. South Korea), Min Kyoung Cho (Daegu Univ. South Korea), Eun-Young Choi (Daegu Univ. South Korea), Hyo-Shin Lee (Daegu University, KOREA)

Abstract: The purpose of this study was to explore the topography of challenging behaviors, observe staff reaction to and record keeping of challenging behaviors and determining what assistance staff require in order to effectively implement Positive Behavioral Support (PBS) to children with developmental disabilities. A structured questionnaire was given to 98 staff. This included 8 general educational teachers, 30 special

educational teachers, 29 therapists and 1 administrator located in 9 nursery schools from 7 cities. The data was analyzed using descriptive statistical analysis, frequencies and cross tabulation analysis. The results of the study were as follows.

According to the frequency analysis, the specific types of challenging behaviors observed included, aggression, crying, screaming, spitting and self injury behavior (SIB) . After incidents of challenging behavior most staff physically restrained the students, although some passively observed the behavior or sought help from a more experienced teacher. Records of the incidents were then stored for a duration of 1 to 3 years. This short period of storage caused difficulties in keeping and managing accurate records. Finally, most staff wanted some assistance and education from experts in the field of functional analysis of challenging behavior and PBS. Therefore, this study showed the need for expert input for training education staff and producing teacher-training manuals on the steps required in order to effectively use PBS to deal with challenging behavioral situations.

34. Fluency of Writing English as Second Language through Constructed-response Matching-to-sample with Limited-hold Procedure. (EAB, Applied Behavior Analysis) MIKIMASA OMORI (Keio University), Hiroshi Sugawara (Keio University), Jun'ichi Yamamoto (Keio University)

Abstract: Japanese students who study English as second language often show the difficulty of learning English, especially students with developmental disabilities, they have difficulty with English writing as second language. Our previous research suggested constructed-response matching-to-sample (CRMTS) procedure showed better results of acquisition and transfer on English writing than matching-to-sample (MTS) procedure. The present study examined the controlling variables on facilitating fluency and maintenance of English writing through MTS and CRMTS with limited-hold procedure. Ten Japanese students with developmental disabilities participated in the present study. In MTS procedure, students were required to choose word, when presented with the picture. In CRMTS, students were required to construct word by selecting characters from keyboard. When correct response was made, spoken feedback of that word was produced as differential outcome. Results indicated that most of participants showed better performance through CRMTS, comparing to MTS procedure. This result suggests that CRMTS with limited-hold procedure is better to facilitate fluency and maintenance in the acquisition of English.

35. The use of Personalized System of Instruction in private educational institution: preliminary data. (EAB, Applied Behavior Analysis) JOÃO CLAUDIO TODOROV (Universidade Católica de Goiás), Marcio Moreira (Instituto de Educação Superior de Brasília IESB)

Abstract: The Personalized System of Instruction (PSI) has been used in three Psychology courses for almost four years now. The first version used signaled the absence of aversive control for the students: attendance to classes was not required, no dead-line was established and students were allowed to make tests whenever they felt prepared to, just like the original method conceived by Fred Keller. The absence of aversive control resulted in students taking up to 650 days to accomplish the requirements of each course. Progressive use of aversive control (deadlines), and changes in the structure of the courses diminished the average courses time from 269,01 days to 113,07 days. Although the total time to conclude the courses has diminished, the majority of the students still procrastinate, attending to laboratory in fixed-interval pattern. None of the rules established during these years has proved to be efficient in changing this pattern up to now. Also, pre- and post-tests were administered and the psychometric analysis of tests items has been critical to the evaluation of the program. Post-test data suggests better improvement in PSI, when compared with traditional teaching.

#46 Poster Session

08/08/2009

6:00 p.m. - 7:30 p.m.

Sonja Henie Ballroom

TBA

36a. Akershus University College. (Applied Behavior Analysis) TORUNN LIAN and Christoffer Eilifsen (Akershus University College)

37. Developing Skills in Applied Behaviour Analysis in Northern Ireland. (Applied Behavior Analysis) CLAIRE E MCDOWELL (University of Ulster, Coleraine), Julian C. Leslie (University of Ulster)

Abstract: This poster presents information about Northern Ireland's only postgraduate level course in Applied Behaviour Analysis (ABA) based at the University of Ulster in Coleraine. Now in its third year of operation, the broad aim of the MSc ABA is to give students the opportunity to develop their theoretical and conceptual knowledge in behaviour analysis, develop skills in behavioural assessment, and acquire the ability to work in partnership with clients where they plan and implement programmes that are aimed at establishing, strengthening and/or weakening targeted behaviours. The course is designed for professionals who work (or intend to work) in the caring professions, for example with people with autism and other learning disabilities, in the area of general behaviour management, parent training, community development, and adult mental health.

The course content has been approved by the Behavior Analysts Certification Board (BACB) and the programme aims to provide a foundation that contributes to the preparation of candidates interested in applying for the internationally recognised examination leading to certification in Behaviour Analysis. It is normally completed over two calendar years to allow time for students to obtain relevant work experience, which is a requirement for certification in Behaviour Analysis. The course has well established links to ABA settings, including the New England Centre for Children, Boston, where students have been able to gain valuable work experience.

38. The Experimental Analysis of Behaviour Group (EABG) - UK and Europe. (Experimental Analysis) MICHAEL BEVERLEY (Centre for Behaviour Analysis, University of Wales)

Abstract: The Experimental Analysis of Behaviour Group (EABG) is the UK's leading behaviour analysis organisation. With over 400 members we have organised international meetings for over four decades. In the recent past our meetings have been held in the University College London and continue to provide an exciting forum for the dissemination and discussion of high quality behaviour analytic research from across Europe. The EABG now works in collaboration with the European Association for Behaviour Analysis (EABA) and holds biennial meetings. The next meeting of the EABG will be held in London Easter, 2009. Recently we published the first peer reviewed special edition of the European Journal of Behavior Analysis (EJOBA) that was devoted to the April 2007 meeting of the EABG. The evidence from the EABG meetings suggests that behaviour analysis in Europe is faring well.

39. Masters Programme in Applied Behaviour Analysis at the University of Wales, Bangor, UK.. (AUT, Applied Behavior Analysis) Alexander Toogood (Bangor University), Marguerite L. Hoerger (University of Wales, Bangor), Stephen Noone (University of Wales, Bangor), Vasiliki Totsika (University of Wales Bangor), Corinna Grindle (Bangor University), JOHN CARL HUGHES (Bangor University)

Abstract: In 2003 we developed the first Masters course in Applied Behaviour Analysis in Europe. The course is designed and taught by Board Certified Behavior Analysts (BCBA) and has been approved by the Behavior Analysis Certification Board (BACB) as providing content eligibility for students to sit the full BCBA exam (3rd Task List). In line with the British University system, the course is offered at three levels: Post-graduate Certificate, Post-graduate Diploma, and Masters. In the design and running of the course we have attempted to use behavioural principles in the instructional materials, learning environments, and in the assessment of students learning. We utilise computer based instructional packages, direct instruction, and, Precision Teaching approaches, such as SAFMEDS and Standard Celeration Charting. The course can be taken in one year or on a part-time basis (either two or three years in duration). Each year we enrol approximately 30 students from a wide range of backgrounds: early autism intervention projects, challenging behaviour units, social services, special education, and new graduates. Our main aim is to make a significant contribution to training competent behaviour analysts in Europe.

39a. Ostfold University College. (Training) JON LOKKE and Gunn Lokke (Ostfold University College)

08/08/2009
6:00 p.m. - 7:30 p.m.
Sonja Henie Ballroom
TPC

41. Modeling Species-Specific and Other Features of Behavior: Log Survivor Plots. (EAB, Theory)
SAULE KULUBEKOVA (Emory University), Jack J. McDowell (Emory University)

Abstract: McDowell (JEAB, 2004) proposed a causal account of operant behavior in a computational model instantiating the principle of selection by consequences. The model is an evolutionary algorithm, or a virtual organism with an evolving repertoire of behaviors undergoing selection, reproduction, and mutation over many generations. Several published studies have shown persuasive correspondence between the behavior of the model and experimental findings from live organisms. The present study continues validation of the model using log survivor plots, a form of frequency distribution. The “broken stick” appearance of the plots represents bout and pause pattern of responding, which may be related to species-specific behavioral variability (Shull, JEAB, 2005). For example, experiments with rats typically show a sharp bend in the curve of log survivor plots, indicative of responding occurring in distinct bouts and pauses. Conversely, log survivor plots for pigeons have not shown a sharp bend between the limbs, likely due to the between-bout inter-response times (IRTs) overlapping considerably with the within-bout IRTs. In the virtual organism, one of the factors associated with behavioral variability is the mutation rate parameter. The poster presents findings on whether higher mutation rate results in a more distinct bout and pause pattern of responding.

42. Comparison of Overlap Methods for Quantitatively Synthesizing Single Subject Data. (EDC, Applied Behavior Analysis) ERIN E BARTON (University of Oregon), Brian Reichow (Yale University), Matthew Douglas Busick (Vanderbilt University), Mark Wolery (Vanderbilt University)

Abstract: The current movement toward identifying and promoting evidence based practices requires researchers aggregate findings from multiple sources. The aggregate results are evaluated to determine the strength of the evidence. Meta-analysis is a method for aggregating and evaluating group experimental design research. Consensus does not exist on whether meta-analysis is appropriate for single subject designs. Several computational methods have been proposed for calculating effect sizes for single subject research. The purpose of this poster is to describe a study comparing four overlap methods for quantitatively synthesizing single-subject data to visual analysts' judgments. The overlap methods were percentage of nonoverlapping data, pairwise data overlap squared, percentage of data exceeding the median, and percentage of data exceeding a median trend. Visual analysts made judgments about 160 A-B data sets selected randomly from the Journal of Applied Behavior Analysis. The four overlap methods were compared for data sets in which all visual analysts agreed a change in data occurred or a change did not occur across conditions. Each overlap method had unacceptably high levels of errors. The desirable characteristics of a quantitative synthesis method are described.

#48 Poster Session

08/08/2009
6:00 p.m. - 7:30 p.m.
Sonja Henie Ballroom
VRB

43. Effects of Verbal Conditioning on Tact Responses in tea Tasting: An Experimental Analysis of 'Blanding'. (EAB, Experimental Analysis) Hiroe Takahashi (Hosei University), SATORU SHIMAMUNE (Hosei University)

Abstract: Twelve college students evaluated the taste of green tea, before and after they received a verbal conditioning procedure. The bland name presented with "urban" words produced significantly higher rating of "urban taste."

44. Effects of Collateral Response Requirements on Emergent Verbal Operants Following Listener Training. (Applied Behavior Analysis) ANNA I. PETURSDOTTIR (Texas Christian University), Sean Peterson (Texas Christian University), Meredith K Jantzen (Texas Christian University)

Abstract: Among young children, the establishment of listener behavior, for example, via auditory-visual match-to-sample training, does not reliably result in the emergence of untrained verbal operants. The present study evaluated the effects of enhancing listener training with a procedure termed Collateral Response Training (CRT) . The participants were children between the ages of 4 and 6 years. In listener training, the participants were trained to match visual stimuli to spoken foreign-language words. CRT involved adding two new requirements to the listener training protocol: (a) an echoic response to the auditory sample stimulus, and (b) a tact of the chosen comparison. Experiment 1 employed a multiple-baseline design across participants to evaluate the effects of the two CRT components on the emission of echoic and tact responses during listener training. Post-tests were used to assess the emergence of novel tacts and intraverbals following each training phase. Experiment 2 will evaluate whether a history of Collateral Response Training or an alternative procedure enhances the outcome of future listener training with new stimuli.