Researchers in Speech and Hearing Sciences Awarded Two Multi-Year Federal Grants

Speech and Hearing Sciences Professors Ron and Sandi Gillam work with doctoral student Ryan Sainsbury in their research lab.

Professors Ron Gillam, Ph.D., and Sandi Gillam, Ph.D., in the Emma Eccles Jones College of Education and Human Services have spent more than two decades advancing research and intervention for children and adolescents with developmental language disorder (DLD), a neurodevelopmental condition affecting approximately eight percent of children in the United States.

Independently, the Gillams have received two multi-year grants for research investigating DLD. In collaboration with Ohio University and University of Arizona, Ron was awarded a five-year, $2.5M grant from the National Institutes of Health, while Sandi received a four-year $2M grant from the Institute of Education Sciences as part of a collaborative project with Harvard University.

"Drs. Ron and Sandi Gillam are exceptional mentors and researchers who have profoundly enriched undergraduate and graduate education at USU by fostering deep engagement and meaningful learning early in students' academic careers," said Karen Muñoz, Ph.D., department head of Speech and Hearing Sciences. "Their innovative research advances effective methods for identifying and treating children with language and learning difficulties, helping improve academic and vocational outcomes."

The researchers' federally funded research programs address one central question: How can language instruction be designed, delivered, studied, and scaled to produce meaningful academic outcomes for children who struggle to understand and use language?

Ron Gillam's NIH-Funded Research on Sentence Comprehension

Ron Gillam, the Lillywhite Endowed Chair of Speech-Language Pathology, was recently recognized by Elsevier as being among the top two percent of global scholars and received a lifetime achievement award for his contributions to research. In this grant, his research team is comparing two different kinds of listening-based therapy designed to improve sentence comprehension in elementary and middle school students with DLD. The project examines how targeted instruction can strengthen children's understanding and use of complex grammar, an essential foundation for academic learning across content areas.

"Children with DLD have difficulty learning and using complex language, but they do not have hearing impairments or intellectual disabilities," Ron said. "Therapy can be effective enough that some children no longer require special services. Unfortunately, about 50 percent of individuals with DLD experience lifelong language difficulties. We're trying to develop intervention approaches that will significantly decrease that percentage."

Sandi Gillam's Work on Narrative and Reading Comprehension

Sandi Gillam leads complementary lines of research focused on narrative language, literacy development, and classroom-based intervention. In 2022, the Gillams completed work on a large-scale randomized controlled trial in collaboration with colleagues at the University of Texas at Austin. The study evaluated the effectiveness of the Supporting Knowledge of Language and Literacy (SKILL) program, an intervention designed to improve children's story comprehension and narrative skills in 138 classrooms in 14 schools across Utah and Texas. Children who were randomized to the treatment group told and wrote more complex stories than children who received regular classroom instruction, demonstrating that the SKILL treatment led to better reading comprehension.

On the current grant, Sandi serves as co-investigator in collaboration with Phil Capin, Ph.D., assistant professor at the Harvard Graduate School of Education. The project focuses on developing a language and reading

comprehension program for bilingual children with reading disabilities.

The Systematic Teaching of Oral Language and Reading Integrated for Elementary Students (STORIES) intervention program supports both bilingual and monolingual students, including children with DLD and those at risk for reading disabilities. The project is currently in the development phase, with instructional content designed to strengthen reading comprehension, advance sentence structures, and improve vocabulary.

Training the Next Generation of Clinicians and Researchers

Ron and Sandi Gillam host weekly research lab meetings with their Department of Speech and Hearing Sciences graduate students, led by doctoral student Ryan Sainsbury, a former public school speech-language pathologist.

"Ron and Sandi have spent their careers developing and testing assessment and intervention approaches for children with language and literacy difficulties, including extensive work with bilingual populations," Sainsbury said. "As a bilingual clinician who worked in the public schools, I wanted doctoral training that would prepare me to take rigorous, evidence-based research and implement it responsibly for the children who need it most. After studying with them during my master's degree and exploring other programs, it was clear that their mentorship offered the strongest preparation for the work I want to do."

Sandi's commitment to training future clinicians is rooted in her own professional experience. "Before entering academia, I worked as a speech-language pathologist in the schools for ten years," Sandi said. "That experience made it clear that meaningful change for children requires more than good intentions—it requires strong evidence. My goal as an academic has always been to develop and test interventions through careful scientific research so educators and clinicians have tools that reliably improve outcomes. The challenge is ensuring that this evidence reaches the next generation of speech-language pathologists, special educators, and classroom teachers."

A Shared Focus on Impact and Scale

Across their research programs, the Gillams share a commitment to developing effective, scalable interventions

that improve both immediate learning and long-term academic trajectories for children with DLD.

"The most important and direct benefit for a child who participates in either of our studies is that his or her understanding of spoken sentences may improve by going through the sessions," says Ron. "The final benefit of both studies is broad-based. If, after these studies conclude, we find that one technique works better than another in improving children's listening or reading comprehension, those findings could help shape the practices used by speech-language pathologists in schools and improve the communication and reading skills of the children they work with."