FRIDAY, NOVEMBER 25

Workshop #1

11/25/2005
9:00 AM - 11:50 AM
Changchun

Educating Through Movement: Using Physical Activity to Enhance Learning, Social Skills and Self-Control

EITAN ELDAR (Zinman College)

Description:

The presented model, based on the principles and procedures of "applied behavior analysis," emphasizes the uniqueness of movement as an ideal context to improve various abilities. Such a context enables teachers and clinicians to design a challenging learning atmosphere for their students. The model is based on a series of scripts offering a simulation of real life situations. It can support a specific clinical goal such as developing self-control; it can take a form of a yearly curriculum at kindergartens and schools, and it can serve as an extended behavioral program for individuals or small groups. The rationale behind the development of the model will be discussed and specific behavioral procedures and principles supporting the model will be cited. In addition, the structure of the model will be described, followed by different examples of its optional implementation. Components of the model, modified during the past 15 years, will then be portrayed. The workshop will conclude with recommendations and examples for utilizing the model in a variety of educational and clinical settings applicable to various populations.

Objectives:

1. Explain the unique characteristics of physical activity and games as learning contexts.
2. Cite behavioral principles and procedures that enhance learning in these contexts.
3. Present the general structure of the model and describe its components
4. Design various physical activities as clinical scripts, serving specific behavioral goals.
5. Use and modify observation forms to evaluate students' progress.
6. Adapt the components of the model to different populations and programs.

Activities:

1. A presentation of the theoretical background of the model, defining the rationale behind it.
2. An open discussion: How physical activity can serve as a learning context.
3. A video presentation illustrating the implementation of the model.
4. Active demonstration games involving the workshop's participants.
5. Planning drills - participants will practice activity and program design based on the model.

Audience:

Target Audience
Behavior analysts, teachers, consultants, lead therapists, line therapists and students.

Level: Introductory
Member: $105 **Non-member:** $120

Workshop #2

11/25/2005
09:00 AM - 11:50 AM
Shenyang

Ethical Practice in Applied Behavior Analysis

WEIHE HUANG (Regional Center of the East Bay, CA)

Description:

This workshop is designed to increase participants' ability to ethically practice applied behavior analysis (ABA) by describing the characteristics of ethical dilemmas and introducing an Ethical Decision Making Model. This model incorporates codes of ethics documented in the Guidelines For Responsible Conduct For Behavior Analysts and ethical reasoning strategies. When making clinical decisions, many behavior analysts tend to believe that these decisions are solely based on the analysis of objective data and relevant evidences. However, in reality the decision-making process is also influenced by behavior analysts' values, as well as societal values including those of service recipients. Behavior analysts often encounter ethical dilemmas when these values conflict. In facing with ethical dilemmas, behavior analysts need codes of professional conduct and ethically sound strategies to reach reasonable and practical resolutions. The Guidelines For Responsible Conduct For Behavior Analysts is helpful in many situations. In some cases, however, ethical dilemmas cannot be resolved by appealing to the existing guidelines or regulations. Part of this workshop is aimed at providing applied behavior analysts with ethical reasoning strategies in the event that the Guidelines alone is insufficient. These strategies are based on the relevant experience of the presenter and the available literature in the field of behavior analysis and related areas. The emphasis of discussion will be on the application of this model to various clinical settings, including natural homes, residential facilities, day programs, and educational programs.

Objectives:

Recognize ethical issues in the field and their importance to the general public as well as to behavior analysts.

Activities:

This workshop will use cases both provided by the presenter and generated by participants to illustrate the implementation of the steps in the Ethical Decision Making Model. Participants of this workshop will be encouraged to (1) identify their values and to associate these values with primary ethical principles; (2) recognize the characteristics of ethical dilemmas that are likely to occur in the field of ABA; and (3) apply codes of professional conduct and six steps specified in the Ethical Decision Making Model to the cases that involve ethical dilemmas.

Audience:

Applied behavior analysis service providers, graduate students in applied behavior analysis, and other professionals working with individuals with special needs at residential facilities, day programs, and educational programs.

Level: Introductory
Member: $95 **Non-member:** $110

Workshop #3

11/25/2005
1:00 PM - 3:50 PM
Changchun
*Presented in English and Chinese

Behavioral Treatment with Cigarette Cessation (*presented in English and Chinese)
SHERMAN YEN and Allison Lord (Asian American Anti-Smoking Foundation)

Description:
Cigarette smoking has been a worldwide health problem, and Asian countries are of no exception. The proposed workshop will be presented in Chinese language. It consists of (1) an introduction to applied behavior analysis of smoking behavior; (2) the cognitive and physiological aspects of smoking behavior; (3) the current treatment approaches, which include nicotine replacement therapy, acupuncture treatment, and electric stimulation procedures, along with their successful aspects and limitations; (4) objective tests of smoking behavior with the emphasis on carbon monoxide tests (with a classroom demonstration); (5) cessation procedures, of which several several different procedures will be introduced. These include a computer monitor system (life sign) which has an excellent clinical trial record in the U.S. in helping smokers to quit; (6) the A-B-A experimental design; and (7) cultural relevancy and occupations in relation to tobacco detoxification issues.

Objectives:
To familiarize learners with (1) A-B-Cs of smoking behavior operant conditioning paradigm; (2)basic objective and subjective measurements, (3) Advantages and limitations of various tobacco detoxification procedures, and (4) cognitive behavioral approaches of tobacco cessation with the emphasis on different operant approaches, as well as the cultural influence of tobacco detoxification.

Activities:
The workshop will provide demonstrations of how to use CO tests and computer monitor systems.

Audience:
Health educators and clinicians

Level: Introductory
Member: $90 **Non-member:** $105

Workshop #4

11/25/2005
1:00 PM - 3:50 PM
Kowloon 1
*Presented in Chinese

Functional Analysis: Assessing and Treating Problem Behaviors in Children with Autism and Mental Retardation (*Presented in Chinese)
WEIHE HUANG (Regional Center of the East Bay, CA)

Description:
The development of functional analysis is one of the most significant advancements in the field of developmental disabilities. Functional analysis is a process of looking at relationships between behaviors and environmental conditions and/or other variables maintaining these behaviors. In many countries and regions of the world, functional analysis has been accepted as a vital part of behavior analysis and therapy for children with autism and mental retardation. As such, implementing behavior interventions without conducting functional analysis assessment would be considered both a clinical and ethical problem. In today's China, the body of knowledge about behavior interventions for children with autism and mental retardation is growing. However, the theoretical foundations and practical methods of functional analysis are still foreign to most professionals and to the general public in China. This workshop is designed to provide Chinese professionals with current theories and technology on functional analysis, and to increase Chinese professionals' ability and willingness to utilize these newly developed concepts and techniques in their work with children with autism and mental retardation. The emphasis of this workshop will be on the application of the functional analysis approach to various disability-related service programs including Chinese public schools and special education schools.

Objectives:
- Understand the values and usefulness of functional analysis.
- Describe the basic components of functional assessment including defining target behavior, identifying antecedents, analyzing consequences, and determining the functions of the behaviors.
- List some intervention strategies that may match the functions of target behaviors often seen in children with autism and mental retardation.
- Work more effectively with children with autism and mental retardation by teaching them replacement behaviors that can compete against maladaptive behaviors.
- Recognize the problems in blaming children with autism and mental retardation for undesirable behaviors and relying on punitive procedures to suppress these behaviors.

Activities:
Dr. Huang will provide real-life cases coming from his clinical practice and will encourage the audience to share their experience in working with children with autism and mental retardation in the context of Chinese disability service systems. Workshop participants will have structured opportunities to (1) discuss the difference between traditional behavior modification methods and functionally-oriented behavioral support strategies; (2) role play behavioral interview and observation procedures; and (3) strategize interventions using the information stemming from functional assessment procedures.

Audience:
Special education teachers, faculty members and graduate students in psychology and related fields, workers and managers in public agencies that serve individuals with developmental disabilities, and other professionals working with individuals with autism and mental retardation.

Level: Introductory
Member: $95 **Non-member:** $110

Workshop #5

11/25/2005
1:00 PM - 3:50 PM
Shenyang
OBM: What It Is and How to Do It
JOHN AUSTIN (Western Michigan University)

Description:
This workshop will:
1. Cover the basic principles of organizational behavior management (OBM);also known as Performance Management (PM), and2. Cover the steps involved in conducting a PM project to improveorganizational performance.

The principles and techniques covered will include: pinpointing, measurement techniques and evaluation designs, diagnosing performanceproblems, behavioral interventions such as positive reinforcement, feedback, goal setting, and behavioral systems analysis.

Objectives:
1. Describe the basic PM/OBM approach.
2. Describe in detail, and explain how to do accomplsih the steps involved in conducting a PM project.
3. Demonstrate skill in finding valuable organizational pinpoints
4. Demonstrate skill in diagnosing performance problems
5. Describe some techniques and considerations of delivering reinforcementat work
6. Describe some techniques and considerations of delivering feedback at work
7. Describe some techniques and considerations for setting goals at work
8. Describe some techniques of behavioral systems analysis

Activities:
The workshop will consist of a combination of didactic coursework/lecture, and participant exercises for each component of each learning objective.

Ideally, participants will arrive with some work-related expertise so they can develop a plan to address the performance problems. However, this is not necessasry for attendance, as sample work problems can be provided.

Audience:
The content will be appropriate for managers, practitioners, employees, and/or students.

Attendees who have no experience in or knowledge of behavior analysis should prepare by reading a book such as Aubrey Daniels (1989) Performance management; or Leslie Wilk Braksick's (2000) Unlock behavior; unleash profits.

Level: Introductory
Member: $95 **Non-member:** $110

Workshop #6

11/25/2005
1:00 PM - 3:50 PM
Beijing 1&2

The Smart & Sensitive Parenting Program (SSPP): Teaching Parents How to Effectively Deal with Their Children's Behavioral Difficulties

AMOS ROLIDER (Emek Yezreal College)

Description:

In this workshop, a unique parent group training model entitled SSPP (The Smart & Sensitive Parenting Program), which emphasizes teaching parents to rearrange significant context variables and to discover the triggers and functions of their children's most-burdensome behaviors will be presented. Parents subsequently learn to identify the function of their own responses to their children's inappropriate behaviors and are trained to select and apply effective and doable interventions based on their discovery of triggers and maintaining consequences.

Objectives:

The following will be discussed and demonstrated :

1. Identifying behaviors and typical parental responses associated with:
    a. The termination of a preferred activity of reinforcer.
    b. Refusal or inability to provide a preferred activity or reinforcer.
    c. Demand situations
    d. Transition from preferred activity to non-preferred activity
    e. Elicited emotional outbursts
2. The importance of preparing an established weekly schedule and set of expectations, and the role of:
    a. The weekly family meeting
    b. The daily family meeting
3. Preparing children for challenging triggers and difficult situations.
4. Selecting an appropriate response based on the function of the inappropriate behavior.

Activities:

We will practice Using the model how to deal with children's most common inappropriate behaviors:

- Bickering and refusal
- Tantrums and aggression
- Over-dependence
- School-related problems
- Other problems (Participants requests)

Audience:

Practitioners who work with or have interest in working with parents of children who exhibit a variety of behavioral issues

Level: Introductory
Member: $100 **Non-member:** $115

#1 Poster Session
11/25/2005
5:00 PM - 6:30 PM
AUT

1. A Positive, Multielement, ABA Approach to Severe Physical Aggression: A 20-Year Follow-up Type III Case Study (DDA; Applied Behavior Analysis).
GARY W. LAVIGNA (IABA)

Abstract: More than 20-years ago, the Institute for Applied Behavior Analysis (IABA) received a referral for a 20-year- old young man with Autism exhibiting extreme forms of physical aggression. When younger, systematic intervention was attempted using Overcorrection. Initially, this proved successful. However, as a grown adult, he physically resisted this technique and it was discontinued to avoid the associated risks. IABA recommended a positive, multielement behavioral plan based on a comprehensive functional assessment. This plan was initially implemented by an intensive support team and then by regular group home staff. The problem of physical aggression was resolved. However, if Overcorrection did not produce durable results, the question remains whether the outcomes achieved through the positive plan were durable. A follow-up of this case 20- years later indicated that the man is doing well and continues to live in the community, going to church on Sundays, taking vacations out of town, and living a comfortable, happy life. For the entire year of 2004 reviewed for this follow up study, not a single act of aggression occurred. In the context of other empirical evidence, it is concluded that positive practices may produce superior outcomes in the support of people with the most serious behavior problems.

2. Behavioral Assessment and Intervention of Joint Attention in Children with Autistic Disorders
(Applied Behavior Analysis). SACHIKO MINAGAWA, Nozomi Naoi, and Jun-ichi Yamamoto (Keio University)

Abstract: Many studies suggested that joint attention is pivotal skills in social development. Children with autism have difficulties in acquiring declarative joint attention. The present study aimed to assess function of joint attention using behavioral methodology and examine the conditions for establishing declarative behaviors and initiation of social interactions. Thirteen typically developing children and twelve children with autism participated. The objects were presented in the location where children could look at but adult could not. In the assessment, we compared repertoire of joint attention behavior of the typically developing children with the children with autism. Children with autism showed some of declarative joint attention. After implementing intervention for reinforcing children's attempt to initiate joint attention and related social behavior, more frequent and functional joint attention behaviors emerged. In addition, joint attention behaviors also appeared in the novel situation where adults did not respond immediately. The present study suggests that children with autism could acquire declarative joint attention and initiate social interaction with adult, provided with an appropriate situation and intervention, and they progress the social development.

3. Effect of Peer-Mediated Video Modeling for Children with Autism Spectrum Disorders to Teach Play Skills (DDA; Applied Behavior Analysis).
JEONGIL KIM, Kyong Bong Kim, Yun Hee Lee, Kee Yeon Min, Jeen Hwa Lee, Eun Hee Shon, Min Jeong Lee,and Ok Ja Lee (Lotus Flowers Children Center, Korea)

Abstract: Autism is characterized by major deficits in play skills and limited play interests, which relates closely to cognitive and social-emotional development of a child. The present study examined the effect of peer-mediated video modeling to improve the play skills of preschoolers with autism spectrum disorders. Using a multiple baseline design across subjects, the study targeted increase in verbal responses and motor responses in play time through modeled scripts by their peers on a video. The results showed that the intervention produced increase in verbal responses and motor responses in play time as well as the duration of all the subjects' play-engagement.

4. Effects of a Social Communication Intervention on Play Behaviors of Young Urban Children with Autism (DDA; Experimental Analysis). JENNIFER LONCOLA (DePaul University) and Lesley Craig-Unkefer (University of Minnesota)

Abstract: This study examines the effect of a social communication intervention on six young urban children with autism. Five boys and one girl, with an age range of six to eight years and a diagnosis of autism, participated in the study. Children were recruited from a Chicago Public School and four of the six children were of minority decent. A single-subject multiple baseline design was used to determine whether a plan-play-report intervention which targeted social–communication skills was also effective in increasing complexity of play. Unique because two children with autism were paired together and received intervention at the same time, results indicated that the intervention was successful in increasing peer-directed commenting, language complexity and diversity, and reducing some inappropriate language. Additionally, the method of providing intervention to two children with autism at the same time resulted in gains for both children. This poster will explore whether the intervention was also successful in changing play behaviors which are often notably absent in children with autism. Play behaviors of participants were coded and comparisons were made between these and typically developing children. The results of this study continue to inform the literature regarding the play skills of children with autism.

5. Functional Analysis and Intervention for Stereotypical Behavior of a Person with Autism (DDA; Applied Behavior Analysis). JYOJI MURAMOTO, Mae Kondo, and Shigeki Sonoyama (University of Tsukuba)

Abstract: We specified the function of the stereotyped behavior of two persons with autism for each topographies, and examined the effect of intervention. In study 1, an analog functional analysis (attention no-attention, escape, tangible, and control condition) was conducted to them for each topographies of the stereotyped behavior. As the result of assessment, the function of stereotyped behavior were determined by the topographies for both two persons. In study 2, the stereotyped behavior, “stereotypic utterance”, of one of the two persons which has the function of gaining attention was intervened by FCT. In that case, for examining an effective intervention method of FCT without the extinction, the FR reinforcement schedule was compared with the VR reinforcement schedule. As the result, it has been suggested that the FR reinforcement schedule is more effective in the stereotypic utterance than the VR reinforcement schedule.

6. Increasing Communication Skills with Tact by Use of PECS (DDA; Applied Behavior Analysis). MAE KONDO (University of Tsukuba) and Shigeki Sonoyama (J-ABA)

Abstract: The purpose of this study is to examine the effect of increasing communication skills with tact by use of PECS. Over the past few years, although studies of PECS have been made on communication skills with mand, but there is few development of tact. Therefore we improved PECS, and teaching a child with autism for using communication skills by the PECS. First, we trained her that if she saw her favorite objects, she dabbed a trainer on the shoulder. Second, if she saw her one favorite object, she selected one picture card in a communication book. Third, if she saw the favorite object, she dabbed the trainer on the shoulder. Finally she acquired communication skills with tact. We discussed effects of using improved PECS.

7. Teaching Two-Word Mands to a Girl with Autism Using PECS (VRB; Applied Behavior Analysis). YOSHIAKI NAKANO, Kanna Miyajima, Akiko Kato, and Takahiro Yamamoto (Sophia University)

Abstract: PECS (Picture Exchange Communication System) is one of the AAC strategy which was developed for children with autism who has disabilities in speech. In the PECS training protocol, children are taught to exchange one picture to mand, and eventually learn to construct picture-based sentences. We taught to mand by two- word sentence structure using two pictures to a five-year-old girl with autism. The purpose of this study was to examine whether she could learn to mand using two-word sentence structure and whether she could generalize that to the daily life setting. The participant mastered to mand using two-word sentence in about a month. Generalization probe conducted after the mastery showed that the participant demonstrated generalization across the setting. After the intervention, the mand using speech of two-word sentence structure accounted for 90% of her all mand in the daily life setting. The further research was discussed.

#2 Poster Session
11/25/2005
5:00 PM - 6:30 PM
CBM

8. Adaptations of Peer-Mediated Training to an Orphanage in the Republic of Georgia (CSE; Service Delivery). JUDITH MATHEWS (Munroe-Meyer Institute/University of Nebraska Medical Center) and Zhana Kvachadze (Children of Georgia Project/Tbilisi State University)

Abstract: The challenge of managing and training children warehoused in orphanages across the world remains monumental. Through the Children of Georgia Project and Tbilisi State University, a group of applied behavior analysts trained in New Zealand and the United States are making strides in providing improved training within the orphanages. This poster describes a project in one orphanage involving older peers in two capacities. Two older children served as peer tutors for younger children, providing structured academic teaching and life skills training (designed by the peer tutors themselves). Within the cottages, each of which housed children ages 3 to 15, a point system was introduced, with the older children assisting the staff in providing daily feedback to younger children. Eight cottage rules were posted and evaluated daily by staff and older peers. If children reached specified criteria, they received access to privileges. The program was introduced sequentially to each cottage, providing a systematic replication. Outcome data showed an improvement in rule-following with the introduction of the program in each subsequent cottage. Although not measured directly, the impact on the tutors themselves will be discussed.

9. Integrating Repeated Behavioral Measures and Neuropsychological Test Data to Improve Patient Care (EAB; Applied Behavior Analysis). William Warzak and Ann Galloway (University of Nebraska Medical Center)

Abstract: An evaluation of brain-impaired patients requires both neuropsychological and behavioral assessment. Neuropsychological data emphasize brain-behavior relationships, are gathered infrequently, and constitute considerable expense. Behavioral assessment, using the patient as his or her own control, evaluates environment- behavior relationships frequently and inexpensively. However, unless these measures are targeted at relevant cognitive domains they may not capture changes in the patient's neuropsychological status. An integration of neuropsychological and behavioral findings would provide ongoing monitoring and greater specificity in treatment planning than could be obtained through either assessment tradition alone. Using a combination of procedures to drive the evaluative process facilitates monitoring of improvement, such as that seen after closed head injury, or deterioration, such as that seen in many neurodegenerative diseases. We present a case study that illustrates how an integration of behavioral and neuropsychological procedures provides data against which to evaluate behavioral, cognitive, and pharmacological interventions used with individuals with brain injury. A series of repeated measures tasks were developed to evaluate attention, verbal memory, spatial memory, and motor skills in a 58 year old male suspected of degenerative dementia. These data, collected over several months and across a variety of conditions, suggested that neurodegenerative processes were stable and not contributory to observed declines in patient functioning.

10. Splint Use: Addressing Hand-Clapping and Skill Acquisition in a Child with Rett's Disorder (AUT; Applied Behavior Analysis). SUSAN WILCZYNSKI, Howard Needelman, Laura Patterson, Chad Rethorst, and Joshua Needelman (MMI; UNMC)

Abstract: Rett's Disorder is characterized is a genetic disorder in which purposeful hand skills are replaced by stereotyped hand movements during early childhood. Unlike other disorders, medications and behavioral interventions have typically been ineffective in reducing stereotypic movements. Splints have been used successfully with some interventions (e.g., thumbsucking) to reduce behaviors that interfere with life functioning. To date, no research has been forwarded assessing the effectiveness in splints in reducing stereotypic hand movements in children with Rett's Disorder. A preschool-aged female presenting with stereotypic hand-clapping served as the participant. An alternating treatments design was used to assess the impact the splints on rate of hand-clapping and skill acquisition during discrete trial training. Use or non-use of splint served as the independent variable. Stereotypic hand-clapping was significantly lower when splints were used than when splints were not used. Use or non-use of splints had no impact on rates of skill acquisition. Interobserver agreement feel with acceptable levels (IOA>.90).

11. The Role of Intermittent Reinforcement in Abusive Relationships (CSE; Applied Behavior Analysis). CAROLINE CLEMENTS and Steven Dworkin (The University of North Carolina at Wilmington)

Abstract: Interpersonal violence is the tenth leading cause of death for women ages 15-44 (World Health Organization, 2000). Abused women tend to remain in abusive relationships. When they do leave they often return, typically many times (Follingstad, et. al., 2002). Advocates for abused women theorize that one reason for

this is the intermittent reinforcing quality of the relationship. Abusers do not batter continuously and abused women describe their relationships as quite reinforcing at times. In this research we examined the association between intermittent reinforcement in abusive relationships and abuse severity. We hypothesized that women who report greater intermittent reinforcement within their relationship would also report greater physical and verbal abuse. Two hundred seventy-six female college students completed survey measures of physical and verbal abuse and intermittent reinforcement (e.g. when I need something my partner will occasionally come through for me). The study was replicated with 107 abused women in shelter. Regression analyses indicated that greater intermittent reinforcement predicted greater verbal abuse in students and greater verbal and physical abuse in shelter abused women (all ps < .05). Results are discussed in terms of their implications for intervention with abused women. Follingstad, D.R., Runge, M.M., Ace, A., Buzan, R. & Helff, C. (2002) Justifiability, sympathy level, and internal/external locus of the reasons battered women remain in abusive relationships. World Health Organization (June, 2000). Violence Against Women Fact Sheet.[On-line]. Available: http://www.who.int/inf-fs/en/fact239.html

#3 Poster Session
11/25/2005
5:00 PM - 6:30 PM
CSE

12. Effect of a Classroom-Based Behavioral Training Package on the Improvement of Sitting Posture of Second-Grade Children (EDC; Applied Behavior Analysis). WATARU NODA, Junko Tanaka-Matsumi, and Risa Arihara (Kwansei Gakuin University) and Saori Ono (Bukkyo University)

Abstract: The present study evaluated the effect of a classroom-based behavioral training package to improve elementary school children's sitting posture in regular classrooms (N = 71). We used a multiple baseline design across two classrooms that consisted of baseline, intervention, follow-up, and maintenance. Good sitting posture was defined as feet are flat on the floor, buttocks are in contact with the chair sheet, back is straight up, and a whole body is directed forward. The training package included modeling, self-instruction, behavioral rehearsal, prompt, and reinforcement, among others. We counted the number of children with good sitting posture in each classroom across all 28 sessions throughout the study. Inter-observer agreement of good sitting posture ranged from 80% to 100%. With the exception of a few children in each class, the children's sitting posture improved. Also, their writing task performances improved as their sitting posture improved. For those few children who did not benefit from group training, individualized training program may be necessary. Teachers' acceptance of the training program proved to be excellent.

#4 Poster Session
11/25/2005
5:00 PM - 6:30 PM
EAB

14. An Experimental Study of Development of Self-Control in Preschool Children: A Quantitative Analysis Using the Framework of Delay Discounting (Experimental Analysis). MICHIKO SORAMA, Masato Ito, and Daisuke Saeki (Osaka City University, Japan)

Abstract: The present study, using the framework of delay discounting, investigated the development of self-control choice in preschool children. Participants (4- and 6-year-olds) chose between the standard alternative (12 reinforcers available after 10 sec delay) and the adjusting alternative (one reinforcer available after one sec delay) by touching one of the two figures presented on a touch-sensitive screen. After the delay, the prescribed numbers of popular cartoons as reinforcers were presented on the screen. Reinforcer amount for the adjusting alternative was changed every trial based on an adjusting-amount procedure; if the participant chose the standard alternative, the number of reinforcers was increased by one in the next trial, whereas if the participant chose the adjusting alternative, it was decreased by one in the next trial. The number of reinforcers in the adjusting alternative after 20 trials was defined as indifference point for the participant. As a result, the indifference points in the 6-years- old children were significantly higher than that in the 4-years-old children. Furthermore, the rates of discounting estimated from the hyperbolic function were higher for the 4-year-old children than the 6-year-old children. These findings suggest the usefulness of the framework of delay discounting to understand the development of self-control.

15. Applications of the Computational Model of the Selection by Consequences to the Random Ratio Schedules of Reinforcement (TPC; Theory). SAULE KULUBEKOVA and Jack McDowell (Emory University)
Abstract: The poster will discuss an ongoing project investigating the behavior of a digital organism on RR (random ratio) schedules of reinforcement. The digital organism is a software application conceived and developed by Dr. J. J McDowell, Emory University. The digital organism is a virtual representation of a computational model of selection by consequences. The organism possesses a repertoire of behaviors undergoing selection, reproduction, and mutation over many generations. The behavior of the digital organism on RI (random interval) schedules of reinforcement has been found to be consistent with the behavior of biological organisms on these schedules (McDowell, JEAB, 81, 297-317). The purpose of the current project is to explore the behavior of the digital organism on RR schedules, including phenomena such as higher response rates than on RI schedules, ratio strain, and the failure of responding at high ratio values. The goal is to confirm that the computational model applies to behavior on RR schedules, which would further support the applicability of selection by consequences as a promising dynamic account of behavior.

16. Effectiveness of the Combined Blocking Procedure to Teach Conditional Discriminations to Normal-Developing Children (DEV; Experimental Analysis). LUIS ANTONIO PÉREZ-GONZÁLEZ (University of Oviedo, Spain), Monica Rodriguez-Mori (University of Oviedo, Spain)

Abstract: We studied the effectiveness of an abbreviated version of the combined blocking procedure to teach conditional discriminations with normal-developing four-year-old children. This procedure have been shown effective for teaching conditional discriminations to children with autism. In this procedure, two comparisons are presented at fixed locations for a number of trials. First, one sample appears in every trial. The experimenter prompts the correct response in the two first trials. After a few correct responses, the other sample is presented as the first one. In the third phase, the two samples are presented randomly (with no prompts). In the subsequent phase, the comparisons switch locations. Finally, the comparisons are presented randomly. We studied several variables that affect learning. Under the appropriate conditions, yet, the procedure served to teach conditional discriminations

to every four-year-old child is as few as 34 trials. Thus, the procedure can be an excellent tool to be used in a number of applied and experimental contexts, such as learning to people with learning disabilities.

17. Behavioral Variability and Stereotypy in Matching to Sample (Experimental Analysis). HECTOR MARTINEZ and Ana Maria Ojeda (Universidad de Guadalajara, Mexico)

Abstract: Behavioral variability has been studied in animals with response sequences, response location, and interresponse times, and in humans with a variety of procedures. Here we report the results of studies of human variability and stereotypy on matching-to-sample tasks. On each trial of the task, the participants (children and college students) could select a sample that was fully identical to, partially identical to, or fully different from, a comparison stimulus. Stereotyped choices were reinforced in one phase, variable choices were reinforced in another; the order of the two phases was varied across subjects in each age group. Reinforcing variability in the first phase retarded the acquisition of stereotyped behavior in the second phase. By contrast, reinforcing stereotypy in the first phase had little effect on the acquisition of variable behavior in the second phase. These results suggest that matching to sample provides useful procedures for studying variability and stereotypy in humans. Keywords: variability, stereotypy, matching to sample, key pressing, humans.

18. Effects of Glucose Concentration in Water on Body Weight and Water and Food Intake After Water Deprivation (Experimental Analysis). Alma Gabriela Martinez, Antonio Lopez-Espinoza, and HECTOR MARTINEZ (Universidad de Guadalajara, Mexico)

Abstract: Twenty-four albino rats (3-month-old at the beginning of the experiment) divided in four groups, were exposed to fifteen days of free access to water and food, followed by 3 days of water deprivation. On the next five days every group were exposed to one of three kinds of water concentration of glucose. The first concentration had 180 calories, the second had 120 calories, and the third had 60 calories. Caloric food concentration remained the same. These results suggest that modification of caloric concentration in water affects the feeding behavior after water deprivation period. Key words: glucose, water deprivation, post-deprivation period, body weight, water and food consumption, rats.

19. Human Sensitivity to FI Values in Concurrent-Chain Schedules (Experimental Analysis). KOICHI ONO (Komazawa University)

Abstract: This study examines how human subjects discriminate short fixed-interval (FI) values from long FI values assigned to the terminal links of concurrent-chain schedules in two phases. In 50 trials of the first phase, the initial links are equal independent fixed-ratio (FR) 10 schedules. A FI 5 s schedule operate on the red key in one terminal link while FI 25 s schedule operate on the green key in the alternative terminal link. In 50 trials of the second phase, the terminal-link contingency changed to equal independent 15 s on both keys leaving the terminal-link stimuli as they are -red and green-. The result at the present moment shows that all of the subjects do not always show the preference for the short FI values: Some fail to discriminate between short- and long FI values. In the second phase, more than half of the subjects continue the same responding as the first phase under the stimulus control of the first phase.

20. Psychophysics of Prospective Timing (Experimental Analysis). TAKU ISHII and Takayuki Sakagami (Keio University)

Abstract: We trained pigeons in a concurrent-chains procedure with a successive-reversal technique to obtain a psychophysical function of prospective timing. Pigeon's three pecks on either of two identical keys terminated initial links. Terminal links on one and the other keys were 1- and 9-s delay period, respectively, which were signaled by the same stimuli and followed by food presentation. Every time the pigeon chose the 1-s terminal link in five successive trials or more, assignment of the terminal links to the keys was reversed probabilistically. After this training, the pigeons learned to switch their choice immediately after they experienced the 9-s terminal link. We then conducted test sessions after every three training sessions. In the test sessions, when the reversal occurred, the 9-s terminal link was replaced by a terminal link of other duration that was randomly selected from nine values, which were evenly spaced between one second and nine seconds on the logarithmic scale. We obtained a psychophysical function by plotting probabilities of pigeons' switching of their choice against the experienced duration of the terminal links. The bisection point that was determined by 0.5 probability of switching was close to the mean calculated according to a hyperbolic function.

22. The Effect of Switching on Resistance to Change (Experimental Analysis). TAKEHARU IGAKI and Takayuki Sakagami (Keio University)

Abstract: Six pigeons were trained in concurrent and multiple schedules according to the procedure of Killeen (1972). Concurrent schedules with change-over key procedure were arranged in the first chamber, and multiple schedules were arranged in the second chamber. The stimulus presentations and the availability of reinforcement in the multiple-schedule chamber were yoked to those in the concurrent-schedule chamber. During baseline training, subjects in both chamber matched relative response rates to relative reinforcement rates. When responding was disrupted by prefeeding or extinction, subjects exposed to the concurrent schedules showed equal resistance to change for both alternatives, replicating the results of our previous study. In multiple schedules, however, resistance to change was more variable than that during concurrent schedules. These results suggest that the absence of switching attenuated the sensitivity to reinforcement in multiple schedules, resulting in more variable resistance to change. Further studies with concurrent and multiple schedules should examine the effect that other differences than switching have on resistance to change, such as the frequency of switching, the regularity of the duration of schedules, etc.

23. The Reinforcing Properties of an Imprinted Stimulus for Chicks (TPC; Experimental Analysis). TETSUMI MORIYAMA (Tokiwa University) and Tsuyoshi KUBOTA (Kubota M. S. Center)

Abstract: The purpose of the present study is to investigate the reinforcing properties of the imprinted stimulus compared with those of food for chicks. The chicks' behaviors were examined as follows; their preferences for each reinforcer and the key-peck operant responses reinforced by each stimulus. The results showed that newly hatched chicks preferred the imprinted stimulus to food. However, the rates of key-peck responses were lower in the case of the imprinted stimulus than in the case of the food. Further, there was a sporadic pattern of key- peck responses reinforced by the imprinted stimulus, which was different from the pattern of the key-peck responses reinforced by food. Thus we conclude that the reinforcing properties of the imprinted stimulus are distinct from those of food.

24. Training and Functional Use of Non-vocal Devices of Cellular Phone In Deaf Persons with Mental Disability (Experimental Analysis). Jingye Lu, Tomoko Iida, Takasi Oota, and AKIRA MOCHIZUKI (Ritsumeikan University)

Abstract: The program for the functional use of cellular phone, especially of non-vocal devices; word mail, still-picture mail, and T.V. mobile phone, was studied in Deaf persons with mental disabilities whose first language were manual sign. In Experiment 1, the participant was a high school student and was taught to take a picture of a landmark or a person and to send it to the "listener" who asked the student "Where are you now?" or "Who is with you?" by word mail. In Experiment 2, two senior adults were taught to mand some objects to the person by using T.V. function of cellular phone. Depending on the verbal repertoire of the "listener", the participants were required to choose one of the three modes of T.V. translation, i.e., showing object directly, manual signs, or handwriting of the name. After the intensive training of the required skills mainly with prompting and fading in laboratory, all participants showed generalization in community settings. The participant in Experiment 1 searched all over the public garden for the proper landmark and sent it to the listener. The participants in Experiment 2 could purchase the cake by the order of another participant through T.V. non-vocal conversation.

#5 Poster Session
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25. An Investigation of the Relationship Among Fluency, Application for Multiplication, and Divergent Thinking in Japanese Fifth-Graders. (VRB; Experimental Analysis). SATORU SHIMAMUNE (Naruto University of Education) and Richard M. Kubina, Jr. (Pennsylvania State University)

Abstract: Research suggests component skill performance has a strong positive relationship with composite skill performance. We replicated Lin & Kubina's study (in press) that demonstrated the association between accuracy and fluency for the component-composite relationship within multiplication performance. Ninety-six Japanese fifth-graders took one-minute assessments for single-digit, and multi-digit multiplication problems. In addition, the students worked on two "divergent thinking" tasks, in which they were asked to think and write as many answers as possible in one minute. The first task was to describe how to use a marble other than its usual usages. The second task was to write reasons for why people litter. The results demonstrated high correlations between the component-composite skill fluency suggesting that fluent component skills have a significant role in composite skill performance. High correlation was found between two divergent tasks, but the correlation between these tasks and multiplication performance were relatively lower. The results indicate that higher-order thinking such as divergent thinking requires other component skills than numeric and multiplication skills. Further study is necessary to identify these component skills if we are to design fluency-building instruction for higher-order thinking.

26. Effect of Video Modeling for Children with Developmental Delays to Improve Reading Skills (VRB; Service Delivery). SANG BOK LEE (Daegu University, Korea)

Abstract: The present study examined the effect of video modeling to improve reading skills for preschoolers with developmental delays. Using a multiple baseline design across subjects, the study targeted increase in verbal responses and receptive level of the story through modeled procedures on a video. The results showed that the intervention improved the verbal responses and receptive level in reading.

27. Web-Based Educational Program Service for Teachers Working with Children with Special Needs (CSE; Service Delivery). SANG BOK LEE (Daegu University, Korea)

Abstract: The present study investigated the effects of web-based educational program service for teachers working with children with special needs. Using a survey questionnaire, 500 teachers responded the question on-line and the data was analyzed statistically. The results showed significant level in the effectiveness and satisfaction of the web-based service program.

29. Transfer of Matching-to-Sample Skills from Desktop Computer to Handheld Device using a Programmed Curriculum (AUT; Applied Behavior Analysis). Elise Warecki and Karen L. Mahon (Praxis, Inc.) and WILLIAM J. McILVANE (University of Massachusetts Medical School, E.K. Shriver Center)

Abstract: The efficacy of a programmed curriculum designed to transfer students' Matching-to-Sample (MTS) skills from a touchscreen-equipped desktop computer displaying large stimuli to a handheld device displaying much smaller stimuli was examined. Eight participants with severe developmental disabilities and mental-age equivalent scores of 4.01 years or less experienced a programmed curriculum that advanced or remediated automatically based on user performance. Research associates conducted 20-min computer sessions with participants 3 to 4 times per week in classroom settings. Three instructional components comprised the curriculum, gradually transforming the location and size of visual stimuli from the desktop computer MTS arrangement to the handheld device MTS arrangement. Accurate 2-comparison MTS performance on the desktop computer was required for entry into the study. Final criterion performance was accurate 8-comparison MTS performance on the handheld device. All participants attained 100% accuracy in the 8-comparison MTS arrangement on the handheld device by the end of the study. Differences in patterns of student progress and sources of potential stimulus control will be discussed.