

RESEARCH *FOCUS*

Western Kentucky University • Communication Sciences and Disorders



- **Welcome from Dr. Jean Neils-Strunjas,
CSD Department Head**
- **Meet Dr. Brian Weiler, New CSD
Assistant Professor**
- **Students Present at National ASHA
Convention**
- **Student Spotlights**

Advancing knowledge through investigation, improving lives by addressing the needs of individuals in our communities, and planting the seeds for a successful future.

Welcome from Dr. Jean Neils-Strunjas

CSD Professor and Department Head



Research is an essential component of both faculty and student experience in the Department of Communication Sciences and Disorders (CSD) at Western Kentucky University. Research participation is a high impact activity for undergraduate students and increases their engagement in their education. As a graduate program certified by the Council on Academic Accreditation of the American Speech-Language-Hearing Association, an understanding of research is needed for evidence based-practice. It is obvious from the current issue of *Research Focus* that faculty and students in the Department of CSD are active in research and are applying research to better the lives of Kentuckians.

Ms. Hudson and Ms. Hatcher are exploring ways of enhancing child language development in toddlers. Likewise, Ms. Hatcher's dissertation

will specifically target low income populations in the State of Kentucky. Research has shown that low income SES can have an adverse effect on children's ability to develop language, which sets the stage for academic achievement as discussed by Dr. Weiler. Rachel Burns and her research advisors, Dr. Bland and Dr. Smith, are exploring the best methods for using sign language with children who have Down Syndrome as a way of facilitating language development. Dr. Shackelford is partnering with others in the CHHS to study the effects of military experience on social and academic outcomes. In addition, we are aware that older adults residing in nursing homes are at risk for limited social and physical activity. In order to address this problem, several faculty are working with the patented program Bingocize® to keep residents active and engaged with others in meaningful ways.

As a department, we strive to provide our campus and distance students with best clinical practice models. Ms. Hudson, Ms. Hatcher, and Dr. Roden-Carrier will determine the best model for providing students with the appropriate intensity and frequency of clinical supervision. In addition, Corinne Balliette explored telehealth in her master's thesis. Her results, obtained in Nevada, have increased the interest of our faculty in the development of telehealth as a natural extension of current clinical practice provided on the WKU campus.

The research I have described is just the tip of the iceberg; there are many others who are initiating or finalizing research projects. If you have any questions, I encourage you to contact me. You will find the members of the department open and willing to share more with you.

Table of Contents

Little Topper Time Program	pg. 2
Bingocize® Overview.....	pg. 3
CSD Students Present at National ASHA Convention.....	pg. 4
Meet Dr. Brain Weiler, New CSD Assistant Professor.....	pgs. 5-6
Dissertation/Research	pgs. 7-8
Publications/Presentations	pg. 8
Student/Alumni Spotlights	pgs. 9-10

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Little Topper Time Program

Little Topper Time Program Improves Language Development for Young Children

The intervention program used in this pilot study was a parent-based, small group, language intervention program, designed and directed by Caroline Hudson, M.S., CCC-SLP and Allison Hatcher, M.S., CCC-SLP, at the Western Kentucky University (WKU) Communication Disorders Clinic (CDC).

The program is called "Little Topper Time" (LTT) and was influenced by WKU's mascot, the Hilltopper. Group intervention service delivery models are often used clinically with young children. However, there is little evidence of the clinical effectiveness of group intervention using a parent-based model with young children with language impairments (LI).

Findings from this study revealed a significant difference between the pre-intervention scores and the post-intervention scores for "words produced" on the MacArthur-Bates Communicative Development Inventories (MB-CDI) using a non-parametric Sign Test analysis. Each participant showed an increase in vocabulary after participation in the Parent Based Intervention (PBI) program.

Additional information observed by the investigators includes, but is not limited to: bonding between parents and their young child, connections made between parents with other parents, and positive effects of peer modeling (i.e. increase in turn-taking skills, imitation of behaviors, and use of social greetings both verbally and gesturally). Parents also anecdotally reported, an increase in the amount of time they spent face-to-face with their child as well as an increase in their child's use of sign language, gestures, vocalizations and/or spoken communication.

The significance of this study is that there is potential for a parent-based language intervention, such as LTT, to improve language development in children with LI. The results of this pilot study suggest the program had positive outcomes.



Caroline Hudson
Director, Communication Disorders Clinic



Allison Hatcher,
Clinical Supervisor

Bingocize® Program Overview

Drs. Jean Neils-Strunjas, CSD professor and department head, and Jason Crandall, WKU Assistant Professor of Exercise Science led the Bingocize® project. Dr. Crandall patented Bingocize® and is accountable for the overall project evaluation.

Bingocize® was developed to address lack of social engagement and physical activity, which can contribute to a continued decline in activities of daily living (ADLs), functional performance, and health in older adults residing in certified nursing facilities (CNFs).

There is, therefore, a significant need for easy-to-use and enjoyable CNF activities capable of increasing daily social engagement, improving physical health, decreasing social isolation, and increasing residents' engagement with life.

Bingocize®, a combination of exercise and the game of bingo, is an evidence-based program capable of fulfilling this need. The primary goal of the proposed three year project is to replicate Bingocize® in 20 CNFs across Kentucky. Our secondary goal is to facilitate partnerships between faculty/stu-

dents at six universities and CNF staff. Together, they will implement a Bingocize® program at each of the 20 CNFs.

Non-bed bound CNF residents will be recruited from each CNF to participate in twice weekly Bingocize® sessions. Partnering universities include Western Kentucky University, Kentucky Wesleyan College, Spalding University, Morehead State University, the University of Kentucky, and Murray State University.

Bingocize® meets the U.S. Department of Health and Human Service Administration for Community Living's highest-level criteria for evidence-based disease prevention and health promotion programs. The Healthy Communities Institute also recognized it as an evidence-based practice. Today, over 25 facilities across the United States use the program. They've been especially successful partnering with the Kentucky Department of Public Health and many of the Kentucky Area Development Districts to train administrators and volunteers in 48 counties.

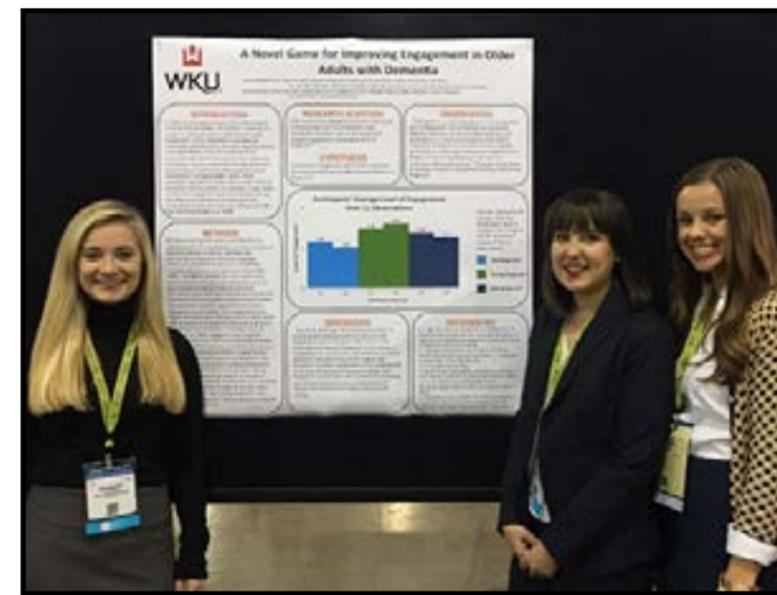


CSD Students Present at National Convention

Author: Leigh Anne Roden-Carrier

The American Speech-Language-Hearing Association National Convention was held November 17th-19th in Philadelphia, PA. Student research assistants from the Department of Communication Sciences and Disorders (CSD); Allison Glascock, Kennedy McAlpin, Meredith Tade, Megan French and Shelby Schaefer presented their research study, "A Novel Game for Improving Engagement in Older Adults with Dementia." The purpose of the study was to address the engagement levels of older adults with dementia during and following participation in the functional activity, Bingocize®. Faculty mentors included Dr. Jason Crandall, Assistant Professor of Ex-

ercise Science, and Dr. Jean Neils-Strunjas, Professor and Department Head for CSD. Student researchers observed a total of five residents with dementia severity ranging from moderate to severe for 11 weeks using the Menorah Park Engagement Scale. Levels of severity were derived using the Montreal Cognitive Assessment (MoCA). Bingocize® is a combination of bingo, functional movement, and social engagement and was facilitated by five Exercise Science students each Wednesday at a local memory care facility. Preliminary results suggest that Bingocize® increases engagement, which is maintained for at least 20 minutes following the activity.



Pictured left to right: Kennedy McAlpin, Allison Glascock, and Meredith Tade presenting at the national American Speech-Language Hearing Association convention.

Meet Dr. Brian Weiler



Why did you choose this profession?

My introduction to the field of speech language pathology came somewhat later in life. My undergraduate major was unrelated to this discipline, but I always knew that I wanted to work in a “human services” profession. My first job out of college was as a high school English teacher in a very urban Washington DC charter school. I failed rather miserably at teaching literature, but felt that I did make an impact in a remedial reading class that I taught. That class was based on the evidence-based Wilson Reading System. The emphasis on phonemic awareness and phonics within that program opened my eyes to the linguistic basis of academic language and how critical this knowledge is to school success. I then explored disciplines that would allow me to further explore the science of language and, lo and behold, speech-language pathology fit the bill.

“The emphasis on phonemic awareness and phonics within that program opened my eyes to the linguistic basis of academic language and how critical this knowledge is to school success”

How does this new position here at WKU fit into your overall career goals?

I am excited to be part of a department here at WKU that is devoted to preparing clinician-scientists. Having served as a clinical supervisor in the past, I am very much invested in helping students bridge the “research to practice gap” in order for them to appreciate and implement evidence-based principles and practices. One of my overarching career goals is to cultivate an appreciation of investigative inquiry within students. Mentoring student research is an obvious outlet for this goal and one that is highly emphasized and supported within the current vision of the College of Health and Human Services (CHHS) at WKU. I look forward to supporting students as they address clinically-oriented questions that may be answered through practicum experiences, classroom-based scholarship, and research designs.

When did you decide you wanted to teach at the collegiate level?

Teaching at the college level strikes me as a natural extension of teaching roles I have served in the past. As previously mentioned, I have taught at the high school level and have supervised graduate SLP students in their pediatric clinical practicums. In my years as a practicing clinician at the Vanderbilt Bill Wilkerson Center, I aimed to teach my clients how to be better speech and language learners and, in turn, to teach their families and classroom teachers how to best support such learning. The opportunity to now teach the

next generation of clinicians at the collegiate level therefore feels like the culmination of what has come before.

How does being a professor differ from other jobs you have had as an SLP?

The biggest difference is the autonomy I have over how to structure my workdays. Working as an SLP, my days were rather rigidly scheduled into discrete units of time to conduct either individual or group-based sessions or diagnostic evaluations. The days were productive and time flew by, but I hardly had a minute to eat lunch, let alone do things like read journal articles, plan research studies, meet with students, write manuscripts and grants, design classes and prepare lectures, all of which are components of my job as a professor.

How did you become interested in research?

Like many clinicians, I sometimes struggled to figure out the best way to deliver services that were efficacious and evidence-based. I began utilizing principles of research design, for example single-subject methodology, into my clinical practice to better capture and empirically document how my clients were (or were not!) responding to specific treatment approaches. I have always loved reading research articles (kinda nerdy, I know!), but actually incorporating elements of systematic study designs into my own clinical practice planted the seeds for me to explore more focused research at the PhD level.

What are your current research interests?

The population that I am primarily interested in are children with primary language impairment, often referred to in the literature as specific language impairment or SLI. These are children who have difficulty acquiring age-expected language skills but for whom other aspects of development -- for example, intelligence, motor skills, adaptive skills, etc. -- are unremarkable. Perhaps not surprisingly, then, many youngsters with SLI are not identified for services until well into elementary school. In fact, epidemiological research shows that at least two-thirds of kindergarteners with SLI have not been clinically identified. Practically speaking, this means that, as a field, we are failing to provide early language support to many children who will go on to struggle with

(Meet Dr. Brian Weiler continued on pg. 10)

“Epidemiological research shows that at least

2/3 of kindergarteners with SLI have not been clinically identified”

Ms. Allison Hatcher - Dissertation

Allison Hatcher, a WKU Communication Disorders Clinic (CDC) clinical supervisor and instructor, is currently completing her dissertation at The University of Kentucky regarding young children with language impairment (LI) who are at increased risk for disparities involving school readiness, literacy, academics, and socio-emotional development.



Children from families identified as low-socioeconomic status (SES) are at an even greater risk for ongoing language deficits. Therefore, it is crucial to investigate early intervention programs that focus on improving language development, especially in children from low-income backgrounds.

Published research reveals that parent-implemented language interventions have positive effects on a variety of parent and child language outcomes; however, most studies have been limited to clinically-recruited families in middle- to high-SES groups with parents who are well-educated. Therefore, it is unknown if the success found in previous studies would generalize to children and their parents from low-SES environments who are receiving services in a home-based setting.

Hatcher's research study uses a single-case research methodology to extend the existing research on parent-implemented language intervention using enhanced milieu teaching to young children with LI and their parents from low-SES environments in a home-based setting. This study has been approved by the IRB at the University of Kentucky with an IRB Cooperative Agreement with WKU. Research participants and their children will be recruited primarily through the Community Action of Southern Kentucky Head Start Center (CASOKY) and possibly WKU's CDC, both in Bowling Green, KY.

Dr. Shackelford, Dr. Neils-Strunjas, Dr. Lynette Smith, and graduate student Leah Weskamp

Dr. Jo Shackelford is working on a current research project with Dr. Neils-Strunjas, Dr. Lynette Smith (Department of Nursing), and graduate student Leah Weskamp which examines the impact of resilience on student veterans' academic success.

The study considers the role of several additional factors, including depression, Post Traumatic Stress Disorder (PTSD), and post-concussion syndrome. Dr. Shackelford worked with WKU Student Military Affairs (SMA) to design a challenge coin as an incentive to participate in the study, and it was very positively received. Drs. Shackelford, Neils-Strunjas and Smith had the opportunity to partner with Student Veterans Alliance and Veterans Upward Bound in addition to Student Military Affairs. Each of them hopes to continue to work together to support WKU student veterans!



Challenge coin the participants received.

Clinical Supervision Research: Hudson/ Hatcher/ Roden-Carrier

Caroline Hudson, Allison Hatcher and Dr. Leigh Anne Roden-Carrier are conducting a study over the next academic year, which examines the self-efficacy and preferred supervision models of speech-language pathology students during their clinical internships.

There is emerging research regarding the self-efficacy of student clinicians following clinical experiences (Unrau & Beck, 2004; Pasupathy & Bogschutz, 2013). More research is needed in the area of clinical supervision (Ostergren, 2011) as limited empirical studies exist related to examining preferred and beneficial models of supervision (ASHA, 2008).

The purpose of this study is to contribute to an understanding of the impact of clinical experience and supervision on students' ratings of self-efficacy as compared to supervisors' ratings of students' clinical skills. Students will provide their preferred level of supervision and rank, their preferred method of receiving feedback and instruction and will define clinical supervision.

Student clinicians completed the first round of surveys in August and will complete two more surveys at the end of the fall and spring semesters. Supervisors of each student clinician will complete an evaluation of student performance at the end of the fall and spring semesters.



Presentations & Publications

Citation:

Hatcher, C. A. & Hudson, C. (2017, February). Parent-based Intervention for Toddlers with and without Language Impairment. Poster presentation for the Kentucky Speech-Language Hearing Association Annual Convention, Lexington, KY.

Leigh Anne Roden-Carrier and Janice Smith will be attending Council of Academics Programs in Communication Sciences and Disorders (CAPCSD) 2017. They will present "Engaging Undergraduate Students in Interactive Learning Experiences" on Friday, April 21, 2017 from 1:30-3:00.

Neils-Strunjas, J., Paul, D., Clark A. N., Mudar, R., Duff, MC, Waldron-Perrine, B. & Bechtold, KT (In Press). Role of Resilience in the rehabilitation of adults with acquired brain injury. Brain Injury.

Student Spotlights



Corinne Balliette

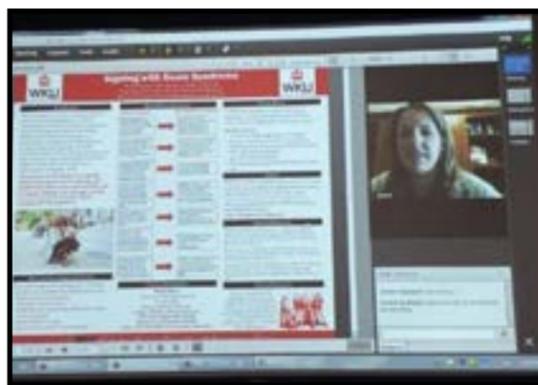
Corinne Balliette, a distance student, investigated the readiness or willingness of providers, speech-language pathologists (SLPs), and patients to participate in telepractice for speech-language therapy services in rural areas of Nevada. Nevada has not ranked high in healthcare for several years and was noted to have low SLP to patient ratios, especially in rural areas. Nevada does not have current research on the readiness of medical professionals to participate in telepractice in rural areas of the state. Therefore Corinne developed a survey to ask providers and patients for their opinions about participating in telepractice. Specific questions related to voice

and swallowing disorders were addressed. A positive response rate to engaging in telepractice was noted among 40% of participating patients and providers. Though the participant sample size was small, there is still some indication that telepractice could be used to address the needs of patients who need speech-language therapy services in rural areas of Nevada.

Rachel Burns

WKU's First Distance Presenter at 46th Annual Student Research Conference

Rachel Burns, a graduate student in the Communication Sciences and Disorders Online Distance Program, presented via Adobe Connect at WKU's 46th Annual Student Research Conference in April of 2016. Burns is the first student to present via remote location at the conference. Burns and co-researchers Callie Haynes and Rebecca Russell examined evidenced-based practices for signing with children with Down's syndrome from birth to five years and conducted a survey of speech-language pathologists to determine if these evidenced-based practices were being used. Dr. Janice Carter Smith, who served as their faculty research mentor, stated, "Rachel, Callie, and Becca have been phenomenal students to mentor through this project. Over the past two semesters, we have collaborated to complete and disseminate this research from four states: Kansas, Arizona, Hawaii, and Kentucky. Our distance learners bring a wealth of knowledge and diverse perspectives into our program and this is a shining example of the rich outcomes of research collaboration." The presentation was also a session winner. During fall semester 2016, Rachel received graduate school funding to continue her research as a master's thesis under the direction of Drs. Bland and Smith. Kinya Embry, Taylor Parker, Maddie Phillips, and Tanner Smith are first year graduate students who are assisting Rachel with data collection.



Alumni Spotlight

Kelly Fussman

Kelly Fussman, a recent Bachelors of Communication and Sciences and Disorders (CSD) graduate, recently completed her Honors Capstone Experience/Thesis project in CSD. Kelly presented her work at four conferences: The University of Alabama Languages Conference (February 12, 2016); KSHA (February 18, 2016), Posters at the Capitol (February 25, 2016), and the WKU Student Research Conference (April 2, 2016). She was awarded the Faculty-Undergraduate Student Engagement (FUSE) grant in the amount of \$3,000 to design and carry out the project, as well as to present her work at conferences. Dr. Mary Lloyd Moore of the Clinical Education Complex at WKU was her mentor. Kelly was also awarded the Dr. Joseph Etienne Academic Excellence Award: Undergraduate Program at the 2016 CHHS Awards Banquet (April 16, 2016).

Kelly's research focused on WKU international students. These students often face a number of challenges upon arrival in the United States, especially when it comes to language and cultural differences. A considerable body of research indicates that international students often attribute academic and social difficulties due to a lack of proficiency in the English language and an unfamiliarity with the local culture, among other factors. To address these concerns, Kelly designed and conducted a five-day English language skills seminar for a diverse group of international students, focusing on pronunciation, grammar, vocabulary, pragmatics, and acculturation. According to pre- and post-assessment and results and program evaluations, the seminar was very effective in improving the students' English speech sound productions, as well as increasing their confidence when speaking in English. These results highlight the need for quality language and cultural education programs for international students in order for them to be more successful while studying abroad.



(Meet Dr. Brian Weiler continued from pg. 6)

academic language demands like reading simply because they have not been flagged. The goal of my research is to identify valid and efficient methods of identifying children at risk for SLI when or before they start school. I have explored the utility of "clinical marker" tasks such as tense-marking, sentence repetition, and nonword repetition and their potential to be effectively utilized in school-based kindergarten-wide language screeners.

What advice do you have for SLP students interested in conducting research?

1. Don't wait around for the "perfect idea" to materialize. It likely never will. Or if it does, it may not be practical to attempt at this level. Instead, for students, the actual experience of being involved in some aspect of research is likely as, if not more, important than the specific product. Ask your professors what types of research they are working on and see if there are opportunities for you to assist with or extend what they are already doing. 2. Start EARLY! Every aspect of research easily takes twice as long as you initially budget for. So, don't wait until your senior year to think about a potential research or thesis project. Initiate these conversations early in your program.