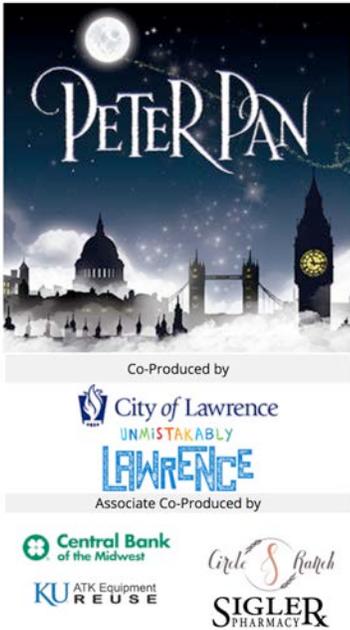




The Insider

The University of Kansas
Life Span Institute at Parsons

www.parsons.lsi.ku.edu
Patty Black Moore, Editor



Public Awareness Campaign Produces Positive Outcomes for Kansans

Thinking about public awareness ‘outside the box’ - or rather, inside and on the new Theatre Lawrence stage - by implementing a marketing strategy based on a sponsorship of the Kansas theatre company’s production of

electric hospital beds, patient lifts, and more), refurbishes to a like-new standard (with the help of qualified Kansas vendors), and gives the equipment to Kansans who need it.

Project staff worked closely with Theatre Lawrence staff preparing for the December run of *Peter Pan*. Efforts included an informative advertisement in each program for the entire 2016-2017 theatre season, clear identification on the December *Peter Pan* promotional materials as an Associate Co-Producer (KU ATK Equipment Reuse), and public acknowledgment of the Equipment Reuse program at each performance of *Peter Pan*. Project staff, ATK advisory board members, supporters, friends, and family attended each of the December performances.

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Peter Pan seemed like an approach that might have potential. Assistive Technology for Kansans (ATK) needed to increase the donation of lightly used, high cost durable medical equipment across the state but especially in the northeast area of Kansas. Sara Sack, Director of ATK said, “Theatre Lawrence regularly has sell out performances and many theatre goers are individuals who are connected in the community and are actively involved in their churches and communities. Asking audience members to spread the word to help locate lightly used equipment turned out to be a fun and effective way to find more equipment.”

ATK’s nationally recognized equipment reuse program, KEE Reuse, accepts donated durable medical equipment (power wheelchairs,

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On one Saturday in December, an informational display was staged in the lobby during the matinee and evening performances, complete with equipment, promotional materials, and staff and board members ready to talk about the merits of donating lightly used, high quality durable medical equipment to benefit Kansans in need. Often audiences find the fact that since 2003, reusing donated equipment has saved Kansas taxpayers nearly \$8,580,000, makes this a win-win for everyone.

In the first month following this unique public awareness idea, donations directly associated with the *Peter Pan* audience have already put the campaign in the 'black'. In the coming weeks, Kansans with disabilities and health conditions of all ages needing a power wheelchair, a patient lift, or other durable medical equipment will benefit from the generous audience of *Peter Pan*.

And as Stuart Jones, KEE Reuse Project Coordinator, has been heard to say, "If you or someone you know has equipment that is not being used, please call 800- KAN DO IT (800-526-3648) for more information".

Just the STATS

Kansas Inservice Training System (KITS), the state's inservice training program for early intervention professionals, provided training and technical assistance to the tiny-k early intervention programs in Kansas last year reaching 2,280 teachers, related service providers, and administrators.

PRESENTATIONS

Saunders, K. (2016, October). *There is no such thing as an individual phoneme: Implications for reading instruction*. Invited presentation at the 2016 Annual Berkshire Association for Behavior Analysis and Therapy (BABAT) Conference, Amherst, MA.

Saunders, K. (2016, October). *Evaluating precursors to reading using a measure of learning*. Invited presentation at the Fourth Annual Sarasota Conference on Behavior Analysis, Sarasota, FL.

PUBLICATION

Toussaint, K. A., Scheithauer, M. C., Tiger, J. H., & Saunders, K. J. (in press). Teaching identity matching of Braille characters to beginning Braille readers. *Journal of Applied Behavior Analysis*.



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PROJECT UPDATE

Dynamic Assessment of the Alphabetic Principle

Principal Investigator:
Kate Saunders, Ph.D.

LSI Co-Investigators:
Lesla Hoffman, Ph.D.,
Kandace Fleming, Ph.D.,
Mindy Bridges, Ph.D.

External Co-Investigator:

Mike Barker, Ph.D., University of South Florida
Project Coordinator: Carol Cummings, M.A.

This ongoing research program has been funded by a Strategic Initiative Grant from the KU Provost Office, along with “matching funds” from LSI’s Intellectual and Developmental Disabilities Research Center. Strategic Initiative Grants provide seed money to support the development of promising grant proposals that are aimed at benefitting the university via addressing topics that advance KU’s strategic-initiative themes. The strategy is to build on “key strengths already present at KU” to enhance the likelihood that an important project obtains funding from federal agencies such as NIH.

The current project continues the development of an instrument to assess children’s readiness to learn the connections between spoken and printed words. The assessment evolved from a larger program of research, previously funded by NIH, on developing instructional programming for the alphabetic principle. The alphabetic principle is the concept that letters represent phonemes, the smallest units of sound within spoken words. Because understanding the alphabetic principle requires the child to detect phonemes, the task also measures phonemic awareness--the

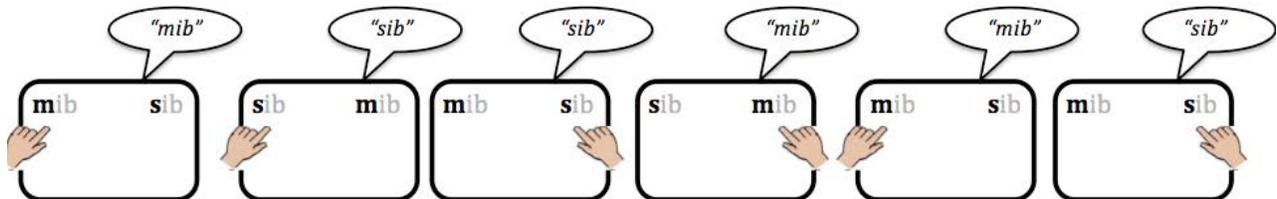


knowledge that spoken syllables can be broken into smaller elements. Given the interrelationship between the assessment, and the instruction that inspired it, the continued development of the instructional programming is strengthened by the further development of the assessment.

The assessment has many innovative features. Among the most important is that it was designed especially for children with severe speech impairments. Because these children often have difficulties learning to read, it is particularly critical to assess early reading skills. But because most current measures require spoken responses, they cannot be used with children who have speech impairments. Thus, our computer-based instrument was designed to eliminate the need for spoken responses.

The instrument is also specifically designed to be easy for children to understand, with simple instructions, and feedback on every trial. Stimulus presentation, response recording, and scoring are computerized, so it can be presented with high fidelity with minimal examiner training. Finally, it assesses a hierarchy of three skills, such that if the child does not demonstrate the alphabetic principle, s/he is given the opportunity to demonstrate “earlier” skills that are required to learn the alphabetic principle.

One precursor skill is letter discrimination. A second, and especially innovative feature, is measurement of the child’s response to a brief opportunity to *learn* connections between spoken words and print. This aspect of the assessment, which is made feasible by computerization, gets right to the “heart of the matter.” That is, although a major purpose of prereading assessments is to predict learning difficulties, assessments rarely



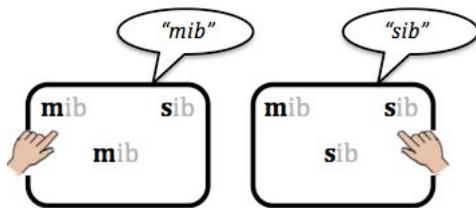
Continued on page 4.

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measure learning!

How the assessment works. Each test item begins with 6 opportunities to listen to a spoken word, and select a highlighted target letter (in the example on page 3, the letter corresponding to the first sound). Scoring 5 of 6 correct provides evidence that the child understands the alphabetic principle (given similar results with other words).

If fewer than 5 test trials are correct, we present a teaching component. Teaching involves prompting via showing the correct printed word (see schematic below). Responding correctly with prompts does two things: it shows that the child discriminates the printed letters and



it provides an opportunity to learn the sound-print relations. We test learning by removing the prompts, and presenting another six trials like those shown in the first schematic.

The current study. The study we are conducting currently has included 60 children aged 3.5 to 5.5 years to date. We have several goals, all related to further developing the assessment so that it can be used in schools (and obtaining funding to accomplish these goals). One goal is to determine the validity of the measure by seeing how it relates to established measures of phonemic awareness and reading skills. A second is to determine whether our assessment may be more sensitive to early skills than typical measures. Sensitivity is a key issue—experts have noted that the tasks, and related instructions, that are often used to assess phonemic awareness are sometimes so complex that they mask children’s skills, rather than detect them. A third goal is to use current data to decide how to make the assessment shorter (e.g., by reducing the number of trials or subtests).

Data collection is ongoing—we still are adding participants—but results to date are quite promising. Especially noteworthy is that, given the opportunity to demonstrate what they know in

our receptive task, some children who *do not read* nonetheless demonstrate knowledge of the alphabetic principle. In other words, our assessment detects critical decoding-related skills before the child can decode. For the children who do not demonstrate the alphabetic principle, nearly all show at least one of the precursor skills—letter discrimination. Many who demonstrate letter discrimination also show that they can learn new sound-letter relations in a small number of trials. Thus, instead of measuring skills in an “all-or-nothing” fashion, the assessment provides meaningful information for children who would simply fail other measures.



STAFF NEWS

Carol Cummings, M.A.

In December 2016, Carol Cummings passed her thesis defense, in the Department of

Applied Behavioral Science, with flying colors. She now has her M.A. Her thesis title: *Using Matrix Training To Establish The Alphabetic Principle, And Generalization To Reading, In Typically Developing Struggling Readers.*

Presently, Carol is the Project Coordinator for *Dynamic Assessment of the Alphabetic Principle* with Dr. Kate Saunders, Principal Investigator. Carol said, “Kate was very patient with me when working on my thesis. Her feedback was always constructive and she took time to make sure I understood complex concepts. My writing has vastly improved because of her.”

Carol received her B.A. in Psychology at the University of North Carolina Wilmington. She moved to Parsons for a position as a Research Assistant at the Parsons Research Center working with Drs. Kate Saunders and Dean Williams. She was accepted into the graduate program at the University of Kansas, moved to Lawrence, and continues her work with Saunders and Williams.

PUBLICATION

Brewer, A., Johnson, P., Stein, J., Schlund, M., & Williams, D. C. (2017, February). Aversive properties of negative incentive shifts in Fischer 344 and Lewis rats. *Behavioral Brain Research*, 319, 174-180. <http://www.sciencedirect.com/science/article/pii/S0166432816310610>



For the past few years, Dean Williams, Ph.D., Senior Scientist, has been developing laboratory models of conditions that produce maladaptive escape behaviors and elicit destructive and disruptive behaviors such as self-injury, aggression, and

tantrums. Laboratory models arrange conditions under which behaviors occur, and thus may provide insight into the processes involved.

Disruptive behaviors are a major problem in individuals with Intellectual and Developmental Disabilities (IDDs), but it is not well understood why some individuals engage in chronic problem behaviors while others do not, under seemingly similar conditions. Thus, an important feature for a laboratory model is to show that it is sensitive to individual difference factors, such as genetic differences. If differences are shown, the model may be useful in the study of the brain-behavior interactions underlying this condition, and in exploring new approaches to treatment and prevention.

Dr. Williams reports, “We recently published our first paper on this work. The paper, *Aversive properties of negative incentive shifts in Fischer 344 and Lewis rats* was published in the journal *Behavioural Brain Research* in January. The paper was based on Adam Brewer’s Master’s thesis. I was Adam’s advisor and we developed the research together.

In the study, we exposed two rat strains, Fischer 344 rats and Lewis rats, to a procedure

we have used with both people and animals. The procedure involves positive reinforcement only, but can generate disruptive behaviors. In this study, we used 9 rats of each strain. Two different conditions, each signaled by a different tone, were alternated randomly after each reinforcer. The same number of lever presses was required per reinforcer in each condition, but the reinforcers differed. In the “rich” condition, rats earned seven food pellets; in the “lean” condition, they earned one pellet.

Both strains responded readily for both the rich and the lean reinforcers, *unless the lean condition followed the rich condition*. In this rich-to-lean transition, both strains of rats stopped responding, and did not begin again for a considerable period (the pause). The Fischer strain, however, paused significantly longer than the Lewis strain across different response requirements. In fact, the Fischer rats stopped responding entirely at the highest response requirement (150 lever presses) while all of the Lewis rats continued to respond. The pause is significant, because studies have shown that animals will make another response to escape the stimuli associated with this transition and will engage in aggressive behaviors during these pauses. In addition, conditions that increase pause duration also increase the probability of escape and aggression. Thus, the duration of these pauses may be an indicator of the aversiveness of the rich-to-lean transition. This is the first study demonstrating genetic effects on susceptibility to effects of the rich-to-lean transition.”

PUBLICATION

Perone, M., Williams, D. C., & Galizio, M. (2017, January). Alan Baron: A pioneer in translational science. *Journal of the Experimental Analysis of Behavior*, 1, 1-8.
<http://onlinelibrary.wiley.com/doi/10.1002/jeab.2017.107.issue-1/issuetoc>

Dean Williams coedited a special issue of *The Journal of the Experimental Analysis of Behavior* along with Mike Perone of West Virginia University and Mark Galizio of the University of North Carolina at Wilmington. The issue was in commemoration of Alan Baron who was a professor in the psychology department at the University of Wisconsin Milwaukee.

Dr. Williams says, "Alan was Mike's and Mark's doctoral advisor, and I worked in Alan's laboratory for 3 years as an undergraduate at UWM. We proposed to publish a special edition of the journal last Spring (2016) and invited behavioral researchers with a tie to Alan or who publish in areas related to Alan's research to submit papers. We selected the papers to include in the issue, and handled the editorial duties of selecting reviewers, making the decision to publish the paper or not based on the reviewer recommendations, and directed the revision process. Finally, we wrote the editorial which talks about Alan's contributions and how each article relates to his work."

The issue contains 14 papers including the editorial and ranges from theoretical papers to applied and basic research reports.

PROJECT NEWS

Telehealth ROCKS increases access to services locally

Parents know that most children aren't eager for a long road trip and for kids with disabilities or health conditions, the ride may be

uncomfortable, tiring, or stressful. An article, *Grant connects rural kids with needed services*, by Colleen Williamson (Parsons Sun newspaper), explains the scope of a grant, Telehealth ROCKS (Rural Outreach for Children of Kansas). The article outlines the opportunities for a virtual face to face appointment for developmental and behavioral pediatrics (DBP) services via televideo for Southeast Kansas children. The services include screening, assessment, treatment, and support.

While many of the televideo connections are conducted in Pittsburg, there are other sites and one is at the KU Life Span Institute at Parsons. Director David Lindeman said, "Through this project the LSI/Parsons is able to partner with the KU Medical Center while providing a service to professionals and families in our community and surrounding area".

For more information about the Telehealth ROCKS grant, contact Shawna Wright, Project Director, swright6@kumc.edu. Additionally, the Telehealth ROCKS grant program featured in the January 6, 2017 Williamson article is online at

www.parSONSsun.com/news/article_519dc790-d46a-11e6-9d08-db3590e45b87.html

PUBLICATION



Lindeman, D.P. (2016). Message from the DEC executive board: Reflections on inclusion and DEC resources. *Young Exceptional Children*, 19(4), pp. 3.

PROJECT REPORT



Sara Sack, Director, Assistive Technology for Kansans reports:

The UnitedHealthcare effort, *Active Living, Better Health & Employment Through Technology*, conducted by Assistive Technology

for Kansans, a program coordinated by the University of Kansas, resulted in 75 individuals who have disabilities developing basic technology skills. 72 of the 75 participants completed the skills portion of the workshop curriculum and acquired personal technology to support their employment and increase their health.

Participants reported a broad range of disabilities - 26 participants with Post Traumatic Stress Syndrome/other mental health, 14 with orthotic conditions or spinal cord injuries, 10 with traumatic brain injury, 25 with intellectual disabilities, 14 participants with health conditions, and four participants were legally blind or deaf. Participants completed four intensive workshops customized to their personal employment and health goals in addition to completing outside class activities. All participants completed a minimum of one employment-related goal and one mental health or health goal.

34 of the 73 participants are now employed. Ten individuals are employed full-time, 24 are employed part-time, and 13 individuals had interviews scheduled at the time the data was collected. Three individuals reported obtaining full time-jobs but lost those positions within three months of hire. Two of these individuals reported the jobs were too stressful; and one reported physical health issues interfered with job performance. Dr. Sack summarized, "Customized computer skills

training, attention to individual employment and health goals, and provision of personal technology can result in increased employment and better health."

Kansas ABLÉ Savings Plan Open for Business



The Kansas Achieving a Better Life Experience (ABLE) Savings Plan opened for enrollment on January 26, 2017.

Sheila Simmons, Assistive Technology for Kansans (ATK) Program Coordinator attended the "Kick Off" event in Wichita, January 26, 2017. She notes, "People are excited that the program is up and running. ABLÉ accounts let parents save for their child with a disability and allow a person to save a few dollars each month for future needs without jeopardizing their benefits."

In the picture above, Kansas Treasurer Ron Estes congratulates Tavrck Lawless, the first ABLÉ account holder in Kansas. Also shown is his mother.

Visit www.SaveWithABLE.com to open an ABLÉ account through the Kansas ABLÉ Savings Plan. Initially Kansas ABLÉ plans offer six investment options with a checking and debit card option available in spring of 2017.



THE PARSONS ARCHIVES

A graduate student from the University of Southern Illinois recently requested

a working research paper of work conducted at the Parsons Research Center. The 1967 paper, authored by Jim Lent, addressed modification of food stealing behavior in a person with intellectual disabilities.

The Insider is archived online at
<http://www.parsons.lsi.ku.edu/newsletters>

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