

## **Poster Session #2 – Friday, May 30 at 3:30 p.m. Community Terrace**

### **PS2F01**

#### **Perspectives on Preparing Speech-Language Pathologists to Effectively Support Behavior in School Contexts**

Zoe Hussey; Vanderbilt University

Colleen S. Walsh; Vanderbilt University

Phoebe J. Ahn; Vanderbilt University

Jason Chow; Vanderbilt University

School speech-language pathologists (SLPs) frequently encounter challenging behaviors that impact intervention. Despite recognizing these issues, solutions remain underdeveloped. This study aimed to explore SLP perspectives on challenging behaviors and potential strategies to better support SLPs in managing student behaviors in school contexts. Researchers conducted semi-structured Zoom interviews with 20 SLP faculty and placement coordinators. Using an inductive analytic approach, the research team developed a preliminary codebook from randomly selected transcripts. Weekly meetings allowed coders to refine and expand themes based on emerging data. Findings revealed key themes regarding SLP faculty perspectives on the frequency and impact of challenging behaviors in schools. Additionally, researchers identified barriers and facilitators to supporting SLPs, along with specific recommendations for integrating behavior management strategies into graduate training programs. The study highlights solutions at multiple levels, including improvements in SLP training, individual practice, and school-wide support. Future research should incorporate insights from practicing SLPs and school administrators to expand on these findings. This work was supported, in part, by the Office of Special Education Programs (H325D2300371; H325D220055) and the National Institute of Mental Health (T32-MH18921).

### **PS2F02**

#### **Assessing Emotion Words and Prosocial Behaviors in Preschool-Aged Children**

Alexandra Hollo; West Virginia University

Almara Hutchinson; West Virginia University

Many young children lack the vocabulary needed to ‘use their words’ to express emotions, instead communicating through unwanted behaviors. That is, young children’s emotional lexicon may have downstream implications for social behavior. Emotion words have both concrete and abstract semantic qualities and are developmentally appropriate targets for intervention; however, current assessments are inadequate for monitoring growth in this population. To address this gap, we developed and piloted direct measures of vocabulary and prosocial behaviors to support an intervention study on the effects of emotion-word instruction during shared book reading. Preliminary results from a sample of 10 pre-school age children indicate that our assessments align favorably with standardized measures and are consistent with results from previous studies. However, early findings were constrained by using binary (correct/incorrect) scores. Here, we will present results of a second round of data collection in which we expand the number and types of prompts as well as the scoring criteria. Attendees will learn how to

adapt our procedures to measure vocabulary instruction across thematic content as well as prosocial behavioral outcomes.  
This study is unfunded.

### **PS2F03**

#### **Recruitment strategies and cost estimation for enrolling 81 Spanish speaking caregivers and their young child with developmental language disorder in a randomized trial.**

Tatiana Peredo; Vanderbilt University

Taydi Ray; Vanderbilt University

Ann Kaiser; Vanderbilt University

This study used targeted recruitment strategies to identify and screen 214 Latino and Spanish-speaking families for eligibility in a clinical trial testing the effectiveness of a parent-mediated early language intervention. Eighty-one dyads were enrolled. A novel approach to calculating a “participant acquisition cost” was utilized to compare cost effectiveness of five targeted recruitment approaches (a) posting and advertising on social media, (b) partnering with community agencies, (c) partnering with pediatricians, (d) word of mouth, (e) partnering with early intervention providers, and (f) direct contact with study staff. We compared rate of enrollment in the trial based on “expert” and “non-expert” in early language intervention referral sources. Expert referrals yielded 50% enrollment, non-expert referrals yielded 19% enrollment. Partnering with early intervention providers was the most cost effective approach and resulted in the highest number of participants.

### **PS2F04**

#### **Intervention Success and Retention: Does Early Progress Predict Long- Term Success?**

Mohima Ali; University of Arizona

Samantha Lord; University of Arizona

Elena Plante; University of Arizona

The goal of language treatment is not simply for children to improve during the therapy sessions, but for that improvement to generalize and last over time. We examined whether the amount of time a child takes to show progress in treatment predicted retention of learning immediately after treatment ended and after a delay. Sixty-one preschool children received Enhanced Conversational Recast treatment for approximately 25 sessions over five weeks. Their treatment outcome was measured as performance on three generalization probes that occurred in the last week of treatment, and one more after an approximately six-week delay. Time-to-response in treatment correlated both with generalization at the end of treatment, and whether treatment gains were retained over time. The faster children responded in treatment, and consequently the more time spent with better in-treatment performance, the better their generalization and retention. Conversely, this suggest that slow responders may need more time showing success in treatment to consolidate their learning before treatment ends. Funded by NIDCD grant R01DC015642.

## **PS2F05**

### **Assessing text-level syntactic comprehension in short written texts**

Rikke Vang Christensen; University of Copenhagen

Mads Poulsen; University of Copenhagen

Syntactic skills are important for oral and written language comprehension.

In this study, we examine the characteristics of a test developed to assess text-level syntactic comprehension in short written texts.

Research question: What are the relations between performance in a text-level test of syntactic comprehension and tests of sentence-level syntactic comprehension, reading comprehension and vocabulary?

Method: 120 grade 5 students completed the text-level test of syntactic comprehension. After reading each text, participants answered a question that required them to establish meaning based on syntactic signals. Participants also completed three sentence-level tests of syntactic comprehension and tests of reading comprehension and vocabulary.

Analyses and results: The internal consistency of the text-level test of syntactic comprehension was acceptable (Cronbach's  $\alpha = 0.7$ ). Correlations between the text-level test of syntactic comprehension and the sentence-level tests as well as the reading comprehension test were significant ( $r$ 's from .23 to .37). There was no correlation with vocabulary.

Implications: Text-level assessment of syntactic comprehension may be an ecologically valid supplement to current tests of syntactic comprehension.

Funding Sources: Independent Research Fund Denmark and University of Copenhagen.

## **PS2F06**

### **Examining morphosyntax performance in children with cochlear implants, hearing aids, and typical hearing**

Alice Regalado-Lee; Texas Christian University

Daniel Ibarra; Texas Christian University

Krystal Werfel; Boys Town National Research Hospital

Emily Lund; Texas Christian University

Purpose: Children who are deaf and hard of hearing (DHH) often struggle with expressive morphosyntax, particularly in producing bound, inflectional morphemes like past tense -ed and third-person singular -s. Tense marking is a clinical marker of developmental language disorder (DLD), yet little research has examined similar impairment patterns in DHH children. This study investigates whether tense-marking scores distribute non-normally across groups and if a subset of children clusters around lower accuracy levels, as seen in DLD. Method: Participants included 147 children who are DHH (42 with cochlear implants, 37 with hearing aids) and 68 with typical hearing. All completed the Test of Early Grammatical Impairment (TEGI), assessing tense marking. A Kolmogorov-Smirnov test and Bayesian clustering analyses were conducted. Results: Non-normal score distributions were confirmed across groups. Analysis identified two clusters per group, with a subset of children in each showing lower

accuracy levels. Conclusions: Findings suggest tense marking may help identify co-morbid language impairment in DHH children, informing assessment and intervention. This work was supported by NIH/NIDCD (R01) and an OSEP/OSERS Leadership Training Grant from the U.S. Department of Education.

### **PS2F07**

#### **Can Parents Accurately Report Children's Use of Words with Multiple Meanings?**

Ashley Reece; Univeristy of Wisconsin - Madison

Kaitlynn Ellis; Vanderbilt University, University of Wisconsin - Madison

Yi Tong; Univeristy of Wisconsin - Madison

Gary Lupyan; Univeristy of Wisconsin - Madison

Haley Vlach; Univeristy of Wisconsin - Madison

A common methodology for studying children's vocabulary is parental word checklists, where parents indicate words they have heard their children produce. While checklists provide the number and types of words children know, they do not include information about the conceptual structure underlying children's vocabulary. One step toward understanding these conceptual structures is to examine the meanings children communicate when producing words. However, we do not know whether parents can accurately report which word meanings their children use. The current study examines whether parents can accurately report their children's knowledge and use of words which have multiple meanings. To do this, parents fill out a checklist, marking the word meanings they have heard their children use. Children are tested on those same word meanings during the study. Our results indicate that there is indeed overlap of the meanings of words parents believe their children know and the word meanings their children know. We would like to thank the National Science Foundation for funding this work.

### **PS2F08**

#### **Equipping Educators to Identify and Support Students with Developmental Language Disorder: A Pilot Study**

Brittany Ciullo; University of Massachusetts Amherst

Jill Hoover; University of Massachusetts Amherst

Developmental Language Disorder (DLD) is a lifelong communication disorder that affects approximately two students in every classroom. Unfortunately, children with DLD are often undiagnosed due to low public awareness of the disorder. Teachers are well-positioned to support students with DLD, but prior research suggests they lack the necessary knowledge and training. This pilot study investigated the efficacy of a group training to improve teachers' understanding of DLD and solicited feedback to improve future trainings. The current training focused on the characteristics of DLD and practical strategies for supporting students with DLD in the classroom. Pre- and post-training survey comparisons indicate a reduction in teachers' uncertainty about DLD and increased knowledge of DLD characteristics. Teachers provided positive feedback and requested increased opportunities to learn more about DLD in the future. Study findings demonstrate the efficacy of a group training in equipping teachers to identify and support

students with DLD. Empowering teachers with knowledge of DLD is critical to improving academic, social, and life outcomes of students with DLD. This work was supported by a University of Massachusetts Amherst Predissertation Grant.

## **PS2F09**

### **Open or Closed? Exploring Parental Questioning Strategies for Autistic Adolescents**

Tiffany Edgar; University of Wisconsin-Madison

Audra Sterling; University of Wisconsin-Madison

Parent-child interactions are critical for language and social development, especially for autistic children and adolescents who may feel more comfortable communicating with familiar caregivers than with peers or unfamiliar communication partners. This study examined (1) whether mothers produced more statements or questions with their autistic children, (2) differences in the rate and type of questions mother asked their autistic children, and (3) whether the rate of questions was associated with children's nonverbal IQ or autism symptomology. Eighteen autistic males (ages 9 – 18) and their biological mothers participated in a 10-minute conversation sample, which were video-recorded and behaviorally coded. Additionally, autistic males were administered a series of standardized assessments. Results indicated the mothers produced more statements than questions and relied more on closed-ended questions than open-ended and rhetorical questions. The rate of questions was not significantly associated with children's nonverbal IQ or autism symptomology. Results indicate that maternal communication styles may reflect individualistic and cultural preferences rather than tailored to children's clinical characteristics.

Funding: NICHD award T32HD007489 (Hartley); NIDCD award K23DC016639 (Sterling);

NICHD award P50HD105353 (Waisman Center)

## **PS2F10**

### **How do bilingual and monolingual children process two dialects of English?**

Chenelle Walker; University of Wisconsin-Madison

Margarita Kaushanskaya; University of Wisconsin-Madison

Within the United States, African American English (AAE) and Standard American English (SAE) are some of the most studied and spoken dialects. However, it is unknown how processing switches between dialects impact language processing in bilinguals and monolinguals. Monolingual English-speaking children (n=16) and Bilingual Spanish-English speaking children (n=9) between the ages of 6-9 (Mean=89.8 months, SD=10.7) completed this study remotely via zoom using Gorilla Experiment Builder. Participants completed an auditory moving window task to investigate how they processed sentences produced in AAE and SAE. Preliminary data from the Monolingual English participants revealed that they processed sentences faster in SAE (1046.702 ms) than in AAE (1061.954 ms). Preliminary data from the Bilingual Spanish-English participants revealed that they processed sentences faster in AAE (1095.821ms) than in SAE (1206.597ms). In the mixed conditions, both monolingual (1142.810) and bilingual (1271.2000) children

processed MAE nonswitch trials the slowest. Implications of this work would provide insight into how children linguistically process dialects and inform the effects of dialect shifting. This project was supported by the National Institute of Health (NIH) grant (R01DC016015).

### **PS2F11**

#### **Adversity Exposure & Parent-Child Interactions: Preliminary Language Sample Analysis Data**

Claire Selin; Boys Town National Research Hospital

Yo Jackson; Pennsylvania State University

Adversity exposure is linked to language difficulties, particularly in youth exposed to maltreatment, who produce shorter and less complex sentences than their peers. However, less is known about broader adversity exposure, which encompasses multiple forms of potentially traumatic events (e.g., maltreatment, household dysfunction, violence exposure). In prior work, we found that adversity-exposed children underperformed on direct assessments of language, but language outcomes did not correlate with adversity dosage (number of adverse event types) or frequency, raising questions about underlying mechanisms. Here, we analyzed parent-child interactions in the same adversity-exposed sample (n = 20; age = 5 years) using CLAN for language sample analysis. We examined correlations between child language outcomes, adversity dosage, adversity frequency, and parent language use. Consistent with prior work, child language outcomes did not correlate with adversity measures. They also did not correlate with the parents' language use. These findings suggest that neither cumulative adversity nor parental language input covaries concurrently with child language outcomes, but future research should explore whether adversity affects language over time. Funding: This research was supported by NIH awards R03HD115826 and R01MH079252.

### **PS2F12**

#### **An Intervention for Contextual Word Learning: Do Semantic Inferencing Skills Generalize?**

Dawna Duff; Binghamton University

Yu Jiayu; Binghamton University

Kim Ju Hee; Binghamton University

Suzanne Adlof; University of South Carolina

Lisa Fitton; University of South Carolina

**Rationale** There is a need for effective educational interventions to support vocabulary learning. Contextual word learning is a potentially potent intervention target, as most new word meanings are learned from context. Cain (2007) presented children with a text containing a novel word, then asked children to generate a definition, explain their reasoning, followed by feedback on accuracy (GEF intervention); participant definitions improved across sessions.

**Research Questions** The aim of the current study is to determine whether effects of GEF intervention generalize to untreated words.

**Methods** Children with typical language development (grades 4-6, n=15) received a GEF intervention across three sessions. Pre and post intervention, they read stories with novel words embedded, then completed the Measure of Semantic Knowledge (MSK, Duff, 2019) regarding novel words' meanings.

**Analysis and Results** Results from this preliminary sample will be analyzed as a mixed effect model, predicting MSK scores with treatment (pre-post) as a fixed effect, and item and participant as random effects.

**Implications** Results will contribute to our understanding of effective strategies to improve semantic inferencing from context in school-aged children.

**Funding:** NIDCD R21DC020018

### **PS2F13**

#### **Academic abilities and habits of college students with developmental dyslexia**

Peter Richtsmeier; Oklahoma State University

Keeley Warder; Oklahoma State University

Michelle Moore; University of Maine

Yu Zhang; Oklahoma State University

Hannah Krimm; University of Georgia

College students with dyslexia or typical reading skills completed a survey of inherent academic/cognitive abilities and learned academic habits. College students with dyslexia gave similar ratings for both their abilities and habits—with the exception of their ability in reading fluency. This latter rating was correlated with a standardized measure of reading fluency. Despite this relative weakness, the students with dyslexia mostly reported comparable, particularly with respect to abilities in cognitive areas not expected to be low based on the dyslexia phenotype. Similarly, they rated their academic habits similarly to the students with typical reading. These findings can be taken as evidence that accommodations given by universities to students with dyslexia are adequate. This study received no external funding.

### **PS2F14**

#### **Using Evaluative and Iterative Strategies to Support Comprehensive Language Assessment in Schools**

John Heilmann; University of Wisconsin-Milwaukee

Alyssa Wojtyna; University of Wisconsin-Milwaukee

Dawn Merth-Johnson; Wisconsin Department of Public Instruction

The purpose of this poster is to demonstrate how we used evaluative and iterative implementation strategies (Powell et al., 2015) to make progress toward realizing two implementation outcomes: fidelity to and acceptability of standards-based language assessments (Proctor et al., 2023). Using the Active Implementation Frameworks (Fixsen et al., 2019), we supported speech-language pathologists' proficiency in assessing student performance on academic standards and social-emotional learning competencies. Over 200 school-based speech-language pathologists (SLPs) completed professional learning on assessment practices concurrent with continuous improvement cycles with each of the six district's administrative teams. We used multi-methods to analyze the quantitative

fidelity data and qualitative acceptability data. We observed significant increases in fidelity scores and identified multiple strategies to improve the acceptability of our measures. We will illustrate how the implementation team used these multiple data sources to iteratively adjust the support system through the continuous improvement process. This project was funded by the US Department of Education through a partnership with the Wisconsin Department of Public Instruction.

## **PS2F15**

### **Phonological Memory Profiles of Children with Speech and Language Disorders**

Elizabeth Roepke; Saint Louis University

Bailey Whitlock; Purdue University

Taya George; Purdue University

Françoise Brosseau-Lapr ; Purdue University

**Rationale:** We investigated performance on a nonword repetition task to better understand the shared and specific processing weaknesses of children with speech sound disorder (SSD), with and without developmental language disorder (DLD).

**Methods:** Fifty-four preschool-aged monolingual English-speaking children completed a battery of speech and language tests, including the Syllable Repetition Task (SRT).

Children were classified in one of three groups: typical speech and language (TD); SSD-only; SSD+DLD. We analyzed performance on the SRT by group, examining error quantity and type. In addition, we investigated whether children who produce atypical speech errors have more difficulties repeating longer nonwords than children who produce typical errors.

**Conclusions:** Children with SSD+DLD had the most difficulty repeating longer nonwords and produced vowel errors on the SRT. Children with SSD who produce atypical speech errors also had more difficulty repeating longer nonwords.

**Implications:** Clinicians and researchers can consider implementing nonword repetition tasks into assessment batteries for children with speech and language disorders.

**Funding:** This research was supported by the National Institute on Deafness and Other Communication Disorders (NIDCD) under Award Number R21DC016142 granted to Fran oise Brosseau-Lapr .

## **PS2F16 - ~~WITHDRAWN~~**

### **Executive function and language abilities in children and young adults with Down syndrome**

Emily Schworer; University of Wisconsin-Madison

Amy Banasik; University of Wisconsin-Madison

Marianne Elmquist; University of Wisconsin-Madison

Ruth Litovsky; University of Wisconsin-Madison

Sigan Hartley; University of Wisconsin-Madison

Andrew Alexander; University of Wisconsin-Madison

Jill Hoover; University of Massachusetts Amherst

Audra Sterling; University of Wisconsin-Madison



There is substantial variability in the communication and language outcomes of individuals with Down syndrome (DS). One potential source of variability may be executive function (EF) abilities, yet the connection between these domains is understudied. We sought to further characterize the relationship between EF abilities and language abilities. Children and young adults with DS (n = 38) with a broad age range (11-25 years) were included in the cross-sectional study. EF was measured using the Corsi Block Tapping Task-Forward and the NIH Toolbox Flanker and Dimensional Change Card Sort (DCCS). Vocabulary was assessed with standardized measures and language sampling will be included in the final presentation. Implications related to the inclusion of EF targets in intervention and treatment of language challenges in DS will be discussed.

Funding: R01 DC019092, R01 DC019511, P50 HD105353

### **PS2F17**

#### **Effect of Shared Book Reading with EMT Strategies on Children with and without Disabilities**

Eon-Joo Jang; Vanderbilt University  
Kathryn Bailey; Vanderbilt University  
Sophia Delmare; Vanderbilt University  
Ashlyn Lanier; Vanderbilt University  
Ann Kaiser; Vanderbilt University

Young autistic children often experience challenges in communication in pre-academic activities and accompanying delays in early literacy development. To investigate the potential positive effects of providing specific supports for language learning during shared book reading, the current study embedded the Enhanced Milieu Teaching (EMT) strategies with Bundle of Learning, a play-based SBR strategy. Two dyads each including one autistic child and one typically developing child participated in small group sessions with trained interventionists using the Bundle of Learning kits. The current study compared the effects of the Bundle of Learning + EMT intervention to standard repeated reading on children's use of the number of different words (NDW), unprompted communications (UPC), and engagement. The findings indicated a clear functional relation between the use of intervention and the children's NDW, UPC, and engagement, when compared to standard book reading alone. The current study extends the use of EMT into a rich SBR approach, Bundle of Learning, and demonstrated positive effects on children with and without disabilities.

[No funding source to report]

### **PS2F18**

#### **One size does not fit all: Leveraging alternative data approaches to improve single-language DLD screening for multilingual public-school students**

Erica Gutmann; San Diego State University; University of California, San Diego  
Crystle Alonzo; San Diego State University  
Ashley Sanabria; San Diego State University

Kate Radville; Northeastern University

Tiffany Hogan; MGH Institute of Health Professions

Universal screening for Developmental Language Disorder (DLD) is a promising preventative approach for decreasing negative educational outcomes often associated with DLD. However, schools with multilingual student populations face barriers in following best practice guidelines for language assessment and screening. For this study we explored the outcome of a district implementing a single-language universal DLD screener with a multilingual student body (n=703 kindergartners). Additionally, we explored alternative data analysis approaches to determine how to utilize the data to most appropriately identify DLD risk in a multilingual student body. We found that the English-only language screener vastly overidentified multilingual students as at-risk for DLD, and that alternative methods for data analysis lowered the rate of identification in bilingual students to be closer to the expected DLD prevalence rates. Our results provide additional support, in-line with extant literature, that single-language testing over-identifies multilingual students as at-risk for DLD. Importantly, our results also provide support and guidelines for alternative data approaches which districts administering single-language screeners can leverage to lower DLD risk identification in a multilingual population.

Funding Source: NIH NIDCD R01 DC016895.

## **PS2F19**

### **Reliability measures and sociodemographic effects in the Czech CDIs**

Filip Smolík; Inst. of Psychology, Czech Academy of Sciences

Tereza Sloupová; Charles University

Lucie Jarušková; Charles University

Barbora Dvorská; Inst. of Psychology, Czech Academy of Sciences

Katerina Chládková; Inst. of Psychology, Czech Academy of Sciences

Nikola Paillereau; Inst. of Psychology, Czech Academy of Sciences

Czech CDIs are normed on a large data set of more than 2,000 Czech-learning children, balanced in terms of age (each month) and sex (approx. ½ of boys) and representative of all local regions. The present study provides reliability measures and models the effects of sociodemographic predictors. In the Czech CDIs, maternal education affects assessment of all language components. The evaluation of some components is further affected by the child's municipality, pointing to vocabulary differences between children from villages vs. cities, by sex, or by who the reporting person was (mothers vs. other caregivers, such as fathers, or grandparents). Correlations between main language components and interrater along with test-retest partial correlations show that Czech CDIs are reliable screening tools providing consistent measurement of overall language development. Vocabulary comprehension is a less reliable component perhaps because at the child's youngest age, caregivers are uncertain about the number of comprehended words.

## **PS2F20**

### **Demographic profiles of adults identified with DLD via online screening**

Gabriel Cler; University of Washington

Iris Mendoza Luna; University of Washington

Although research on developmental language disorder (DLD) often focuses on children, many individuals with DLD continue to experience difficulties into adulthood. However, adults with DLD often go undiagnosed, as many children with DLD do not receive formal diagnoses, leading to difficulties in accessing services and a dearth of research. This study adapted an existing protocol (Fidler et al, 2011) for identifying adults with DLD for online use via Zoom. The online version was compared to the original face-to-face protocol to assess its reliability. In a larger cohort of 459 online-only participants, we explored demographic factors affecting language screening scores. Results showed that the online screening correlated highly with the face-to-face version ( $R=0.90$ ). No significant effects of age, gender, or early bilingualism on language screening scores were found. Even without diagnoses, adults identified with DLD self-reported higher rates of language-related difficulties, particularly with writing and grammar. These findings demonstrate the effectiveness of the online protocol in identifying adults with DLD and suggest it can be a valuable tool for future research. Funding for portions of this work were provided by the University of Washington Royalty Research Fund.

## **PS2F21**

### **Exploring the Effects of Prior Experience in a Context on Adolescent Social Communication: New Data from the Transition Pragmatics Interview**

Gerard Poll; Miami University

William Boone; Miami University

Samrawit Getachew; Miami University

Janis Petru; Elmhurst University

The Prism Theory (Rose-Krasnor, 1997) suggests that social communication ability emerges from an individual's learning and experience in varied social contexts. In children, pre-school experience is related to initial elementary school success, but it is unclear if this relationship holds for adolescent social communication, particularly for those with disabilities who are preparing to transition to adult contexts. We evaluated social communication ability for post-school contexts for 150 adolescents with the Transition Pragmatics Interview (TPI), a new social communication assessment being developed to support transition intervention planning. We used Rasch analysis of the TPI items to derive a social communication ability measure for each participant for each of three post-school contexts: employment, independent living, and post-secondary education. We then ran regression models to predict social communication ability from age, disability status, and experience. Experience was related to social communication ability for independent living and post-secondary education, but not for employment. The data suggest that providing experience in a context may be a productive element of transition interventions for adolescents with disabilities whose social communication abilities differ from neurotypical peers.

## **PS2F22**

### **Does Orthography Facilitate Verb Learning in Preschool-Age Neurotypical Children?**

Grace Clark; Montclair State University

Verb learning is an integral piece of language development. Without verbs, relationships between agents and events cannot be conveyed. Research shows that noun learning improves when orthographic representations (i.e., written words) are included during learning trials, even in early literacy development; however, this has not yet been demonstrated with verbs. This study integrates findings on orthographic support for noun learning with foundational verb learning principles to identify optimal conditions for verb acquisition. We examined verb learning with and without orthographic support in 37 neurotypical children ages 3 through 6, through a brief, online, asynchronous intervention hosted by Children Helping Science. Using a between-subjects design, children were exposed to 6 novel verbs in videos with or without orthographic support. Additionally, measures of reading interest and letter-sound correspondence were collected. Multilevel modeling revealed that letter-sound correspondence skills were significantly associated with increased accuracy; however, there was no effect of orthography. Findings are discussed in relation to the lexical quality hypothesis and mental graphic representations. Funding source: start-up funds from Montclair State University.

## **PS2F23**

### **Examining Changes in Parent-Infant Vocal Engagement Across the First Year of Life During Feeding and Play**

Hayden Kamiya; Northeastern University

Kate Radville; Northeastern University

Kristen Allison; Northeastern University

Alaina Martens; Northeastern University

Natalie Peterman; Northeastern University

Emily Zimmerman; Northeastern University

This study investigates parent-infant vocal engagement during feeding compared to play and how this evolves across the first year of life. We hypothesized that parent and infant vocalizations would increase with age, and that vocal engagement would be similar during feeding and play. We compared the frequency and types of home vocal engagements in these two caregiving contexts for 32 full-term infants at three, six, nine, and 12 months. We measured the home language environment (infant vocalizations, adult vocalizations, and conversational turns) using Language Environment Analysis (LENA©) technology. Parents completed a demographic questionnaire and an hourly activity log to report participation in play and feeding. Infant vocalizations increased with age during both feeding and play. There were no significant differences in the home language environment during feeding as compared to play, suggesting that mealtimes and play provide similar opportunities for language interactions. These findings elucidate key implications for informing early intervention approaches and recommendations for how caregivers may feasibly bolster the home language environment.

Funding Source: NIH NIDCD R01DC019902-04 (PI: Zimmerman).

## **PS2F24**

### **Developing and Validating the Narrative Assessment Protocol in Mandarin (NAPiM) for Assessing Narrative Microstructure**

Huanhuan Shi; New York University

Danyang Wang; Towson University

Luyuan Geng; The HongKong Polytechnic University

Jiayu Yu; Binghamton University

Li Sheng; The HongKong Polytechnic University

Narrative language samples are useful in distinguishing between children with and without language impairment, evaluating linguistic strengths and weaknesses, and monitoring language development progress. This study introduces the Narrative Assessment Protocol in Mandarin (NAPiM), adapted from an established English protocol, to assess narrative microstructure in Mandarin-speaking children. We recruited 257 children, aged 39 to 70 months (mean age = 59 months) from China, including 21 with Developmental Language Disorder (DLD). Participants completed storytelling and retelling tasks. We scored their narrative samples using the NAPiM long (28 linguistic items) and short forms (15 linguistic items). We provided evidence to support the construct validity of the NAPiM with exploratory factor analysis, confirmed criterion-referenced validity via correlations with age and other standardized test scores. Discriminant function analysis indicated acceptable classification accuracy. These findings suggest that NAPiM is a potentially useful tool for clinical and educational settings to facilitate the diagnosis of language impairment and to monitor growth in language development in Mandarin-speaking children. Funding: Hong Kong Research Grants Council General Research Fund [15613323].

## **PS2F25**

### **Do Parents of Autistic Children Adjust the Complexity of Their Utterances for Known versus Unknown Words?**

Janine Mathee-Scott; Michigan State University

Grace Corrigan; Michigan State University

Zachary Hesse; Michigan State University

Jennifer Johnson; Michigan State University

Courtney Venker; Michigan State University

The linguistic fine-tuning hypothesis suggests that parents adjust their input to their child's language level. Work with other populations has demonstrated this type of fine-tuning in parents, but its application to parents of autistic children has yet to be fully explored. The present study investigated the linguistic complexity of parents' utterances containing words which they reported that their autistic children did and did not know. Findings indicate that during 10-minute naturalistic, play-based language samples, parents of autistic children (2-5 years old) use similar levels of linguistic complexity (as measured by MLU) when talking about nouns and verbs that they report their children do and do not know. Parents do, however, appear to modulate the overall complexity of their linguistic input to the overall complexity of their child's language, regardless of whether

they are talking about a noun or verb that is known by their child, as evidenced by significant associations between Parent MLU in both known and unknown utterances and overall Child MLU. Findings and future directions may have important implications for intervention. Funding sources: NIH R01DC020165; R21DC016102

## **PS2F26**

### **Language shapes emotion socialization in bilingual mothers and preschoolers**

Jessica Chuang; Northwestern University

Sirada Rochanavibhata; San Francisco State University

Viorica Marian; Northwestern University

Caregivers commonly engage children in emotion socialization via language. Understanding how language shapes emotion socialization in bilinguals can support clinicians in providing culturally appropriate services to families from diverse linguistic backgrounds. We investigated how language context influences emotion socialization in 26 Thai-English bilingual mothers and their four-year-old children (3;11–5;0) in Thailand. Parent-child dyads participated in two prompted reminiscing sessions, one in Thai and one in English. Results revealed that bilingual mothers and children discussed and displayed emotions differently across languages. Mothers discussed their children's emotions more frequently and displayed more positive emotion behaviors (e.g., smiling) in English. Children also discussed their own emotions more often and displayed more positive emotion behaviors (e.g., laughing) in English. Mothers' expressiveness varied across languages based on their baseline expressiveness in Thai, while children's emotion discussions and positive emotion behaviors consistently increased in English. These findings suggest that culture-specific norms for emotion talk and behavior may be cued by language of interaction, highlighting the importance of considering children and their families' language profiles in social-emotional interventions and parent coaching programs.

Funding source: NICHD R01HD059858

## **PS2F27**

### **Comparing the Effects of Aerobic Physical Activity to Iconic Movement in Teaching Vocabulary to Children with Down Syndrome**

Jessica Mattingly; Boys Town National Research Hospital

Krystal Werfel; Boys Town National Research Hospital

Although vocabulary is often delayed in children with Down syndrome, little is known regarding effective vocabulary intervention. Aerobic (Mellor & Morini, 2023) and iconic physical activity (Toumpaniari et al., 2015) significantly improve word learning in typically developing children. Different types of physical activity in vocabulary intervention for children with Down syndrome have not been studied. We compare the effects of aerobic movement to iconic movement on the word learning of children with Down syndrome. Children with Down syndrome between the ages of 3 and 6 years participate in an adapted-alternating treatment single-case design study. Children participate in daily iconic and aerobic movement interventions targeting 6 verbs. Performance is assessed using daily vocabulary probes, asking the children to label

pictures of the vocabulary targets. Visual analysis of data will be used to discuss findings, which will serve to shape vocabulary intervention for children with Down syndrome. Implications and further suggestions for clinical planning will be discussed. Funding was provided by the NIH-NIDCD (T32-DC000013: Chatterjee).

## **PS2F28**

### **An EEG investigation into the semantic memory structure in hard-of-hearing children**

Jina Kim; University of Iowa

Elizabeth Walker; University of Iowa

Cole Callen; University of Iowa

Kristi Hendrickson; University of Iowa

The current study explored semantic structure in children who are hard of hearing (CHH) compared to children with normal hearing (CNH), an area critically under-studied despite its significant influence on vocabulary skills. Utilizing a picture-word match EEG paradigm, participants were presented with a picture and a matched word (a picture of dog with a word of dog) or a non-matched word varying in violation (Near: cat, Far: bird, Between category: apple, with a picture of a dog). We analyzed peak latency and mean amplitudes of N400 components across groups and violation conditions. CHH elicited delayed peak latency compared to children with normal hearing (CNH) in all violation conditions. In addition, while mean amplitude increases aligned with violation severity in CNH, CHH did not show this pattern. Time-frequency analyses focusing on theta band activities supported these findings, revealing a graded increase in theta power in response to violations compared to the match condition in CNH. In contrast, this increase was absent in CHH. These combined results suggest that CHH may have less finely tuned semantic organization relative to their hearing peers.

Funding: Hearing Health Foundation Grant

## **PS2F29**

### **Diagnostic Accuracy of VALLS: A Language-Literacy Screening Tool**

Jissel Anaya; The Ohio State University

Emily Solari; University of Virginia

Early identification of Developmental Language Disorder (DLD) is crucial for intervention success, yet efficient universal screening tools remain scarce. This study evaluated the diagnostic accuracy of VALLS (Vocabulary And Language Literacy Screening System), a novel screening battery assessing both language and literacy skills. The VALLS battery was administered to 783 children (ages 3-11) across 42 educational sites, with performance compared to the Clinical Evaluation of Language Fundamentals (CELF) as the reference standard. Results demonstrated that optimal combinations of VALLS subtests achieved sensitivity of 88-100% and specificity of 80-95%. The highest performing four-subtest combination showed 100% sensitivity and 90% specificity while maintaining efficient administration time (15-20 minutes). These findings suggest VALLS offers clinically acceptable diagnostic accuracy as a screening tool, potentially addressing the critical need for universal DLD screening in educational settings.

Funding Source: Virginia Department of Education

### **PS2F30**

#### **Characterization of Functional Connectivity Networks derived from fNIRS Frontal Lobe Hemodynamics in Young Adults with and without Developmental Language Disorder**

Paulina Skolasinska; McGill University

Julia Evans; University of Texas at Dallas

Brain imaging studies suggest that a neurobiological marker of developmental language disorder (DLD) in young adults may be a pattern of behavioral performance that overlaps with typical controls but is linked to abnormal patterns of brain structure and function. Functional near-infrared spectroscopy (fNIRS) is an emerging imaging technology that holds promise for studying brain activation among individuals with communication disorders in naturalistic settings. We previously observed an abnormal frontal hemodynamic response for two young adults with DLD. Graph theory provides a powerful framework to examine the local and global organization of functional brain networks and to identify potential atypical functional connectivity (FC) between brain regions in DLD. FC networks were derived from the frontal lobe hemodynamic response function (HRF) time series for the two adults with DLD and compared to 20 age- and gender-matched typical language controls (TLC) on a verbal 2-back working memory task. Individual standardized z-scores for the DLD participants revealed atypical patterns of both FC strength and modularity that uniquely differentiated the two participants with DLD and low-performing TLC. This project was funded by NIDCD K18-DC021149 (Evans)

### **PS2F31**

#### **Trajectory of Receptive and Expressive Vocabulary in Infants and Toddlers with Down Syndrome: Insights into the Emergence of First Words and the First 25 Words**

Kai-Yun Huang; University of Illinois at Urbana-Champaign

Daniela Fanta; University of Illinois at Urbana-Champaign

Laura J. Mattie; University of Illinois at Urbana-Champaign

Background/Rationale: Children with Down syndrome (DS) show language delays with first words emerging on average at 18 months, while receptive language develops earlier. The current study explored vocabulary growth trajectories in young children with DS. Methods: Participants were 35 young children with DS, with 23 followed longitudinally. Mothers reported children's vocabulary using the CDI at each time point. Results: A pattern of increasing growth was observed for receptive and expressive vocabulary, but only the receptive growth model was significant. Descriptive exploration of expressive vocabulary indicated the mean age children in our sample produced one or more spoken words was 19.86 months. Two children reached the first 25 words milestone at 24 months, and only 7 children had 25 words or more at 30 months. Conclusions: Participants showed slow growth in expressive vocabulary and developed receptive vocabulary more quickly. Efforts to focus early interventions on pre-linguistic skills



along with the use of AAC, can improve language outcomes. Funding Source: ASPIRE University of South Carolina, Campus Research Board University of Illinois Urbana-Champaign, CHAD Pilot Grant University of Illinois Urbana-Champaign.

### **PS2F32**

#### **Sentence Imitation in Children with DLD: Insights into Relative Clause Production in Czech**

Klára Matiasovitsová; Faculty of Arts, Charles University

Filip Smolík; Institute of Psychology, Academy of Sciences of the Czech

Republic

The aim of this research is to examine:

- 1) The extent to which sentence imitation (SI) captures knowledge of specific syntactic structures by comparing performance in SI with comprehension and production tasks.
- 2) Whether difficulties with RCs in children with developmental language disorder (DLD) stem from challenges with inflectional morphology or complex syntax by comparing the production of relative clauses (RCs) and adjectival phrases, which share certain inflectional features in Czech.

Sixty-three Czech-speaking children with DLD (ages 6;5-9;6) were matched by gender and vocabulary with typically developing children (3;7-6;7).

Linear regression revealed relations between the ability to comprehend, produce, and imitate RCs and adjectival phrases. GLMM showed similar patterns of structure avoidance and ungrammatical target word use in children with DLD across SI and the elicited production task. Compared to typically developing children, they also more often avoided RCs, omitted wh-words, used wh-words and adjectives ungrammatically, and substituted wh-words with non-inflected substitutions.

These findings suggest that sentence imitation reflects knowledge of specific structures and that children with DLD face syntactic challenges with RCs, along with difficulties with inflectional morphology.

### **PS2F33**

#### **Identifying Developmental Language Disorder in Mandarin-Speaking Children: A Community-Based Multi-phase Multi-method Study**

Jingdan Yang; The Hong Kong Polytechnic University

Haolun Luo; The Hong Kong Polytechnic University

Rumi Wang; The Second Xiangya Hospital of Central South University

Li Sheng; The Hong Kong Polytechnic University

Developmental language disorder (DLD) is under-identified in English speaking countries, partly due to low awareness among parents and teachers of the boundary between normal and impaired language development. In this large-scale community-based multi-phase study, we collected functional communication measures from parents (n=4664) using the Chinese Children's Communication Checklist-2 (CCC-2), performed universal language screening using a validated tool, the Mandarin Sentence Repetition Task (MSRT) (n=1459), completed comprehensive language testing (n=274), and

conducted clinician consensus judgment of DLD. We addressed three objectives: estimating prevalence of communication and language difficulties (CLD), examining the alignment between parent-reported communication skills (CCC-2) and performance on the MSRT, and determining DLD prevalence. Results indicated that approximately 10% of children had CLD according to CCC-2. Consistent with previous studies, parent reports and standardized testing outcomes showed weak correlations. Lastly, 8.02% of the 1459 children who participated in screening were identified as DLD by clinician consensus diagnosis. These findings replicated previous studies and highlighted the need of universal screening for early identification of DLD. Funded by Hong Kong Research Grants Council General Research Fund [15613323].

## **PS2F34**

### **Effect of Age in Preposition Development in Children with Developmental Language Disorder: A Comparative Study**

Lucy Agbo; University of South Florida

Lourdes Martinez Nieto; A.T. Still University

Maria Adelaida Restrepo; University of South Florida

#### **Introduction**

Prepositions are essential for constructing meaningful sentences and establishing spatial contexts, yet children with developmental language disorder (DLD) often face challenges in this area. This study investigates the influence of age and gender on preposition usage among bilingual children, specifically comparing those with DLD to their typically developing (TD) peers.

#### **Research Questions**

1. Do growth patterns of prepositions significantly vary between DLD and TD groups across different ages?
2. Do Children with DLD show significant differences in their use of simple and complex prepositions compared to their TD peers?
3. Is there an impact of age, gender, and group on the overall frequency of prepositions use?

#### **Methods**

Narrative retells of language samples from 30 bilingual Spanish-English children with 15 DLD and 15 TD children were examined. Prepositions were categorized as total, simple, or complex. Preliminary findings show that patterns of preposition usage can help in identifying DLD, revealing significant age-related influences. The results will enhance our understanding of language development in children with DLD and inform early assessment, equipping educators, and clinicians with valuable insights for effective support strategies.

## **PS2F35**

### **Exploring the use of the Quick Interactive Language Screener (QUILS) in young autistic children**

Mia DiGiorgio; Emerson College

Rhiannon Luyster; Emerson College

Sudha Arunachalam; New York University

Assessing language understanding in young autistic children presents unique challenges. The Quick Interactive Language Screener (QUILS) is a novel tool designed to assess vocabulary knowledge and word learning, but its validity in autistic children remains largely unexplored. This study evaluates the QUILS' effectiveness in this population by analyzing its internal subtest correlations, as well as associations with the MacArthur-Bates Communicative Development Inventory (MBCDI). Thirty-seven autistic children (9 female, mean age = 55.79 months) participated, completing the QUILS assessment on a home computer. Caregivers filled out the MBCDI Words and Sentences. Results revealed strong associations among QUILS subtests ( $R = 0.71-0.73$ ,  $p < .00001$ ), suggesting internal consistency. A moderate, statistically significant correlation was found between the QUILS Vocabulary percentile and the MBCDI Understands+Says percentile ( $R = 0.40$ ,  $p = 0.016$ ), although QUILS did not correlate significantly with MBCDI Understands Only scores. Findings from this study suggest QUILS appears to be a cohesive measure in young children with autism but does not fully converge with other receptive language measures.

## **PS2F36**

### **Neural deficits in shape and movement perception in school-aged children with developmental language disorder (DLD)**

Natalya Kaganovich; Purdue University

Jennifer Schumaker; Purdue University

Kelsey Smart; Purdue University

Earlier work in our lab showed that children with developmental language disorder (DLD) struggle to match heard words with silent articulations, which is an essential skill for audiovisual speech perception. We asked whether the above deficit results from a less effective encoding of visual information necessary for successful lip reading. We recorded event-related potentials (ERPs) from a group of school-aged children with DLD ( $n=19$ ) and their age-matched peers with typical development (TD,  $n=19$ ) while they watched a cartoon character change its shape, mouth movement, and/or color. Children pressed one button for 1-feature changes (e.g., only movement) and another button for 2-feature changes (e.g., shape and color). The P2 ERP component to shape and movement changes was reduced and delayed in children with DLD compared to children with TD. Furthermore, larger neural responses to 2- vs. 1-feature changes occurred almost 200 ms later in children with DLD. These results suggest that audiovisual speech processing challenges in children with DLD may stem from deficits in the sensory encoding of visual information essential for lip reading. Funded by NIH NIDCD grant R01DC017017.

## **PS2F37**

### **The Impact of an Introductory Dose of Neurosequential Model Concepts on Speech-Language Pathologist Trauma-Informed Perspectives and Practices During Language Therapy**

Nicole Hoopes; Texas Christian University

Emily Lund; Texas Christian University

Adversity in childhood can impact language, social communication, literacy and executive functioning skills (Lum et al., 2015; Snow, McLean, et al., 2020; Hyter, 2021). SLPs are likely to encounter children who have experienced adversity but receive little training in trauma-informed practices (Rupert & Barlett, 2022). An effective trauma-informed framework is the Neurosequential Model (e.g., Johannessen et al., 2024), however; the full certification is costly and timely. The aim of this study was to determine (a) how SLPs receive information on trauma and its impact on communication skills (b) SLP current behavior management strategies during language activities and (c) if 1 introductory dose of Neurosequential Model concepts impacts clinician's responses to case-based behavior-management scenarios during language intervention. A randomized pre-test, post-test crossover design was used. Pre-test and post-test activities included SLP responses to student behaviors in language therapy. Analysis of within subject and between subject responses give insight into training necessary to change SLP practices during language therapy. This project is funded by Project INTERSECT, a leadership training grant funded by the Office of Special Education Programs.

## **PS2F38**

### **Age-related changes in the effect of vocabulary structure on children's word learning**

Ron Pomper; Michigan State University

Michael Vitevitch; University of Kansas

Karla McGregor; Boys Town National Research Hospital

Research using network science demonstrates that the phonological structure of children's vocabularies predicts the order in which they learn words. The current project tests model predictions that an important transition occurs around 8 years of age (Siew & Vitevitch, 2020). Participants were 19 5- to 7-year-old children and 18 8- to 10-year-old children with typical language development (TLD). Children were taught novel words that differed in clustering coefficient,  $C$ , which measures interconnectivity in phonological neighborhoods. The effect of condition (low  $C$  vs. high  $C$ ) was significant only for the younger [ $b = 0.11$ ,  $F(1,47.25) = 4.26$ ,  $p = 0.04$ ], but not older children [ $p = 0.68$ ]. Phonological overlap in interconnected neighborhoods (high  $C$ ) may make learning easier for young children who do not know many words. For older children who know more words, however, this overlap creates competition between similar-sounding words. Data collection for children with Developmental Language Disorder ( $n=8$ ) is ongoing. With the full sample, children with DLD will be compared to age- and vocabulary-matched peers with TLD.

## **PS2F39**

### **Calculating Mean Length Utterance: Is Artificial Intelligence the Way Forward?**

Sabrina Horvath; Medical University of South Carolina

Valeri Doleski; College of Charleston

In this exploratory study, we asked whether artificial intelligence can reliably calculate the mean length utterance (MLU) of toddlers' language samples. Ten transcripts from a previously published study were examined (Valian, 1991; available on CHILDES: MacWhinney, 2000). We calculated the actual MLU for each transcript using CLAN software. Then, each transcript was entered into ChatGPT six times with varied prompts to elicit MLU. This process was repeated on a second day, resulting in 12 ChatGPT entries per transcript. In 120 total attempts, ChatGPT correctly calculated the MLU 0% of the time. The MLU calculated by ChatGPT would have resulted in a misidentification of the child's Brown's Stage in 78% of instances (94/120). Comparing Day 1 and Day 2 data, ChatGPT provided the same MLU provided the exact same prompt in 0% of opportunities. We conclude that, at present, ChatGPT is not a reliable way to calculate MLU. However, future research is warranted as artificial intelligence continues to evolve. Funding: Internal startup fund.

## **PS2F40**

### **Vocabulary Assessment of Young Bilingual Autistic Children: Leveraging CDI Adaptations for Variants of Arabic**

Samantha Ghali; MUSC

This study assessed vocabulary skills in bilingual autistic Arabic-English speaking children using CDI adaptations across Arabic variants.

This work was funded by an ASH Foundation Graduate Student Scholarship and NIDCD.

## **PS2F41**

### **Sentence Repetition of Grammatically Complex Stimuli in Individuals with Down Syndrome**

Sophie Wolf; The Pennsylvania State University

Carol Miller; The Pennsylvania State University

Colleen Williams; The Pennsylvania State University

Jenna DiMasi; The Pennsylvania State University

Krista Wilkinson; The Pennsylvania State University

Individuals with Down syndrome (DS) often demonstrate expressive morphosyntactic challenges, which may not be fully captured by traditional sentence repetition scoring. This study examines sentence repetition of grammatically complex stimuli in individuals with DS as part of a larger project investigating the impact of phenotypic characteristics of trisomy 21 on speech, language, and swallowing. Participants repeated five types of syntactically complex phrases: (1) subject-verb-object with two auxiliaries, (2) subject-verb-object with two auxiliaries and negation, (3) passives, (4) bi-clausal structures, and (5) object-relative clauses. First, the proportion of morphemes produced relative to the

target was calculated. Then, transcriptions were analyzed using a binary coding system (0/1) to determine retention of syntactic constituents. We then identified substitutions made for retained elements (coded as 1), providing insight into syntactic variation. Findings highlight patterns of syntactic retention and omission, offering a richer understanding of morphosyntactic processing in DS beyond accuracy-based scoring. This approach provides insights into expressive language abilities in DS and has important implications for assessment and intervention.

Department of Communication Sciences and Disorders, The Pennsylvania State University; Supported by NIH grant 1R01DC020622-01A1

## **PS2F42**

### **Receptive Language Skills and Conversational Turns as Predictors of ASD Diagnosis in Emerging Communicators**

Syrina Merilan-Mundava; Georgia State University

Rose Sevcik; Georgia State University

Maryann Ronski; Georgia State University

Using archival data from 88 parent-child dyads, all of whom were initially diagnosed with developmental disabilities other than ASD, this study investigates whether receptive language skills and conversational turn counts during a 12-week intervention can predict a later ASD diagnosis. The results suggest that changes in conversational turns were not a significant predictor of ASD diagnosis, and greater receptive language skills were associated with a lower likelihood of being diagnosed with ASD. Furthermore, nearly half of the children initially diagnosed with an unknown condition and global developmental delay received an ASD diagnosis post-intervention. However, those diagnosed with genetic or neurological conditions were far less likely to be diagnosed with ASD. These findings highlight the challenges in early ASD diagnosis for emerging communicators and suggest that receptive language assessments, in combination with other diagnostic tools, may help distinguish between ASD and other developmental disorders. The data were sourced from an archival dataset funded by the National Institute of Health Grant DC-03799, and The U.S. Department of Education, Institute of Education Sciences Grant R324A070122.