

The Research in Developmental Disabilities and Language (RIDDLL) Lab would like to wish you a happy new year this 2023! There are many exciting developments in the lab, including new grants funded by the National Institutes of Health, new lab members, and noteworthy publications! As always, if you are interested in the work we are doing or would like more information on how to get involved, please reach out to us at: riddl@waisman.wisc.edu or visit our website: <https://riddll.waisman.wisc.edu/>.

New Projects

We have exciting new opportunities to participate in research!

Study on Language and Executive Functioning: Dr. Audra Sterling is leading a new study on the links between language (such as grammar) and executive functioning (such as planning and memory) among individuals with fragile X syndrome (ages 9-16), Down syndrome (ages 9-16), developmental language disorder (ages 4-6), and neurotypical development (ages 3-5). We are excited to learn more about how language and learning work together. This study is a partnership with the University of Massachusetts-Amherst.



The Lab celebrates the end of the semester!

Study on Language and the *FMR1* Premutation: Dr. Nell Maltman is leading a new study on links between language, executive functioning, and quality of life among men and women who do and do not carry the *FMR1* premutation (ages 30-65). We are hoping to learn more about how these areas are affected among people who might be at risk for a disorder called fragile X-associated tremor/ataxia syndrome.



Lab members enjoy some spooky fun at the Children's Museum of Madison!

Recent Events

The lab has been busy this fall! We attended lots of community events including a Night of Science at the Children's Museum of Madison and the Down Syndrome Awareness Walk. We presented our recent findings at the American Speech-Language-Hearing Association conference in New Orleans. In Oregon, WI, we collaborated with the school district to conduct hearing and language screenings.

Interested in learning more about these studies? Just scan this QR code and let us know!



Spotlight: Claudia Schabes

Claudia Schabes (she/her) is from Pewaukee, WI. She attended UW-Madison for her undergraduate degree in social work and now is in her second year of the MS-SLP program. Next year, she will begin her PhD in Communication Sciences and Disorders at UW. She is interested in early language intervention for those with neurodevelopmental disabilities, and she is passionate about making language research in neurodevelopmental disabilities more diverse, equitable, and inclusive. Outside of school, Claudia enjoys thrifting, reading, and spending time with her cats.

Summary of Recent Findings

Emily Lorang and colleagues published a study that investigated how speech-language pathologists (SLPs) use augmentative and alternative communication (AAC) during early intervention. Examples of AAC could be sign language, picture exchange, or iPads/other speech-generating devices. Despite widespread use of AAC, it is unclear how SLPs use AAC during early intervention, which occurs for children ages 0-5. Using survey methods, they asked what kinds of AAC are used by SLPs in early intervention, their perspectives on how AAC affects spoken language development, factors that affect the use of AAC, and barriers to use. SLPs reported using AAC more for children who did not yet have any spoken language than for children who had spoken language. SLPs used or recommended sign language or pictures more than speech-generating devices. Child language was the most important factor in determining AAC use. SLPs indicated that the biggest barriers to AAC use were caregiver buy-in and carryover across providers. This study provides important information to clinicians who are thinking about using AAC during early intervention.

Citation: Lorang, E., Maltman, N., Venker, C., Eith, A., & Sterling, A. (2022). Speech language pathologists' practices in augmentative and alternative communication during early intervention. *Augmentative and Alternative Communication*, 38(1), 41-52.

Nell Maltman and colleagues published a study that examined grammatical errors made by autistic boys and boys with fragile X syndrome during conversation. Errors in grammar are common among boys with fragile X syndrome and autistic boys, but most information we have is based off of very structured tests. This limits our understanding of language use in more common settings, such as conversation, so this information can help clinicians. We looked at the kinds of errors that were made during conversations, such as omitting a necessary word or using the incorrect word. Boys with fragile X and autistic boys made the same number of errors during conversation (specifically omissions), which was at a higher rate than comparison groups. This indicates that omissions may be relevant to focus on in speech and language interventions.

Citation: Maltman, N., Hilvert, E., Friedman, L., & Sterling, A. (In Press). Comparison of linguistic error production in conversational language among boys with fragile X syndrome + autism spectrum disorder and autistic boys. *Journal of Speech, Language, and Hearing Research*, 1-18.



Lab members get silly at the Down syndrome Awareness Walk!

Who is in the lab?

Audra Sterling: Lab Director

Nell Maltman: Research Scientist

Susen Schroeder: Lab Manager

Marianne Elmquist: Postdoctoral fellow

Claudia Schabes: Graduate student (see lab member spotlight)

Alyssa Ewell: Graduate student

Kelsey Reis: Graduate student

Kaylee Commet: Graduate student

Jonathan Fritz: Capstone student

Grace Geyso: Undergraduate student

Recent Lab Alumni

Emily Lorang: Started a postdoctoral fellowship at Michigan State University.

Lily Beckers: Started a clinical fellowship in speech-language pathology at Frasier in Minnesota.

Melissa Hauptman: Started graduate school in speech-language at the University of Illinois.

Hayley Bazarek: Started graduate school in speech-language at the University of Wisconsin.

We miss them and wish them luck in their exciting new endeavors!

Stay tuned for another newsletter this spring/summer!

